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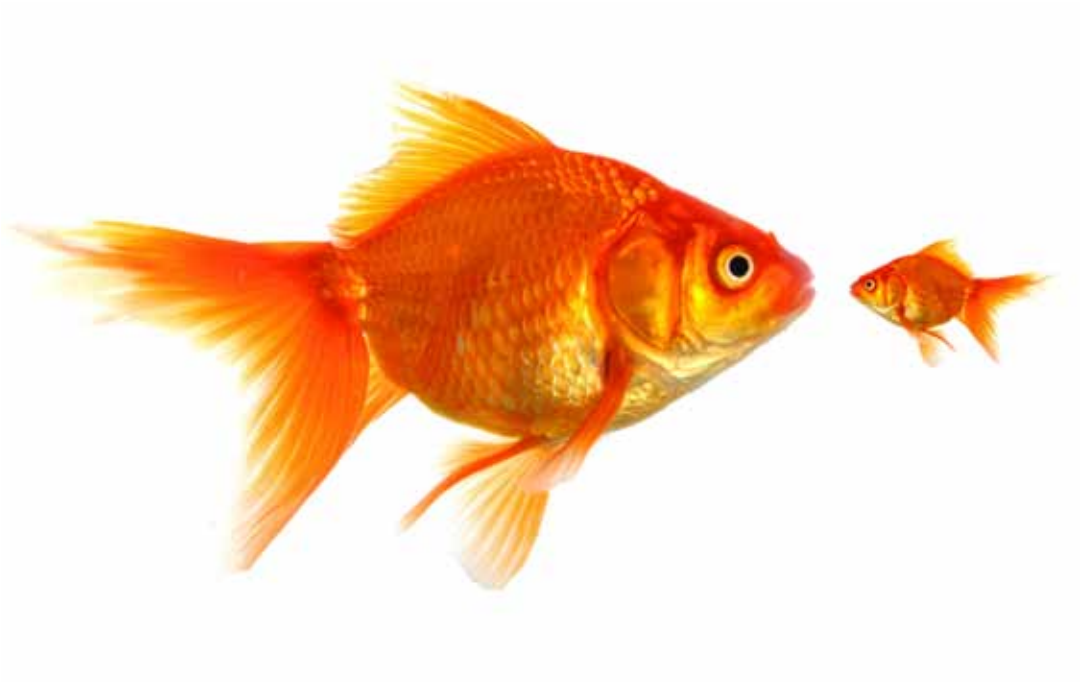

ECONOMIC & FINANCIAL ENVIRONMENT

FINANCIAL MARKETS
Why do similar assets have differing yields?

INTERNATIONAL ECONOMY
A difficult year ahead for China: growing risks, but less margin for manoeuvre than in 2015

SPANISH ECONOMY
What the recruitment data hides

PORTUGUESE ECONOMY
Portugal's agriculture sector: still dual, but promising

DOSSIER: SUPERCOMPANIES: A GLOBAL PHENOMENON

A world of giants

Superstars, competition and consequences

Navigating in an ocean of big companies, or on the art of regulating a world undergoing disruptive change

CaixaBank Research

MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK
March 2019

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INDEX

Superstar firms

In the early 1980s, Sherwin Rosen, an economist at the University of Chicago, published a famous article entitled «The Economics of Superstars». In it, he explored the reasons why, increasingly, a handful of people in the world of art or sport, for instance, were able to earn astronomical sums and command a significant portion of all the income in their profession. Why was the income of Pavarotti – an exceptional tenor – hundreds of times higher than that of a good opera singer?

Part of the response was relatively intuitive: great talents offer something unique, a differentiated product that has no perfect substitutes and that we are willing to pay a substantial premium for. However, in addition, there is an even more important reason associated with technology: in the superstar economy, production costs barely grow with the size of the market – for Pavarotti, the effort involved in singing in front of 1,000 or 100,000 people was the same, while the cost to play his music on a hi-fi, and therefore to reach an audience of millions, was close to zero. Rosen ended his article with a foreboding question: «What changes in the future will be wrought by cable, video cassettes, and home computers?» As we have seen, the changes have been profound.

At present, in addition to continuing to have superstar talents at the individual level, globalisation and digitisation have facilitated the formation of superstar firms. These are global corporations that have taken advantage of the fall of trade barriers between countries, the liberalisation of sectors and the dismantling of old public monopolies, or that are leading the era of digital transformation with new business models. Digital platforms like Amazon and Google are prime examples of such companies.

Digital platforms create value by facilitating direct interaction between two or more groups. Amazon, for instance, does so between merchants and shoppers. These platforms are characterised by economies of scale (because adding a user entails hardly any cost at all) and, especially, by what are known as cross-side network effects: the value to clients of one side of the platform increases with the number of clients who participate in the other side. Both economies of scale and network effects can create high barriers to entry and, with them, a market in which the winner takes it all.

Superstar firms can sometimes acquire a dominant position in their respective markets. Logically, this can create suspicion and even rejection among some parts of society (particularly among competitors). But we should not forget that the possibility to come to dominate a market as a result of a company's success is a powerful incentive for innovation and one of the drivers of productivity growth in our economies. What should not be allowed is the abuse of a dominant position, which is precisely what the competition authorities should seek to prevent.

Unfortunately, identifying and proving abuse of a dominant position is not easy, since practices that *a priori* could be considered anti-competitive may be legitimate in certain circumstances (setting a price below cost, for example, to gain sufficient critical mass in a platform). In practice, a balance must be found that avoids excessive *laissez faire* (giving superstars free rein of the market), but that also avoids providing disproportionate protection to competitors that may be less efficient than the superstar firm. In any case, this balance must, of course, be struck within a framework of legal certainty.

Finally, a level playing field also requires companies, regardless of their size, to meet their tax obligations. In this regard, the growing importance of companies that can shift profits between different jurisdictions with relative ease requires greater international coordination efforts in defining taxable profit bases. A good start, at least, would be to coordinate these efforts at the European level.

Enric Fernández
Chief Economist
28 February 2019

Chronology

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.

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.

SEPTEMBER 2018

24 The US implements a new tariff rise on 200 billion dollars of Chinese imports. China applies a new tariff rise on 60 billion dollars of US imports.
26 The Fed raises the official rate by 25 bps, bringing it up to the 2.00%-2.25% range.
30 Canada is incorporated into the preliminary trade agreement between the US and Mexico to replace the North American Free Trade Agreement (NAFTA).

Agenda

MARCH 2019

4 Spain: registration with Social Security and registered unemployment (February).
7 Governing Council of the European Central Bank meeting.
12 Portugal: CPI (February).
Portugal: international trade (January).
19 Spain: quarterly labour cost survey (Q4).
19-20 Federal Open Market Committee meeting.
22 Spain: loans, deposits and NPL ratio (January and Q4).
European Council meeting.
27 Spain: balance of payments (Q4).
Spain: net international investment position (Q4).
Portugal: state budget execution (February).
28 Spain: state budget execution (December, January and February).
Spain: CPI flash estimate (March).
Euro area: economic sentiment index (March).
29 Spain: household savings rate (Q4).
GDP breakdown (Q4).
Portugal: employment and unemployment (February).

APRIL 2019

2 Spain: registration with Social Security and registered unemployment (March).
8 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).
Euro area: GDP (Q1).

Growth moderates

The pace of growth in global economic activity moderates. An example of this is provided by the global composite Purchasing Managers' Index (PMI), which in January continued its downward trend to reach 52.1 points, a level not seen since September 2016. This trend of lower growth is widespread and can be seen not only in the US but also in the euro area and in China. Nevertheless, the outlook for each region is somewhat different. In the US and China, the slowdown is expected to continue for some time to come: in the US, the fiscal stimulus of the Trump Administration will fade, while in China, the economy still faces the challenge of managing macrofinancial imbalances (particularly high corporate debt) and the change of its productive model. The speed and severity with which these adjustments will occur in the two countries is highly uncertain, representing a source of risk. The euro area, meanwhile, continues to feel the impact of a less favourable external environment and a significant, but temporary, correction in the automotive industry, which must adapt to the new European vehicle emissions regulation. In any case, over the coming quarters the economy is expected to stabilise and maintain a nonetheless notable growth rate of around 1.4%.

The central banks adjust their position. The central banks of the US and the euro area have not been impervious to the turmoil experienced by the markets at the end of 2018 and the slowdown shown by the latest economic activity indicators. Given the limited signs of inflationary pressures in the US and the context of a slowdown in global growth, the US Federal Reserve (Fed) signalled a pause in the tightening cycle in the minutes of its last meeting. Furthermore, in light of the moderation of the growth outlook for the euro area, the European Central Bank (ECB) also tempered its message and left open the possibility of delaying its first rate rise, which it had previously suggested could come towards the end of 2019.

The markets recover. During the month of February, investor sentiment continued the improvement shown in January and the markets exhibited a positive tone. This trend was once again supported both by the flow of positive news regarding the trade negotiations between the US and China and by the more cautious tone of communications from the major central banks, particularly the pause in interest rate hikes announced by the Fed. Thus, market prices continued to recover from the peak of uncertainty experienced at the end of 2018, which saw a spike in financial volatility. In February, volatility in the financial markets remained moderate and the main stock market indices ended a new month with gains.

Brexit, an inexhaustible source of uncertainty. At the time of publication, the outcome of Brexit still seems highly uncertain. While the chances of a disorderly departure seem low, the difficulty of reaching a consensus in the House of Commons and the fragility of the United Kingdom Government do not allow us to rule out last-minute surprises. In view of the difficulties in reaching an agreement, the United Kingdom is expected to request an extension of Article 50 (the United Kingdom's departure from the EU is currently scheduled to take place on 29 March 2019). This would open up a wide range of possibilities: from the approval of the preliminary agreement reached between Theresa May and the EU, to a softer version of Brexit (with the United Kingdom permanently remaining in the customs union), or even a second referendum (which has the support of the Labour Party).

In Spain, the economic activity indicators offer mixed signals. Thus, while the economic activity indicators for the services sector continue to show a positive tone, the equivalent indicators for the industrial sector suggest that the sector is struggling, something that can be attributed, at least in part, to the difficulties being endured by the automotive sector and the decline in global demand. All in all, the economy is expected to continue to grow at a solid rate, above that of the major euro area economies, supported by the encouraging performance of the labour market.

The Portuguese economy enters a more mature phase of the cycle. The latest data from the national accounts show that, in the final stages of 2018, the economy grew by 0.4% quarter-on-quarter (1.7% year-on-year). As such, the economy ended 2018 with a growth of 2.1% in a year marked by a certain slowdown. Over the coming quarters, growth is expected to moderate slightly due to the difficulties being experienced by the foreign sector, given the context of slower global demand, and the lower momentum of domestic demand (the labour market is already close to full employment and the recovery of the real estate market is showing signs of running out of steam). This assessment is backed by the latest economic activity indicators, which suggest that the economy will grow at a solid rate in the early stages of 2019, albeit slightly below the average rate for 2018.

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

Financial markets

	Average 2000-2007	Average 2008-2015	2016	2017	2018	2019	2020
INTEREST RATES							
Dollar							
Fed funds	3.43	0.48	0.64	1.39	2.50	3.00	3.00
3-month Libor	3.62	0.69	0.98	1.61	2.79	3.15	3.04
12-month Libor	3.86	1.18	1.67	2.05	3.08	3.30	3.17
2-year government bonds	3.70	0.72	1.18	1.84	2.68	2.90	2.80
10-year government bonds	4.70	2.70	2.49	2.41	2.83	3.10	3.00
Euro							
ECB depo	2.05	0.50	–0.40	–0.40	–0.40	–0.40	0.05
ECB refi	3.05	1.13	0.00	0.00	0.00	0.00	0.50
Eonia	3.12	0.77	–0.35	–0.34	–0.36	–0.30	0.20
1-month Euribor	3.18	0.93	–0.37	–0.37	–0.37	–0.28	0.23
3-month Euribor	3.24	1.13	–0.32	–0.33	–0.31	–0.15	0.25
6-month Euribor	3.29	1.30	–0.22	–0.27	–0.24	–0.05	0.40
12-month Euribor	3.40	1.51	–0.08	–0.19	–0.13	0.05	0.55
Germany							
2-year government bonds	3.41	0.85	–0.76	–0.69	–0.60	–0.25	0.40
10-year government bonds	4.30	2.21	0.29	0.35	0.25	0.70	1.25
Spain							
3-year government bonds	3.62	2.59	–0.13	–0.04	–0.02	0.30	0.77
5-year government bonds	3.91	3.16	0.30	0.31	0.36	0.72	1.15
10-year government bonds	4.42	4.13	1.43	1.46	1.42	1.70	2.05
Risk premium	11	192	114	110	117	100	80
Portugal							
3-year government bonds	3.68	4.85	0.76	–0.05	–0.18	0.27	0.84
5-year government bonds	3.96	5.42	2.05	0.46	0.47	0.87	1.38
10-year government bonds	4.49	5.90	3.75	1.84	1.72	2.00	2.40
Risk premium	19	369	346	149	147	130	115
EXCHANGE RATES							
EUR/USD (dollars per euro)	1.13	1.33	1.05	1.18	1.14	1.19	1.23
EUR/JPY (yen per euro)	129.50	127.13	122.41	133.70	127.89	124.95	130.38
USD/JPY (yen per dollar)	115.34	96.09	116.06	113.02	112.38	105.00	106.00
EUR/GBP (pounds per euro)	0.66	0.83	0.85	0.88	0.90	0.87	0.86
USD/GBP (pounds per dollar)	0.59	0.62	0.80	0.75	0.79	0.73	0.70
OIL PRICE							
Brent ($/barrel)	42.32	90.70	54.92	64.09	57.67	67.00	66.00
Brent (euros/barrel)	36.35	67.78	52.10	54.17	50.68	56.30	53.66

Forecasts

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

International economy

	Average 2000-2007	Average 2008-2015	2016	2017	2018	2019	2020
GDP GROWTH							
Global	4.5	3.3	3.3	3.8	3.7	3.4	3.4
Developed countries	*2.7*	*1.1*	*1.7*	*2.4*	*2.2*	*1.9*	*1.7*
United States	2.7	1.4	1.6	2.2	2.9	2.3	1.9
Euro area	2.3	0.2	1.9	2.5	1.8	1.4	1.5
Germany	1.6	1.0	2.2	2.5	1.5	1.3	1.7
France	2.0	0.6	1.1	2.3	1.5	1.6	1.6
Italy	1.5	–1.0	1.3	1.6	0.8	0.1	0.8
Portugal	1.5	–0.6	1.9	2.8	2.1	1.8	1.7
Spain	3.8	–0.4	3.2	3.0	2.5	2.1	2.0
Japan	1.5	0.3	0.6	1.9	0.7	0.8	0.7
United Kingdom	2.8	1.0	1.8	1.8	1.4	1.2	1.5
Emerging countries	*6.6*	*5.2*	*4.4*	*4.7*	*4.7*	*4.4*	*4.5*
China	11.7	8.6	6.7	6.9	6.6	6.2	6.0
India	9.7	6.7	8.6	6.6	7.3	6.9	6.2
Indonesia	5.5	5.8	5.0	5.1	5.2	4.9	4.8
Brazil	3.6	2.3	–3.3	1.1	1.1	2.1	2.0
Mexico	2.4	2.0	2.9	2.1	2.0	2.3	2.3
Chile	5.0	3.4	1.3	1.5	3.8	3.2	3.0
Russia	7.2	1.1	–0.2	1.5	2.3	1.8	2.0
Turkey	5.4	5.0	3.2	7.3	3.7	–1.5	1.5
Poland	4.0	3.2	3.1	4.8	5.3	3.7	2.9
South Africa	4.4	2.0	0.7	1.3	0.6	1.5	1.8
INFLATION							
Global	4.2	3.9	2.8	3.2	3.7	3.7	3.4
Developed countries	*2.1*	*1.6*	*0.8*	*1.7*	*2.0*	*1.6*	*1.8*
United States	2.8	1.7	1.3	2.1	2.4	2.0	1.9
Euro area	2.1	1.5	0.2	1.5	1.8	1.6	1.7
Germany	1.7	1.4	0.4	1.7	1.9	1.7	1.8
France	1.8	1.3	0.3	1.2	2.1	1.7	1.7
Italy	1.9	1.7	0.0	1.3	1.2	1.2	1.4
Portugal	3.0	1.3	0.6	1.6	1.2	1.3	1.5
Spain	3.2	1.5	–0.2	2.0	1.7	1.6	1.7
Japan	–0.3	0.4	–0.1	0.5	1.0	0.8	1.2
United Kingdom	1.9	2.6	0.7	2.7	2.5	2.2	2.1
Emerging countries	*6.8*	*6.0*	*4.2*	*4.3*	*4.8*	*5.0*	*4.4*
China	1.7	2.7	2.0	1.6	2.1	2.4	2.4
India	4.5	9.0	4.9	3.3	3.9	3.6	4.9
Indonesia	8.4	6.0	3.5	3.8	3.2	3.0	2.7
Brazil	7.3	6.2	8.8	3.5	3.7	4.1	4.1
Mexico	5.2	4.1	2.8	6.0	4.9	4.1	3.4
Chile	3.1	3.5	3.8	2.2	2.7	2.9	3.0
Russia	14.2	9.5	7.1	3.7	2.9	4.9	4.0
Turkey	27.2	8.1	7.8	11.1	16.2	19.5	12.0
Poland	3.5	2.3	–0.2	1.6	1.2	2.5	2.5
South Africa	5.3	6.1	6.3	5.3	4.6	4.4	5.3

Forecasts

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

Spanish economy

	Average 2000-2007	Average 2008-2015	2016	2017	2018	2019	2020
Macroeconomic aggregates							
Household consumption	3.6	–1.1	2.8	2.5	2.4	2.0	1.9
Government consumption	5.0	0.8	1.0	1.9	2.3	1.8	1.2
Gross fixed capital formation	6.0	–4.1	2.9	4.8	5.2	3.6	2.9
Capital goods	5.3	–0.3	5.3	6.0	6.0	3.3	3.0
Construction	6.2	–7.0	1.1	4.6	5.5	3.6	2.9
Domestic demand (vs. GDP Δ)	4.6	–1.6	2.4	2.9	2.9	2.2	2.0
Exports of goods and services	4.8	2.4	5.2	5.2	2.2	3.1	4.0
Imports of goods and services	7.1	–1.5	2.9	5.6	3.6	3.5	4.1
Gross domestic product	**3.8**	**–0.4**	**3.2**	**3.0**	**2.5**	**2.1**	**2.0**
Other variables							
Employment	3.4	–1.9	3.1	2.8	2.5	2.2	1.6
Unemployment rate (% of labour force)	10.5	21.0	19.6	17.2	15.3	13.6	12.2
Consumer price index	3.2	1.5	–0.2	2.0	1.7	1.6	1.7
Unit labour costs	3.3	0.3	–0.6	0.2	1.0	2.2	2.3
Current account balance (cum. % GDP)	–6.0	–2.1	2.3	1.8	0.9	0.6	0.6
External funding capacity/needs (cum., % GDP)	–5.3	–1.7	2.5	2.1	1.1	0.8	0.8
Fiscal balance (cum., % GDP)[1]	0.4	–7.3	–4.3	–3.0	–2.7	–2.3	–1.9

