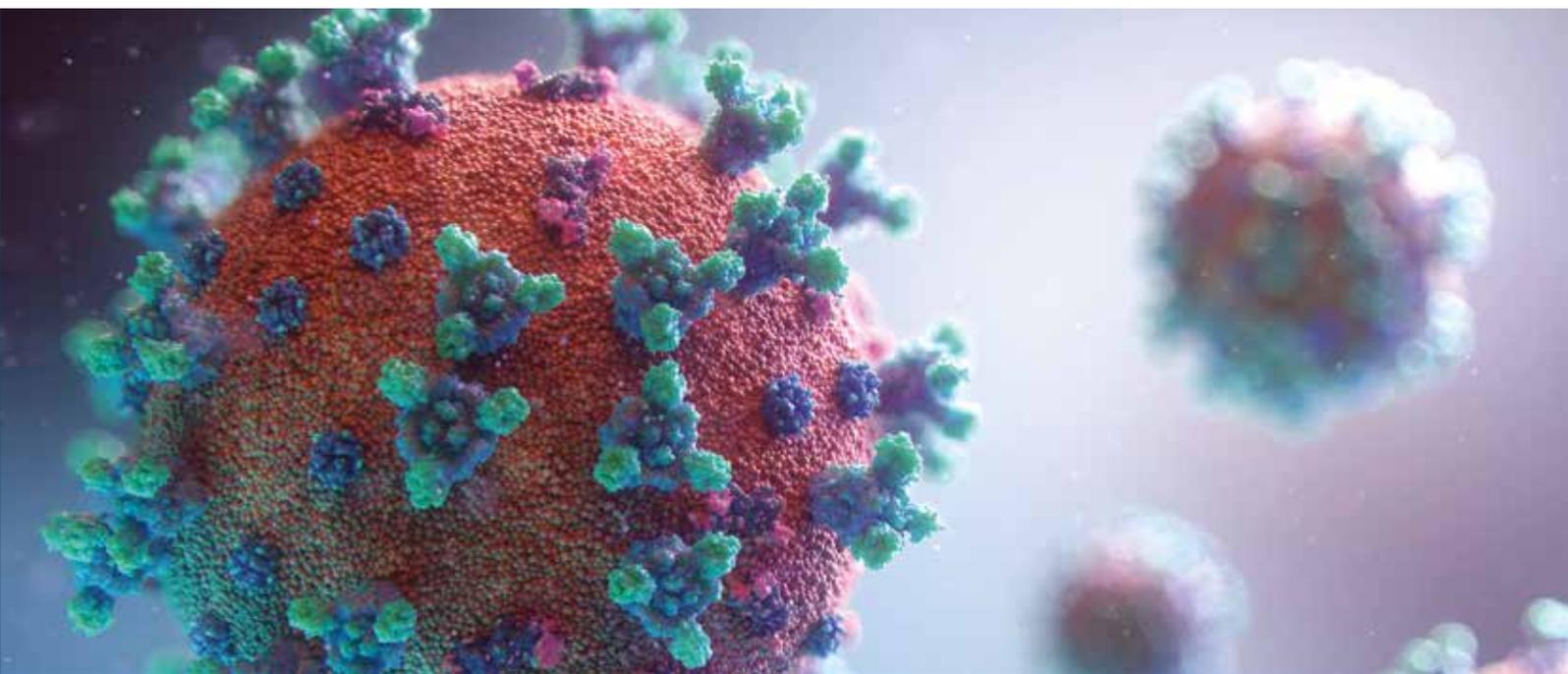


MR04

MONTHLY REPORT • ECONOMIC AND FINANCIAL MARKET OUTLOOK

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THE COVID-19 CRISIS: AN UNPRECEDENTED SHOCK

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The global war against the coronavirus

Economic measures to counteract the impact of COVID-19 in Spain

Recession inevitable in Portugal, despite the good performance prior to the pandemic

DOSSIER: IMPACT OF AGEING IN SPAIN AND PORTUGAL

Ageing in Spain and Portugal and its impact on economic growth: a regional approach

The impact of ageing on economic growth in Spain and Portugal

The impact of ageing on the labour force and productivity: six of one, half a dozen of the other

Policies to counteract the impact of ageing in Spain

MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK

April 2020

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

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INDEX

1 EDITORIAL

3 KEY POINTS OF THE MONTH

4 FORECASTS

7 THE COVID-19 CRISIS: AN UNPRECEDENTED SHOCK

12 *The coronavirus spreads to the markets and monetary policy takes urgent action*

17 *The global war against the coronavirus*
Álvaro Leandro

22 *Economic measures to counteract the impact of COVID-19 in Spain*

Josep Mestres Domènech

25 *Recession inevitable in Portugal, despite the good performance prior to the pandemic*

Paula Carvalho, Teresa Gil Pinheiro and Daniel Belo

28 DOSSIER: IMPACT OF AGEING IN SPAIN AND PORTUGAL

28 *Ageing in Spain and Portugal and its impact on economic growth: a regional approach*

Josep Mestres Domènech, Eduard Llorens i Jimeno and Daniel Filipe Belo

31 *The impact of ageing on economic growth in Spain and Portugal*

Eduard Llorens i Jimeno, Josep Mestres Domènech and Daniel Filipe Belo

33 *The impact of ageing on the labour force and productivity: six of one, half a dozen of the other*

Josep Mestres Domènech, Eduard Llorens i Jimeno and Daniel Filipe Belo

35 *Policies to counteract the impact of ageing in Spain*

Eduard Llorens i Jimeno and Josep Mestres Domènech

Exceptional measures for exceptional times

We are living in truly extraordinary circumstances. The struggle to contain the epidemic has led to an unprecedented shutdown of much of the economy in more than half the world. In this situation, the objective of economic policy must be twofold: on the one hand, to support the healthcare response by mobilising whatever resources are necessary. On the other hand, it must prevent what is essentially a transitory shock from causing a lasting contraction in economic activity.

This second objective requires decisive actions in order to mitigate the impact endured by households and businesses. It has been said that it is necessary to «keep the productive fabric of the economy alive», prevent companies from failing and ensure that jobs are not destroyed. But the objective has to be even more ambitious still: not only must the productive fabric of the economy be kept alive, but it must emerge from this situation with sufficient strength to ensure a quick recovery. If households and businesses emerge from this crisis with a significantly weakened financial position, demand will suffer, there will be companies that will not last long and a portion of the jobs that are saved today will end up being lost.

We must be aware that the fiscal cost of the measures necessary to avoid a long recession could be very high. Ideally, the cost should be in line with the drop in GDP. In the end, the other side of the coin of a drop in GDP is a decline in the income of wage earners and the self-employed, as well as in business profits, unless there is a flow of public funds to offset it. One problem is that, at the present juncture, there is great uncertainty over just how much GDP could shrink by this year, as this will essentially depend on when the pandemic can be considered largely under control and at what pace we can get back to life as «normal». In the best case scenario, GDP could fall by just a few percentage points, but we cannot rule out a much bigger fall, even of two digits.

The programmes announced in recent weeks by European governments, including that of Spain, are a step in the right direction, but it is likely that they will need to be expanded. Facilitating and supporting temporary staff lay-offs, or «ERTEs» as they are known in Spain, relaxing the conditions for the right to receive benefits for unemployment or the cessation of activity, granting moratoriums on credit repayments, offering guarantees and postponing the collection of taxes are essential. However, if the impact of the health crisis on GDP is greater than a few percentage points, further steps will be necessary. These could include prolonging some ERTEs and improving the coverage offered to workers, writing off taxes and social security contributions to lighten the burden of costs and strengthen companies' solvency in the hardest hit sectors and, given the risk of massive destruction of temporary contracts over the coming months, incentivise their renewal.

This fiscal response should be an effort shared by all EU countries and, in particular, those that share the single currency. Not all euro area countries can afford the fiscal relaxation that this crisis demands. This may be because their deficit or level of debt is too high, but renouncing monetary sovereignty also deprives them of the support that a central bank of their own could offer as a lender of last resort. This is why many of us have been saying for some years now that the monetary union must be completed with a fiscal union. If we do not do this now, when are we going to do it? Unfortunately, this topic remains anathema in many countries, which insist on offering, at the most, loans to countries in need with some degree of conditions attached.

In the absence of a joint fiscal effort, the alternative is a more or less explicit monetisation of public deficits. The programme of debt purchases recently announced by the ECB, an enhanced version of Mario Draghi's «whatever it takes», is a step in this direction. Christine Lagarde made a mistake when she said that the central bank was not there to close spreads between the debt of the various countries of the monetary union – she herself immediately acknowledged this. In fact, I fear that this will be one of the ECB's main tasks if we do not take decisive steps towards a fiscal union.

Enric Fernández
Chief Economist
31 March 2020

Chronology

MARCH 2020

- 3** The Fed cuts its reference rates by 50 bps, to the 1.00%-1.25% range.
- 11** The World Health Organization declares COVID-19 a pandemic.
- 12** The ECB increases asset purchases for 2020 by 120 billion euros, enhances the appeal of the TLTRO-III, introduces bridge liquidity operations (LTROs until June) and eases regulatory requirements.
- 14** The Spanish government declares the state of alarm.
- 15** The Fed cuts its reference rates by 100 bps, to the 0.00%-0.25% range, and launches a package of measures (purchases of treasuries and MBSs of 500 and 200 billion, a 150-bp cut in the discount window rate and the elimination of reserve requirements).
- 18** The ECB launches a programme of asset purchases to combat the COVID-19 crisis (PEPP), amounting to 750 billion euros. It is not subject to issuer/issue limits, and it allows temporary deviations from the capital key and assets with a wider range of maturities. The Spanish government approves extraordinary urgent measures to deal with the impact of the COVID-19 pandemic.
- 23** The Fed announces that its treasury and MBS purchases will be unlimited and launches other purchase programmes (corporate debt, promissory notes, assets backed by consumer credit, etc.).

FEBRUARY 2020

- 5** The US Senate acquits President Donald Trump of the charges for which he faced impeachment.
- 24** Italy detects an increase in coronavirus cases and a week of turmoil begins in the financial markets with sessions registering the biggest stock market losses in years.

JANUARY 2020

- 15** The US and China sign a first trade agreement (the first phase of a three-stage negotiation process).
- 30** The World Health Organization declares the coronavirus outbreak that began in China a global health emergency.
- 31** The United Kingdom's withdrawal from the EU takes effect and a transition period begins, lasting until 31 December 2020.

DECEMBER 2019

- 5** OPEC and its partners raise crude oil production cuts to 1.7 million barrels per day until March 2020.
- 13** The US and China announce a preliminary trade deal (the first phase of a three-phase agreement).
- 20** Following the early election on 12 December, the United Kingdom's House of Commons approves the Brexit withdrawal agreement.

Agenda

APRIL 2020

- 2** Spain: registration with Social Security and registered unemployment (March).
Portugal: NPL ratio (Q4).
- 15** Spain: financial accounts (Q4).
Portugal: tourism activity (February).
- 17** Portugal: coincident indicators (February).
- 24** Spain: loans, deposits and NPL ratio (February).
- 25** Spain: labour force survey (Q1).
- 28-29** Federal Open Market Committee meeting.
- 29** Portugal: employment and unemployment (March).
Euro area: economic sentiment index (April).
US: GDP (Q1).
- 30** Spain: GDP flash estimate (Q1).
Spain: CPI flash estimate (April).
Spain: state budget execution (March).
Portugal: CPI flash estimate (April).
Euro area: GDP (Q1).
Governing Council of the European Central Bank meeting.

MAY 2020

- 5** Spain: registration with Social Security and registered unemployment (April).
- 6** Portugal: employment and unemployment (Q1).
- 8** Spain: industrial production index (March).
Portugal: turnover in industry (March).
Portugal: international trade (March).
- 15** Portugal: GDP flash estimate (Q1).
- 18** GDP of Japan (Q1).
- 19** Spain: international trade (March).
- 22** Spain: loans, deposits and NPL ratio (March).
Portugal: coincident indicators (April).
Portugal: Fitch rating.
- 28** Spain: state budget execution (April).
Spain: CPI flash estimate (May).
Euro area: economic sentiment index (May).

The COVID-19 crisis must be spelled with a V

The letter game is back. Still immersed in a fully-blown health crisis, and having only just entered into the economic crisis, the debate about what shape the terrible episode we are currently going through will take has already been reignited. Will it be a V-shaped crisis, a U-shaped one or an L-shaped one? There are those who even venture to suggest a W-shaped crisis. It is just as well that we use the Latin alphabet and not Chinese characters.

At the present juncture, one of the few certainties we have is that the measures we are taking to curb the pace at which the virus is spreading, which are essential, will have an economic impact of an unprecedented magnitude. In China, where the virus first appeared, the available indicators suggest that in Q1 2020 GDP shrank by 10% compared to the previous quarter. In addition, with a very gradual relaxation of the containment measures and the collapse in demand from the rest of the world, the recovery is expected to be slow.

The indicators available for the major developed countries are still scarce, but the few that we do have indicate that the blow to economic activity will be at least of a similar magnitude to that observed in China. These include indicators relating to the labour market, which show an unprecedented increase in unemployment. In the US, in the last two weeks of March unemployment benefits applications reached levels never seen before (3.3 million in the penultimate week and 6.6 million in the last, well above the levels registered at the height of the crisis of 2009). In Europe, the use of the temporary job suspension programmes implemented by each country has also highlighted the impact of the containment measures. In parallel, economic activity indicators are plummeting to levels never seen before.

In this situation, there is no government (at least among the major developed countries) that has not announced measures of economic support. The speed with which they are acting and the decisiveness, agility and effectiveness of the measures announced will be key for determining what shape the recovery will take. Indeed, it is essential that households and businesses are in a position to quickly return to normal once the pandemic is under control.

The actions taken by the central banks are also proving decisive, and they will continue to be so, providing liquidity to ensure the proper functioning of the payments system, taking measures to anchor interest rates at low levels and prevent a tightening of financial conditions and, above all, implementing asset purchase programmes which, implicitly, cover the surge in funding

needs that the public sector will experience in the coming months.

Beyond the economic stimulus measures announced to date, there are other factors that will determine the speed of the recovery. The fear that there could be a new resurgence of the virus could slow the recovery in demand, especially in certain sectors. The recovery will also depend on the situation in which other countries find themselves. The fear of a resurgence will increase if the virus remains active in other regions, and the speed with which economic activity will return to normal will depend on the state of global demand. This shock, which affects us all, is bringing to the fore just how interconnected the world is. In this regard, there is concern that an economic crisis could be triggered in emerging countries. In these countries, the health crisis has been exacerbated by a rapid tightening of international financing conditions and a sharp fall in commodity prices. Many of them are highly dependent on exports of such goods and/or have high levels of debt denominated in dollars. In the face of these risks, economic policy, which is now focusing on measures to curb the harsh impact of the lockdowns, must also be prepared to implement fiscal stimulus plans that ensure a rapid recovery in economic activity once the onslaught of the virus has been overcome.

All this paints a highly uncertain picture of the scenario, as reflected in the performance of the financial markets. In the wake of the historic corrections experienced between February and mid-March, the major stock market indices remained highly volatile in the closing weeks of the month as new information emerged. However, they gradually recovered some of the lost ground thanks to the confidence offered by the economic measures announced by many countries. In other words, it seems that the financial markets are gradually ruling out an L-shaped scenario. Thus, the S&P 500 and the Eurostoxx 50, which by mid-March had amassed setbacks of 25% and 30%, respectively, closed the month having regained around one-third of the lost ground.

In the end, the shape of the COVID-19 crisis will depend on multiple factors. Some of them, unfortunately, cannot be predicted. But many others are relatively predictable and their outcome depends on how we act. It is in our hands to take decisive and effective action to minimise the economic impact of the COVID-19 pandemic and return to the level of activity we had just a few weeks ago as quickly as possible. We have to do everything possible to ensure that the COVID-19 crisis is spelled with a V.

Oriol Aspachs
Head of Research

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

Financial markets

	Average 2000-2007	Average 2008-2016	2017	2018	2019	2020	2021
INTEREST RATES							
Dollar							
Fed funds (upper limit)	3.43	0.48	1.50	2.50	1.75	0.25	0.50
3-month Libor	3.62	0.70	1.61	2.79	1.91	0.40	0.75
12-month Libor	3.86	1.20	2.05	3.08	1.97	1.00	1.40
2-year government bonds	3.70	0.73	1.84	2.68	1.63	0.60	1.10
10-year government bonds	4.70	2.61	2.41	2.83	1.86	1.20	1.50
Euro							
ECB depo	2.05	0.40	-0.40	-0.40	-0.50	-0.50	-0.50
ECB refi	3.05	1.00	0.00	0.00	0.00	0.00	0.00
Eonia	3.12	0.65	-0.34	-0.36	-0.46	-0.45	-0.45
1-month Euribor	3.18	0.79	-0.37	-0.37	-0.45	-0.43	-0.41
3-month Euribor	3.24	0.98	-0.33	-0.31	-0.40	-0.40	-0.36
6-month Euribor	3.29	1.14	-0.27	-0.24	-0.34	-0.33	-0.25
12-month Euribor	3.40	1.34	-0.19	-0.13	-0.26	-0.25	-0.13
Germany							
2-year government bonds	3.41	0.69	-0.69	-0.60	-0.63	-0.70	-0.35
10-year government bonds	4.30	1.98	0.35	0.25	-0.27	-0.15	0.30
Spain							
3-year government bonds	3.62	2.30	-0.04	-0.02	-0.36	0.13	0.55
5-year government bonds	3.91	2.85	0.31	0.36	-0.09	0.35	0.76
10-year government bonds	4.42	3.82	1.46	1.42	0.44	0.80	1.00
Risk premium	11	184	110	117	71	95	70
Portugal							
3-year government bonds	3.68	4.42	-0.05	-0.18	-0.34	0.32	0.85
5-year government bonds	3.96	5.03	0.46	0.47	-0.12	0.61	1.01
10-year government bonds	4.49	5.60	1.84	1.72	0.40	0.85	1.05
Risk premium	19	362	149	147	67	100	75
EXCHANGE RATES							
EUR/USD (dollars per euro)	1.13	1.31	1.18	1.14	1.11	1.15	1.18
EUR/JPY (yen per euro)	129.50	126.36	133.70	127.89	121.40	124.98	126.26
USD/JPY (yen per dollar)	115.34	97.50	113.02	112.38	109.25	108.68	107.00
EUR/GBP (pounds per euro)	0.66	0.83	0.88	0.90	0.85	0.92	0.88
USD/GBP (pounds per dollar)	0.59	0.63	0.75	0.79	0.76	0.80	0.75
OIL PRICE							
Brent (\$/barrel)	42.3	85.6	64.1	57.7	65.2	45.0	61.0
Brent (euros/barrel)	36.4	64.8	54.2	50.7	58.6	39.1	51.7

 Forecasts

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

International economy

	Average 2000-2007	Average 2008-2016	2017	2018	2019	2020	2021
GDP GROWTH							
Global	4.5	3.3	3.8	3.6	2.9	-0.4	5.6
Developed countries	2.7	1.2	2.5	2.2	1.7	-2.0	3.5
United States	2.7	1.4	2.4	2.9	2.3	-1.7	3.4
Euro area	2.2	0.4	2.7	1.9	1.2	-3.1	4.4
Germany	1.6	1.1	2.8	1.6	0.6	-3.1	4.1
France	2.2	0.6	2.4	1.7	1.2	-2.7	4.5
Italy	1.5	-0.7	1.8	0.7	0.2	-4.6	5.0
Portugal	1.5	-0.3	3.5	2.6	2.2	-3.4	5.9
Spain	3.7	0.0	2.9	2.4	2.0	-3.6	5.7
Japan	1.5	0.4	2.2	0.3	0.7	-3.3	1.4
United Kingdom	2.9	1.1	1.9	1.3	1.4	-1.5	1.8
Emerging and developing countries	6.6	5.1	4.8	4.5	3.8	0.5	6.6
China	11.7	8.4	6.9	6.6	6.1	2.5	11.0
India	9.7	6.9	6.6	6.8	5.3	2.0	5.9
Indonesia	5.5	5.7	5.1	5.2	5.0	3.0	5.0
Brazil	3.6	1.7	1.3	1.3	1.1	-3.5	3.8
Mexico	2.4	2.1	2.1	2.1	-0.1	-5.0	3.4
Chile	5.0	3.2	1.2	4.0	1.1	-2.3	3.0
Russia	7.2	1.0	1.6	2.5	1.3	-2.7	1.4
Turkey	5.4	4.8	7.5	2.8	0.9	-2.5	3.0
Poland	4.0	3.2	4.9	5.2	4.1	0.4	2.4
South Africa	4.4	1.8	1.5	0.7	0.2	0.8	1.0
INFLATION							
Global	4.2	3.8	3.2	3.6	3.5	3.4	3.5
Developed countries	2.1	1.5	1.7	2.0	1.3	1.0	1.9
United States	2.8	1.6	2.1	2.4	1.8	1.1	2.2
Euro area	2.1	1.4	1.5	1.8	1.2	0.9	1.8
Germany	1.7	1.3	1.7	1.9	1.4	1.0	1.9
France	1.8	1.2	1.2	2.1	1.3	1.1	1.9
Italy	1.9	1.5	1.3	1.2	0.6	0.5	1.6
Portugal	3.0	1.2	1.4	1.0	0.3	0.1	0.9
Spain	3.2	1.3	2.0	1.7	0.7	0.2	1.8
Japan	-0.3	0.3	0.5	1.0	0.5	0.1	0.6
United Kingdom	1.9	2.3	2.7	2.5	1.8	1.4	2.2
Emerging and developing countries	6.8	5.8	4.3	4.8	5.3	4.9	4.5
China	1.7	2.6	1.6	2.1	2.9	2.2	2.6
India	4.5	8.5	3.3	3.9	3.7	2.3	4.2
Indonesia	8.4	5.7	3.8	3.3	2.8	1.3	4.2
Brazil	7.3	6.4	3.5	3.7	3.7	3.5	3.8
Mexico	5.2	3.9	6.0	4.9	3.6	3.2	3.4
Chile	3.1	3.5	2.2	2.7	2.3	2.8	3.1
Russia	14.2	9.3	3.7	2.9	4.5	3.1	3.3
Turkey	27.2	8.1	11.1	16.2	15.5	9.3	9.0
Poland	3.5	2.1	1.6	1.2	2.1	2.8	2.7
South Africa	5.3	6.2	5.3	4.6	4.1	5.2	5.0

Forecasts

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

Spanish economy

	Average 2000-2007	Average 2008-2016	2017	2018	2019	2020	2021
Macroeconomic aggregates							
Household consumption	3.6	-0.6	3.0	1.8	1.1	-3.0	5.7
Government consumption	5.0	0.9	1.0	1.9	2.3	2.9	2.2
Gross fixed capital formation	5.6	-3.8	5.9	5.3	1.8	-9.3	14.1
Capital goods	5.0	-1.5	8.5	5.7	2.7	-11.1	15.4
Construction	5.7	-6.5	5.9	6.6	0.9	-9.0	13.3
Domestic demand (vs. GDP Δ)	4.5	-1.2	3.0	2.6	1.5	-2.9	6.2
Exports of goods and services	4.8	2.8	5.6	2.2	2.6	-12.3	5.1
Imports of goods and services	7.0	-1.0	6.6	3.3	1.2	-11.5	7.1
Gross domestic product	3.7	0.0	2.9	2.4	2.0	-3.6	5.7
Other variables							
Employment	3.2	-1.5	2.8	2.5	2.3	-1.8	4.1
Unemployment rate (% of labour force)	10.5	20.8	17.2	15.3	14.1	16.5	13.8
Consumer price index	3.2	1.3	2.0	1.7	0.7	0.2	1.8
Unit labour costs	3.0	0.1	0.7	1.2	2.4	4.4	1.1
Current account balance (% GDP)	-5.9	-1.1	2.7	1.9	1.9	2.0	1.8
External funding capacity/needs (% GDP)	-5.2	-0.7	2.9	2.4	2.3	2.2	2.0
Fiscal balance (% GDP) ¹	0.4	-7.1	-3.0	-2.5	-2.6	-5.6	-2.7

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

■ Forecasts

Portuguese economy

	Average 2000-2007	Average 2008-2016	2017	2018	2019	2020	2021
Macroeconomic aggregates							
Household consumption	1.7	-0.2	2.1	2.9	2.2	-2.7	5.6
Government consumption	2.3	-0.7	0.2	0.9	1.1	3.3	1.0
Gross fixed capital formation	-0.3	-3.5	11.5	5.8	6.3	-11.5	10.0
Capital goods	1.2	-0.1	12.5	7.5	2.7	-	-
Construction	-1.5	-6.2	12.2	4.6	9.0	-	-
Domestic demand (vs. GDP Δ)	1.3	-1.0	3.3	3.1	2.7	-3.6	5.9
Exports of goods and services	5.2	3.5	8.4	4.5	3.7	-12.6	23.9
Imports of goods and services	3.6	1.6	8.1	5.8	5.2	-13.1	23.2
Gross domestic product	1.5	-0.3	3.5	2.6	2.2	-3.4	5.9
Other variables							
Employment	0.4	-1.1	3.3	2.3	1.0	-2.6	1.9
Unemployment rate (% of labour force)	6.1	12.2	8.9	7.0	6.5	8.2	6.8
Consumer price index	3.0	1.2	1.4	1.0	0.3	0.1	0.9
Current account balance (% GDP)	-9.2	-4.1	1.2	0.4	-0.1	-1.7	0.0
External funding capacity/needs (% GDP)	-7.7	-2.7	2.1	1.4	0.9	-0.7	1.0
Fiscal balance (% GDP)	-4.6	-6.4	-3.0	-0.4	0.2	-3.6	-0.6

■ Forecasts

The COVID-19 Crisis: an unprecedented shock

ABSTRACT

The global spread of the coronavirus is having a devastating human toll and will represent an unprecedented shock for the world's economy, temporarily plunging it into recession. However, once the much needed pandemic containment measures are withdrawn, a rapid recovery should follow. To ensure a rapid normalisation of economic activity, we are confident the governments of the main countries will take the necessary steps to ensure the impact of COVID-19 on the economy quickly peters out once the pandemic is over. The response they are already making is along the right lines, although further action is likely to be needed both at a national and, above all, European level. We must not make the same mistakes as last time: it is essential, and urgent, to move decisively towards a fiscal union. The action taken by central banks will also be crucial. The ECB and the Fed have already announced massive injections of liquidity, and they will also purchase large amounts of public debt, which will help to finance public deficits. If the measures taken are sufficiently ambitious and effective, the rise in public deficits will be considerable this year but the spike will be temporary; 2021 should see a strong recovery in activity and public debt should resume the downward trend observed in recent years.

A GLOBAL SHOCK OF THE FIRST DEGREE

Although uncertainty is very high, given that the modern era has seen no comparable situation, the global coronavirus pandemic will most probably end up having economic consequences of an unprecedented scale in the short term, as suggested by the few indicators published since the start of the pandemic. In China, where the outbreak began, radical containment measures were applied and have seen success after two months, although the rate of activity has also been severely affected. Chinese GDP is estimated to have fallen by around 10% in the first quarter compared to the previous quarter (a figure that is not annualised). As China was the first country to be affected, we should take this data as an indication of what may happen in the rest of the economies.