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

Forecasts

Portuguese economy

	Average 2000-2007	Average 2008-2015	2016	2017	2018	2019	2020
Macroeconomic aggregates							
Household consumption	1.7	–0.5	2.4	2.3	2.5	1.8	1.8
Government consumption	2.3	–0.8	0.8	0.2	0.8	0.8	0.3
Gross fixed capital formation	–0.3	–4.2	2.4	9.2	4.4	3.7	4.4
Capital goods	1.3	–1.0	7.6	13.7	3.1	6.5	5.5
Construction	–1.6	–7.0	–1.3	8.3	6.0	2.2	2.2
Domestic demand (vs. GDP Δ)	1.4	–1.4	2.2	3.1	2.8	2.3	2.1
Exports of goods and services	5.2	3.4	4.4	7.8	3.7	4.2	4.6
Imports of goods and services	3.6	1.2	4.7	8.1	4.9	4.9	4.9
Gross domestic product	**1.5**	**–0.6**	**1.9**	**2.8**	**2.1**	**1.8**	**1.7**
Other variables							
Employment	0.4	–1.4	1.2	3.3	1.9	0.8	0.5
Unemployment rate (% of labour force)	6.1	12.3	11.1	8.9	7.0	6.5	6.2
Consumer price index	3.0	1.3	0.6	1.6	1.2	1.3	1.5
Current account balance (cum. % GDP)[1]	–9.4	–4.9	0.6	0.5	–0.6	–0.7	–0.7
External funding capacity/needs (cum., % GDP)[1]	–7.9	–3.4	1.6	1.4	0.4	0.3	0.3
Fiscal balance (cum., % GDP)[1]	–4.4	–6.8	–2.0	–3.0	–0.7	–0.7	–0.6

Note: *1. Four-quarter cumulative total.*

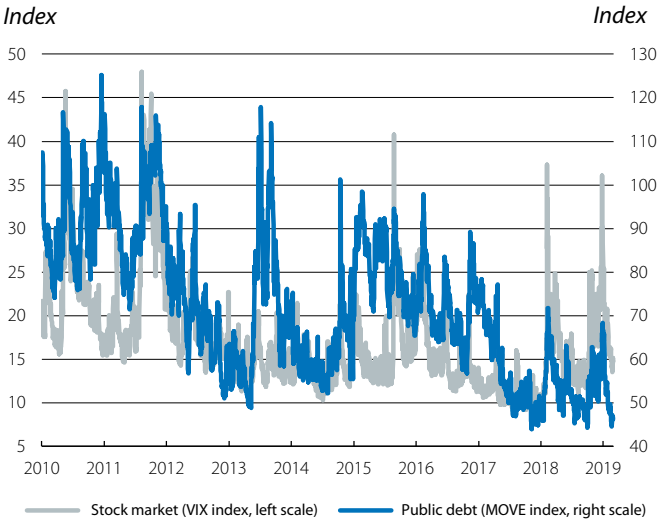
Forecasts

Calm continues to permeate the markets

The financial markets continue to perform healthily. During the month of February, investor sentiment continued the improvement shown in January and the markets exhibited a positive tone. This trend was once again supported both by the flow of positive news regarding the trade negotiations between the US and China and by the more cautious tone of the communications of the major central banks, particularly the pause in interest rate hikes announced by the Fed. Thus, market prices continued to recover from the peak of uncertainty experienced at the end of 2018, which saw a spike in financial volatility and widespread losses in the stock markets. In February, volatility in the financial markets remained moderate and the main stock market indices ended a new month with gains. All in all, a tone of caution towards the extent of the global economic slowdown prevails. As a result, low sovereign interest rates persist in the fixed-income markets and, according to market prices, investor's expectations are that the Fed's tightening cycle has already come to an end. On this note, the Fed's update of its macroeconomic forecasts at its meeting in March will be key, given that they will indicate whether its members still expect further rate rises in 2019 (the latest forecasts indicated a median expectation of two further hikes).

The central banks show patience in the presence of downside risks for global growth. On the one hand, in the minutes of its last meeting, the ECB stressed the intensification of downside risks for the economic outlook, resulting from the moderation in the economic activity data and the financial turbulence experienced at the end of 2018. While members of the ECB still consider part of the slowdown in economic activity in the euro area to be temporary and the likelihood of recession to be low (an outlook we broadly share here at CaixaBank Research), the meeting minutes highlighted the high degree of uncertainty surrounding the persistence of that weakness and its impact on the medium-term outlook. For this reason, the ECB reiterated its intention to keep financial conditions accommodative in order to support the recovery of inflation. It also stressed the need for a complete assessment of the macroeconomic scenario of the euro area in the updated forecasts it will present at its next meeting on 7 March. On the other hand, at its biannual appearance before the US Congress, the chairman of the Fed, Jerome Powell, explained that the pause in interest rate hikes announced in January is a response to the conjunction of three factors: the spike in financial volatility at the end of 2018, a lower chance of upward surprises in inflation and the slowdown in the global economy. All in all, Powell did not rule out further changes to the official rates in the future and pointed out that they will depend on how the economic and financial

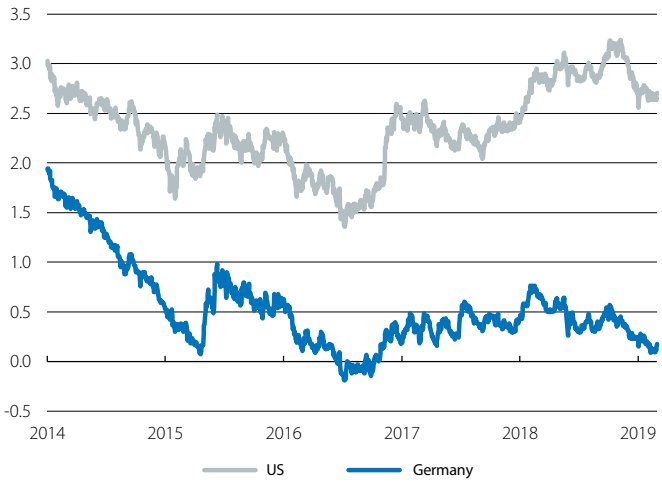
Implicit volatility in the financial markets



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

Yield on 10-year sovereign bonds

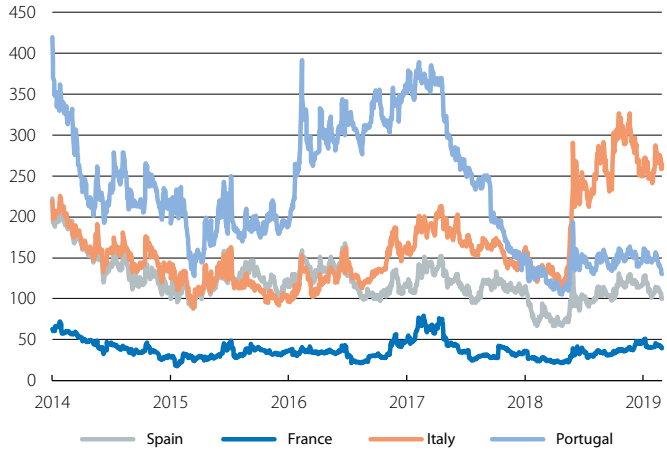
(%)



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

Euro area: risk premiums of 10-year sovereign bonds

(bps)



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

data progress. In this regard, the minutes of the Fed's January meeting showed that there is some disparity of opinions among its members. Some stressed that, in the absence of positive surprises in the economy, they would not wish to increase interest rates. Others argued that if the slowdown in economic activity in the US is moderate, as it is expected to be, they would like to implement new rate rises towards the end of 2019.

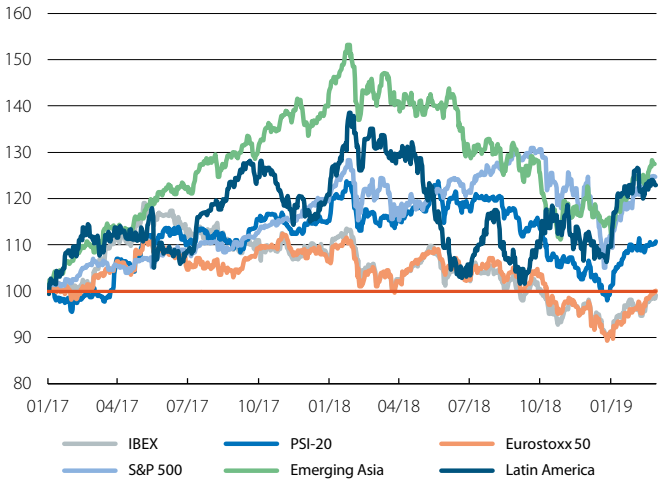
Sovereign rates remain low. Backed by the messages of patience from the central banks, in February the fixed-income markets were dominated by the stability of sovereign interest rates, which remained low. In the US, the yield on the 10-year bond fluctuated in a narrow band of 20 bps, ending up at around 2.70%. In the euro area, meanwhile, the yield on the German bund remained at very low levels, even falling below 0.10% (a low not seen since late 2016). In the periphery of the euro area, the risk premiums of Portugal and Spain declined slightly, while in Italy the risk premium was more volatile. Here, after a surge of around 40 bps at the beginning of the month, Fitch's maintenance of the country's rating (BBB, with a negative outlook) helped to spur a certain recovery in the differential.

The main international stock markets continue to register gains. The positive tone in investor sentiment observed since January continued in February, resulting in a moderation of volatility in the stock markets of the advanced economies and an increase in capital flows into equities. Both the US S&P 500 (also favoured by relatively better business profits in Q4 2018 than those expected by analysts) and the main indices of the euro area achieved monthly gains of around 3%. In the emerging economies, on the other hand, there was differing performance between regions. While the Asian indices clearly benefited from the favourable news about the trade negotiations between the US and China (specifically, the Shanghai stock market climbed by a spectacular 14% in the month as a whole), the back-and-forth sway of economic news and policies in Latin America led to modest declines on the region's main trading floors.

The euro stabilises and oil prices rise. In the currency markets, the aforementioned stability of sovereign interest rates helped the euro to remain at around 1.13 dollars, while the British pound appreciated up to 1.17 euros (levels not seen since May 2017) in light of the various developments on the Brexit front (see the International Economy section). The price of a barrel of Brent oil, meanwhile, continued its rise that started at the beginning of the year, supported by the production cuts agreed by OPEC and its partners in December, reaching over 67 dollars.

Main international stock markets

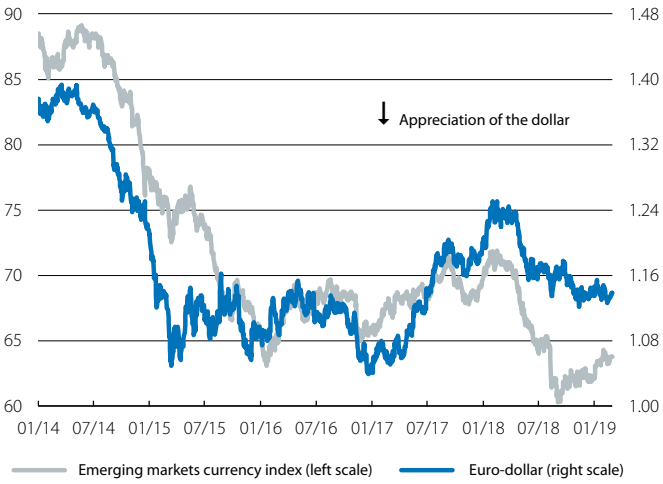
Index (100 = January 2017)



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.*

Brent oil price

(Dollars per barrel)

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

Why do similar assets have differing yields?

- *The difference between the effective returns of investing in bonds from different regions is less than that suggested by the interest rate differentials observed in the markets (such as the 260-bp difference between US and German 10-year sovereign bonds).*
- *A portion of these differentials reflects the cost of insuring against exchange rate fluctuations. When this is taken into account, we see that recently the return that a European investor obtains from investing in US sovereign bonds ends up being lower than that of investing in their German equivalents.*
- *Divergence in monetary policy generates interest rate differentials, and limits on arbitrage due to regulatory changes prevent them from disappearing.*

In recent years, a significant gap has opened up between interest rates in advanced economies. For example, in 2018, the yield on the 10-year US sovereign bond stood at around 2.9% on average, while the yield on the German, Japanese and British equivalents registered an average of 0.5%, 0.1% and 1.4%, respectively. Given that these bonds are highly interchangeable and are traded in highly-globalised financial markets, how can there be such high interest rate differentials?

The role of exchange rates

The exchange rate is the key intermediary factor between yields on assets denominated in different currencies. For example, to buy a European bond with a yield of $i_{€}$, a US investor must first buy euros. In addition, when they wish to repatriate their investment in the future, they will have to go back to the currency market to convert euros into dollars. Therefore, if the exchange rate is S_0 euros per dollar at the time of the investment and S_1 at the time of repatriation, the return (in dollars) of investing 1 US dollar in this European bond will be:

$$\frac{(1+i_{€})\,S_0}{S_1}$$

In order for the investor to be indifferent to making this investment or buying a US bond with a yield of $i_{\$}$, the following would need to hold:

$$1+i_{\$}=\frac{(1+i_{€})\,S_0}{S_1}$$

Numerous studies show that this relationship, known as uncovered interest parity, is not supported by the data.[1] One reason for this is that, unlike domestic investment, foreign investment involves assuming an exchange rate risk, given that it is not possible to know S_1 in advance. Nevertheless, instead of repatriating the investment at the exchange rate prevailing when the bond reaches maturity (S_1), at the outset the investor can contract an exchange rate of $F_{0,1}$ euros per dollar at which to repatriate her investment in the future (known as the forward exchange rate). By using this instrument, the exchange rate risk is removed and investors would be expected to eliminate arbitrage opportunities, so that:

$$1+i_{\$}=\frac{(1+i_{€})\,S_0}{F_{0,1}}$$

This relationship, known as covered interest parity (CIP), is one of the pillars of economic theory, to the point that some consider it to be the closest thing to a law of physics in the field of international finance.[2]

The breakdown of CIP

To check whether CIP occurs in reality, we calculated a term known as cross-currency «basis», using the following formula (we will know that CIP holds if basis = 0):

$$1+i_{\$}=\frac{(1+i_{€}+\text{“basis”})\,S_0}{F_{0,1}}$$

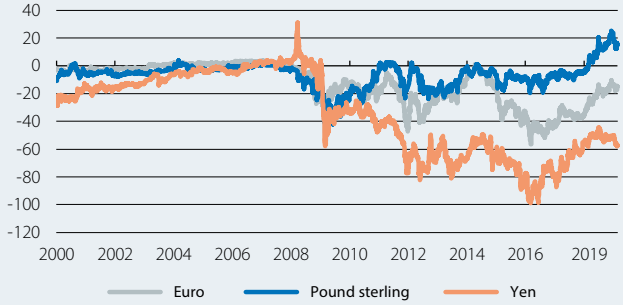
This term is shown in the first chart, for the purposes of comparing an investment at LIBOR interest rates denominated in dollars with investments at LIBOR interest rates denominated in euros, pounds and yen, from the point of view of a US investor. Before the global financial crisis of 2007-2008, the basis was practically nil, such that once the currency risk was neutralised, the LIBOR interest rates of the major advanced economies were reasonably equalised (i.e. CIP held).

However, the chart also shows that, since then, there have been systematic deviations from CIP and the basis has been negative most of the time. In other words, from the point of view of a US investor, it is now more attractive to make investments abroad (neutralising exchange rate fluctuations) than at the domestic level.

What is behind this breakdown of CIP? At the peak of the financial crisis, the deviations could be attributed to problems relating to the functioning of the global interbank markets: factors such as greater concern for

Deviations from CIP based on 10-year yields: major currencies versus the US dollar *

(bps)



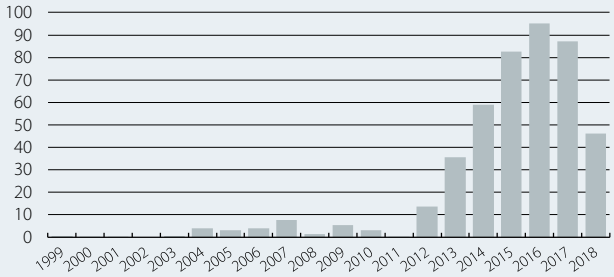
Note: ** Negative (positive) values indicate that direct investment in US dollars offers a lower (higher) return than investment denominated in the corresponding foreign currency (insured against exchange rate fluctuations). This deviation, known as cross-currency basis, is obtained from swaps based on LIBOR interest rates denominated in different currencies.*
Source: *CaixaBank Research, based on data from Bloomberg.*

1. See, for example, K.A. Froot and R.H. Thaler (1990). «Anomalies: foreign exchange». Journal of economic perspectives, 4(3), 179-192.

2. See C.E. Borio, R.N. McCauley, P. McGuire and V. Sushko (2016). «Covered interest parity lost: understanding the cross-currency basis». BIS Quarterly Review.

*Issues of Reverse Yankee bonds **

(EUR billions)



Note: ** Reverse Yankee bonds are those issued by US companies and denominated in foreign currency. The chart shows issues of Reverse Yankee bonds denominated in euros.*
Source: *CaixaBank Research, based on data from Bloomberg.*

counterparty risk[3] and more limited access to wholesale markets in dollars restricted the ability to arbitrate between markets. However, widespread deviations have persisted after the restoration of the proper functioning of the markets, and they even intensified between 2014 and 2016. The available evidence suggests that this surprising persistence is due to two major factors:[4]

- Regulatory changes that reduce the capacity to take risks and take advantage of arbitrage opportunities.
- The divergence of monetary policies.

Firstly, in response to excessive risk-taking prior to the financial crisis, regulatory authorities have become stricter and have introduced measures that increase the cost of taking risks,[5] thereby also restricting the ability to take advantage of arbitrage opportunities. Secondly, the divergence of monetary policies between the Fed and other central banks, such as the ECB, encourages investment in jurisdictions with higher interest rates (such as the US) and the issuing of debt denominated in currencies of regions with lower rates. As an example, as shown in the second chart, between 2012 and 2017, there was a significant rise in US companies issuing debt denominated in euros.[6] As such, both elements represent an increase in the demand for dollars. Due to the limits on arbitrage, the premium in favour of those offering dollars that is generated by the increase in demand does not go away: that is, a negative basis occurs.[7]

Recent dynamics in sovereign interest rates

So far, our analysis has focused on LIBOR rates. However, in light of the importance of exchange rate risk and cross-currency basis, the question arises as to whether they can help us to explain the sovereign interest rate differentials discussed above. In fact, they do, at least in recent years. Specifically, although the difference between the 10-year sovereign interest rates of the US and Germany was practically +260 bps in December 2018, this difference falls to −60 bps when we adjust the US rate to account for the cost of covering the exchange rate risk that a European investor has to assume: in other words, the cost of covering the exchange rate risk explains the entire differential (and even more).