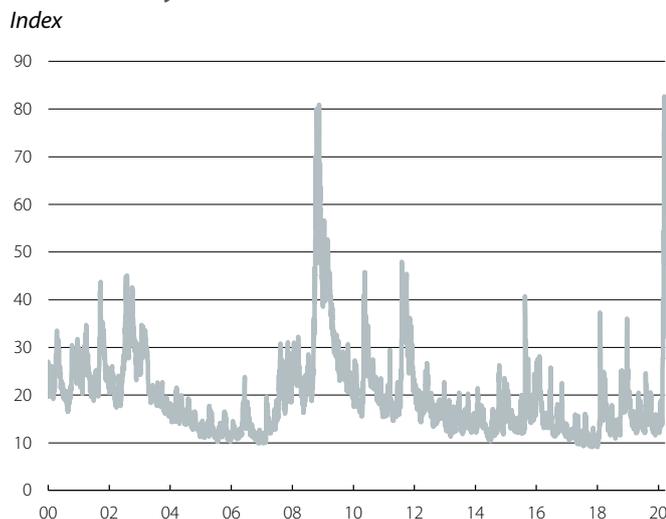
Of course, how severely the virus will affect each country will depend on many factors, such as its health system, its own particular demographics (a young society in an emerging country is not the same as a country with an older population), its geographical structure (countries with a high urban density versus others that are less urbanised) or its degree of development.

But the pandemic's evolution to date suggests that no country will escape being directly affected. Moreover, all economies are exposed, to a greater or lesser extent, to the slump in global demand, which began to be felt in China at the beginning of the year in the wake of the pandemic and will intensify in the coming months as it spreads to the rest of the world. Nor will any economy be able to emerge unscathed from the disruptions experienced by global supply chains, as well as from the restrictions imposed on people's movements internationally. In addition to all this is the deterioration in the financial environment, which is reflected in the historic losses posted in recent weeks by all the world's stock markets.

We are clearly going through the second great economic and financial crisis of the 21st century. However, unlike the Great Recession of 2008, decision-making is now proceeding much faster. Generally speaking (at least in the world's leading economies), the foundations are being laid for an exceptional response.

The increase in volatility and historical collapse of stock markets and activity indicators in China suggest we are facing the second great economic and financial crisis of the 21st century

VIX: volatility of the US stock market



Source: CaixaBank Research, based on data from Bloomberg.

China: PMI activity indicator



Source: CaixaBank Research, based on data from China's National Statistics Office.

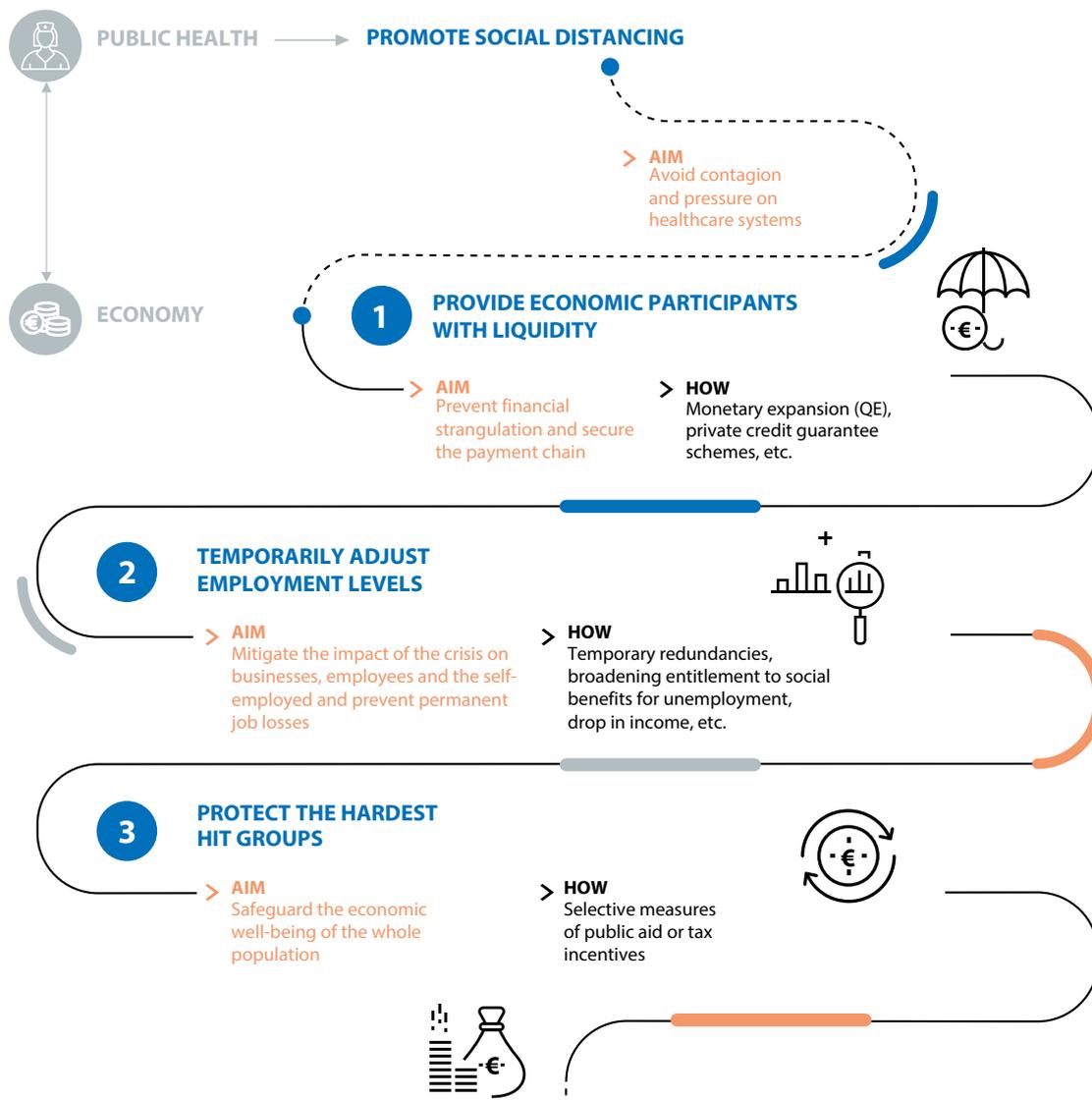
EXTRAORDINARY MEASURES ARE UNDERWAY

Measures are already being implemented apace, in the area of public health as well as those of a strictly economic nature. Both are necessarily related. The actions being taken globally in the first of these two areas are focusing on containing the spread of the coronavirus (through more or less restrictive forms of social distancing) in order to flatten the curve of contagion and thereby minimise pressure on countries' healthcare systems. This strategy, first implemented in China, will probably become widespread, to a greater or lesser extent, in practically all the world's countries, leading to a global supply and demand shock.

To cope with this double shock, a battery of economic measures of extraordinary breadth and depth is being rapidly deployed. Albeit with variations, the measures being implemented share the same overall goal: to prevent a temporary shock from having any long-lasting negative effects.

With this aim, action is being taken mainly in two broad areas. Firstly, the major central banks and fiscal authorities are taking measures to provide all segments of the economic system with enough liquidity, prevent financial stress and thereby ensure the payments system continues to operate as it should. In many countries, and in particular in the US and EU, expansive monetary measures (QE) have been reintroduced, in the US the benchmark interest rates have been significantly lowered, private credit

 **Fiscal policy should be in line with the size of the shock**
Measures to contain the COVID-19 crisis



guarantee schemes have been introduced, taxes have been deferred and social transfers and benefits have been brought forward or made more flexible. At present, the solvency and liquidity position of banks is strong and they are expected to play an important role in passing on these policies aimed at meeting the financing needs of businesses and households.

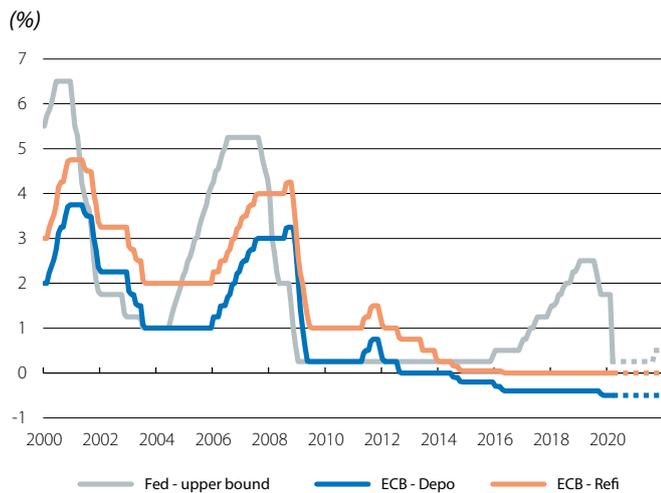
A second line of action aims to mitigate the impact on employees and the self-employed. In this key area, the measures taken in many countries focus on allowing a temporary adjustment of employment levels without permanently destroying jobs, for instance by making temporary redundancy measures easier to implement (such as the ERTE in Spain). On the one hand, these help companies to cope with the shock whilst also strengthening the link between firms and their employees, essential for a rapid return to normality once the current situation has been overcome. Similarly, the requirements to be entitled to social benefits related to unemployment (in the case of employees) or a reduction in activity (for the self-employed) have been reduced to minimise the disruption to people's incomes.

The ultimate goal is to safeguard, as far as possible, the economic well-being of the population and also the production capacity. Therefore, in addition to these measures, and depending on how much the COVID-19 will eventually impact economic activity, it is likely that supportive measures will have to be further adapted or extended, for instance through direct public aid or tax incentives for the hardest hit groups. The US has already announced a comprehensive package of measures in this respect.

All these measures will substantially increase public sector borrowing. For this reason, and to remove any doubt about the sustainability of public debt, central banks, and in particular the Fed and the ECB, have activated massive asset purchase programmes that implicitly cover the higher financing needs of the public sector.

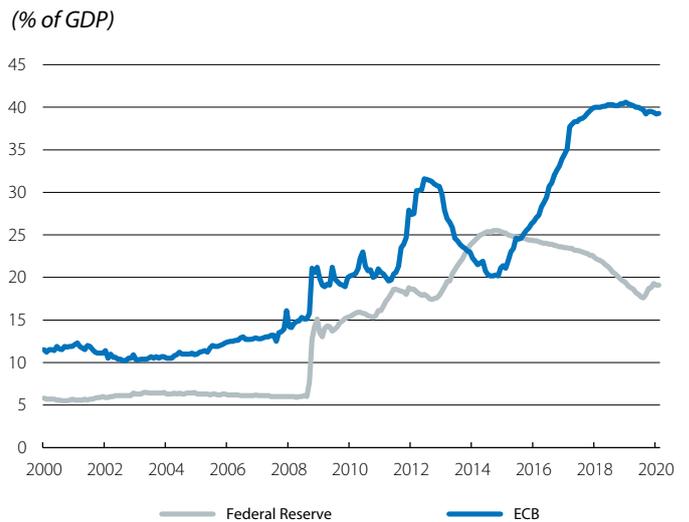
The sharp rise in public spending will count on the support of central banks

ECB and Fed interest rates



Note: The dotted lines represent forecasts. Source: CaixaBank Research, based on data from Bloomberg.

Central bank balance sheets



Source: CaixaBank Research, based on data from Bloomberg.

ECONOMIC SCENARIO

In the scenarios below, produced with unusual levels of uncertainty, there is a palpable belief that the measures being taken are necessary, ambitious and appropriate, so that the recession will be very severe but not long-lasting.

Specifically, we already expect a hugely negative impact on the rate of activity in the short term, depending on the country, in the first or second quarter of this year and then a rebound, also strong, in the second half of 2020 and in 2021. Consequently, globally we expect activity to fall by 0.4% in 2020, so the impact of the coronavirus on this year's growth will be around 3.5 pp, but by 2021 we expect growth to recover and exceed 5%. By comparison, during the Great Recession, GDP fell by 0.1% in 2009 and recovered strongly the following year, posting 5.4% growth.

At a European level, we believe the euro area is entering a brief but severe recession on the first half of this year, with a widespread decline by country that will leave growth for 2020 as a whole at -3.1%. However, the recovery, which we expect to start as early as the second half of this year, will culminate in strong growth in 2021, which could exceed 4%.

The Spanish economy will most likely follow a pattern similar to Europe as a whole. We estimate the fall in GDP in the first half of the year may exceed 10%, mainly due to the slowdown in activity that will be experienced by those sectors directly affected by the containment measures, such as the restaurant and hotel industry, commerce, leisure and transport, among others, accounting for around 25% of Spain's GDP. The impact on most other sectors will also play a role. The profound effect of the measures taken to date can already be seen in the turnover of CaixaBank POS terminals. In the third week of March (the week following the declaration of the state of emergency), these recorded a 55% drop year-on-year in card expenditure among residents (despite the notable upturn in spending on food and basic necessities) and 84% in spending by foreign tourists. In any case, once the pandemic is over, we are confident the measures taken by the authorities (which should be extended, if necessary) will stimulate a rapid economic recovery during the second half of the year, so that GDP growth for 2020 as a whole could end up being around -3.6% (5.1 pp less than we expected before the shock), and it may exceed 5.5% in 2021.

Given this situation, the unemployment rate is expected to rise sharply to over 20% in the second quarter, then fall rapidly in the second half of the year in line with the recovery in economic activity, to around 14.5% in the fourth quarter. As in the other major European economies, we expect the necessary fiscal stimulus measures will push up the public deficit, which this year could rise above 5%, as well as public debt, which might reach 105% of GDP. We insist, however, that, given the situation, effective and ambitious action is recommended in order to minimise the impact of the pandemic on households and businesses. By ensuring the foundations of the recovery are strong now, we also reduce the likelihood of public sector spending increasing in the future.

The uncertainty surrounding this scenario is unusually high. Ultimately, the impact of COVID-19 on the economy will depend, above all, on how long the strategies implemented to contain the virus are kept in place. If, finally, these are required longer than expected, the economic impact could be greater. For example, if containment measures have to be extended until the summer, or very gradually withdrawn, the drop in GDP could be around 7% this year in many developed countries. Nevertheless, the support measures for households and businesses announced so far are also likely to be strengthened, both in fiscal and monetary terms. This is, in fact, one of the main risks: that the fiscal policy response does not match the size of the shock. If the impact of COVID-19 on economic activity amounts to 5 pp of GDP, the fiscal measures should be comparable. In other words, if its impact were to double, the fiscal response should also be doubled. Only in this way can the effect of the shock on households and businesses be sufficiently cushioned and the country prepared for rapid recovery once the pandemic is under control.