This can be seen in the third chart, which shows the differential between US and German sovereign interest rates, together with the difference between the effective return (from a European investor's point of view) of investing in US sovereign bonds and in German sovereign bonds. Specifically, this difference is:

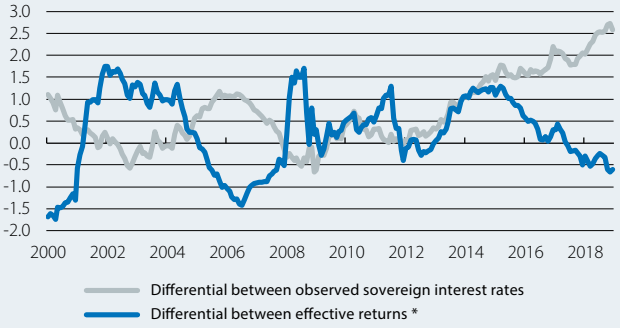
$$\frac{(1+i_{US})S_0}{F_{0,1}} - i_{Germany} - 1$$

As the chart shows, the difference in effective returns has been declining since 2016 (in line with the correction in the cross-currency basis observed from then on).[8] In fact, in December 2018, and from a European investor's perspective, the US 10-year sovereign interest rate, neutralised for the exchange rate risk, was approximately −0.35% (2.83% without neutralising it), compared to a German sovereign rate of +0.25%.[9]

In short, the differentials observed between interest rates are lower than they first appear. In part, they reflect the cost of insuring against exchange rate fluctuations, although the breakdown of CIP observed in recent years also suggests that arbitrage has lost strength as a force for equalising interest rates.

Differential of 10-year sovereign interest rates: US - Germany

(pps)



Note: ** The US interest rate is adjusted to account for the cost of insuring against exchange rate fluctuations by means of a forward contract in the currency market. The sovereign interest rate of Germany is then subtracted from this adjusted rate.*
Source: *CaixaBank Research, based on data from Bloomberg.*

3. The risk that one of the parties involved will not meet their payment obligations.
4. See footnote 2 and W. Du, A. Tepper and A. Verdelhan (2018). «Deviations from covered interest rate parity». The Journal of Finance, 73(3), 915-957.
5. For instance, with stricter capital requirements and leverage ratios, or limits on balance sheet exposure to foreign exchange risk.
6. These issues allow the issuer to obtain liquidity in euros, which US companies then convert into dollars with an exchange rate swap in order to avoid currency mismatches on their balance sheets.
7. The premium is generated in exchange rate swaps, a product with which two parties agree to exchange two currencies in the present at an exchange rate *S*, and also to reverse the exchange at a future date at an exchange rate *F*. A negative cross-currency basis indicates that, in such contracts, those offering dollars obtain a positive premium: i.e. after lending dollars at an exchange rate of *S* euros per dollar, they will be repaid in the future at an exchange rate *F* that offers fewer euros per dollar than CIP would suggest.
8. There is no clear explanation for the factors behind the correction in cross-currency basis since 2016. For a hypothesis based on the Base Erosion and Anti-Abuse Tax of the Trump Administration, see the article «Cross-currency basis feels the BEAT» at www.ftalphaville.ft.com.
9. Since the forward exchange rate (1.17 $/€ on average in December) offered more dollars per euro than the spot exchange rate (1.14 $/€), neutralisation leads to an appreciation of the euro that penalises repatriating a US investment to Europe.

Interest rates (%)

	28-Feb	31-Jan	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	0.0	1.8
1-year Euribor	–0.11	–0.11	0	0.9	8.3
1-year government bonds (Germany)	–0.53	–0.51	–2	3.9	12.1
2-year government bonds (Germany)	–0.52	–0.56	4	9.1	3.6
10-year government bonds (Germany)	0.18	0.15	3	–5.9	–46.1
10-year government bonds (Spain)	1.17	1.20	–2	–24.3	–33.4
10-year government bonds (Portugal)	1.47	1.62	–15	–25.2	–47.7
US					
Fed funds	2.50	2.50	0	0.0	100.0
3-month Libor	2.63	2.74	–11	–18.2	60.2
12-month Libor	2.87	2.98	–12	–13.9	35.9
1-year government bonds	2.54	2.54	–1	–6.0	50.4
2-year government bonds	2.51	2.46	6	2.6	30.2
10-year government bonds	2.72	2.63	9	3.1	–9.3

Spreads corporate bonds (bps)

	28-Feb	31-Jan	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
Itraxx Corporate	62	71	–9	–26.8	8.9
Itraxx Financials Senior	74	84	–10	–34.6	19.7
Itraxx Subordinated Financials	150	172	–22	–78.8	33.3

Exchange rates

	28-Feb	31-Jan	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
EUR/USD (dollars per euro)	1.137	1.145	–0.7	–0.8	–7.3
EUR/JPY (yen per euro)	126.670	124.650	1.6	0.7	–2.8
EUR/GBP (pounds per euro)	0.857	0.873	–1.8	–4.6	–3.7
USD/JPY (yen per dollar)	111.390	108.890	2.3	1.5	4.8

Commodities

	28-Feb	31-Jan	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	412.8	412.8	0.0	0.9	–7.1
Brent ($/barrel)	66.0	61.9	6.7	22.7	3.4
Gold ($/ounce)	1,313.3	1,321.2	–0.6	2.4	–0.3

Equity

	28-Feb	31-Jan	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (USA)	2,784.5	2,704.1	3.0	11.1	4.0
Eurostoxx 50 (euro area)	3,298.3	3,159.4	4.4	9.9	–3.0
Ibex 35 (Spain)	9,277.7	9,056.7	2.4	8.6	–4.7
PSI 20 (Portugal)	5,185.4	5,129.0	1.1	9.6	–3.6
Nikkei 225 (Japan)	21,385.2	20,773.5	2.9	6.8	–1.6
MSCI Emerging	1,051.0	1,049.9	0.1	8.8	–11.9

Global economic activity shows moderate growth

Global economic activity indicators suggest that the slowdown continues at the beginning of 2019. In particular, in January the global composite Purchasing Managers' Index (PMI) remained in expansive territory (above 50 points), but once again fell. It reached 52.1 points, placing it at its lowest level since September 2016 and indicating a more moderate global growth rate in Q1 2019. All in all, part of this moderation is in response to headwinds that are expected to be temporary (such as the impact of the new European emissions regulations in the automotive sector). On this basis, CaixaBank Research's scenario predicts a slowdown in global growth from 3.7% in 2018 to 3.4% in 2019, meaning that the global economy is expected to continue to grow at a significant rate in line with the historical average.

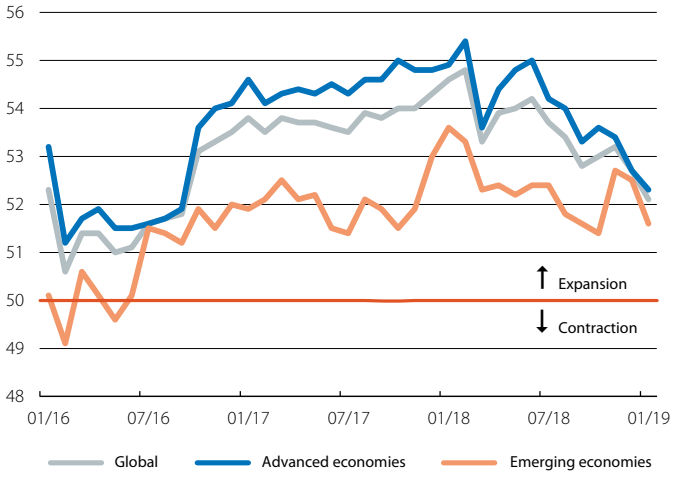
Trade and Brexit: two steps forward, one step back. In the United Kingdom, Theresa May decided to delay the new vote on the exit agreement in the House of Commons (12 March was set as the new deadline), while she continues to negotiate with the Union on possible concessions relating to the back-stop clause on Ireland. Furthermore, in case the agreement with Brussels is rejected again, May announced a vote (scheduled to take place on 13 March) on whether or not to approve a no-deal Brexit. If this is also rejected, the next day there will be a third vote on an extension (which would be limited and short) of article 50 until June. However, while the uncertainty surrounding Brexit persists, in February, the US and China took further steps to dissipate their trade tensions. Thanks to the progress achieved in the negotiations between the two countries, Donald Trump postponed the tariff increase from 10% to 25% on 200,000 million of Chinese imports (which was due to take effect on 1 March) until an unspecified date. As such, the positive tone of the negotiations allows us to glimpse a halt to the escalating trade tensions and, therefore, lower global uncertainty in the sphere of trade (at least in the short term).

US

The US grew by a healthy 2.9% in 2018 (2.2% in 2017), favoured by the fiscal stimulus approved at the end of 2017 and the strength of the labour market (which drove the buoyancy of private consumption). All in all, in the closing phases of 2018 a slowdown was noted in the GDP growth rates. Specifically, GDP grew by 0.6% quarter-on-quarter in Q4 2018 (3.1% year-on-year), 2 decimal points below the growth of the previous quarter. This slowdown was partly due to factors we believe to be temporary, such as the effect of the partial US federal government shutdown. This is a factor that could tarnish growth rates in Q1 2019 and will be added to the effects of the extreme cold experienced in the north of the country at the beginning of the year. Nevertheless, the moderation of growth is also a response to the maturity of the business cycle, which represents a more structural force. Therefore, CaixaBank Research projects growth of 2.3% for

World: composite PMI economic activity indicator

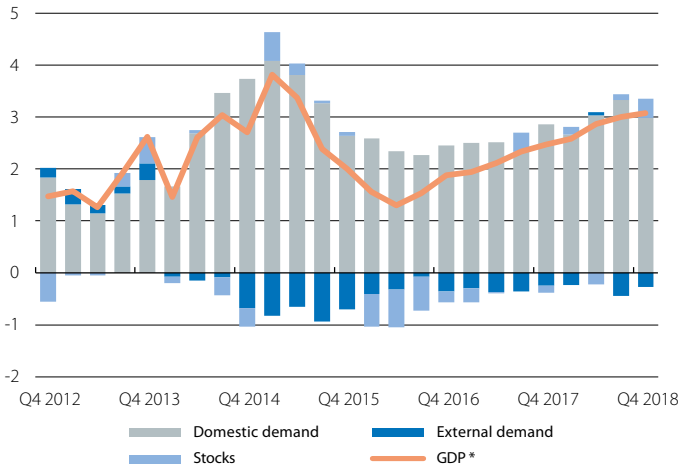
Index



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

US: GDP

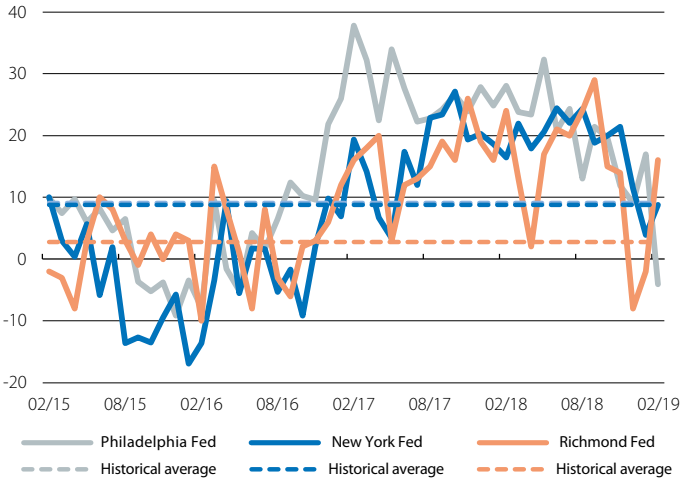
Contribution to year-on-year growth (pps)



Note: ** Year-on-year change (%).*
Source: *CaixaBank Research, based on data from the Bureau of Economic Analysis.*

US: manufacturing activity indices

Level



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

2019 as a whole (still a very strong figure, albeit closer to the country's potential growth rate, which we estimate at 1.9%).

Inflationary pressures in line with the target and the moderation of growth support the Fed's decision to remain patient. Headline inflation moderated in January down to 1.6%, 3 decimal points below the previous figure. This decrease was largely due to the fall in energy prices, still influenced by the downward trend in oil prices seen in late 2018. Core inflation, meanwhile, remained at 2.2% for the third consecutive month. As such, inflation rates are in line with the Fed's target, which in a context of global downside risks, offer the monetary institution some margin to remain patient in relation to future changes to its interest rates (see the Financial Markets section).

EUROPE

The economic indicators suggest moderate growth at the beginning of 2019. In particular, although in February the composite PMI index of the euro area rose slightly following months of decline (reaching 51.0 points), it still stood at moderate levels due to the contrast between the services and manufacturing sectors. On the one hand, the manufacturing PMI index fell to 49.2 points, its lowest level in almost six years and below the 50-point threshold that separates the expansive and recessive territories. On the other hand, the PMI index of the services sector rose to 52.3 points (its highest value in the last three months). Overall, the indicators suggest that the euro area will grow at a moderate rate in the first few months of the year.

Germany and the United Kingdom show lower-than-expected growth. Germany's GDP remained stable in Q4 2018 (0.0% quarter-on-quarter and 0.6% year-on-year, after a –0.2% quarter-on-quarter contraction in Q3), placing annual growth at 1.5%. All in all, the German statistics institute suggested that domestic demand maintained a positive tone, hence growth is expected to pick up over the coming quarters. GDP growth in the UK, meanwhile, was lower than expected in the last quarter of 2018 (0.2% quarter-on-quarter), placing it at 1.4% for the year as a whole (its lowest since 2012).

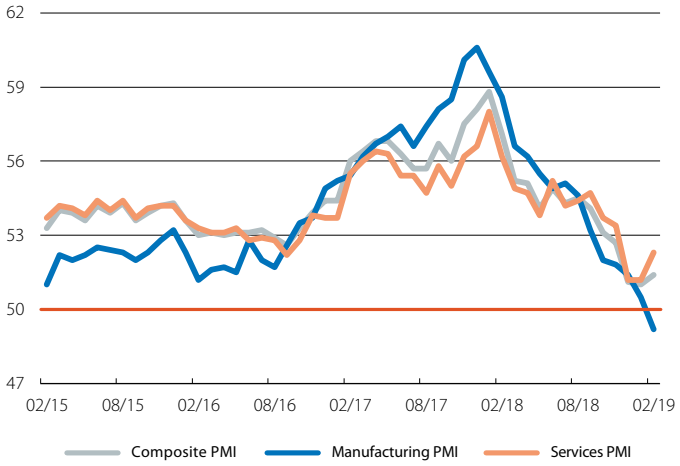
REST OF THE WORLD

Japan returned to growth in Q4 2018 and ended the year with annual growth of 0.7%. GDP grew by 0.3% quarter-on-quarter in Q4 (0.0% year-on-year), following the fall in the previous quarter caused by the natural disasters that hit the country last summer. The breakdown by component showed solid growth in private consumption and in business investment.

In the emerging markets, China continues to slow down, while Brazil and India also lost some momentum in the closing stages of 2018. In China, exports got back on track in January, with a solid growth of 9.1% year-on-year (in contrast to the 4.4% decline in December), although the full range of indicators continue to point towards a slowdown in economic activity. The publication of India's GDP, meanwhile, showed a GDP growth of 7.3% in 2018, a significant rate albeit with ups and downs throughout the year. Finally, in Latin America, Brazil grew by 1.1% in 2018, with no improvement compared to 2017 largely due to the loss of momentum in Q4.

Euro area: PMI economic activity indicators

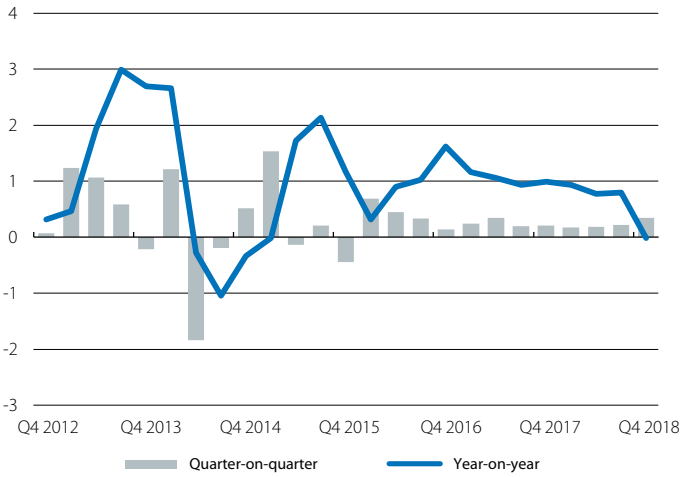
Level



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

Japan: GDP

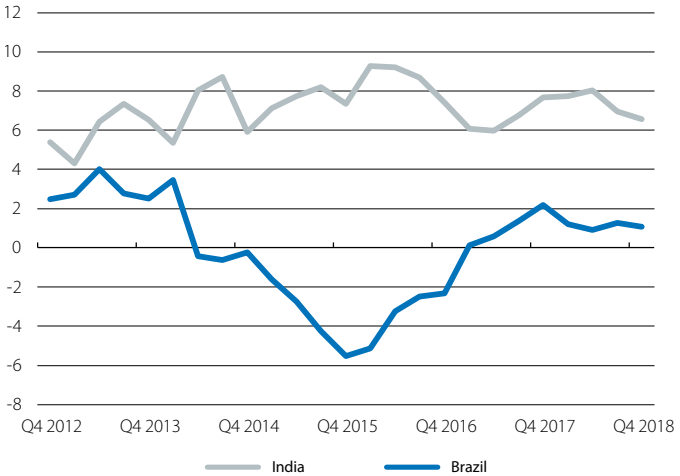
Change (%)



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

India and Brazil: GDP

Year-on-year change (%)



Source: *CaixaBank Research, based on data from the national statistics institutes.*

A difficult year ahead for China: growing risks, but less margin for manoeuvre than in 2015

China is back on the radar of leading analysts and investors after the slowdown in its economy intensified in the second half of 2018. To what extent are the concerns founded and what room do the Chinese authorities have in terms of economic policy to avoid a sharp slowdown? A natural way to put the cooling of the Chinese economy in 2018 into context is to compare it with the period of economic and financial instability it experienced between mid-2015 and early 2016.[1] As we shall see below, this comparison shows that, to date, the 2015-2016 episode was somewhat more severe than the current situation, although the current cooling is also notable.

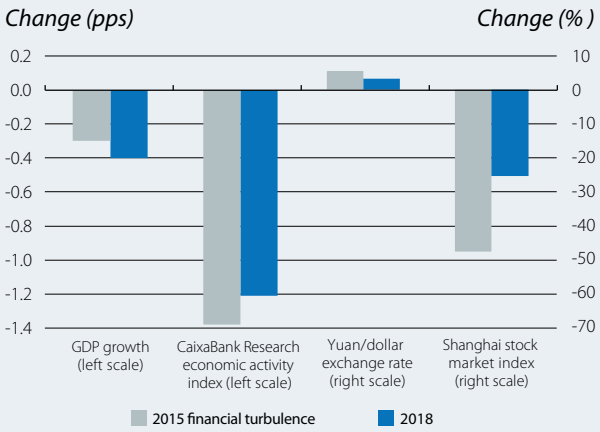
In this regard we see that, between Q3 2017 and Q4 2018 (the period of the current slowdown), GDP growth has decelerated by 0.4 pps, compared to 0.3 pps during the episode of 2015. On the other hand, the growth of the CaixaBank Research economic activity index declined by almost 1.4 pps in 2015, compared to a 1.2-pp reduction in the current episode. Although the magnitude of the two episodes appears to be similar, the slowdown in 2015 was much more abrupt than the current one as it occurred over a period of just nine months (in contrast, the current slowdown has been spread over 18 months, so far, in a gentler pattern). In addition, both the stock market correction and the capital outflows (see second chart) were much greater in the 2015 troubles than at present.

China's slowdown should not come as a surprise. In fact, we can expect growth to continue to decelerate in 2019 and 2020, down to around 6.0% (growth in 2018 stood at 6.6%). In terms of the general trend, a moderation in growth over the next few years is inevitable due to structural forces, such as population ageing and the reduced weight of investment with the change of productive model (a change that will allow for a healthier and more balanced pattern of growth in the medium term, even if the economy may suffer to some extent in the short term). In fact, estimates[2] suggest that China's potential growth between 2021 and 2025 could range between 4.0% and 5.0%.

However, from a more short-term point of view, two major risks stand out. On the one hand, in a difficult international context, the publication of worse-than-expected economic activity figures in a particular quarter can generate episodes of financial instability that end up having an impact on activity. On the other hand, the macroeconomic fundamentals of the Chinese economy could prove to be weaker than expected and economic activity could end up suffering a more abrupt slowdown. For the time being, however, the available indicators suggest that it will not come to this: the Chinese authorities have some room to implement fiscal, monetary and financial policies in order to avoid an abrupt slowdown. That said, and as we shall see, the margin is slightly smaller than in 2015, hence both its scope and its sustainability over time are much more constrained than the last time.

1. See the Focus «China: the doubts return», published in the MR10/2015.
2. See A. Dieppe, R. Gilhooly, J. Han, I. Korhonen and D. Lodge (2018). «The transition of China to sustainable growth – implications for the global economy and the euro area» (No. 206). ECB Occasional Paper.

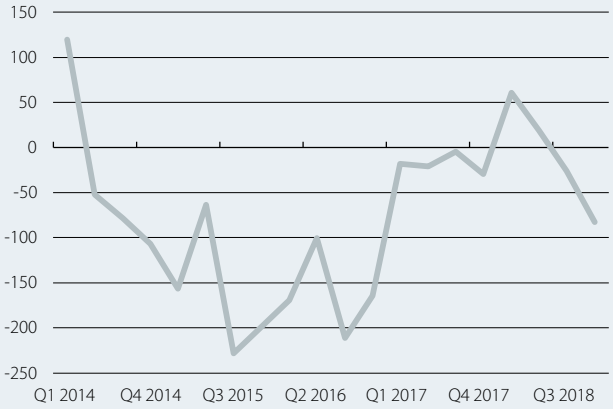
*China's slowdown: comparison with the episode of 2015 **



Note: ** We compare the slowdown in GDP growth and in the growth of our economic activity tracker between Q4 2018 and Q3 2017 (when the current slowdown began) with the slowdown that occurred between Q4 2015 and Q2 2015. With regards to the exchange rate and the stock market index, we calculate their change between June 2017 and December 2018, and between June 2015 and February 2016 (coinciding with the episode of economic and financial turbulences in 2015).*
Source: *CaixaBank Research, based on data from Thomson Reuters Datastream.*

China: net capital inflows

(USD billions)



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

Starting with the fiscal front, the Government has already announced in the Central Economic work Conference held in December[3] that expansionary fiscal measures will be taken (although what form they will take is yet to be determined). As was the case in 2015, most of these measures will encourage local public administrations to borrow and to finance infrastructure projects by issuing special debt securities off-budget (so-called local government financial vehicles). However, the public finances leave less room for manoeuvre than in 2015: according to the IMF, the «augmented» public debt of China's government administrations as a whole (i.e. including these debt issues) in 2019 will reach 77.0% of GDP (56% in 2015).[4] When we focus on the fiscal measures that are included in the budget, these already show some signs of exhaustion: the budget deficit of all the public administrations in the second half of 2018 stood at –6.2% of GDP. This is a significant amount and similar to that registered in the second half of 2015 (–6.9% of GDP) at the height of the troubles.

With regards to monetary policy, the margin is also somewhat smaller than in the previous situation due to two factors. Firstly, when the doubts began to arise in 2015, the central bank's reference rates were higher than at present, so there was more scope to cut rates in order to stimulate the economy. Secondly, the expansionary policies of four years ago generated a significant increase in borrowing, particularly through shadow banking.[5] However, these dynamics stoked fears that the risks of financial instability would be accentuated. Therefore, in the current scenario, despite introducing expansionary measures on the fiscal and monetary front, the Chinese authorities are likely to continue to tighten regulations in order to reduce China's high levels of corporate debt. This has already been reflected in the increase in defaults in the corporate sector in 2018 (which has particularly affected private companies, as the financial system still makes it much easier for public companies to borrow), as well as in the reduction of the relative importance of shadow banking (which went from representing 87% of GDP at the end of 2017 to just 70% by the end of 2018). Logically, this reduction in credit flows implies that monetary policy is being transmitted to the real economy to a lesser extent than previously, although the Chinese Government could soften the slowdown to a certain extent by cutting the reference rate (which has remained unchanged at 4.35% since October 2015).

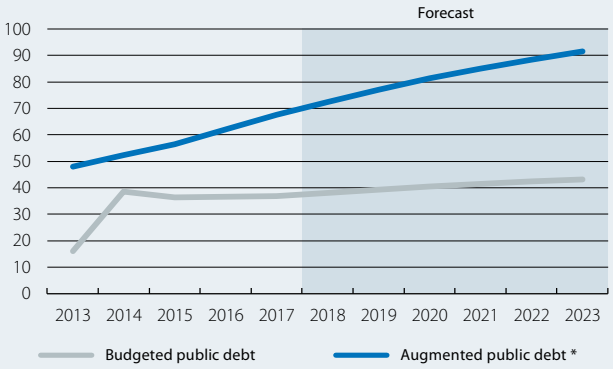
Finally, with regards to exchange rate policy, the ad-hoc management of the yuan's exchange rate is likely to be gradually phased out of economic policy. This is because China is expected to gradually reduce its level of control over its currency, allowing it to fluctuate much more according to the markets. This measure is unavoidable for allowing the yuan to become more internationalised, which is one of China's key objectives, especially as its current account switches from being in surplus to in deficit, increasing the country's need for a stable currency backed by international support. All in all, the maintenance of capital controls for investing outside of China will prevent the yuan from depreciating sharply in 2019.

In short, all the indicators suggest that in 2019, China will be able to resort to expansionary fiscal and monetary policies that minimise the tightening of the regulatory framework and prevent an abrupt slowdown of the economy. However, the data suggest that there is less scope for these policies than there was in the past and that the cost could be higher. In addition, these policies may be useful for a specific period, but they are not sustainable over time. Therefore, in the medium term,

3. At an annual meeting of China's major political and economic leaders to outline the economic policy for the following year.
4. See China's 2018 Article IV published by the IMF.
5. For further details, see the Focus «Shadow banking in China: a looming shadow» from the MR02/2017.

China: public debt

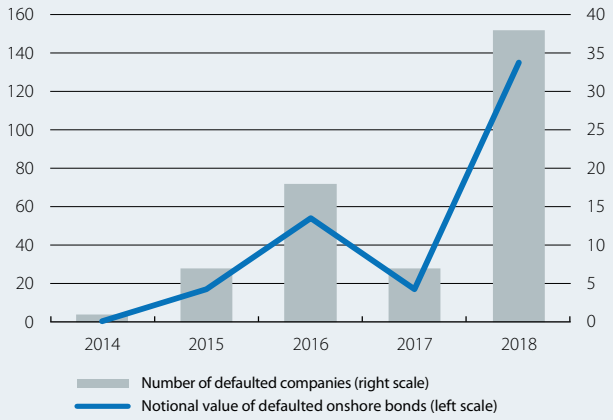
(% of GDP)



Note: ** Augmented public debt includes items that do not appear in the budgets, such as debt issues of local administrations through special financial vehicles to finance infrastructure projects.*
Source: *CaixaBank Research, based on data from the IMF.*

China: default on domestic bonds

(CNY billions) *(Number)*



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

China should resort to more ambitious economic policy measures that are not so nearsighted.

An example of such measures would include facilitating the increase in direct foreign investment in order to reverse its current declining trend (see the last chart). In this regard, the Chinese authorities have already begun to take action, although the pace of this action is still slower than would be desirable. In July, a plan was announced that would eliminate restrictions on foreign investment entirely by 2021-2022 in certain important sectors (many of them strategic), such as insurance, the electrical grid, the automotive industry and rail passenger transport, bringing the number of economic sectors affected by the restrictions down from 63 to 48.

This is clearly a first step, but more could be done. Besides opening up the country, other complementary mechanisms that could improve the pattern of growth include offering greater incentives to workers in rural areas so that they can migrate to the cities, seeing through the pending reform to modernise inefficient public companies and reducing the high levels of corporate debt. Without a doubt, it is time for China to take greater steps in order to avoid greater evils.

Foreign investment and foreign companies established in China

Note: ** Direct foreign investment data only available for the first three quarters of 2018.*
Source: *CaixaBank Research, based on data from SAFE and China's Ministry of Trade.*

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

UNITED STATES

	2016	2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
Activity									
Real GDP	1.6	2.2	2.5	2.6	2.9	3.0	3.1	–	...
Retail sales (excluding cars and petrol)	3.4	4.2	5.4	4.4	5.2	5.4	3.7	...	...
Consumer confidence *(value)*	99.8	120.5	126.0	127.1	127.2	132.6	133.6	121.7	131.4
Industrial production	–1.9	1.6	3.0	3.4	3.4	5.0	4.3	3.8	...
Manufacturing activity index (ISM) *(value)*	51.3	57.4	58.5	59.7	58.7	59.7	56.9	56.6	...
Housing starts *(thousands)*	1,177	1,208	1,259	1,317	1,261	1,234	1,167	...	...
Case-Shiller home price index *(value)*	189	200	205	209	211	212	214	...	...
Unemployment rate *(% lab. force)*	4.9	4.4	4.1	4.1	3.9	3.8	3.8	4.0	...
Employment-population ratio *(% pop. > 16 years)*	59.7	60.1	60.2	60.3	60.4	60.4	60.6	60.7	...
Trade balance[1] *(% GDP)*	–2.7	–2.8	–2.8	–2.9	–2.9	–2.9	...	...	...
Prices									
Headline inflation	1.3	2.1	2.1	2.2	2.7	2.6	2.2	1.6	...
Core inflation	2.2	1.8	1.8	1.9	2.2	2.2	2.2	2.2	...

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

JAPAN

	2016	2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
Activity									
Real GDP	0.6	1.9	2.4	1.2	1.4	0.1	0.0	–	...
Consumer confidence *(value)*	41.7	43.8	44.5	44.4	43.7	43.4	42.9	41.9	...
Industrial production	0.2	2.9	2.7	2.0	1.3	–0.1	0.7	0.0	...
Business activity index (Tankan) *(value)*	7.0	19.0	25.0	24.0	21.0	19.0	19.0	–	...
Unemployment rate *(% lab. force)*	3.1	2.8	2.7	2.5	2.4	2.4	2.4	...	...
Trade balance[1] *(% GDP)*	0.7	0.5	0.5	0.4	0.4	0.1	–0.2	–0.4	...
Prices									
Headline inflation	–0.1	0.5	0.6	1.3	0.6	1.1	0.9	0.2	...
Core inflation	0.6	0.1	0.3	0.4	0.3	0.3	0.3	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	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
Activity									
Real GDP	6.7	6.8	6.8	6.8	6.7	6.5	6.4	–	...
Retail sales	10.4	10.3	9.9	9.9	9.0	9.0	8.3	...	...
Industrial production	6.1	6.6	6.2	6.6	6.6	6.0	5.7	...	...
PMI manufacturing *(value)*	50.3	51.6	51.7	51.0	51.6	51.1	49.9	49.5	49.2
Foreign sector									
Trade balance[1] *(value)*	512	420	420	404	377	349	352	373	...
Exports	–8.4	7.9	9.6	13.7	11.5	11.7	4.0	9.1	...
Imports	–5.7	16.3	13.4	19.4	20.6	20.4	4.4	–1.5	...
Prices									
Headline inflation	2.0	1.6	1.8	2.2	1.8	2.3	2.2	1.7	...
Official interest rate[2] *(value)*	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Renminbi per dollar *(value)*	6.6	6.8	6.6	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.*

EUROPEAN UNION

Activity and employment indicators

Values, unless otherwise specified

	2016	2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
Retail sales *(year-on-year change)*	1.6	2.3	2.0	1.7	1.7	1.1	1.7	...	...
Industrial production *(year-on-year change)*	1.6	3.0	4.2	3.1	2.4	0.7	–2.0	...	...
Consumer confidence	–8.6	–6.0	–3.8	–4.2	–5.3	–5.7	–6.9	–7.9	–7.4
Economic sentiment	104.1	110.1	113.7	113.2	111.8	110.9	108.9	106.3	106.1
Manufacturing PMI	52.5	57.4	59.7	58.3	55.5	54.3	51.7	50.5	49.2
Services PMI	53.1	55.6	55.9	56.4	54.6	54.4	52.8	51.2	52.3
Labour market									
Employment (people) *(year-on-year change)*	1.4	1.6	1.6	1.5	1.5	1.3	...	–	...
Unemployment rate: euro area *(% labour force)*	10.0	9.1	8.7	8.5	8.3	8.0	7.9	...	...
Germany *(% labour force)*	4.2	3.8	3.6	3.5	3.4	3.4	3.3	...	...
France *(% labour force)*	10.1	9.4	9.1	9.2	9.0	9.1	9.1	...	...
Italy *(% labour force)*	11.7	11.3	11.0	11.0	10.7	10.3	10.5	...	...
Spain *(% labour force)*	19.6	17.2	16.6	16.2	15.4	15.0	14.4	...	...

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	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
General	0.2	1.5	1.4	1.3	1.7	2.1	1.9	1.4	...
Core	0.8	1.1	1.1	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	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
Current balance: euro area	**3.4**	**3.5**	**3.5**	**3.6**	**3.9**	**3.6**	**3.2**	**...**	**...**
Germany	8.5	8.0	8.0	8.0	8.2	7.8	7.3	...	...
France	–0.8	–0.6	–0.6	–0.4	–0.3	–0.5	–0.7	...	...
Italy	2.5	2.8	2.8	2.7	2.7	2.7	...	...	...
Spain	2.3	1.8	1.8	1.8	1.5	1.2	0.8	...	...
Nominal effective exchange rate [1] *(value)*	**94.3**	**96.5**	**98.6**	**99.6**	**98.5**	**99.2**	**98.5**	**97.8**	**...**

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	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
Private sector financing									
Credit to non-financial firms [1]	1.8	2.5	3.0	3.3	3.7	4.2	3.9	3.3	...
Credit to households [2,3]	1.7	2.6	2.8	2.9	2.9	3.1	3.2	3.2	...
Interest rate on loans to non-financial firms [4] *(%)*	1.4	1.3	1.3	1.2	1.2	1.2	1.2	...	...
Interest rate on loans to households for house purchases [5] *(%)*	1.8	1.7	1.7	1.6	1.6	1.6	1.6	...	...
Deposits									
On demand deposits	10.0	10.1	10.2	9.2	8.0	7.3	7.1	6.4	...
Other short-term deposits	–1.8	–2.7	–2.5	–2.2	–1.5	–1.4	–0.9	–0.8	...
Marketable instruments	2.4	1.4	–1.2	–5.8	–3.2	–5.6	–3.3	0.4	...
Interest rate on deposits up to 1 year from households *(%)*	0.5	0.4	0.4	0.4	0.4	0.3	0.3	...	...

Notes: *1. Weighted by flow of foreign trade. 2. Data adjusted for sales and securitization. 3. Including NPISH. 4. Loans of more than one million euros with a floating rate and an initial rate fixation period of up to one year. 5. 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.*

A gentle moderation in growth

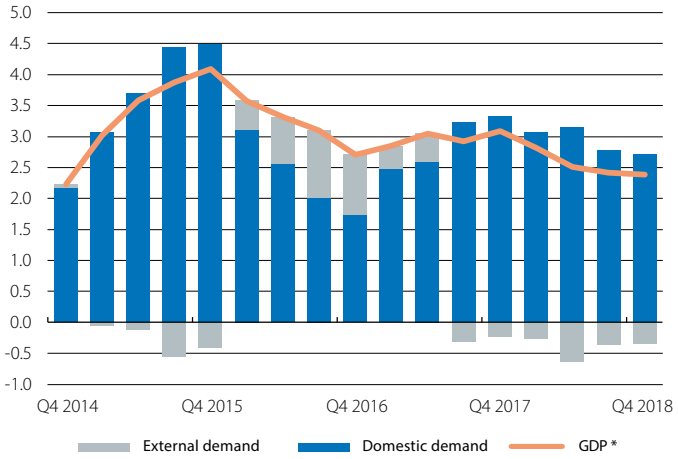
The economic activity indicators show that the industrial sector is going through a difficult time. For 2018 overall, Spain's GDP registered a strong growth of 2.5%, notably higher than the euro area average (which was 1.8%). For 2019, the growth of the Spanish economy is expected to remain more dynamic than that of the major euro area economies, although it will moderate slightly down to 2.1%. This moderation in growth is attributable both to the lesser cyclical boost and to the reduced buoyancy in the foreign sector, in a global environment marked by heightened uncertainty. In this context, the latest economic activity indicators gave mixed signals. On the one hand, the activity indicators for the services sector presented a positive tone, as reflected in the services PMI index in January, which rose 0.7 points up to 54.7 points. In contrast, the equivalent indicators for the industrial sector showed that this sector is going through a difficult time. An example of this is industrial production, which in December fell by 6.2%, the largest drop since December 2012. Another example is the industrial turnover indices, which also declined in December, by 2.5 pps, and remained stagnant (three-month moving average). This unfavourable performance of the sector is partly due to the energy sector, which is particularly volatile, and to a lesser extent the automotive industry, a sector that is feeling the effects of regulatory changes at the European level and the decline in international demand.

The labour market began 2019 with a moderate tone. The number of people registered with Social Security increased by 38,179 in January (seasonally-adjusted data), a lower increase than that of January 2018 (58,758). As such, the pace of job creation moderated down to 2.9% year-on-year, following the slight acceleration registered in the month of December (3.1%). By sector, job creation in services grew by 2.9% in January (3.1% in December), construction maintained its good tone with a 6.3% year-on-year growth and industry grew by 1.6% year-on-year, continuing the gradual slowdown experienced throughout 2018. All in all, cumulative job creation amounts to 537,269 people in the past 12 months, an encouraging figure that is added to the positive results from the LFS and the encouraging national accounting data for Q4 2018. Over the coming months, we expect this improvement to be maintained, albeit it at more moderate rates.