Faced with a challenge of this magnitude, the EU must take decisive steps. We cannot repeat the mistakes of the last crisis and allow doubts to emerge regarding the sustainability of any member country's public debt, let alone about the future of the euro. To avoid this, it will be necessary to move decisively towards a fiscal union, developing common financing mechanisms such as Eurobonds and the development of an EU-wide tax capacity, so that we can take full advantage of the EU's combined potential for public expenditure. If we don't do this when faced with a humanitarian crisis such as the present, when will we do it? It is true that the institutional developments required cannot be carried out quickly but European institutions have shown themselves to be fast-moving in times of difficulty. Above all, a firm commitment to an ambitious roadmap in this direction could be of great help in such circumstances.

Particular attention will also have to be paid to developments in emerging or developing countries, as they are more vulnerable. In addition to their healthcare systems having fewer resources, several major emerging economies have accumulated macroeconomic and financial imbalances that may limit their capacity to respond to the crisis. Moreover, some of them were already in a fragile political and social situation before the outbreak of the virus, and a high degree of social cohesion is particularly vital at times of difficulty such as the present. In this respect, all the support they can be offered by more developed countries could be crucial.

The recession will be very strong but not long-lasting

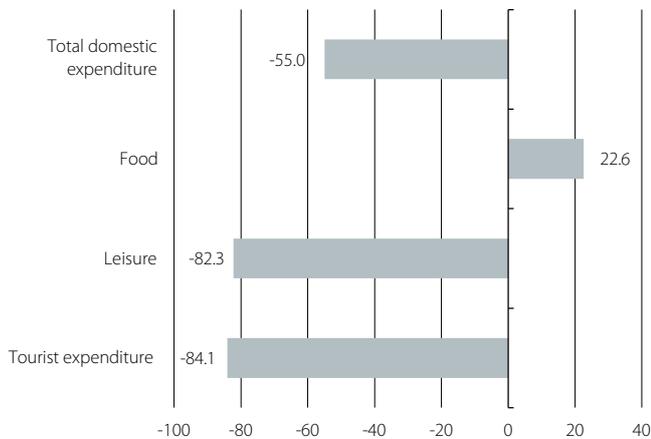
Growth forecasts (%)	2019	2020		2021	
		Current	Pre-shock	Current	Pre-shock
World economy	2.9	-0.4	3.2	5.6	3.4
Advanced economies	1.7	-2.0	1.5	3.5	1.6
US	2.3	-1.7	1.8	3.4	1.8
Euro area	1.2	-3.1	1.1	4.4	1.3
Germany	0.6	-3.1	0.7	4.1	1.5
France	1.2	-2.7	1.4	4.5	1.5
Italy	0.2	-4.6	0.5	5.0	0.7
Spain	2.0	-3.6	1.5	5.7	1.5
Portugal	2.2	-3.4	1.7	5.9	1.6
Emerging & developing economies	3.8	0.5	4.4	6.6	4.5
China	6.1	2.5	5.5	11.0	5.7

Source: CaixaBank Research.

The Spanish economy is entering a severe recession from which it can quickly recover

CaixaBank POS terminal expenditure

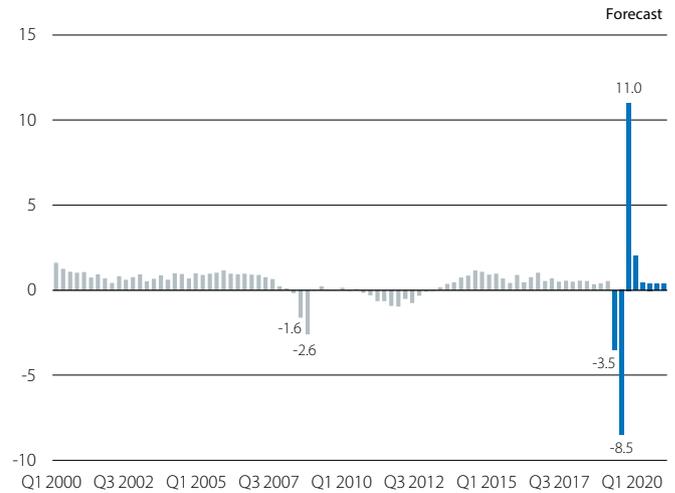
Year-on-year change (%) 3rd week of March



Note: Food includes domestic expenditure in supermarkets, hypermarkets and pharmacies. Leisure includes domestic expenditure on restaurants, transport, leisure and accommodation.
Source: CaixaBank Research.

GDP Spain

Quarter-on-quarter change (%)



Source: CaixaBank Research, based on data from the Spain's National Statistics Institute.

A CRISIS OF UNPRECEDENTED SCOPE THAT WILL CHANGE THE WORLD

Although we are still immersed in the acute phase of the COVID-19 crisis, we have two firm beliefs. The first is that we will overcome this crisis. The second is that, despite its presumably temporary nature, the shock is likely to have structural repercussions. Crises on this scale can accelerate latent changes or bring about unexpected ones.

Surely, in the wake of this crisis, we will strengthen our healthcare systems and reassess the role of experts, who have become so vital recently. It is also likely that, from the point of view of production, new ways of organising ourselves will emerge, both globally and locally, either by shortening value chains in exchange for making them more resilient or with the proliferation of different forms of telework. Such changes will also help to speed up the economic transition to a more sustainable and environmentally friendly system.

And, surely, in the wake of this crisis we will also reassess the role of international coordination and leadership. On this global front, the EU is likely to come under unprecedented pressure. The EU's history tells us that crises have acted as an incentive to move towards greater integration provided there have been adequate institutional and political foundations. This is precisely the situation at present: the institutional and political instruments acquired by the EU during the Great Recession could take another step forward in terms of European integration; something we would have considered unrealistic before the shock. This certainly should be the case.

In short, the world is going to change and it is up to us to decide whether a crisis, in addition to generating threats, can also be a source of opportunities.

Oriol Aspachs and Àlex Ruiz

The coronavirus spreads to the markets and monetary policy takes urgent action

The COVID-19 health emergency, initially concentrated in China, has transformed into a global crisis that is crippling the world's economy. Economic activity indicators that capture this shift in the scenario are still scarce, but its effects have been very palpable in the performance of the financial markets. Investors have suffered a sudden and severe spike in risk aversion and volatility (see first chart), which has led to historic crashes in stock and commodity prices, a surge in risk premiums (especially for corporates and emerging economies, which have also experienced capital outflow) and a general tightening of financial conditions. In response to this, the major central banks have acted quickly and decisively, guaranteeing the abundance of liquidity and easier access to credit, and anchoring an environment of low interest rates.

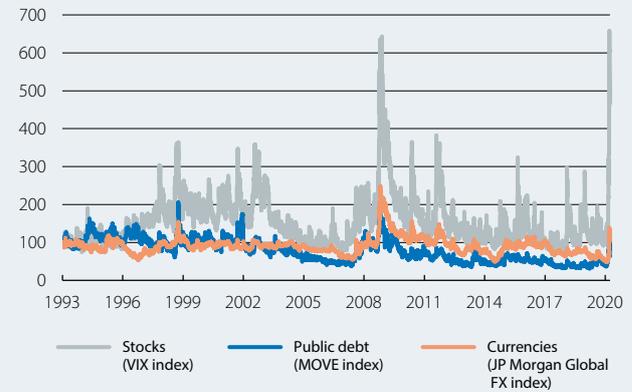
The markets trade a global recession

The historic collapse in the stock markets is the most striking exposure of the change in the economic scenario. Since mid-February, the world's major stock markets have suffered their biggest setbacks in years, and at the end of March the benchmark indices had amassed losses of around 30% both in the US and in Europe. Moreover, the weakness has been similar across all sectors (registering setbacks of 20%-30%), with the exception of energy (also affected by the collapse in oil prices, the sector's stocks lost around 50% in the US) and the health sector (with losses of somewhat less than 20%). In addition, the speed of the correction has been particularly abrupt. Whilst the losses amassed during the 2008-2009 recession approached 60%, it took a year and a half for them to reach this point. Now, in contrast, less than two months after the correction began we have already seen sessions with the greatest volatility in recent decades, both on the negative and on the positive side: in the US, such significant daily losses have not been seen since 1987, and in the closing weeks of March, the announcements of economic measures to cushion the impact of the COVID-19 epidemic resulted in daily rebounds of around 10%.

The Chinese stock market, however, has been relatively isolated from the recent turbulence: its cumulative losses so far this year have not reached 10% (in all other major stock markets, they exceed 20%), while the decline in the past month is barely 3%. This better performance seems to reflect a combination of factors. On the one hand, the country is already in the recovery phase of the COVID-19 epidemic, and decisive measures to support the economic recovery are expected. On the other hand, the stock valuation ratios came from a lower starting point (especially compared to the US). Furthermore, various market trends (such as the better performance among blue chip stocks and higher leverage) also indicate support from the authorities and greater risk taking.

Implicit volatility in the financial markets

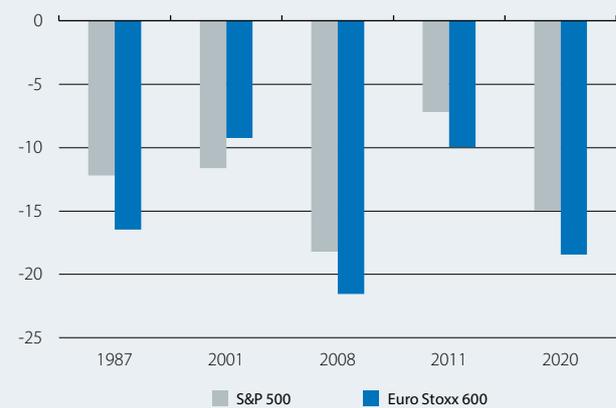
Index (100 = January 1993)



Source: CaixaBank Research, based on data from Bloomberg.

Biggest weekly stock market declines

Cumulative change (%)



Source: CaixaBank Research, based on data from Bloomberg.

Brent oil price

(Dollars per barrel)



Source: CaixaBank Research, based on data from Bloomberg.

The stagnation of economic activity is evident in the commodity markets, as reflected in the aggregate price indices such as that of Bloomberg or Thomson Reuters, which show falls of between 20% and 30% in the year to date. These declines are observed in the prices of industrial metals (with 20% setbacks), such as copper and aluminium. However, the collapse in prices has been particularly sharp in the case of oil: a barrel of Brent has plummeted to 20-25 dollars. This is an unusually low level in the 21st century (see third chart) and represents a fall of almost 70% compared to the price of 60 dollars registered at the beginning of the year. One of the causes of this drop is the inevitable and particularly severe impact of the containment measures on the demand for fuel. However, the freeze in demand has been exacerbated on the supply side by a price war between the OPEC countries and their partners such as Russia. This group, known as OPEC+, halted negotiations in early March to extend the crude oil production cuts (which had been in force since 2016) and the market suffered its biggest daily fall since 1991 (with the Gulf War). However, in the medium term, the prices needed to cover Russia and Saudi Arabia's fiscal needs (around 40 or 50 dollars) and the reactivation of the global economy should support a recovery in oil prices. That said, the low levels could persist while the stagnation of the global economy continues and as long as some OPEC+ members remain interested in driving US shale producers out of the market.¹

The COVID-19 epidemic is also causing interest rates to plummet, to the point that in early March yields on German and US 10-year sovereign debt registered historic lows (intraday rate: -0.89% and 0.33%, respectively). Both risk aversion and the expectation of an accommodative and decisive reaction from the central banks explain the decline in these safe-haven assets. However, throughout March, and as the need for fiscal policy to lead the fight against the COVID-19 epidemic became apparent, the expectation of greater financing needs on the part of the public sector exacerbated the declines in yields (see fourth chart).

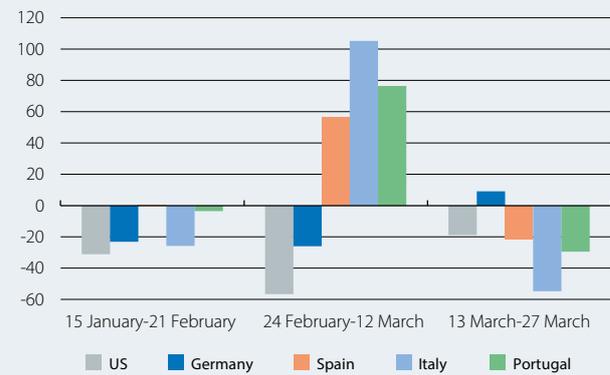
Financial conditions tighten

The COVID-19 epidemic is not affecting all yields equally. In fact, the fear that the paralysis of economic activity could lead to cuts in credit ratings (a possible amplifier)² or to corporate bankruptcies has driven risk premiums on corporate debt in all segments up to levels close to those of 2008-2009 (particularly in the US shale sector, also hit by the collapse in oil prices). Sovereign risk premiums of the euro area periphery were also temporarily stressed, with the combination of the expectation of greater financing needs in the public sector and a cold reception from investors to the first measures announced by the ECB (and let us not forget the words «we are not here to close spreads» muttered by its president, Christine Lagarde, which accentuated

1. For more details, see the note «El Brent se desploma tras el desacuerdo entre la OPEP y sus aliados» available at www.caixabankresearch.com.
 2. See the Focus «The US credit cycle: how much should it concern us? Part II» in the MR06/2019.

Sovereign yields of Germany and the US and risk premiums *

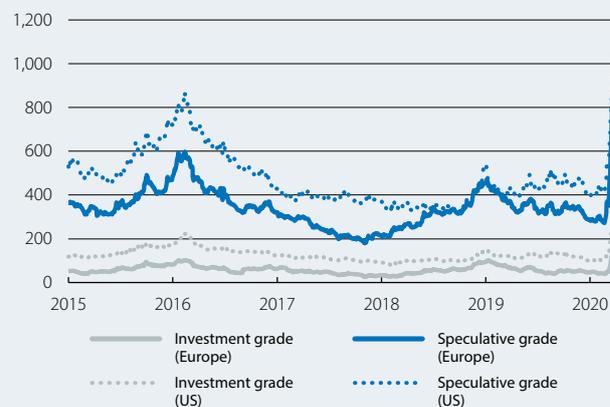
Cumulative change in the period (bps)



Note: * 10-year yields.
 Source: CaixaBank Research, based on data from Bloomberg.

Corporate risk premiums

(bps)



Source: CaixaBank Research, based on data from Bloomberg.

Spread between the 12-month interbank interest rate and the OIS rate

(bps)



Source: CaixaBank Research, based on data from Bloomberg.

investors' risk aversion). However, the strength of the ECB's second round of measures (detailed below) allayed doubts over the sustainability of public debt in the euro area periphery. The surge in risk, meanwhile, was also observed in the interbank market (see sixth chart), albeit

to a much more contained extent than in previous episodes.

Liquidity tensions appear, but they are localised. The most significant of them arose in the US commercial paper market (promissory notes), where, following a surge in risk premiums that denoted the absence of buyers in the market, the Fed ended up reintroducing the CPFF (commercial paper funding facility). In addition, other indications of liquidity problems appeared when, in some sessions marked by significant risk aversion, the prices of what are traditionally considered «safe-haven» assets (such as US or German sovereign debt) decreased instead of increasing: a symptom that needs to obtain liquidity were forcing some market players to sell assets which, in such a context of risk aversion, they would normally like to maintain on their balance sheet. On the other hand, and as detailed below, liquidity tensions also emerged for financing denominated in dollars abroad (see the expansion of the basis in the last chart) – something which the Fed once again stemmed in coordination with other central banks.

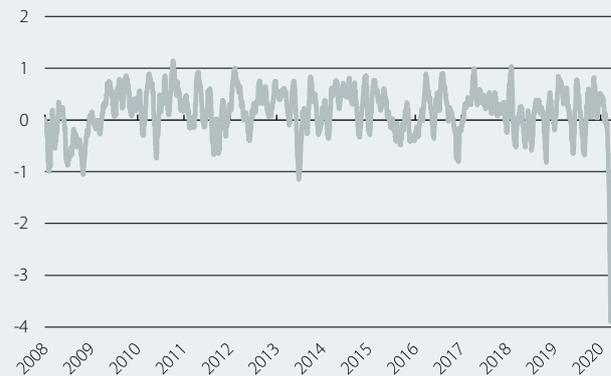
Financial security prices highlight the risks for emerging economies, where the COVID-19 health crisis could prove much more serious (due to their health systems having fewer resources, the existence of large, dense cities with pockets of poverty, and more fragile institutions). Furthermore, such countries are more sensitive to the tightening of international financial conditions and to the fall in commodity prices. In the year to date, emerging currencies have registered widespread depreciation against the US dollar, led by the Russian rouble, the Mexican peso, the South African rand and the Brazilian real (all with depreciation in excess of 20%). This amplifies the burden of emerging economy debt denominated in dollars, resulting in emerging economies also experiencing a surge in their risk premiums (the J.P. Morgan EMBI index has risen to levels of 2009). Moreover, in recent weeks there has been an unprecedented outflow of capital from emerging economies, as shown by the data on portfolio flows produced by the Institute of International Finance (see seventh chart).

Monetary policy to the rescue

Monetary policy is responding quickly and decisively, but requests the leadership of fiscal policy. Faced with the self-imposed disruption of economic activity which is paralysing both economies’ supply and their demand (domestic and foreign), the actions taken by monetary policy focus on three areas: (i) preventing liquidity problems, (ii) facilitating access to credit for businesses and households, and (iii) anchoring a low interest rate environment which, in addition to supporting the economic recovery when the restrictions on activity are lifted, can provide cover in order for fiscal policy to act aggressively and without raising doubts about the sustainability of the public accounts.

3. More details in the ECB Observatory of 19 March, «El BCE actúa de emergencia contra el COVID-19», and the Fed Observatory of 16 March, «La Fed bombea liquidez y lleva los tipos al 0%».

Net capital flows towards emerging economies
(USD billions)



Note: 28-day moving average. Daily data.
Source: CaixaBank Research, based on data from the Institute of International Finance (IIF).

Central bank balance sheets
(% of GDP)



Source: CaixaBank Research, based on data from Bloomberg.

Basis of a 3-month swap between the US dollar and another currency*



Notes: * The basis measures the difference in returns between a direct investment in dollars and an investment denominated in a foreign currency (insured by fluctuations in the exchange rate). When the basis is negative, the first term is lower and reflects the fact that those holding dollars receive a favourable premium when they offer them in the international markets. For more details, see the article «Why do similar assets have differing yields?» in the MR03/2019.
Source: CaixaBank Research, based on data from Bloomberg.

Central banks have launched a wide range of measures (see accompanying table).³ Those with the margin to do so have slashed rates to almost 0% (by –150 bps in the case of the Fed, and by –65 bps in that of the Bank of England), while the rest (such as the ECB and the Bank

Monetary policy measures in major economies

Central Bank	Interest rates	Asset purchases	Support for credit	Liquidity measures
European Central Bank	No changes: • Refi rate at 0.00% • Depo rate at -0.50%.	• APP: 20 billion euros per month (in force since 2019) + a total of 120 billion euros up until December 2020. • PEPP: 750 billion euros up until December 2020 with flexible deployment (not subject to issuer/issue limits and with temporary deviations from the capital key).	• Improvement of the conditions of the TLTROs: minimum rate cut to -0.75% (depo rate: -25 bps) and an increase of the maximum amount that can be requested (up to 50% of eligible portfolio). • Relaxed regulatory requirements on the banking sector.	• New, immediate LTROs (at a rate of -0.50%) to ensure the abundance of liquidity until the TLTROs of June 2020. • Relaxed collateral requirements for refinancing operations to incorporate debt securities from the corporate sector.
US Federal Reserve	Rates cut by 150 bps down to the 0.00%-0.25% range.	Unlimited purchases of treasuries and mortgage-backed securities.	• Participation in the primary and secondary corporate bond market (PMCF and SMCF). • Reduced reserve requirements for financial institutions. • Release of capital and liquidity buffers.	• 200-bp cut in the discount window rate to 0.25% (lender of last resort tool). • Weekly repo operations amounting to 1 trillion dollars. • Participation in the promissory notes (commercial paper) market to add liquidity and reduce stress in this market (CPFF). • Credit facility for primary dealers (PDCF). • Purchase of assets backed by the debt of private individuals (TALF). • Easier financing for money market funds (MMLF).
Bank of England	65-bp cut to 0.1%.	200 billion increase of asset purchases, up to 635 billion pounds in sovereign and corporate bonds.	• > 100 billion pounds in funding for small and medium-sized enterprises. • Guarantees on loans for affected companies. • Release of capital and liquidity buffers.	
Bank of Japan	No changes: official interest rate at -0.10%.	• The limit on annual purchases of ETFs and J-REITs is doubled, up to 12 billion and 180 billion yen, respectively. • Increase in the volume of purchases of government bonds by 784 billion yen.	• New loan facility (0% interest rate, maturity of up to one year and with corporate debt as collateral). • Release of capital buffers.	• Repo operations amounting to 500 billion yen. • Increase in the limit of commercial paper it can purchase up to 2 trillion yen.

Source: CaixaBank Research, based on data from the ECB, the Fed, the Bank of England and the Bank of Japan.

of Japan) have kept rates at their historic lows. In addition, all of them have implemented significant measures to ensure an abundance of liquidity and favourable credit conditions. For instance, the Fed launched liquidity lines amounting to 1 trillion dollars a week, while the ECB cut the cost of the TLTROs, increased their volume and eased various regulatory requirements on the financial sector. Also, both central banks expanded the range of assets accepted as collateral for their liquidity injections. On the other hand, the most aggressive step came in the form of the asset purchase programmes, which not only inject liquidity but also enable the anchoring of low interest rates and placate risk aversion. In particular, the Fed announced unlimited purchases of sovereign bonds and mortgage-backed securities (MBSs), as well as purchases of corporate debt (in primary markets with the PMCCF and in secondary markets with the SMCCF) and purchases of assets backed by loans received by consumers (with the TALF). The ECB, meanwhile, increased the scale of its asset purchases planned for 2020 by 870 billion euros. Of this amount, 750 billion will be implemented under the new Pandemic Emergency

Purchase Programme (PEPP), practically without restrictions (in particular, without the 33% limit on assets from the same issuer or issue, and allowing temporary deviations from the capital key). In addition, the PEPP will also involve purchases of public debt with very short maturities (a notable feature given that most governments are expected to finance their fiscal packages to combat the coronavirus with short-term debt). Indeed, the size (more than 7% of euro area GDP) and flexibility of these purchases have led many analysts to conclude that the ECB has acted just as forcefully, or even more so, as if it had activated the OMT programme (which was announced by Draghi in 2012 in the midst of fears of a rupture of the euro area, but was never finally activated). Finally, in coordination with the Fed, the other major central banks have injected liquidity denominated in dollars into their respective jurisdictions. In this way, they have corrected the emergence of stress in financing denominated in dollars, which was becoming relatively more scarce (as reflected in the expansion of the basis in the last chart) due to the significant risk aversion and the US currency's value as a safe-haven asset.

Interest rates (%)

	31-Mar.	29-Feb.	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
Euro area					
ECB Refi	0.00	0.00	0	0.0	0.0
3-month Euribor	-0.36	-0.42	6	2.0	-5.3
1-year Euribor	-0.17	-0.31	14	7.8	-5.9
1-year government bonds (Germany)	-0.67	-0.72	5	-3.3	-11.6
2-year government bonds (Germany)	-0.69	-0.77	8	-8.8	-8.9
10-year government bonds (Germany)	-0.47	-0.61	14	-28.6	-44.5
10-year government bonds (Spain)	0.68	0.28	40	20.9	-46.4
10-year government bonds (Portugal)	0.87	0.35	52	42.6	-40.7
US					
Fed funds	0.25	1.75	-150	-150.0	-225.0
3-month Libor	1.43	1.46	-3	-47.5	-116.2
12-month Libor	1.01	1.38	-37	-98.2	-171.6
1-year government bonds	0.15	1.01	-85	-141.1	-225.6
2-year government bonds	0.25	0.91	-67	-132.4	-208.7
10-year government bonds	0.67	1.15	-48	-124.8	-183.1

Spreads corporate bonds (bps)

	31-Mar.	29-Feb.	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
Itraxx Corporate	97	64	33	52.7	34.0
Itraxx Financials Senior	117	76	42	65.5	40.3
Itraxx Subordinated Financials	255	157	98	141.3	98.9

Exchange rates

	31-Mar.	29-Feb.	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
EUR/USD (dollars per euro)	1.103	1.103	0.0	-1.6	-1.6
EUR/JPY (yen per euro)	118.640	118.990	-0.3	-2.6	-5.0
EUR/GBP (pounds per euro)	0.888	0.860	3.3	5.0	3.8
USD/JPY (yen per dollar)	107.540	107.890	-0.3	-1.0	-3.4

Commodities

	31-Mar.	29-Feb.	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	370.2	395.1	-6.3	-7.8	-13.2
Brent (\$/barrel)	22.7	50.5	-55.0	-65.5	-67.0
Gold (\$/ounce)	1,577.2	1,585.7	-0.5	3.9	22.5

Equity

	31-Mar.	29-Feb.	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (USA)	2,584.6	2,954.2	-12.5	-20.0	-9.9
Eurostoxx 50 (euro area)	2,786.9	3,329.5	-16.3	-25.6	-17.7
Ibex 35 (Spain)	6,785.4	8,723.2	-22.2	-28.9	-27.4
PSI 20 (Portugal)	4,069.6	4,765.7	-14.6	-22.0	-22.6
Nikkei 225 (Japan)	18,917.0	21,143.0	-10.5	-20.0	-12.1
MSCI Emerging	848.6	1,005.5	-15.6	-23.9	-20.7

The global war against the coronavirus

COVID-19, the disease caused by the new coronavirus that emerged in the Chinese city of Wuhan, started out as a distant threat for the western world. In the last few weeks it has become a reality. As of today, there are at least 100 cases in more than 30 countries in Europe, which now accounts for 75% of all new daily cases in the world. On 26 March, the US surpassed China in the number of confirmed cases.

Faced with this health emergency, a large number of countries have taken drastic containment measures to curb the spread of the virus and ease pressure on national health systems. Schools and non-essential businesses have been closed, large concentrations of people have been banned and, in many cases, citizens have been urged to stay at home.

The economic impact of the containment measures

These measures, which are absolutely necessary to contain the virus and save thousands of lives, will result in a huge and inevitable drop in economic activity. Tourism, leisure, catering and hospitality, trade and transport will be severely affected during the confinement. The manufacturing sector will not be spared either, as there is expected to be a widespread decline in consumption, construction, investment and international trade.

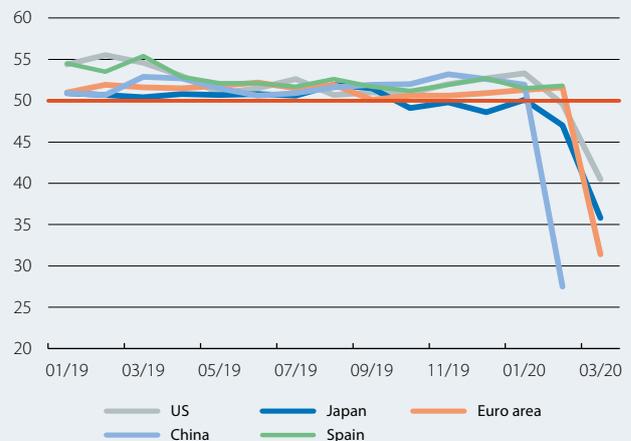
This situation constitutes a very peculiar kind of shock, as it has a detrimental impact on both supply and demand. On the one hand, supply will be affected by the closure of factories, the disruption of global supply chains and the logistical and financial difficulties that the containment of the pandemic will entail for companies. On the other hand, the containment and the reduction in international trade will cause a sharp decline in demand, both domestic and foreign.¹

The first economic indicators that we have, such as the PMI (a measure of economic sentiment), have plummeted to all-time lows and point towards a significant contraction of GDP in Q1 2020 in the euro area, which no doubt will be repeated in Q2. In China, where radical containment measures have been in place since January, in the first two months of 2020 industrial production and retail sales were 20% lower than in January and February 2019. Investment plummeted by 25%. Overall, it is estimated that the country's GDP has fallen by 10% in Q1 compared to the previous quarter.