The foreign sector ends its sixth consecutive year in surplus, although that surplus continues to shrink. In December 2018, the current account balance registered a surplus of 0.8% of GDP (12-month cumulative balance), albeit clearly below the 1.8% registered in December 2017. Of this 1.0-pp moderation in GDP, 3 decimal points can be attributed to the increase in the price of oil, 4 decimal points correspond to the deterioration in the balance of non-energy goods and the rest is the result of the decline in the balance of services. The latter

Spain: GDP

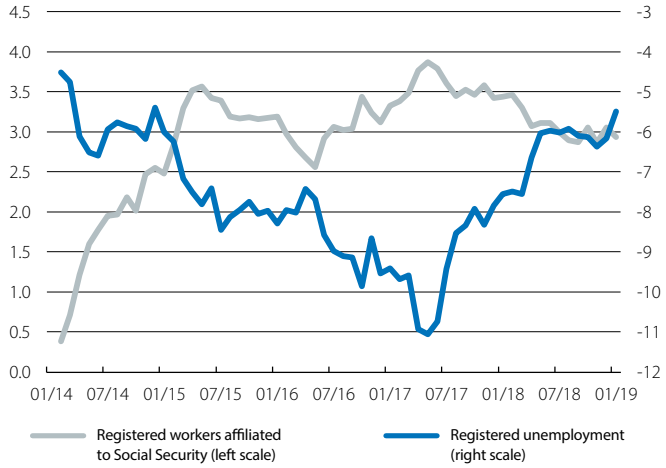
Contribution to year-on-year growth (pps)



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

Spain: registered workers affiliated to Social Security and registered unemployment

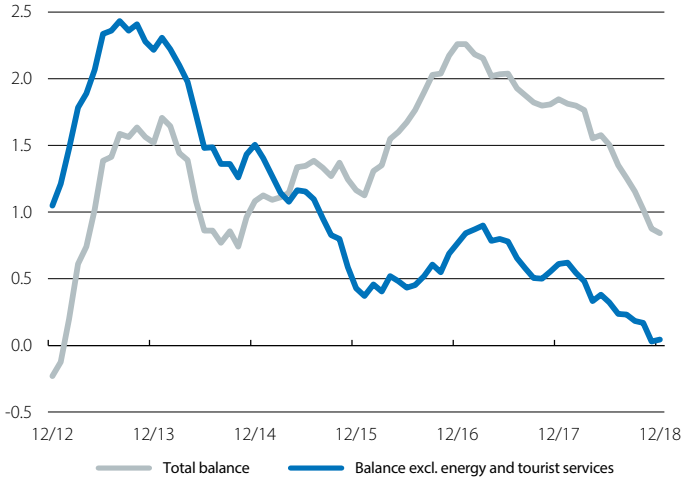
Year-on-year change (%) *Year-on-year change (%)*



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

Spain: current account balance

12-month cumulative balance (% of GDP)



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

decline was most notable in non-tourist services, although the tourism surplus also fell slightly due to the increase in imports (Spaniards travelling abroad). Looking ahead to the rest of 2019, CaixaBank Research expects the deterioration in the foreign sector to be much less pronounced (0.2 pps of GDP) and expects it to remain in surplus, supported by the continuation of gains in competitiveness and the moderation in the oil price.

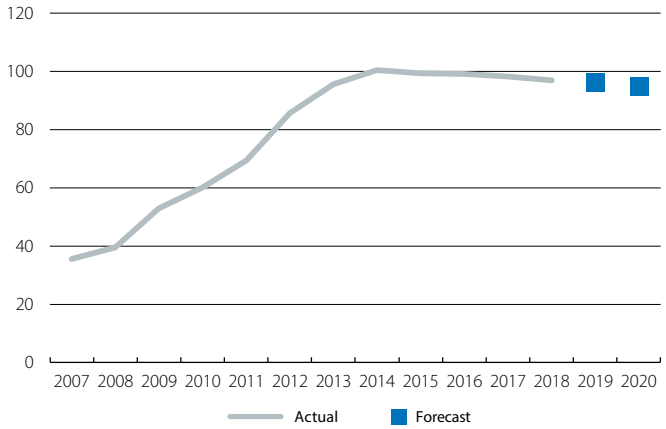
The extension of the public budgets for 2019 is confirmed. At the end of 2018, central government debt amounted to 1.17 billion euros. This figure is equivalent to 97.0% of GDP and represents a 1.1-pp reduction compared to the figure registered at the end of 2017. Despite this decrease, the level of public debt remains high, not far below the peak of 2014 (100.4% of GDP). In this regard, the Congress of Deputies' failure to approve the General State Budgets submitted by the Government for 2019 has led to the 2018 budgets being extended to this year. This, coupled with the fact that some of the main measures of government expenditure (pensions indexed to the CPI and the salary raise for public sector employees) have already been approved, whereas the revenue measures have not been passed, suggests that the public deficit is likely to end up being somewhat higher in 2019 than previously expected (CaixaBank Research's new forecast places it at 2.3%).

The real estate sector maintained its positive tone in 2018. The price of housing published by the Ministry of Public Works, based on valuation appraisals, accelerated in Q4 2018 and registered a 3.9% year-on-year increase (3.2% in Q3 2018). This brings the total growth in prices for the year as a whole to 3.4% (2.4% in 2017). This trend has occurred in a context in which the demand for housing remains very strong. For 2018 as a whole, 515,051 units were sold, 10.1% more than in 2017. Of particular note were sales of new homes, which grew by 11.1% in 2018 and exceeded the annual growth of sales of existing homes (9.9%) for the first time since 2007. For 2019, the outlook for the sector remains positive. Home sales and prices are expected to continue to register considerable growth, albeit somewhat more moderate than the last year expansion, in line with the performance of the economy as a whole.

New lending grows at a steady rate. In 2018, new lending to households and companies remained strong, albeit slightly below that of 2017. New lending to households grew by 14.7% (16.7% in 2017) and allowed total lending to households to stabilise following eight years of contraction. New lending to companies grew by 8.6% (9.7% in 2017), although the stock of loans to corporatesfell by 6.9% in 2018. This decline was primarily driven by sales of doubtful loan portfolios (excluding this impact, it would have fallen by 2%). As a result of the reduction of doubtful loans, the non-performing loan (NPL) ratio stood at 5.8% at the end of 2018, a far cry from the historical high-point of 13.6% reached in 2013.

Spain: public debt

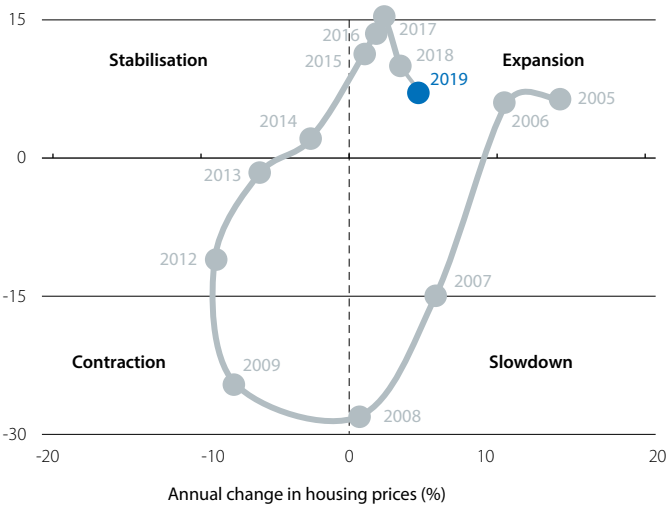
(% of GDP)



Note: *The figure for 2018 is an estimate by CaixaBank Research, on the basis of nominal GDP and total public debt at the end of 2018.*
Source: *CaixaBank Research, based on data from the Bank of Spain.*

Spain: real estate cycle

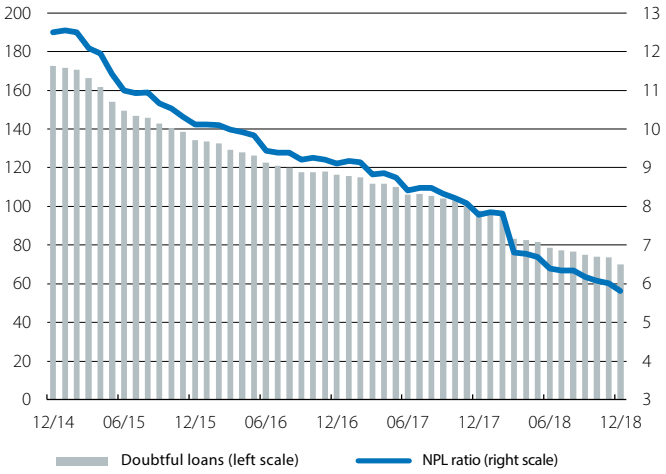
Annual change in home sales (%)



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

Spain: NPL ratio and doubtful loans

(EUR billions) *(%)*



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

What the recruitment data hides

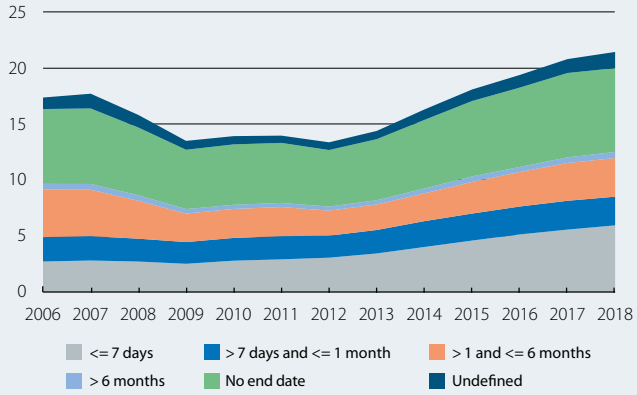
In 2018, 22.3 million employment contracts were signed in Spain. This is a record number which marks a sixth year of sustained increases, as well as a significant increase over the 17.8 million contracts signed in 2007. Despite the fact that 21% more contracts were signed compared to before the financial crisis, the number of people registered with Social Security stood at 19 million at the end of last year, a level very similar to that of 2007 (19.4 million). What is the reason for this contrast?

The recruitment data of the Public Employment Service (SEPE) provide a record of all contracts that are signed in any given year (see the first chart). With this information, we can see how 2018 was a good year for permanent employment contracts: 1.5 million such contracts were signed, and a further 0.8 million temporary contracts were turned into permanent contracts. As such, even more permanent contracts were signed in 2018 than in 2007 (2.2 million). This improvement in the hiring of permanent staff has been continuous since 2012 and is reflected in the number of people registered with Social Security:[1] the number of affiliates with a permanent contract reached 8.8 million in 2018. This represents an increase of more than 400,000 in a year, highlighting the improvement of the labour market in Spain.

The other, less positive side of the story is temporary hiring.[2] The number of temporary contracts signed in 2018 (20 million) is 22% higher than in 2007, yet the total number of contracted days is 22% lower. This is due to the continued increase of very short-term contracts. In particular, 28% of contracts signed last year had a duration of one week or less, and almost 40%, one month or less. In both cases, this represents a proportion that is 12 pps higher than in 2007. At the same time, there was a reduction in the proportion of both temporary contracts with a duration of more than one month and those without any end date, most of which correspond to temporary contracts for carrying out construction works or specific services, as well as to interim contracts. The result has been a marked reduction in the duration of temporary contracts (from 79 days on average in 2007 to 52 in 2018) and an increase in employment turnover. In addition, young people and low-skilled workers are the most likely to string together such very short-term contracts, which are usually combined with episodes of unemployment or inactivity.

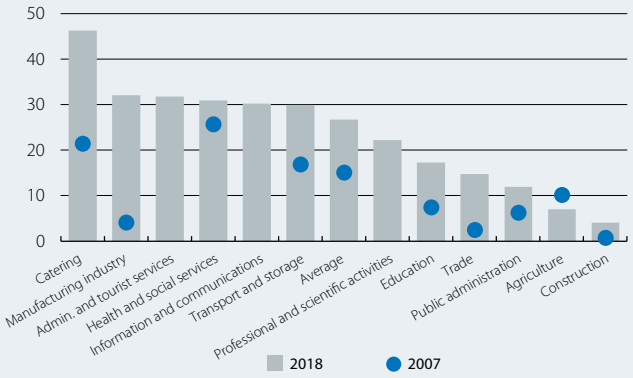
Surprisingly, the use of very short-term contracts has increased in almost all sectors (see second chart). Their incidence is greater in more seasonal sectors, such as artistic activities and catering, but even in a sector such as industry, where employment is traditionally more stable, contracts of less than a week accounted for 32% of all the contracts signed in 2018 (in 2007, they only represented 4%). This marked increase in the number of very short-term contracts has not been reflected in the labour force survey (LFS) data, indicating that the time aggregation bias existent in the LFS.[3] This would explain

Spain: contracts signed by contract duration
Number (millions)



Source: *CaixaBank Research, based on contract statistics from the Public Employment Service (SEPE).*

Spain: short-term contracts by sector *
(% of the total number of contracts)



Note: ** Corresponds to contracts with a duration equal to or less than one week. Sectors with the greatest use of temporary hiring in 2018.*
Source: *CaixaBank Research, based on data from the Public Employment Service (SEPE).*

1. The recruitment data provide a record of employment relationships that were created, and a single worker can string together multiple such relationships in a given year. The Social Security registration data correspond to the number of workers who hold an employment contract at a particular time.
2. Reducing the high rate of temporary contracts is one of the main challenges facing the labour market in Spain, given its negative impact in many areas, including productivity. See the Focus «How does the type of employment contract affect productivity?» in the MR03/2016.

3. See F. Felgueroso, J.I. García-Pérez, M. Jansen and D. Troncoso-Ponce (2018), «The Surge in Short-Duration Contracts in Spain». De Economist, 1-32.

why the standard ratio of temporary employment, which has risen from 23.4% in 2012 to 26.8% according to the LFS data, has failed to capture all of the increase registered in short-term employment.[4]

It should be noted that the increased use of short-term contracts is not linked to the economic crisis. Their use has been increasing steadily for more than two decades and is related to the fragmentation of production into more limited tasks, a trend that has been facilitated by structural factors such as the reduction of transport costs and technological change.[5,6] For example, increasingly small and medium-sized companies are participating in global value chains and must adapt their production to a demand that is variable over time, but they need a flexible labour structure in order to do so. In this regard, technological change also makes it easier to adjust recruitment policies in order to match the duration of employment relations with the company's specific employment needs at any given time. Therefore, in a way, these contracts increasingly resemble the «employment on demand» of the gig economy, which matches the supply and demand for employment in real time.[7]

Adapting recruitment to better suit companies' staffing needs can also boost their competitiveness.[8] However, a distinction should be made between the real need for a short-term position that matches a temporary need in the productive process and an unwarranted use of such contracts, given the negative externalities that are associated with them. The worker runs the risk of being trapped in a cycle of very short-term contracts, continuously switching between employment, unemployment and inactivity, which has consequences for both income and social security coverage. In addition, with regards to productivity, an excessive use of these short-term contracts can be counterproductive for both the worker and the company in the medium term, since they are unlikely to invest in training and human capital. Furthermore, excessive workforce turnover can be negative for the public finances as it reduces the social security contributions that are collected and increases the costs of unemployment benefits.

Preventing the inappropriate use of short-term contracts for longer-term employment relations is no easy task. A frequently-used approach is to increase the costs of these contracts, although this has not always had the desired effect. This approach has already been applied since 2001, as the Social Security charge for common contingencies of contracts lasting less than a week is 36% higher than it is for other contracts,[9] and in December 2018 the Government increased this differential up to 40% for contracts of five days or less. In France, where a similar measure was implemented, Pierre Cahuc and his co-authors[10] show that the increase in social contributions for these contracts actually reduced their average duration. This is the opposite of the desired effect, because the higher contributions raised labour costs and ended up reducing the aggregate demand for employment. In light of this, it seems that a more effective course of action would be to focus on preventing the unwarranted use of short-term contracts. It would also be worthwhile analysing whether differences in redundancy payments between different types of contracts could be influencing the use of short-term contracts. The ultimate aim of all this, of course, is to achieve a fairer labour market with less duality.

4. This type of bias is common in labour force surveys, which, by asking about a person's employment status in the week in question, fail to capture jobs they have had outside that period.
5. See the Dossier «Inclusive growth: creating opportunities for all» in the MR01/2019 for a detailed analysis of how these factors are affecting economic growth.
6. OCDE (2017), «How technology and globalisation are transforming the labor market», OECD Employment Outlook 2017.
7. See V. De Stefano (2015), «The rise of the «just-in-time workforce»: On demand work, crowdwork, and labour protection in the «gig-economy». Comp. Lab. L. & Pol'y J., 37, 471. Also, for further details, see the article «The sharing economy and the labour market» in the Dossier of the MR07/2018.
8. See S. Bentolila, «Temporalidad: ¿buenas intenciones con malos resultados?», *Nada es Gratis* blog, http://nadaesgratis.es/bentolila/temporalidad-buenas-intenciones-con-malos-resultados
9. Act 12/2001 of 9 July, on urgent measures for labour market reform to increase employment and improve its quality.
10. See P. Cahuc, O. Charlot, F. Malherbet, H. Benghalem and E. Limon (2016), «Taxation of Temporary Jobs: Good Intentions with Bad Outcomes?». IZA Discussion Paper n° 10352.

Activity and employment indicators

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

	2016	2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	12/18	01/19	02/19
Industry									
Industrial production index	1.9	3.2	2.7	0.9	0.4	–2.9	–6.6	...	...
Indicator of confidence in industry *(value)*	–2.3	1.0	2.8	1.2	–2.6	–1.9	–3.4	–4.0	–5.2
Manufacturing PMI *(value)*	52.8	54.8	55.3	53.7	52.4	51.8	51.1	52.4	...
Construction									
Building permits *(cumulative over 12 months)*	43.7	22.9	25.1	28.1	25.8	23.9	24.7	...	...
House sales *(cumulative over 12 months)*	13.1	14.1	15.8	15.6	13.1	10.9	10.1	...	...
House prices	1.9	2.4	2.7	3.8	3.2	3.9	–	–	–
Services									
Foreign tourists *(cumulative over 12 months)*	8.2	10.0	8.2	5.3	1.5	0.9	1.1	1.0	...
Services PMI *(value)*	55.0	56.4	56.8	55.8	52.6	54.0	54.0	54.7	...
Consumption									
Retail sales	3.8	0.9	1.8	0.1	–0.2	1.3	0.8	...	...
Car registrations	11.4	7.9	11.8	9.2	17.0	–7.6	–3.5	–8.0	...
Consumer confidence index *(value)*	–6.3	–3.4	–3.9	–3.0	–3.7	–6.2	–7.2	–6.9	–5.4
Labour market									
Employment [1]	2.7	2.6	2.4	2.8	2.5	3.0	–	–	–
Unemployment rate (% labour force)	19.6	17.2	16.7	15.3	14.6	14.4	–	–	–
Registered as employed with Social Security [2]	3.0	3.6	3.4	3.1	2.9	3.0	3.1	2.9	...
GDP	**3.2**	**3.0**	**2.8**	**2.5**	**2.4**	**2.4**	**–**	**–**	**–**

Prices

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

	2016	2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	12/18	01/19	02/19
General	–0.2	2.0	1.0	1.8	2.2	1.7	1.2	1.0	1.1
Core	0.8	1.1	1.0	1.0	0.8	0.9	0.9	0.8	...

Foreign sector

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

	2016	2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	12/18	01/19	02/19
Trade of goods									
Exports *(year-on-year change, cumulative over 12 months)*	1.7	8.9	5.8	5.2	4.5	2.9	2.9	...	...
Imports *(year-on-year change, cumulative over 12 months)*	–0.4	10.5	6.6	6.9	6.2	5.6	5.6	...	...
Current balance	**25.2**	**21.5**	**20.8**	**17.9**	**13.8**	**10.1**	**10.1**	**...**	**...**
Goods and services	36.0	33.6	33.5	29.8	25.7	22.1	22.1	...	...
Primary and secondary income	–10.7	–12.1	–12.7	–12.0	–11.9	–12.0	–12.0	...	...
Net lending (+) / borrowing (–) capacity	**27.8**	**24.2**	**23.8**	**21.2**	**17.3**	**14.0**	**14.0**	**...**	**...**

Credit and deposits in non-financial sectors [3]

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

	2016	2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	12/18	01/19	02/19
Deposits									
Household and company deposits	2.5	2.8	2.5	3.0	3.4	3.7	4.0	4.9	...
Sight and savings	16.0	17.6	12.3	11.0	10.3	10.0	9.7	10.5	...
Term and notice	–16.0	–24.2	–23.1	–20.7	–18.7	–16.8	–15.9	–14.6	...
General government deposits	–14.2	–8.7	16.7	17.6	10.4	16.9	16.3	17.4	...
TOTAL	**1.2**	**1.9**	**3.2**	**3.8**	**3.8**	**4.5**	**4.7**	**5.6**	**...**
Outstanding balance of credit									
Private sector	–3.6	–2.3	–2.2	–2.8	–2.2	–2.2	–2.6	–2.8	...
Non-financial firms	–5.3	–3.6	–4.4	–6.4	–5.6	–5.7	–6.5	–7.0	...
Households - housing	–3.7	–2.8	–2.4	–2.0	–1.7	–1.4	–1.4	–1.2	...
Households - other purposes	2.0	3.6	4.9	5.1	5.7	4.7	4.2	4.4	...
General government	–2.9	–9.7	–12.5	–9.4	–8.9	–11.8	–11.7	–11.2	...
TOTAL	**–3.6**	**–2.8**	**–2.9**	**–3.2**	**–2.7**	**–2.8**	**–3.2**	**–3.3**	**...**
NPL ratio *(%)* [4]	**9.1**	**7.8**	**6.8**	**6.4**	**6.2**	**5.8**	**5.8**	**...**	**...**

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

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

Portugal: in a more mature phase of the cycle

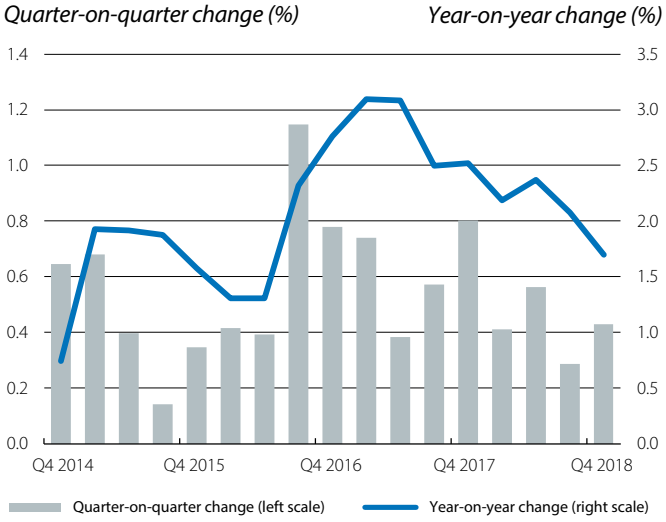
The economy grew by 2.1% in 2018 and confirmed its entry into a more mature phase of the cycle. The data relating to the last quarter of 2018 indicate that GDP grew by 0.4% quarter-on-quarter and by 1.7% year-on-year in Q4. This growth was backed by the strength of domestic demand, which benefited from the good performance of both private consumption and investment. The contribution from external demand, meanwhile, was more negative due to the obstacles that exports endured at the end of the year (namely, strikes by dockworkers and the depletion of stocks in the automotive sector). With regard to Q1 2019, the indicators are generally positive, but give some mixed signals. On the one hand, the Bank of Portugal's coincident economic activity indices, which have a strong correlation with GDP growth and that of private consumption, suggest that economic activity continues to grow at a rate similar to that of the previous quarter. In particular, both the coincident economic activity indicator and that of private consumption stood at 1.8% in January (1.7% and 1.9% on average in Q4 2018, respectively). On the other hand, the consumer and industry confidence indices continued to decline in January and reflect greater caution among firms and households towards the future performance of economic activity. On the whole, the indicators remain at encouraging levels and suggest a steady growth rate in 2019 (1.8% according to CaixaBank Research's forecast).

Tourism of non-residents stabilised in 2018. Tourist activity showed some signs of slowdown during the last year, with an increase of just 0.4% in the number of non-resident guests in the accommodation sector for 2018 as a whole. However, the average income per available room has continued to rise, suggesting that the quality of the country's tourist services is also improving.

The real estate sector shows signs of slowing down. The end of 2018 brought the first indications of a possible slowdown in the Portuguese real estate market, with the latest data suggesting a slowdown in the demand for housing. In particular, in December the sector's confidence indicator, which reflects the expectations of property developers and agents regarding trends in prices and transactions, registered a significant drop, potentially indicating a cooling of the market over the coming months. Nevertheless, the latest figures for home sales remain high.

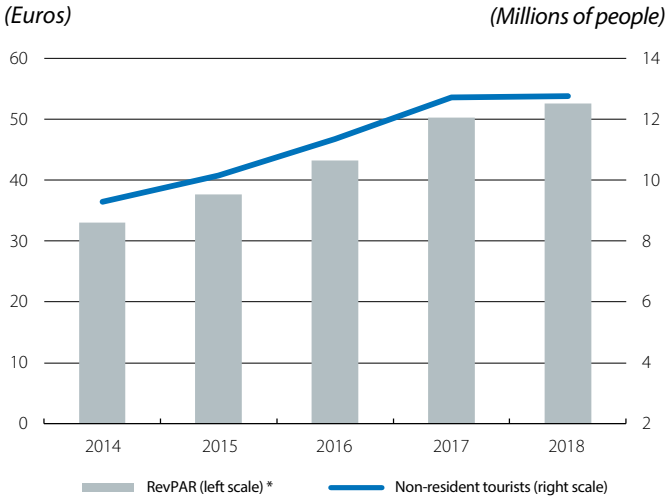
The foreign sector went back into deficit in 2018. In particular, in December the current account balance stood at –0.6% of GDP (12-month cumulative balance), which marks a clear decline in the foreign sector in 2018 compared to the 0.5% surplus registered in 2017. Although the return to a deficit position is not good news, there are factors that

Portugal: GDP



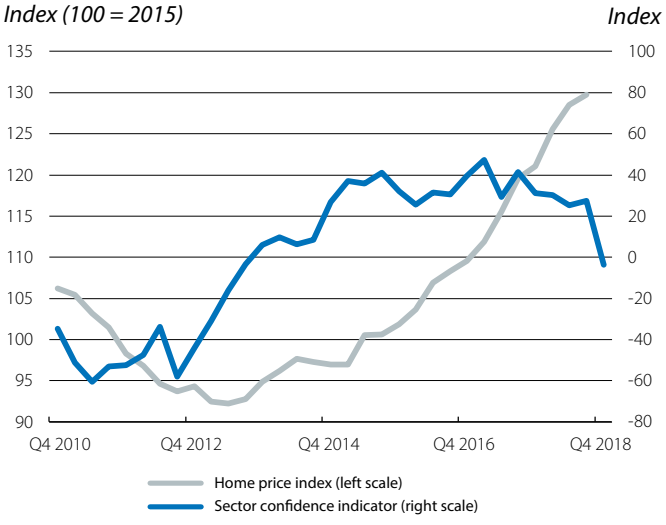
Source: *CaixaBank Research, based on data from Datastream.*

Portugal: tourism activity



Note: ** RevPAR: average revenue per available room.*
Source: *CaixaBank Research, based on data from the National Statistics Institute of Portugal.*

Portugal: real estate market



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

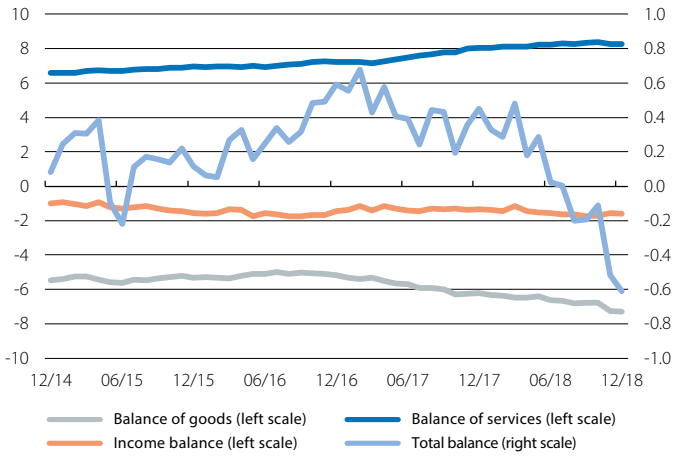
suggest that the extent of the deterioration can be contained. On the one hand, as has already been discussed, exports of goods endured the negative impact of temporary factors at the end of the year. Imports, on the other hand, grew by an extraordinary 8.0%, driven by a surge in imports of investment goods (providing a contribution of +5.2 pps to the total growth of imports). By contrast, imports of consumer goods and fuels performed more moderately (with a contribution of 1.6 pps and 1.3 pps, respectively). The balance of services, meanwhile, continues to maintain a notable surplus (8.3% of GDP in 2018) thanks to the strength of tourism, although this sector also shows signs of slowing down. As for 2019, the deterioration in the current account balance is expected to stabilise and the economy is expected to maintain its external lending capacity, since the capital account continues to exhibit a surplus which more than offsets the current account deficit.

The labour market maintained a good tone in the closing stages of 2018. In Q4 2018, the number of people employed increased by 78,100 compared to Q4 2017 and the total population in employment stood at 4,883,000. The pace of job creation slowed to 1.6% year-on-year (+3.5% in Q4 2017), with a prominent role played by the public administration and education sectors. On the other hand, the unemployed population decreased by a considerable 17.3% year-on-year in Q4 2018 and the unemployment rate stabilised at 6.7% for the third consecutive quarter. Together, these figures indicate that the labour market is entering a more mature phase of the cycle. As such, with the economy having reached its current levels, job creation and the reduction in unemployment are expected to lose some steam over the course of 2019.

The contraction of private sector lending moderated in 2018. Lending to individuals contracted by 0.6% in December 2018, as a result of the reduction in lending for housing. This trend occurred in a context in which new lending operations grew significantly in 2018 (19.6% year-on-year, despite the 41.4% year-on-year slowdown compared to the previous year). On the other hand, consumer lending continued to grow steadily, registering growth of 10.5% year-on-year in December. As for companies, sales of nonperforming loans continued to have a negative impact on the volume of credit: in fact, the stock of credit fell by 4.6% year-on-year in December 2018, but it would have grown by 1.7% if we had excluded this effect. However, this trend is expected to continue in 2019, as the banking sector continues to sell off portfolios of nonperforming loans to clean up its balance sheets.

Portugal: current account balance

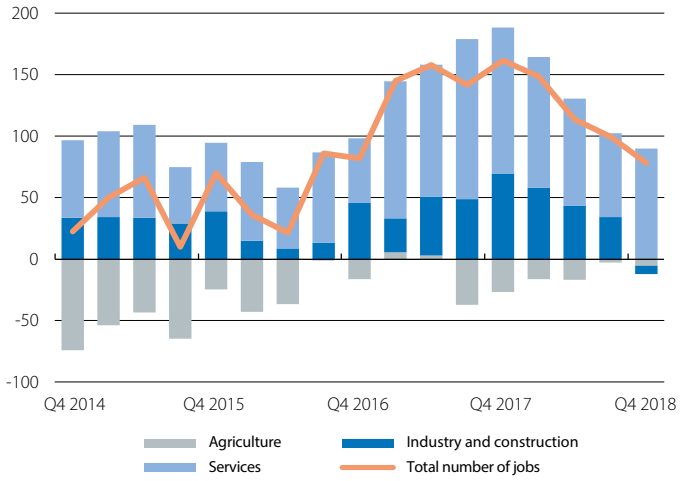
12-month cumulative balance (% of GDP) *12-month cumulative balance (% of GDP)*



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

Portugal: jobs by sector

Year-on-year change (thousands)



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

Portugal: private sector lending

December 2018

	Balance (EUR millions)	Year-on-year change (%)
Lending to individuals	119,658	–0.6
Lending for housing	97,212	–1.7
Lending for consumption and other purposes	22,446	4.2
Consumption	15,310	10.5
Lending to companies	69,975	–4.6
Non-property developers*	65,140	–4.0
Property developers*	6,098	–7.5
Total lending to the private sector**	189,633	–2.1

Notes: **Values relating to November 2018. **New lending to the non-financial private sector.*
Source: *CaixaBank Research, based on data from the Bank of Portugal.*

Portugal's agriculture sector: still dual, but promising

There are signs that suggest that the agricultural sector could be entering a new expansionary phase. Specifically, changes can be seen in the ownership structure of farms, in the sector's human capital and in its trend productivity growth that point towards an increase in the sector's growth potential. This has been evident in the recovery of the gross value added (GVA) generated by agriculture, which in 2018 reached 1.7% of the GVA of the economy as a whole, 0.4 pps more than in 2011.

The sector is still dominated by small property (70% of farms have less than 5 hectares), while agricultural producers generally reflect an ageing population group with a low level of education.[1] This translates into lower productivity compared to its European counterparts: the average production per hectare is 1,400 euros in Portugal, compared to 2,400 and 1,700 euros for the euro area and Spain, respectively. In terms of average annual production per worker, the difference is even greater: 16,400 euros in Portugal versus 47,900 euros in Spain and 57,200 euros in the euro area as a whole.

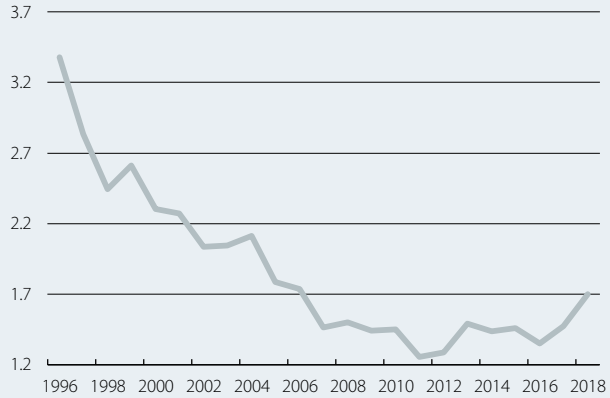
But there are signs of change. On the one hand, larger agricultural structures (over 50 hectares) are on the rise[2] and, while they only represent 4% of all farms, they account for around 70% of the utilised agricultural land area and have much higher productivity levels than the rest. In these large farms, production per worker is 46,800 euros (compared to 31,100 euros per worker in farms of between 20 and 50 hectares).[3] On the other hand, the level of training has improved, and around 47% of agricultural producers have specific training in the sector (vocational courses and secondary or higher education),[4] well above the 16% registered in 2013.[5] Also of note is the growth in organic farming, which in general produces goods with greater value added: in 2015, this agricultural subsector cultivated 239,900 hectares (around 23% of the total cultivated land area), 25,600 hectares more than in 2006.

These changes in the structure of the sector are already reflected in efficiency improvements. As can be seen in the third chart, the trend in the main indicators of the

1. In 2018, 88% of the population employed in agriculture, animal production, hunting, forestry and fishing had an educational level equal to or below primary education (National Statistics Institute).
2. In 2016, there were 10,395 such farms, 910 more than in 2007 (National Statistics Institute).
3. Larger farms tend to be more specialised.
4. Ministry of Agriculture, Office of Planning, Policies and General Administration. Last year available: 2016.
5. Part of this improvement can be explained by the requirement established in 2013 for producers who purchase, transport and use phytopharmaceutical products to have completed a course on the application of these products.

Portugal: GVA of the agricultural sector

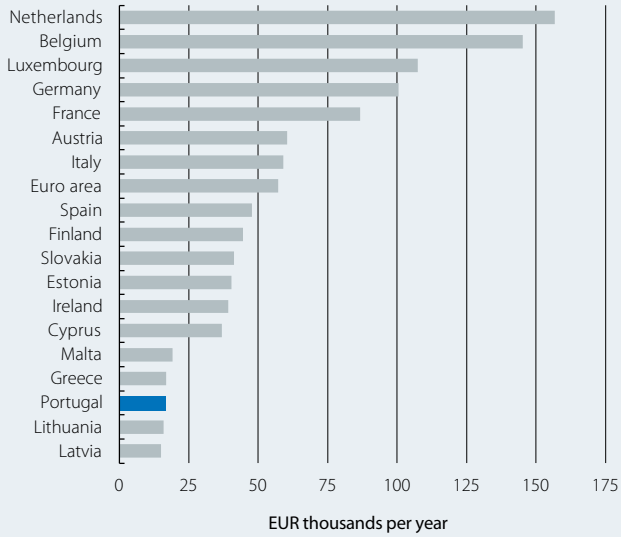
(% of the GVA of the economy as a whole)



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

Agricultural production per worker

(Annual average of 2016 for each country)



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

Portugal: agricultural sector indicators

Average annual growth between 2007 and 2018 (%)

Indicator	Average annual change
Cultivated land area *	0.3
Production (volume) *	7.4
Productivity (kg per hectare) *	5.4
Production (current prices)	1.6
GVA (current prices)	0.2
Investment	3.5
Agricultural sector income per unit of labour	4.6

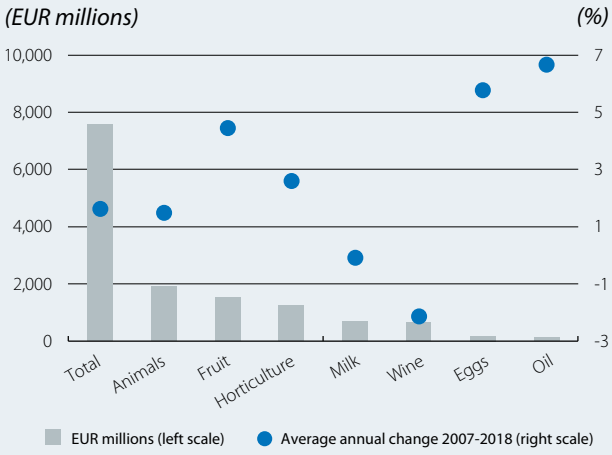
Note: ** The latest available data are from 2017.*
Source: *CaixaBank Research, based on data from the National Statistics Institute of Portugal and Eurostat.*

sector over the past decade has been positive, particularly in terms of the greater quantity that has been produced, the productivity of the cultivated land area and the yield of the sector's activity. According to the available data, in 2018 agricultural production reached 7,600 million euros and registered an average annual growth between 2007 and 2018 of 1.6% (2.1% in the euro area and 3.0% in Spain). By component, the fourth chart shows that production of fruit, horticultural products and animals – which represent 62% of the total production – has increased at an average annual rate of 4.5%, 2.6% and 1.5%, respectively, since 2007. Oil, meanwhile, only represented 1.8% of the total production in 2018 yet it has grown at an average annual rate of around 7%.

The growth in global trade, increased consumption of healthy foods and the sector's efforts to make it more international have also played an important role in boosting agricultural activity. Between 2007 and 2018, exports of agricultural goods registered an average annual growth of 9.6%, higher than that of total exports of goods (3.4%). Fruit exports, which represent around half of all exports of agricultural goods, are the main driver behind this progress. Among other components, red fruits, citrus fruits and nuts have shown the highest growth, with average annual exports increasing by 33.1%, 24.7% and 6.3%, respectively. These were followed by oil exports, which grew by 14.6% on average in the period. The third biggest growth was registered in the field of animal production, with meat exports increasing by 12.7% per annum on average in the past decade. Finally, with regards to contributions to the increase in agricultural production, we cannot forget the importance of exports of derivative products of the food industry, an industry which is driven by the agricultural sector and accounts for around 9% of all exports of goods.