The new macroeconomic scenarios forecast by CaixaBank Research, which assume that the containment measures will be lifted in the second half of the year, predict growth

1. For these same reasons, the impact on inflation is highly uncertain. On the one hand, the drop in demand will apply downward pressure on prices. On the other, lower supply should affect inflation in the opposite direction. To complicate things further, the dramatic fall in the price of oil will also have an impact on prices.

Composite PMI



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

in 2020 of -3.1% in the euro area, -1.7% in the US and 2.5% in China. These annual figures mask significant declines in economic activity at the quarterly level: in the euro area, GDP is likely to fall by more than 10% in Q2 compared to Q1. At the global level, we estimate that GDP growth will be -0.4% in 2020, which places the impact of the coronavirus on this year's growth at slightly over 3.5 pps, a figure comparable to that of the Great Recession of 2008-2009. For 2021, we expect a rebound in the global economy and growth in excess of 5%. It is important to emphasise the high degree of uncertainty surrounding these forecasts, since we are dealing with a shock of an unprecedented nature and we do not yet know how effective the containment measures adopted around the world to fight the virus will prove to be, nor whether they will be extended beyond the first half of the year. Each additional month of confinement and reduced economic activity would result in a greater drop in annual GDP.

Governments respond to the crisis

Such significant declines in demand and economic activity will pose major difficulties for many companies, which will have to deal with drastic reductions in their income, at the same time as having to repay loans and cover wage payments. If they do not receive public support, they will inevitably have to reduce their workforce and experience financial difficulties. In the US, there has already been an unprecedented increase in the number of people applying for unemployment benefits for the first time (over 3 million in the third week of March and 6 million in the last, compared with the peak of 665,000 during the Great Recession).

To counteract these devastating effects of the crisis, and to prevent them from having a lasting impact, many countries have announced a series of measures intended to cushion the impact of the crisis on firms and households.

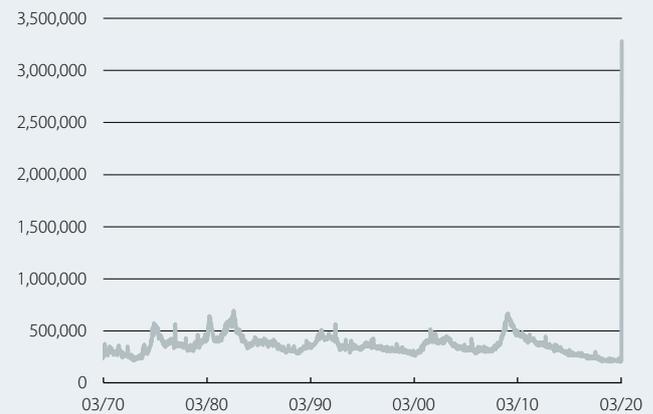
Among the wide variety of measures taken throughout the world, some of the most noteworthy include programmes of guarantees for bank loans and lines of credit through national development banks, aimed at avoiding a significant contraction in credit and boosting access to liquidity for all players; temporary workforce reduction measures (such as temporary staff lay-offs – or «ERTEs» as they are known – in Spain, or the scheme of subsidies for reduced working hours – or *Kurzarbeitgeld* – in Germany) that seek to ensure employees do not lose the connection with their employers that are experiencing difficulties; the deferment of tax payments and, in some cases, direct payments to citizens (such as in the US) and direct subsidies to companies (such as in France and Germany).

In Germany, the government will provide 822 billion (24% of GDP) in lines of guarantees through KfW, a national development bank, and in a new Economic Stabilisation Fund, which will also provide 50 billion euros in direct subsidies to small businesses with fewer than 10 employees. In addition, the authorities have expanded access to – and the generosity of – the *Kurzarbeitgeld*. Although it is often compared with ERTEs in Spain, the *Kurzarbeit* system is different in some important ways, as it allows for a reduction in working hours (not just lay-offs) and because the government pays a percentage of the wages of affected workers. Given that these measures entail a significant increase in the deficit, the government requested from Parliament the suspension of the so-called «debt brake» through an emergency clause. The amount and the public coverage of the lines of guarantees announced by Germany (aptly referred to by the government as a *bazooka*) is vast and will provide much welcomed aid for its companies. Although the measures have focused on providing liquidity to firms for the time being, it will be necessary to increase investment and spending in order to support the recovery when the containment measures are relaxed.

In France, of particular note is an ambitious plan of subsidies for reduced working hours, which is automatic and involves 70% of wages being fully borne by the state, and a compensation fund for companies with a turnover of less than 1 million euros that suffer declines of more than 70% in their turnover. The postponement of the pension reform has also been announced. In addition, the government announced a package of 300 billion euros of guarantees for loans to SMEs (up to 70% of the loan).

Italy, the European country hardest hit by the coronavirus to date, has prohibited objective staff dismissals over the next two months and has announced a total package of 25 billion euros (1.4% of GDP) in the form of subsidies for households, businesses, the health system and civil protection. Italy's measures have been somewhat restrained, perhaps due to fears over the sustainability of the country's debt and due to speculative attacks on the sovereign bond market. More support will need to be provided to the Italian economy to prevent it from being permanently damaged by this crisis. The programme of

US: initial jobless claims



Source: CaixaBank Research, based on data from the US Unemployment and Training Administration.

bond purchases announced by the ECB should help to alleviate these fears, but more support may be necessary at the European level.

In the US, an unprecedented economic package of loans, guarantees and subsidies for businesses was approved. In addition, the package will include direct payments to households, up to a maximum of 1,200 dollars per person and 500 per child. It is estimated that the fiscal measures could exceed 1.2 trillion dollars (6% of GDP).

In China, the measures have been more cautious. For the time being, the government has reduced company social security contributions, cut VAT and electricity rates and granted subsidies to firms in order to maintain employment. All these measures will lead to significant increases in public debt in these countries. However, as the former ECB president Mario Draghi said in an opinion article in the *Financial Times*, we face a war against the coronavirus, and these measures (which no doubt will be expanded during the course of the crisis) are necessary. It is the appropriate role of the state to protect citizens and the economy from shocks for which the private sector is not responsible and which it cannot absorb. Thus, it is important not only to increase aid for those who will lose their jobs, but to do everything possible to prevent them from losing them in the first place. In this regard, the lines of guarantees established for firms and banks are very appropriate. The direct fiscal measures (such as direct payments to citizens in the US, and benefits for unemployment and reduced working hours) also help to prevent a complete collapse in demand, in addition to directly helping citizens who are experiencing financial difficulties. Increased spending and public investment will, most likely, also be crucial in order to relaunch the economy once the containment measures have come to an end.

The European response

The measures taken to deal with the coronavirus crisis also require the support of other institutions, such as central banks and supranational bodies. Thus, the European

Economic measures adopted in Germany, France and Italy

	Germany	France	Italy
Fiscal measures	<ul style="list-style-type: none"> Expansion of the <i>Kurzarbeitgeld</i>, the scheme of subsidies for reduced working hours. The government estimates that 2.35 million people will benefit from this plan, at an estimated cost of €10 billion (0.3% of GDP). €3.5 billion (0.1% of GDP) for healthcare (protective equipment, developing vaccines and other measures). €100 billion (2.9% of GDP) to recapitalise companies through the Economic Stabilisation Fund. €50 billion (1.5% of GDP) for direct grants to small businesses (fewer than 10 employees). 	<ul style="list-style-type: none"> Total cost estimated by the government: €45 billion (1.9% of GDP). Cancellation of taxes for companies: on a case by case basis. Payment of temporary unemployment (<i>chômage partiel</i>, similar to temporary staff lay-offs, or «ERTEs», in Spain). Between 70% and 100% assumed by the state. Estimated cost of €8.5 billion (0.4% of GDP) in two months. Solidarity fund for small businesses (turnover of less than €1 million). €2 billion (0.1% of GDP) for the health system. 	<ul style="list-style-type: none"> €3.5 billion (0.2% of GDP) for the health system. €10.2 billion fund (0.6% of GDP) for households and companies. It includes: <ul style="list-style-type: none"> – Increase of funds to cover wages. – €100 in March for workers unable to work remotely. – €600 for the self-employed and working parents. Tax credit of 60% of rent for small businesses. Aid for the transport and aviation sectors (provision of €600 million for the nationalisation of Alitalia).
Deferrals	<ul style="list-style-type: none"> Tax deferrals for companies (€500 billion, 14.5% of GDP). 	<ul style="list-style-type: none"> Tax deferrals for companies (with the possibility of cancellation. Estimated cost in March: €35 billion, 1.5% of GDP). Deferral of gas, electricity and rent bills for companies. 	<ul style="list-style-type: none"> Deferral of up to €220 billion (12.3% of GDP) of loans to SMEs and independent workers. Deferral of up to €10.7 billion (6.7% of GDP) of taxes and benefits for companies.
Credit lines and guarantees	<ul style="list-style-type: none"> €822 billion (24% of GDP) in guarantees for loans to companies through the public development bank KfW: <ul style="list-style-type: none"> – Companies with less than €2 billion in turnover: 80% guarantee for loans up to €200 million. – Companies with turnover of between €2 and €5 billion: 70% guarantee. – Companies with turnover of over €5 billion: guarantees on a case by case basis. €400 billion (12% of GDP) in guarantees through the new Economic Stabilisation Fund. 	<ul style="list-style-type: none"> €300 billion (12.4% of GDP) in guarantees for small and large businesses (guarantee of between 70% and 90%, depending on the size of the company). 	<ul style="list-style-type: none"> Up to €120 billion (6.7% of GDP) in guarantees for small and large businesses.

Source: CaixaBank Research, based on data from national authorities.

Commission has decided to suspend its budgetary rules, which in normal times would not authorise such increases in spending. The Fed and the ECB also announced sovereign asset purchase programmes on an unprecedented scale (for more details on the measures taken by central banks, see the Focus [«The coronavirus spreads to the markets and monetary policy takes urgent action»](#) in this same *Monthly Report*). However, the expectation of the unavoidable increases in public debt has also given rise to new fears about the sustainability of some countries' debt (in particular that of Italy, which at the end of 2019 was as high as 135% of GDP). There has already been an increase in the risk premiums of certain European countries in recent weeks, which only receded after the ECB announced the sovereign debt purchase programme. Although the central bank has proclaimed that it is prepared to purchase large quantities of sovereign debt, it will be difficult to counteract speculative attacks on certain countries' bonds, since the monetisation of debt is not permitted by the European treaty. Furthermore, even if it has been endowed with flexibility, the ECB is limited in the total amount of debt that it can purchase from certain countries. These speculative attacks could call the integrity of the euro area into question. For this reason, there has

been a resurgence of ideas that had already been proposed during the monetary area's last crisis, in order to share the cost related to the current crisis: the famous eurobonds or, in this case, «coronabonds». At the moment, the discussions among the European heads of state have focused on establishing precautionary credit lines from the European Stability Mechanism (ESM), the institution that provided loans to Greece, Ireland, Portugal and Spain in 2012. This would involve an element of mutualisation, since these credit lines would be backed by ESM capital, which is provided by all euro area countries. The agency's high credit rating allows it to provide loans at very low rates. However, this measure offers limited added value, since euro area countries can already finance themselves at very low interest rates thanks to the ECB's purchases of sovereign debt. Moreover, obtaining a loan from the ESM could be politically toxic for many countries that still have the case of Greece fresh in their memories (despite there being talk of reducing the conditions attached to these credit lines). Finally, these loans would add to the debt of the countries that obtain them, and they would not involve a real co-insurance or mutualisation mechanism, unlike a true eurobond.

Álvaro Leandro

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

UNITED STATES

	2017	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	12/19	01/20	02/20
Activity									
Real GDP	2.4	2.9	2.7	2.3	2.1	2.3	–	–	–
Retail sales (excluding cars and petrol)	4.5	4.7	3.4	3.6	4.2	3.9	5.5	3.9	4.4
Consumer confidence (value)	120.5	130.1	125.8	128.3	132.1	127.0	128.2	130.4	130.7
Industrial production	2.3	3.9	2.9	1.2	0.2	–0.7	–0.9	–1.0	0.0
Manufacturing activity index (ISM) (value)	57.4	58.9	54.7	52.4	49.4	48.1	47.8	50.9	50.1
Housing starts (thousands)	1,209	1,250	1,213	1,256	1,282	1,441	1,601	1,624	1,599
Case-Shiller home price index (value)	200	211	215	216	217	219	220	...	...
Unemployment rate (% lab. force)	4.3	3.9	3.9	3.6	3.6	3.5	3.5	3.6	3.5
Employment-population ratio (% pop. > 16 years)	60.1	60.4	60.7	60.6	60.9	61.0	61.0	61.2	61.1
Trade balance ¹ (% GDP)	–2.8	–2.4	–3.0	–3.1	–3.1	–2.9	–2.9	–2.8	...
Prices									
Headline inflation	2.1	2.4	1.6	1.8	1.8	2.0	2.3	2.5	2.3
Core inflation	1.8	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.4

JAPAN

	2017	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	12/19	01/20	02/20
Activity									
Real GDP	2.2	0.3	0.8	0.9	1.7	–0.7	–	–	–
Consumer confidence (value)	43.8	43.6	41.3	39.5	36.8	38.0	39.1	39.1	38.4
Industrial production	2.9	1.0	–1.1	–1.2	–1.1	–6.3	–5.6	–2.3	–2.5
Business activity index (Tankan) (value)	19.0	20.8	12.0	7.0	5.0	0.0	–	–	...
Unemployment rate (% lab. force)	2.8	2.4	2.5	2.4	2.3	2.3	2.2	2.4	2.4
Trade balance ¹ (% GDP)	0.5	–0.1	–0.3	–0.5	–0.5	–0.3	–0.3	–0.4	–0.2
Prices									
Headline inflation	0.5	1.0	0.3	0.8	0.3	0.5	0.8	0.7	0.5
Core inflation	0.1	0.3	0.4	0.6	0.6	0.7	0.8	0.8	0.6

CHINA

	2017	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	12/19	01/20	02/20
Activity									
Real GDP	6.9	6.7	6.4	6.2	6.0	6.0	–	–	–
Retail sales	10.3	9.0	8.5	8.5	7.6	7.7	8.0	–20.5	–20.5
Industrial production	6.6	6.2	6.4	5.6	5.0	5.9	6.9	–13.5	–13.5
PMI manufacturing (value)	51.6	50.9	49.7	49.6	49.7	49.9	50.2	50.0	35.7
Foreign sector									
Trade balance ^{1,2}	420	352	381	395	428	424	424	377	377
Exports	7.9	9.9	1.3	–1.0	–0.4	1.8	7.4	–17.2	–17.2
Imports	16.3	15.8	–4.4	–3.8	–6.3	3.0	16.2	–4.0	–4.0
Prices									
Headline inflation	1.6	2.1	1.8	2.6	2.9	4.3	4.5	5.4	5.2
Official interest rate ³	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Renminbi per dollar	6.8	6.6	6.8	6.8	7.0	7.0	7.0	6.9	7.0

Notes: 1. Cumulative figure over last 12 months. 2. Billion dollars. 3. End of period.