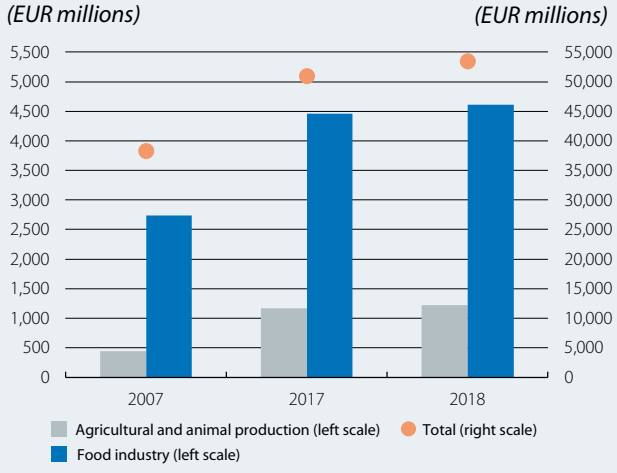
Looking ahead, international trade will continue to play an important role in determining the buoyancy of agricultural activity. Even if the slowdown in external demand in 2019 could result in a more moderate growth in exports of agricultural goods, there are factors that support the consolidation of a greater internationalisation of the sector. These factors include the following. Firstly, significant effort is going into penetrating new markets, such as China, Japan and India.[6] Secondly, the country's geography offers particular benefits, most notably a climate which allows it to bring products to the market earlier than other countries (especially fruits and vegetables), which has supported the growing trend in exports to countries of central and northern Europe, for instance. Thirdly, there has been a trend of contracts being arranged between producers and international companies operating in the retail food trade sector. Finally, some farmers have taken steps in the field of smart agriculture, the benefits of which will become increasingly apparent in the future in the performance of agricultural activity as a whole. In fact, this will be a key area for the creation of wealth in the sector.

Portugal: agricultural production in 2018



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

Portugal: exports of agricultural products



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

6. In the case of China, in 2018 authorisation was obtained to export meat, while negotiations for obtaining the export license for grapes are in their final phase. In Japan, from February 2019 a new economic collaboration agreement has come into force which will have a positive impact on wine, cheese and meat exports. In India, at the end of 2018 agreements were reached for the export of apples and pears.

Activity and employment indicators

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	10/18	11/18	12/18	01/19	02/19
Coincident economic activity index	2.9	2.1	2.1	1.9	1.7	1.7	1.7	1.7	1.8	...
Industry										
Industrial production index	4.0	–0.1	0.5	–1.7	–1.4	0.2	–3.4	–1.0	–3.0	...
Confidence indicator in industry *(value)*	2.1	0.8	0.5	0.6	–0.6	–0.2	–1.0	–0.6	–1.0	–1.3
Construction										
Building permits *(cumulative over 12 months)*	15.6	19.1	11.7	13.3	19.1	...	...	19.1	...	...
House sales	20.5	...	23.7	18.4	...	...	...	...	...	...
House prices *(euro / m² - valuation)*	5.1	5.8	6.1	6.2	6.1	6.2	6.2	6.1	6.3	...
Services										
Foreign tourists *(cumulative over 12 months)*	12.1	0.4	7.6	3.8	0.8	1.2	0.7	0.4	...	...
Confidence indicator in services *(value)*	13.3	14.1	12.6	16.9	12.6	13.3	12.3	12.2	15.7	16.0
Consumption										
Retail sales	4.1	3.9	2.6	2.3	4.7	5.9	4.3	3.8	...	...
Coincident indicator for private consumption	2.6	2.4	2.6	2.2	1.9	2.0	1.9	1.9	1.8	...
Consumer confidence index *(value)*	–0.1	0.6	2.8	–0.2	–1.7	–1.1	–1.8	–2.2	–7.2	–8.3
Labour market										
Employment	3.3	2.3	2.4	2.1	1.6	1.9	1.5	1.5	1.5	...
Unemployment rate (% labour force)	8.9	7.0	6.7	6.7	6.7	6.6	6.7	6.6	6.7	...
GDP	**2.8**	**2.1**	**2.5**	**2.1**	**1.7**	**...**	**...**	**1.7**	**...**	**...**

Prices [1]

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	10/18	11/18	12/18	01/19	02/19
General	1.4	1.0	1.0	1.4	0.8	1.0	0.9	0.7	0.5	0.9
Core	1.1	0.7	0.6	0.8	0.5	0.4	0.5	0.6	0.8	1.0

Foreign sector

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	10/18	11/18	12/18	01/19	02/19
Trade of goods										
Exports *(year-on-year change, cumulative over 12 months)*	10.0	5.3	7.4	7.0	5.3	6.4	4.7	5.3	...	...
Imports *(year-on-year change, cumulative over 12 months)*	13.1	8.0	9.6	8.5	8.0	7.2	7.4	8.0	...	...
Current balance	**0.9**	**–1.2**	**0.0**	**–0.4**	**–1.2**	**–0.2**	**–1.0**	**–1.2**	**...**	**...**
Goods and services	3.5	2.0	3.1	3.1	2.0	3.2	2.1	2.0	...	...
Primary and secondary income	–2.6	–3.2	–3.1	–3.5	–3.2	–3.4	–3.1	–3.2	...	...
Net lending (+) / borrowing (–) capacity	**2.7**	**0.9**	**1.9**	**1.6**	**0.9**	**1.8**	**1.0**	**0.9**	**...**	**...**

Credit and deposits in non-financial sectors

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	10/18	11/18	12/18	01/19	02/19
Deposits [2]										
Household and company deposits	1.7	3.8	4.3	4.4	4.2	3.8	4.0	4.7	...	...
Sight and savings	15.7	14.3	15.3	13.6	14.6	13.5	14.0	16.2	...	...
Term and notice	–5.8	–3.0	–2.9	–2.1	–3.1	–2.9	–3.1	–3.3	...	...
General government deposits	1.3	–1.9	–0.8	1.0	–9.9	2.2	0.5	–32.3	...	...
TOTAL	**1.6**	**3.5**	**4.0**	**4.2**	**3.4**	**3.7**	**3.8**	**2.7**	**...**	**...**
Outstanding balance of credit [2]										
Private sector	–4.0	–1.7	–1.8	–1.4	–1.8	–1.6	–1.7	–2.1	...	...
Non-financial firms	–6.5	–3.8	–3.8	–3.7	–4.5	–4.6	–4.4	–4.6	...	...
Households - housing	–3.1	–1.5	–1.6	–1.2	–1.3	–1.1	–1.1	–1.7	...	...
Households - other purposes	0.9	4.5	4.1	5.8	5.2	6.1	5.3	4.2	...	...
General government	9.3	2.4	14.8	–12.4	–11.6	–11.2	–10.6	–12.9	...	...
TOTAL	**–3.5**	**–1.6**	**–1.2**	**–1.9**	**–2.3**	**–2.1**	**–2.1**	**–2.6**	**...**	**...**
NPL ratio *(%)* [3]	**13.3**	**...**	**11.7**	**11.3**	**...**	**...**	**...**	**...**	**...**	**...**

Notes: *1. Harmonized indexes. 2. Aggregate figures for the Portuguese banking sector and residents in Portugal. 3. Period-end figure.*
Source: *CaixaBank Research, based on data from the National Statistics Institute, Bank of Portugal and Datastream.*

A world of giants

Over the last two decades, we have witnessed the rise of a relatively small number of global mega companies, also known as superstars, which stand out for having taken a substantial portion of the value created in the markets in which they operate. çSome figures help to highlight the importance of this phenomenon (known as «winner takes all»). Today, nearly 6,000 companies worldwide – all with annual revenues in excess of 1,000 million dollars – generate 66% of all global corporate revenues and profits. And, among them, 600 capture 80% of the economic profit generated in the world.[1] How are these companies distributed geographically and by sector? What combination of factors lie behind their success? These are some of the topics we discuss below.

The evidence

In recent years, a growing part of the economic literature has focused on documenting the phenomenon of superstars, its causes and its implications[2] for the competitive structure of the markets in particular, as well as for economic relations in general. Although the results differ between studies and the evidence remains incomplete, the emergence of superstars is having a notable impact in several dimensions.

2018 ranking of biggest companies (according to the Fortune Global 500)

Note: *Each circle on the map indicates the location of the headquarters of each company in the list. The size of the circle represents the company's revenues.*
Source: *CaixaBank Research, based on data from the Fortune Global 500.*

First, evidence suggests that market concentration has increased considerably in the last 20 years.[3] This is especially the case in the US, where concentration – as measured by the Herfindahl-Hirschman index – has increased in 75% of the sectors since the year 2000,[4] while in Europe the results vary depending on the country analised.[5]

Second, we find an increasing number of superstars in ever more regions. As the map shows, many of the 500 biggest companies in the world – according to the 2018 ranking by the US magazine *Fortune* – are based in advanced countries, although around 30% of these megacompanies are headquartered in emerging countries. This may not seem like much, but in 2005 only 7% of these super companies were based in emerging economies.

And, third, although this phenomenon is particularly marked in knowledge-intensive sectors – such as the technology sector –, today we find superstars in more and more sectors. On this note, the MIT economist David Autor and his co-authors[6] conclude that the phenomenon is now widespread across most sectors in the US, while other recent studies also show that, at the global level, superstars can be found in an increasing number of economic sectors.

What are the characteristics of these companies?

First and foremost, superstar firms stand out by being more global. In fact, the evidence suggests that in the last two decades these companies have rapidly expanded their global investments and their sales abroad. In particular, according to data from the United Nations, the biggest companies have significantly increased the proportion of their sales to the rest of the world (from around 55% of total sales in 1995 to 70% in 2015) and the proportion of their assets located abroad (from around 47% of total assets in 1995 to just over 65% in 2015).[7]

In addition, these superstar companies are digitally more mature and tend to invest intensively in intangible assets, such as intellectual property, and human and organisational capital.[8] As such, these companies stand out for their good organisational

1. See J. Manyika, S. Ramaswamy, J. Bughin, J. Woetzel, M. Birshan and Z. Nagpal (2018), «Superstars: The dynamics of firms, sectors, and cities leading the global economy», McKinsey Global Institute (MGI) Discussion Paper.
2. For further details, see the article «Superstars, competition and consequences» in this same Dossier.
3. See S. Calligaris, C. Criscuolo and L. Marcolin (2018), «Mark-ups in the digital era», OECD Publishing n° 2018/10.
4. See, among others, G. Grullon, Y. Larkin and R. Michaely (2018), «Are US industries becoming more concentrated?», Forthcoming, Review of Finance.
5. See OCDE (2018), «Market Concentration - Note by the United States, Hearing on Market Concentration», OECD June.
6. See D. Autor, D. Dorn, L.F. Katz, C. Patterson and J. Van Reenen (2017), «The fall of the labor share and the rise of superstar firms», National Bureau of Economic Research.
7. United Nations Conference on Trade and Development (2017), «World Investment Report 2017: Investment and the Digital Economy», UNCTAD.
8. Intangible assets can be divided into four major groups: (i) digitised information (such as software), (ii) intellectual property (patents, copyrights, R&D expenditure), (iii) human capital and (iv) organisational capital. For further details, see the article «Intangibles: the new investment in the knowledge era» in the Dossier of the MR11/2014.

and management practices, which in many cases is reflected in their ability to select and execute key investments and coordinate complex projects.[9] Their investment intensity in intangible capital gives them a major competitive advantage over their rivals. First, because although intangible assets require a high initial investment, they are easily scalable (they can be reproduced at zero marginal cost, which generates increasing returns to scale).[10] Furthermore, in many cases, the legal system prevents other companies from making use of them free of charge (through patents, for instance). And secondly, intangible assets tend to complement one another.[11] For example, studies show that investment in information technology (such as analytical software) is more effective when accompanied by good management (such as well-designed workflows).[12] Therefore, it is difficult for small companies to imitate superstars. Similarly, given their technological and management capacities, it should come as no surprise that these companies also tend to be more productive than the rest.[13]

Factors behind the success

Now that we have characterised these companies, one might ask what factors have propelled their expansion. In this sense, we have identified three main factors: globalisation, new technologies and regulation.

First, as globalisation has progressed and markets increasingly integrated, this has made it easier for many companies to operate in in multiple countries and regions. In particular, many companies have taken advantage of technological advances and the reduction of trade barriers to rapidly expand into new markets and/or to divide their operations across different countries (thus creating global value chains) and achieve significant reductions in their production costs. This has given them an enormous competitive advantage, and the development of business models that are very difficult for their competitors to replicate.

Secondly, technological changes are facilitating the expansion of the winner-takes-all phenomenon into a growing number of sectors. On the one hand, technological changes have helped to reduce friction in product markets between countries. Most notably, digitalisation and the internet have dramatically reduced search, communication and transport costs, especially for digital goods (which have a marginal cost of reproduction and distribution close to zero). All this has made it easier for companies – especially the most digitally mature ones – to enter other markets with greater intensity, since they can offer their products and services to consumers in other parts of the world without having to invest heavily in physical capital. On the other hand, digitalisation makes it easier for companies to exploit the increasingly important network effects – those forces that cause the consumer's interest in a particular product or service to increase as the user base increases. In this sense, superstars, especially technological ones, stand out for exploiting these effects very well in order to quickly serve and conquer global markets.

And third, we must highlight the role of regulation. In particular, greater and stricter regulatory requirements have introduced barriers to entry in some markets, albeit unintentionally. Since large companies have more resources (such as specialised staff) in order to meet the increasingly complex regulatory requirements (which act as a fixed cost), this places them in a more favourable position than smaller companies. Furthermore, even if these companies have reached their dominant position in the market on their own merits, they have the incentives and a greater ability to consolidate their position by seeking regulatory protection (such as through lobbying) or by acquiring companies that can challenge their dominant position in the market.[14]

In short, in recent years, underlying factors such as globalisation and new technologies have amplified the competitive advantages of these supercompanies, which have been rewarded with a position of greater dominance in the market. In this context, ongoing technological disruption should serve to ensure that the markets remain competitive by allowing new entrants (those that exploit new technologies more effectively) to quickly transform a market and challenge its leaders. However, for this to occur, we must closely monitor the extent to which the greater concentration in some markets is the result of the reward obtained by these supercompanies for the success of their products, and to what extent it is the result of anti-competitive behaviour to consolidate their dominant position.

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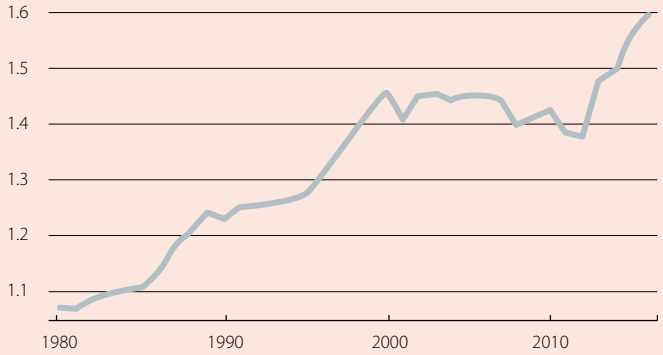
9. See J. Van Reenen (2018), «Increasing differences between firms: market power and the macro-economy», CEP Discussion Papers.
10. See N. Crouzet and J. Eberly (2018, August), «Understanding weak capital investment: The role of market concentration and intangibles», Created for the Jackson Hole Economic Policy Symposium.
11. Stanford University professor Nicholas Bloom and co-authors (2018) document the dispersion that exists in the quality of management and organisation among US companies, and the positive correlation that exists between organisational quality and productivity, profitability, growth, survival rate and innovation. Other studies come to similar conclusions.
12. See N. Bloom, R. Sadun and J. Van Reenen (2012), «Americans do IT better: US multinationals and the productivity miracle», American Economic Review, 102(1), 167-201.
13. See D. Andrews, C. Criscuolo and P. Gal (2015), «Frontier firms, technology diffusion and public policy: micro evidence from OECD countries», OECD Publishing, vol. 2.
14. For a more detailed analysis of this topic, see the article «Navigating in an ocean of big companies, or on the art of regulating a world undergoing disruptive change» in this same Dossier.

Superstars, competition and consequences

In the last 20 years, business concentration has increased significantly. Many markets are now dominated by a few large companies (so-called superstars). This new business environment has major economic and social implications that cannot be ignored when designing public policies on regulation and competition.

In the face of this trend, in recent years various economists have begun to study the phenomenon of superstars and their consequences in terms of efficiency and equity. However, as it is a relatively recent phenomenon, the conclusions reached are not yet definitive. In fact, there is a key question in the analysis of this phenomenon on which there is still no consensus, namely that not all economists believe that this new business context of greater concentration has led to a reduction in competition in the markets for goods and services. As an example, John Van Reenen, an MIT economist and expert in innovation and productivity, is of the opinion that concern about the power of large corporations and their impact on market dinamism is somewhat premature. Specifically, Van Reenen and some of his collegues, such as David Autor, argue that the level of competition has not decreased but rather that factors such as globalisation, new technologies and network effects have changed the nature of competition, generating sectors or industries in which the winner-takes-all (or almost-all) scenario is increasingly common. Contrary to what is suggested, the success of these few companies is the result of strong competition in the sector that ends up leading to just a few remaining at the top (see the first article of this Dossier).

Mark-up at the global level *
Ratio



Note: ** Mark-up corresponds to the ratio between price and marginal cost.*
Source: *See J. De Loecker and J. Eeckhout (2018), «Global Market Power», National Bureau of Economic Research, n° w24768.*

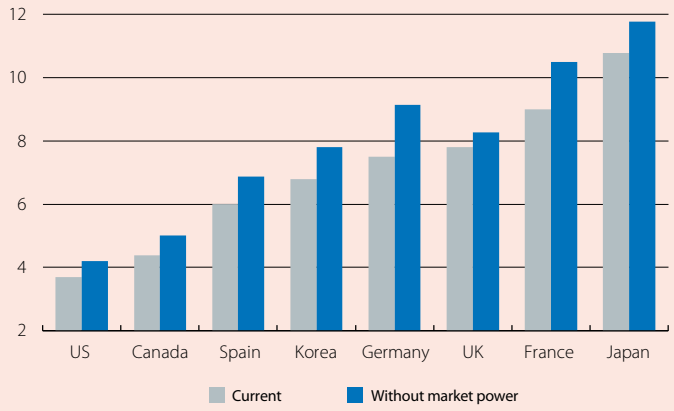
In order to find out whether there have been changes in the intensity of competition in the markets, various studies go beyond standard measures of concentration and seek to measure the level of competition directly, based on trends in profit mark-ups (the ratio between price and marginal cost), which determine the extent to which price exceeds marginal cost. In a scenario of perfect competition, this ratio should be close to 1, while values well above 1 can be indicative of companies having a high level of market power. Following on from this, with a sample of 70,000 companies from 134 countries, De Loecker and Eeckhout[1] document substantial increases in mark-ups at the global level since 1980: going from a ratio of 1.1 in the 1980s to 1.6 today (see the first chart). This is particularly relevant in the case of the US, where there is also a widespread increase across all sectors, largely due to increases in the mark-ups of companies that already had higher margins at the outset.[2] Thus, they conclude that competitive pressure has actually reduced.