Source: CaixaBank Research, based on data from the Department of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, Standard & Poor's, ISM, National Bureau of Statistics of Japan, Bank of Japan, National Bureau of Statistics of China and Thomson Reuters Datastream.

EURO AREA

Activity and employment indicators

Values, unless otherwise specified

	2017	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	11/19	12/19	01/20	02/20
Retail sales (year-on-year change)	2.5	1.6	2.5	2.1	2.7	1.8	2.3	1.7	1.7	...
Industrial production (year-on-year change)	2.9	1.0	-0.5	-1.4	-2.1	-2.8	-1.7	-3.3	-1.8	...
Consumer confidence	-5.4	-4.9	-7.0	-7.0	-6.8	-7.6	-7.2	-8.1	-8.1	-6.6
Economic sentiment	110.4	111.5	105.8	103.8	102.0	100.6	100.7	100.9	102.6	103.4
Manufacturing PMI	57.4	55.0	49.1	47.7	46.4	46.4	46.9	46.3	47.9	49.2
Services PMI	55.6	54.5	52.4	53.1	52.8	52.3	51.9	52.8	52.5	52.6
Labour market										
Employment (people) (year-on-year change)	1.6	1.5	1.4	1.2	1.0	1.0	1.1	-	-	-
Unemployment rate (% labour force)	9.1	8.2	7.8	7.6	7.5	7.5	7.5	7.4	7.4	7.3
Germany (% labour force)	3.8	3.4	3.2	3.1	3.1	3.2	3.2	3.2	3.2	3.2
France (% labour force)	9.4	9.1	8.7	8.5	8.5	8.4	8.4	8.2	8.2	8.1
Italy (% labour force)	11.3	10.6	10.3	10.0	9.8	9.8	9.8	9.8	9.8	9.7
Real GDP (year-on-year change)	2.7	1.9	1.4	1.2	1.2	0.9	0.9	-	-	-
Germany (year-on-year change)	2.8	1.6	1.0	0.3	0.6	0.5	0.5	-	-	-
France (year-on-year change)	2.4	1.7	1.3	1.5	1.5	0.9	0.9	-	-	-
Italy (year-on-year change)	1.8	0.7	0.1	0.2	0.5	0.0	0.0	-	-	-

Prices

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

	2017	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	11/19	12/19	01/20	02/20
General	1.5	1.8	1.4	1.4	1.0	1.0	1.0	1.3	1.4	1.2
Core	1.0	1.0	1.0	1.1	0.9	1.2	1.3	1.3	1.1	1.2

Foreign sector

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

	2017	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	11/19	12/19	01/20	02/20
Current balance	3.2	3.2	3.1	2.8	3.0	3.1	3.1	3.1	...	...
Germany	8.1	7.3	7.2	7.1	7.5	7.7	7.6	7.7	...	...
France	-0.7	-0.6	-0.5	-0.7	-0.8	-0.8	-0.7	-0.8	...	...
Italy	2.7	2.6	2.6	2.7	2.7	...	2.9	...	...	...
Nominal effective exchange rate¹ (value)	96.5	98.9	97.3	97.3	97.7	96.9	96.7	96.7	...	...

Credit and deposits of non-financial sectors

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

	2017	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	11/19	12/19	01/20	02/20
Private sector financing										
Credit to non-financial firms ²	2.5	3.8	3.7	3.9	3.9	...	...	...	...	...
Credit to households ^{2,3}	2.6	3.0	3.3	3.3	3.4	...	...	...	...	...
Interest rate on loans to non-financial firms ⁴ (%)	1.3	1.2	1.2	1.1	1.1	...	...	...	...	...
Interest rate on loans to households for house purchases ⁵ (%)	1.7	1.6	1.6	1.6	1.5	...	...	...	...	...
Deposits										
On demand deposits	10.2	7.9	7.1	7.6	8.6	...	...	...	...	...
Other short-term deposits	-2.7	-1.5	-0.4	0.4	0.7	...	...	...	...	...
Marketable instruments	1.6	-4.2	-3.4	-4.9	-1.7	...	...	...	...	...
Interest rate on deposits up to 1 year from households (%)	0.4	0.3	0.3	0.3	0.3	...	...	...	...	...

Notes: 1. Weighted by flow of foreign trade. Higher figures indicate the currency has appreciated. 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 Eurostat, European Central Bank, European Commission, national statistics institutes and Markit.

Economic measures to counteract the impact of COVID-19 in Spain

The COVID-19 epidemic is having a profound effect on Spain: according to official figures, as of 31 March over 90,000 people have been infected and, unfortunately, more than 8,000 have died. Faced with the gravity of the situation, the government declared a state of alarm on 14 March and, among other measures, imposed a limit on the movement of the population and declared the closure of schools, shops and other establishments, with the exception of essential services. Subsequently, it paralysed all non-essential economic activity between 30 March and 11 April.

As explained in detail in the economic outlook article «[The COVID-19 crisis: an unprecedented shock](#)» in this same *Monthly Report*, we can expect a drop in the rate of economic activity that will be significant and concentrated in time, in particular for the period while the containment measures are in force, and a rebound once they are lifted. The available economic activity indicators are few and far between, but high-frequency data such as daily electricity demand show us that the short-term impact could be very high (see first chart). In terms of GDP, the contraction for 2020 could be around -3.6% if the containment measures and the restrictions on economic activity are quickly relaxed in the coming weeks. However, this figure is shrouded in uncertainty and largely depends on how long the containment measures have to remain in place. If it is necessary to extend them for longer, the correction would be greater and the recovery, more gradual.

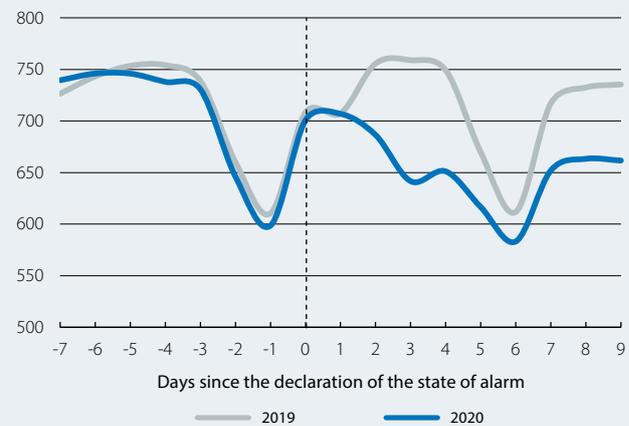
The response of public policies to mitigate the impact of COVID-19 in Spain

Faced with this public health crisis, the priority area for action is to strengthen the healthcare system in order to enhance its capacity to treat the sick and find scientific solutions to cope with the pandemic, both indispensable to enable us to resume life where we left off before the arrival of the COVID-19 as soon as possible.

However, in the face of a shock of this nature, which is temporary and due to an external cause, it is also important to minimise the spread to the economy in order to ensure that the stagnation in economic activity and employment is also temporary. This requires a robust and coordinated response from economic policies, both at the national and at the European and global level.¹ The objective is to allow economic activity and employment to quickly bounce back after the shock, preventing the

1. For more details on the measures implemented in the rest of the world, as well as the response from monetary and financial policy, see the Focus articles as well as the global economy article of the economic outlook section in this same *Monthly Report*.

Electricity demand (GWh)



Source: CaixaBank Research, based on data from Red Eléctrica de España.

circular flow of income in the economy from being interrupted and facilitating the circulation of money among the various economic players.²

To this end, the Spanish government has presented a battery of measures aimed at reducing the impact of the crisis on households, workers and firms.³ The direct aids approved to date amount to 21 billion euros (1.7% of GDP). In addition, other measures have been adopted, such as a line of guarantees of up to 100 billion and a moratorium on mortgage debtors. To protect households who find themselves in a particularly vulnerable situation as a result of this crisis, the government has established that essential supplies will be guaranteed (electricity, water, gas and telecommunications).

To protect workers, it has facilitated the adaptation of working hours and remote working whenever possible. Equally key has been enabling more flexible use of temporary lay-offs (known as ERTes) so that employees and self-employed workers affected by the crisis can maintain an income stream and quickly return to work once the period of confinement comes to an end. For this purpose, the coronavirus is considered force majeure and the coverage for unemployment resulting from ERTes has been extended to all workers affected by the crisis.

Finally, to protect companies, the government has established a deferral of tax payments for SMEs, a reduction of Social Security contributions for workers

2. See R. Baldwin (2020). «Keeping lights on: economic medicine for a medical shock». VoxEU, <https://voxeu.org/article/how-should-we-think-about-containing-covid-19-economic-crisis>.

3. For more details on the measures, see the Brief Note (*Nota Breve*) «[Políticas económicas contra el coronavirus](#)» of 18 March 2020.

affected by ERTes and a line of guarantees for companies and self-employed workers amounting to 100 billion euros in order to safeguard their liquidity, among other measures. In the first tranche of the line of guarantees (20 billion euros), the state will guarantee 80% of the loans for SMEs and self-employed workers, while for all other companies, the state guarantee will extend to 70% for new loans and to 60% for renewals.

A package of measures aimed at minimising the duration of the negative effects on employment and economic activity

The set of measures adopted by the Spanish government represents a robust response to the economic impact of the COVID-19 epidemic and lays the foundations for ensuring that the negative effects on employment and economic activity are temporary, and that activity bounces back once the epidemic has been controlled. Providing support for all affected sectors of society is necessary in order to prevent what is a temporary shock from leaving more permanent scars. The ultimate goal is to safeguard, insofar as possible, the population's economic well-being and the country's productive capacity.

One measure worth underscoring is the government's decision to favour the use of ERTes, thereby minimising dismissals (in fact, the government declared that all dismissals caused by the coronavirus will be considered unjustified, thus increasing their cost). The widespread nature of the promotion of measures for internal workforce reductions is a new development in the Spanish labour market, which in past crises has leaned in favour of external flexibility measures (such as dismissals). This commitment to so-called «flexicurity» measures poses a huge test for the Spanish labour market, and valuable lessons will be learnt for future crises. At present, employees affected by an ERTE receive unemployment benefit amounting to 70% of their social security contribution base for the first six months, with a minimum and maximum limit (502 and 1,402 euros, respectively). In this way, the employee continues to receive an income for the duration of the ERTE, albeit slightly less than their standard wage.⁴ Above all, the employment relationship with their employer remains intact, allowing them to recommence work as soon as possible (see the box on ERTes in a nutshell for more details).

These measures go hand in hand with specific aid for companies and self-employed workers (deferral of tax payments, reductions of Social Security contributions and state guarantees), which provide them with liquidity

4. The average unemployment benefit in 2019 based on social security contributions amounted to around 50% of the average gross salary.

Temporary lay-offs (ERTes) in a nutshell

A. What are they?

A temporary lay-off, or «ERTE» as it is known, is a temporary suspension of an employee's employment contract or a reduction in their working hours due to financial, technical, organisational or production-related causes, or as a result of force majeure (as in the case of COVID-19).

B. When can they be used?

ERTes are intended for companies to be able to reduce their workforce when they are experiencing temporary difficulties, without having to provide severance pay (unlike in the case of general staff lay-offs, or «ERE» as they are known).

C. What are the benefits?

For the employee:

- They receive unemployment benefits while they are not working.
- They maintain their job position during a crisis (thus avoiding the loss of their job).

For the company:

- It can reduce its workforce in times of difficulty (without incurring in redundancy costs).
- It can maintain its human capital when the recovery finally comes.

Source: CaixaBank Research.

in order to avoid bankruptcy during the state of alarm and should allow them to quickly resume activity once the crisis is over. It is worth pointing out that, as a counterpart to the aid offered to firms that implement ERTes, these companies must maintain those jobs for at least six months thereafter, which provides affected workers with some job stability.

The impact on the public accounts will be significant, but manageable. In particular, the necessary fiscal stimulus measures will apply upward pressure on the deficit and on public debt this year, which could rise to over 5% and 105% of GDP in 2020, respectively, but they should return to normal levels as soon as economic activity is back up and running.