In a world with low levels of competition, companies have to deal with fewer entries of new adversaries, so they do not have the need to invest and innovate to the same extent as they do in a world with high levels of competition. In other words, an environment of less competition reduces incentives to invest and innovate, which ultimately has a negative impact on productivity.[3] According to recent studies by Thomas Philippon and Germán Gutiérrez, economists at the University of New York, the reduction in competition is largely responsible for the low investment rates observed in the US economy since the beginning of the 2000s. In particular, the stock of capital lies between 5% and 10% below the level that would have been

1. See J. De Loecker and J. Eeckhout (2018), «Global market power», National Bureau of Economic Research, n° w24768. Other articles such as S. Calligaris, C. Criscuolo and L. Marcolin (2018), «Mark-ups in the digital era», OECD Publishing, n° 2018/10, also find an increase in the average mark-up for a set of 26 countries between 2000 and 2014.
2. See J. De Loecker, J. Eeckhout and G. Unger (2018), «The Rise of Market Power and the Macroeconomic Implications», Mimeo, November.
3. This does not mean that all market power is negative, since a minimum mark-up must exist to incentivise investment and innovation. Once these are guaranteed, economic theory suggests that increases in margins translate into lower rates of investment and innovation. This non-monotonous relationship is observed empirically in the analysis conducted by economists at the IMF: F. Diez, D. Leigh, and S. Tambunlertchai (2018), «Global market power and its macroeconomic implications», International Monetary Fund.

*Income of the poorest households **

Percentage compared to the total (%)



Note: ** Households below the 20th income percentile.*
Source: *CaixaBank Research, based on data from S.F. Ennis, P. Gonzaga and C. Pike (2017). «Inequality: A Hidden Cost of Market Power».*

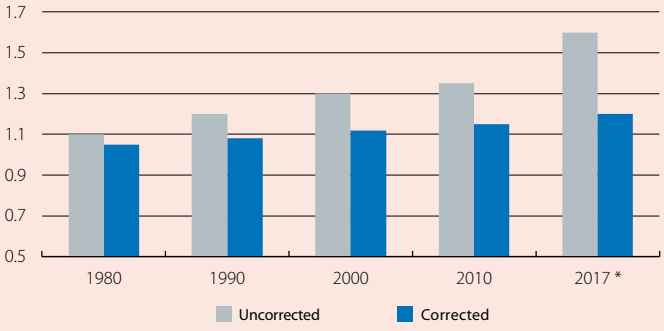
observed if the competitive environment had not deteriorated. Philippon *et al.* also highlight that the contribution of US superstar firms to the country's total productivity has fallen by 40% over the last 20 years. This suggests the presence of barriers to entry and a reduction in competition, causing large, established companies to reduce their investment and innovation activities.[4]

In addition, an environment of greater business market power implies a redistribution of resources from consumers and workers to company shareholders. This is the case because greater market power leads to an increase in profit margins, which in turn means that the prices set by companies far outweigh production costs. This context of higher prices disproportionately penalises the poorest individuals, who have to pay more for the products they consume. According to a study by three economists from the OECD for a set of eight countries (including the US, Germany and Spain), if the market power that they calculate as being excessive (i.e. related to non-competitive practices) were removed, the income of the poorest families (those that lie below the 20th percentile) would increase by around 15%. What is more, this increase would mostly be fed by lower incomes among the wealthiest families (see the second chart).[5]

However, as we already indicated at the beginning of this article, these results are not shared unanimously among experts. A recent article by the World Bank reveals that the sharp increase in the profit margins of large companies that has been documented by many economists (especially for the US) is the result of costs being accounted for incorrectly.[6] Specifically, superstars are different from the rest of companies in that, among other aspects, they have a higher level of investment in intellectual and organisational capital (known as intangible assets) and this should be taken into account when calculating profit margins. With this correction, the increase in profit margins observed since 1980 has been much less pronounced than estimated in the other studies mentioned above (see the third chart). As a result, the article concludes that superstars cannot be accused of taking advantage of a less competitive environment, as other analysts argue, but rather that they base their success on their high productivity and capacity for innovation.

*Mark-up in the US **

Ratio



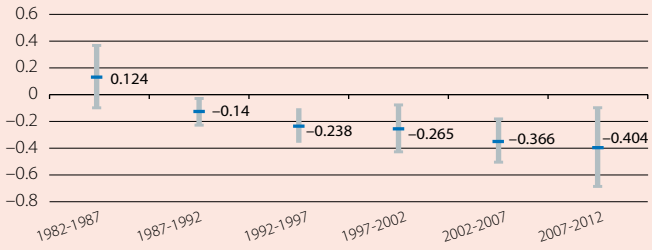
Note: ** Mark-up corresponds to the ratio between price and marginal cost. The correction takes into account the investment in intangible capital (such as intellectual or organisational capital).*
Source: *CaixaBank Research, based on data from S.F. Ennis, P. Gonzaga and C. Pike (2017), «Inequality: A Hidden Cost of Market Power», and M. de Ayyagari, A. Demirguc-Kunt and V. Maksimovic (2018), «Who are America's star firms?», The World Bank.*

Despite the obvious differences of opinion regarding superstar firms' impact on the evolution of investment and on the buoyancy of innovation, both detractors and defenders appear to agree that this new business context has led to a decline in the labour share in aggregate income. This phenomenon has existed for a long time and affects most developed countries and sectors.[7] At present, workers receive a smaller portion of production incomes (which may have increased in the presence of more productive superstars), in favour of higher profits obtained by these large companies and their shareholders.

4. See G. Gutiérrez and T. Philippon (2017), «Declining Competition and Investment in the US», National Bureau of Economic Research, n° w23583; J. Callum and T. Philippon (2016), «The Secular Stagnation of Investment?», Unpublished manuscript, New York University, December, for the calculation of the stock of capital; and G. Gutiérrez and T. Philippon (2019), «Fading Stars», National Bureau of Economic Research, n° w25529.
5. See Sean F. Ennis, P. Gonzaga and C. Pike (2017), «Inequality: A hidden cost of market power». At http://www.oecd.org/daf/competition/inequality-a-hidden-cost-of-market-power.htm.
6. See M. Ayyagari, A. Demirguc-Kunt and V. Maksimovic (2018), «Who are America's star firms?», The World Bank.
7. See the Dossier «Labour income share in perspective» in the MR02/2014.

Correlation between the labour share in aggregate income and business concentration in the manufacturing sector in the US *

(Value)



Note: ** Correlations between two variables measure the linear relationship between them and range from −1 (a perfect inverse correlation) to 1 (a perfect positive correlation). The chart shows the correlation coefficients and the confidence intervals at 95% over time, based on a linear regression of the change in the labour share (measured as the ratio between wage income and the company's value added, defined as the sum of wage income and its pre-tax profits) and the change in business concentration (measured as the fraction of sales in each sector of the 20 biggest companies). Negative values indicate an inverse correlation between changes in the labour share and business concentration. The sample corresponds to the 388 industries in the US manufacturing sector.*
Source: *CaixaBank Research, based on data from D. Autor, D. Dorn, L. Katz, C. Patterson and J. Van Reenen (2017), «Concentrating on the fall of the labor share», American Economic Review: Papers&Proceedings 107(5).*

In this regard, for example, David Autor and John Van Reenen, together with other economists, estimate that the greater business concentration in the US is responsible for one third of the reduction in the labour share in the country's services sector since 1980 and 10% of the fall observed in the manufacturing sector.[8]

In any case, we must not allow ourselves to be influenced by pessimism: technological progress promises a hopeful picture, since it offers opportunities for new companies to challenge superstars' dominance. Faced with the threat of new entrants, large companies will have to continue investing, innovating and improving their efficiency levels in order to ensure their survival. Size (in this case) may not matter. If you disagree, tell that to Kodak, which went from controlling the majority of the North American photographic film market to declaring bankruptcy in 2012.

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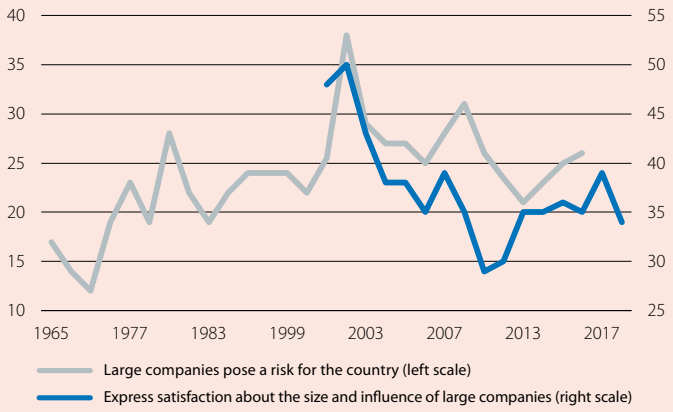
8. See D. Autor, D. Dorn, L.F. Katz, C. Patterson and J. Van Reenen (2017), «The Fall of the Labor Share and the Rise of Superstar Firms», National Bureau of Economic Research.

Navigating in an ocean of big companies, or on the art of regulating a world undergoing disruptive change

We live in a world of large companies, there is little doubt about it. If you, dear reader, have had the kindness to pause in our first article of this Dossier, you will probably be convinced by now. Should we be concerned about this? If, again, you have read the second of our articles, you will have concluded that the phenomenon can have major consequences in terms of efficiency and equality. But beyond what the economic analysis indicates, what is certain is that the ordinary citizen perceives this change as being far from minor and, in fact, is concerned. According to Gallup, in 1965, 17% of respondents believed that large companies posed a risk for the future of the US. In 2017, the figure rose to 26%.

US: public perception of the role of large companies



Source: *CaixaBank Research, based on data from Gallup Historical Trends.*

The public assessment is not wrong: there is a significant change taking place in the business structure. First of all, we must remember that today's world of large companies marks a notable change from the past. Not only is there greater global concentration, but there are also many new aspects that characterise the phenomenon. As we have seen in the first two articles, new large companies concentrate much of their investment in intangible assets, in contrast to the dominance of investment in physical capital in the giants of the past. In addition, their markets, which are experiencing ever-faster technological change, are much more fluid than in the past and, at least potentially, have more frequent business entry and departure rates. Finally, together with the presence of significant economies of scale in production (something that was also characteristic of large companies of the past), the new big players have economies of scale in consumption, often in the form of network effects. In this new context, what role should regulation play in a world of large companies?

Setting a new course for regulation

First of all, we must ask a preliminary but fundamental question. One of the principles that every party of the competition should have engraved on the façade of their offices is the Hippocratic Primum non nocere, «First, do no harm». After all, regulation, and more specifically bad regulation, can end up making the situation it seeks to rectify worse. Let us explain the paradox. Generally speaking, and as has been explored in the first article of this Dossier, the increase in business concentration and the acceleration of the process of large companies being created may be due to technological change, to globalisation or – and this is surprising – to regulation itself. In particular, regulation can reduce competition for large companies due to the high costs involved in complying with it, particularly fixed costs, and the fact that large companies are better placed to assume such costs.[1] In addition, regulation can introduce barriers to entry, sometimes arising from lobbying practices, something which large companies are more likely to be able to finance.

While the above condition is a necessary one, but may not be enough to ensure good regulation, the next key element for setting the new course of regulation is precisely to know what North should be – in other words, what the goal of the regulation is. The natural starting point to answer this question focuses on the main balance that regulation seeks when faced with large companies, placing consumer welfare on one side of the scales and economic efficiency on the other. In basic terms, the regulator seeks to ensure that the consumer surplus is as high as possible. This generally means ensuring that excessive profit margins do not arise or, if they do, that they result from market situations and not from anti-competitive practices. These undesirable situations are more likely to occur if companies are large and possess market power. In addition, the existence of high returns at scale and network externalities, previously listed as characteristics of the new large companies, tend to lead to winner-takes-all situations in which the market leader gets used to holding a highly dominant position. This, in turn, can end up affecting consumer welfare to a greater

1. On this topic, see J. Van Reenen (2018), «Increasing Differences Between Firms: Market Power and the Macro-Economy», CEP Discussion Paper n° 1576.

degree than in the past. But the regulator is also well aware that large companies tend to be more innovative, which affects the creation of prosperity in the long run.[2]

As a result, the regulator is aware of the benefits that regulation must preserve. Since these, let's say, traditional objectives are difficult to reconcile, to make the situation more complex they have been expanded with other, more recent requirements. The regulator must now not only find a balance to guarantee the consumer's welfare without restricting innovation, but they are also prompted to provide assurance over matters relating to consumer protection (in particular, public health and safety), to address extra-economic considerations such as national security, to safeguard labour and social standards (avoiding social dumping, for instance) and to offset the undesirable effects of other sectoral policies.

Given the growing demands faced by the regulator, when reviewing the operation of the main classic regulatory tool that affects large companies, namely competition policy, it is noted that the safeguarding of consumer welfare is given de facto priority over other goals. Therefore, the key is determining whether company mark-ups are suitable or excessive. This is the case in US competition policy, which tends to undervalue other considerations besides price for consumers. It is also central to EU policy, although in Europe more attention is also paid to different aspects, such as protecting the proper functioning of the internal market in general and consumer protection. The way to modernise competition policy is to explicitly redefine its objectives, such that the regulator should recognise at the outset that its task is to balance competition and innovation. In other words, it has to preserve consumer welfare, but also give equal weight to innovation.

But the challenges for the regulator do not end there. Large companies can not only potentially tilt the competition stakes in their favour. They also have the possibility to take advantage of their size to reduce their taxation and to place it at levels that are not consistent with their economic activity. For starters, one mechanism that large companies sometimes use, particularly multinationals, is the use of subsidiaries to shift their profits to jurisdictions with lower tax rates, even if this practice does not reflect the value added that is generated in these jurisdictions. In addition, these large companies have a strong capacity for negotiating with governments and regulators, since they are negotiating from a position of strength, armed with the threat – often credible – of relocating their business to other countries or regions.[3] We should repeat and reiterate that these are only possibilities, since many large companies – in fact the vast majority – are likely conduct their business in a way that is far removed from such practices.

What is being done in the field of taxation of large companies? The key to mitigating the mechanisms outlined above lies in strong international coordination that limits the shifting of profits between jurisdictions and reduces the threat of relocation.[4] For the time being, an emerging international consensus is being built, albeit slowly. Led by the OECD, this consensus is taking the shape of the so-called BEPS (Base Erosion and Profit Shifting) strategies. BEPS is a plan consisting of 15 measures that acts on various specific aspects affecting the problems outlined above. This is an example of somewhat lax international coordination, the effects of which are not expected to be observed for some time to come. Nevertheless, the EU has already endorsed it by means of a proposal for an anti-tax avoidance directive.

With everything mentioned thus far being of fundamental importance, the reader may wonder, do the difficulties of regulating in a world of large companies end here? The answer, as you might have guessed, is no. Not only is it a question of changing course, but we must also develop new regulatory practices. In other words, to evoke an equivalent in the maritime simile that inspires us, we must equip ourselves with new arts of navigation.

The new arts of regulatory navigation

It is time to roll up our sleeves and take a detailed look at the challenges that the regulator faces, specifically in the area of defending competition. To do this, let us first recall the ancient arts of navigation, that is, the traditional approach to regulation. The logical phases involved in regulation do not change at their core: first, it is necessary to establish what is the market in question; next, it must be determined whether there is a situation of dominance in that market that could lead to anti-competitive behaviour. In its traditional version, the relevant market is generally evident, the situation of dominance is established through relatively simple and

2. This topic has been extensively debated in the economic literature, given that, although a greater capacity for innovation is usually associated with a very small scale, it is also true that excessive size can end up discouraging innovation. See, for example, D. Shefer and A. Frenkel (2005), «R&D, Firm Size and Innovation: An Empirical Analysis», Technovation, 25(1): 25-32.
3. See P.H. Egger, N.M. Strecker and B. Zoller-Rydzek (2018), «Estimating Bargaining-related Tax Advantages of Multinational Firms», CESifo Group Munich, Working Paper Series nº 6979.
4. Ideally, the costs of these actions would be higher than the benefits, i.e. the threat of abandoning certain markets would have little credibility, since it would mean giving up on profitable markets.

widespread methods that measure the degree of concentration of the market in question,[5] and the anti-competitive behaviour, if any, is usually apparent in profit margin calculations or in the identification of cases of collusion, such as cartels. Now let us examine what happens when trying to analyse this new world of large companies that are different to those of the past.[6]

As mentioned earlier, the new large companies often operate in what are known as fluid markets, that is, without clear boundaries or, sometimes, in more than one relevant market. To further complicate the matter, many of these new large companies operate in so-called non-monetary markets, such as platforms in which the transaction with the public does not involve prices, but rather the transfer of data. But this is not just a problem of large tech, since difficulties also arise in more conventional sectors. For example, if a television channel buys a free daily newspaper, what is the relevant market? Is it the television market, the newspaper market, or that of the advertisers, since they are the ones that finance both businesses? Perhaps the domain is relative to the latter and not to the traditional consumer (viewer or reader). Of course, the utmost degree of complexity arises when the limits of these ambiguous markets occur not within a particular country or region but at a global level.

There is no perfect solution, but a promising avenue is to analyse the business models, and then to try to identify whether they clearly affect the capacity for competitors to enter the market. In other words, does the business model in question alter the minimum conditions that allow innovation to be developed through the capacity for fluid entry and departure in the market?

Once the relevant market has been defined, it is time to assess market dominance – i.e. anti-competitive practices. Although, in theory, a company could be dominant in a market and not employ anti-competitive practices of any kind, in practice the risk of this not being the case is significant. Here, the main difficulty arises from the combination of large companies and a context of technological disruption. Let us suppose that a company has developed a totally disruptive innovation that enables it to acquire a position of dominance through the development of a new business model. How do we judge this dominance in the market? It might be temporary and later be diluted as new competitors enter the market, in which case perhaps regulation would not make much sense. Alternatively, it could be permanent, because the company continues to constantly innovate, because the innovation cannot be replicated or because the company takes advantage of its position to buy potential competitors in order to eliminate future competition. While in the first two cases of this second scenario the persistence of the position of dominance is not due to anti-competitive practices, in the third case it is. Even in this case, however, it is not easy for the regulator to justify ex-ante that an acquisition should not be permitted.

Again, as was the case in the question of defining the relevant market, the approach with the greatest potential is to take the business model as a starting point and to try to determine whether we are in the presence of «normal» strategies or, on the contrary, strategies that aim to stifle the competition. The best approach is to broaden the focus in order to integrate indicators that detect situations involving possible barriers to entry, to consider whether there are alternative ways to provide a quality product to the end users/customers and to assess the extent to which the innovation in question is groundbreaking.

In short, the new course of regulation should prevent it from facilitating an increase in business concentration, even if unintentionally, and it should enrich the objectives of regulation by finding a balance between consumer welfare and promoting innovation, which is the key source of future prosperity. Finally, it should ensure a level playing field that discourages the shifting of profits, and even of activities, for tax reasons that run contrary to criteria of productive efficiency and resource allocation. Competition policy should also shift its focus towards gaining a deeper understanding of new business models, in order to determine when we are in the presence of anti-competitive practices and when we are not. No one expects it to be easy or fast, but it is clear that the benefits of this new approach make it the most promising path towards having a more modern and comprehensive form of regulation.

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5. For example, market shares are used to calculate concentration ratios in a particular sector.
6. On this topic, see, for example, N. Vap Gorp and O. Batura (2015), «Challenges for Competition Policy in a Digitalised Economy, Study for the European Parliament». IP/A/ECON/2014-12.

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