All this action from public policies is aimed at mitigating the problems caused by the containment measures. Nevertheless, the high degree of uncertainty surrounding how the epidemic will evolve and the impact of the measures adopted will make it necessary to adjust these responses. The work of public policies does not end here: the next stage will involve continuing to adapt (and to adopt) measures that allow us all to return to work, safe and sound and as soon as possible.⁵

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5. See A. Ichino *et al.* (2020). «Transition steps to stop COVID-19 without killing the world economy». <https://voxeu.org/article/transition-steps-stop-covid-19-without-killing-world-economy>

Activity and employment indicators

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

	2017	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	01/20	02/20	03/20
Industry									
Industrial production index	3.2	0.3	0.0	1.4	0.9	0.5	-2.1	...	...
Indicator of confidence in industry (value)	1.0	-0.1	-3.8	-4.6	-2.0	-5.2	-5.2	-4.0	-7.0
Manufacturing PMI (value)	54.7	53.3	51.1	49.9	48.2	47.2	48.5	50.4	...
Construction									
Building permits (cumulative over 12 months)	22.9	25.7	25.8	21.9	13.0	8.0	...	...	...
House sales (cumulative over 12 months)	10.4	17.2	32.3	31.1	19.5	5.0	2.7	...	...
House prices	6.2	6.7	6.8	5.3	4.7	3.6	-	-	-
Services									
Foreign tourists (cumulative over 12 months)	10.0	4.0	1.0	1.5	2.1	1.4	0.9	...	...
Services PMI (value)	56.6	54.8	55.3	53.2	53.5	53.6	52.3	52.1	...
Consumption									
Retail sales	1.0	0.7	1.4	2.2	3.3	2.3	1.7	...	...
Car registrations	7.9	7.8	-7.0	-4.4	-7.9	5.1	-7.6	-6.0	...
Consumer confidence index (value)	-3.4	-4.2	-4.8	-4.0	-5.8	-10.5	-11.5	-7.9	-11.6
Labour market									
Employment ¹	2.6	2.7	3.2	2.4	1.8	2.1	-	-	-
Unemployment rate (% labour force)	17.2	15.3	14.7	14.0	13.9	13.8	-	-	-
Registered as employed with Social Security ²	3.6	3.1	2.9	2.8	2.5	2.2	1.8	1.9	...
GDP	2.9	2.4	2.2	2.0	1.9	1.8	-	-	-

Prices

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

	2017	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	01/20	02/20	03/20
General	2.0	1.7	1.1	0.9	0.3	0.4	1.1	0.7	0.1
Core	1.1	0.9	0.7	0.8	0.9	1.0	1.0	1.1	...

Foreign sector

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

	2017	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	01/20	02/20	03/20
Trade of goods									
Exports (year-on-year change, cumulative over 12 months)	8.9	2.9	2.4	2.3	1.7	1.8	2.1	...	...
Imports (year-on-year change, cumulative over 12 months)	10.5	5.6	6.1	3.9	3.0	1.0	0.8	...	...
Current balance	31.1	23.3	19.6	20.6	21.0	23.9	23.8	...	...
Goods and services	41.6	32.6	30.2	31.5	31.4	34.1	35.5	...	...
Primary and secondary income	-10.5	-9.3	-10.6	-10.9	-10.4	-10.1	-11.6	...	...
Net lending (+) / borrowing (-) capacity	33.9	29.1	25.5	26.6	26.3	29.1	29.0	...	...

Credit and deposits in non-financial sectors³

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

	2017	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	01/20	02/20	03/20
Deposits									
Household and company deposits	2.8	3.2	5.2	5.8	5.4	5.4	4.3	4.4	...
Sight and savings	17.6	10.9	11.3	10.9	10.3	10.3	8.6	9.1	...
Term and notice	-24.2	-19.9	-13.7	-12.8	-13.2	-13.9	-15.7	-16.7	...
General government deposits	-8.7	15.4	17.8	15.7	3.7	-2.1	-4.3	-79.8	...
TOTAL	1.9	3.9	5.9	6.3	5.3	4.9	3.8	-0.8	...
Outstanding balance of credit									
Private sector	-2.2	-2.4	-2.1	-1.1	-1.1	-1.5	-1.1	-1.4	...
Non-financial firms	-3.6	-5.5	-5.5	-3.0	-2.3	-3.0	-2.1	-3.0	...
Households - housing	-2.8	-1.9	-1.1	-1.2	-1.3	-0.7	-0.8	-0.8	...
Households - other purposes	3.7	5.1	4.2	3.8	2.3	-0.1	0.4	0.6	...
General government	-9.7	-10.6	-10.4	-7.2	-5.4	-1.2	3.7	0.1	...
TOTAL	-2.8	-2.9	-2.6	-1.5	-1.4	-1.5	-0.8	-1.3	...
NPL ratio (%)⁴	7.8	5.8	5.7	5.4	5.1	4.8	4.8	...	...

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.

Recession inevitable in Portugal, despite the good performance prior to the pandemic

The Portuguese economy was facing 2020 from a position of strength. In 2019, GDP grew by 2.2% (exceeding most forecasts) and the consumption and economic activity indicators for the beginning of 2020 suggested that economic activity remained healthy (in February, the coincident indices for private consumption and aggregate activity suggested growth rates of 2.7% and 2.3%, respectively). In addition, the public accounts ended 2019 with a surplus, the current account balance was close to equilibrium, and unemployment stood below 7%.

The COVID-19 changed completely the outlook. Although we do not yet have economic indicators that capture the impact of the COVID-19 pandemic on economic activity in Portugal (where the outbreak was not felt until early March), the entry into force on 18 March of the state of emergency (with the consequent social isolation measures, key to halting the spread of the pandemic) has resulted in a freeze of economic activity. There are sectors and companies which have reported declines in their activity of more than 70% in the second half of March (bakeries and restaurants), while motorway traffic fell by 75% in the third week of March.¹ These measures have a clear economic cost, albeit a temporary one, and activity can be expected to quickly recover following their withdrawal.

Portugal is facing a severe decline in economic activity, albeit a temporary one. Uncertainty surrounding the economic impact of the COVID-19 pandemic is high, but the sudden stagnation in the closing weeks of March will mean that this impact will already be evident in the economic activity figures for Q1. However, in Q2 we expect that economic activity will contract by around 15% compared to the previous quarter.² This figure assumes that sectors such as tourism, accommodation, catering or cultural activities, among others, will experience a complete shutdown or will be seriously affected (with a relative weight of around 20% of the GVA); others, such as industry, construction and real estate activities, will see their activity limited by the mitigation and isolation measures (together, accounting for around 40% of the GVA), while the remaining sectors are assumed to maintain a more normal level of activity, provided they can adapt to remote working.

If the pandemic in Portugal is brought under control as planned (between late April and early May), economic activity could recover substantially in Q3, undoing

1. According to data from the Ministry of Infrastructure and Housing.
2. Estimates based on the impact of a shutdown of around eight weeks on the GVA of the various sectors, which are classified as being in shutdown, being limited, operating normally and in overdrive.

Portugal: economic forecasts

	2019	2020		2021	
		Feb. 2020	Mar. 2020	Feb. 2020	Mar. 2020
GDP	2.2	1.7	-3.4	1.6	5.9
Inflation	0.3	0.7	0.1	1	0.9
Unemployment rate	6.5	6.4	8.2	6.3	6.8
Employment (YoY change)	1	0.5	-2.6	0.2	1.9
Fiscal balance (% of GDP)	0.2	-0.1	-3.6	0.2	-0.6
Public debt (% of GDP)	117.7	114.6	124.9	110.6	116.6
Housing prices (YoY change)	9.7	4.4	-0.4	3.7	3.2
Home sales (YoY change)	1.7	-5.7	-22.3	-5.4	5.8

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

part of the losses suffered. In this scenario, we project a contraction of GDP for 2020 as a whole of -3.4% (compared to 1.7% growth previously forecast). In 2021, GDP growth would reach around 6%, primarily due to the base effects. Nevertheless, this crisis is likely to have lasting effects in some sectors, which will recover more gradually. They include tourism, which represents around 8% of GDP and 15% of household consumption (figures for 2018). The recovery in the labour market is also likely to be more gradual, and we estimate an unemployment rate of 8.2% for 2020 as a whole (previously 6.4%). As such, at the end of 2021 GDP would still stand 1.5% below our previous scenario.

In addition, the turmoil caused by the COVID-19 pandemic will have a widespread effect across all the other main macroeconomic variables: in the external accounts, the public accounts and the real estate market. In the latter case, for instance, sale transactions could fall by more than 20% in 2020.

Exceptional measures to offset/mitigate the economic impact

The measures aimed at mitigating the economic impact of the COVID-19 pandemic in Portugal have not yet been fully defined, given that the outbreak emerged later. With the information available at the end of March, we estimate that the total value of the support measures – which include liquidity measures, deferrals of tax payments and direct support for households – amounts to around 12.5 billion euros, or 6.2% of GDP.

Among these measures, those with a direct impact on public spending and that have already been announced (bolstering the national health system and subsidies for

Portugal: economic measures to tackle the COVID-19 pandemic

Measure	Amount (EUR millions)	% of GDP
Total of the measures	12,860	6.2
Measures affecting public spending	2,300	1.1
Support for employment (temporary lay-offs*)	2,000	1.0
Bolstering the health system with 1,800 doctors and 900 nurses	300	0.1
Subsidies for households due to preventative isolation and caring for children (due to school closures)		
Measures to guarantee companies' liquidity	10,560	5.1
Lines of credit for the tourism, textile, clothing and footwear sectors, and the mining and logging industries	3,060	1.5
Lines of credit for other sectors	200	0.1
Flexibility in the payment of tax obligations and social security contributions	6,200	3.0
Credit guarantees, with state support, for export companies (especially those exporting to outside the EU)	700	0.3
Deferral of bank loan repayment instalments and elimination of minimum charges in electronic payments	400	0.2

Note: * According to statements by the prime minister, the monthly cost of these measures is estimated at 1 billion euros and they could remain in force for two months.
Source: CaixaBank Research, based on information from the Government of Portugal.

households) represent 1.1% of GDP. In this group, of particular note are the subsidies for households and the simplified scheme for the temporary suspension of labour contracts, under which around 50% of the gross remuneration is ensured by Social Security, up to a maximum of 1,905 euros. If, as we estimate, these measures are in force for two months, then the total cost of the support measures for temporary lay-offs will amount to 2 billion euros (1% of GDP).³

The measures aimed at tackling companies' liquidity problems amount to 10.6 billion euros (5.1% of GDP) and are mainly focused on:

- i) Deferring tax payments and making them more flexible.⁴ The government estimates the sum of these deferrals to be 5.2 billion euros (2.5% of GDP). Payments of contributory taxes are also being made more flexible, and this is expected to affect payments amounting to 1 billion euros (0.5% of GDP). As an example, Social Security contributions for the months of April, May and June will be paid in the second half of 2020. In addition, payments of personal income tax withholdings and VAT can be postponed by between 3 and 6 months from April.
- (ii) Lines of credit for companies⁵ amounting to 3 billion euros (1.5% of GDP). These are channelled through the banking sector and offer more favourable financing conditions than ordinary lines of credit: lower interest rates, interest payment grace periods and longer maturities, among others.
- (iii) Lines of credit with a state guarantee, aimed especially at the export sector with 700 billion euros (250 billion more than before).

- iv) Faster deliveries (or deferrals of reimbursements) with respect to EU funds pledged as part of the Portugal 2020 programme.⁶ This includes the almost immediate payment of expenses already incurred and of payments to suppliers, as well as the automatic deferral of reimbursements for a period of 12 months. Both of these measures will make it possible to inject funding resources into the underlying recipient firms, amounting to 400 billion euros.

Beyond these measures, there are others aimed at supporting households and firms, which include the elimination of minimum charges on electronic payments in shops and the deferral of loan repayment instalments. In addition, the Bank of Portugal has suggested a relaxation of the conditions for access to personal credit.⁷ Finally, various financial institutions have announced measures to support businesses and households, such as making the conditions required to access moratoriums on credit repayments more flexible.

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3. According to public statements, the monthly cost is 1 billion euros.
 4. The exact details are specified at <https://covid19estamoson.gov.pt/medidas-de-apoio-emprego-empresas/>

5. Lines of credit amounting to 3,260 million euros, aimed at SMEs and micro-enterprises in all sectors, but with a higher incidence in the tourism, textile, clothing and footwear sectors, and in the mining and logging industries. They are available to companies that have experienced a drop in their sales of 20% or more in the last 30 days compared to the immediately preceding 30 days. This drop in sales must be verified on the date the line of credit is contracted. This line of credit operates in the form of a mutual guarantee scheme (80% guaranteed by a public entity), such that the financing conditions will be quite favourable for the corporate sector. According to data from IAPMEI and eGOV.
 6. Cabinet Note of 30 March 2020 – Extraordinary measures to support the economy and maintain jobs as part of Portugal 2020.
 7. Statement from the Bank of Portugal on the implementation of the macro-prudential recommendation in force in the field of consumer credit.

Activity and employment indicators

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

	2018	2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	01/20	02/20	03/20
Coincident economic activity index	2.6	2.3	2.4	2.2	2.1	...	2.1	2.3	...
Industry									
Industrial production index	0.1	-2.4	-2.2	-4.1	0.5	...	2.3	1.0	...
Confidence indicator in industry (value)	0.8	-3.2	-3.3	-3.7	-4.3	-4.6	-3.4	-4.2	-6.1
Construction									
Building permits (cumulative over 12 months)	19.1	7.1	16.4	13.2	7.1	...	...	...	...
House sales	16.8	1.7	-6.6	-0.2	6.1	...	...	...	...
House prices (euro / m ² - valuation)	5.8	7.5	7.5	7.9	8.0	...	8.5	7.9	...
Services									
Foreign tourists (cumulative over 12 months)	4.8	7.1	4.9	5.8	6.8	...	7.2	...	...
Confidence indicator in services (value)	14.1	12.9	14.2	11.5	10.6	5.8	8.2	6.5	2.7
Consumption									
Retail sales	4.2	4.6	5.9	4.5	3.7	...	4.2	8.5	...
Coincident indicator for private consumption	2.5	2.3	2.2	2.4	2.6	...	2.7	2.7	...
Consumer confidence index (value)	-4.6	-8.0	-8.9	-7.6	-7.1	-8.6	-7.8	-8.1	-9.9
Labour market									
Employment	2.3	1.0	0.9	0.9	0.5	...	0.1	0.0	...
Unemployment rate (% labour force)	7.0	6.5	6.3	6.1	6.7	...	6.7	6.5	...
GDP	2.6	2.2	2.1	1.9	2.2	...	...	...	...

Prices

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

	2018	2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	01/20	02/20	03/20
General	1.0	0.3	0.5	-0.2	0.3	0.4	0.8	0.4	0.1
Core	0.7	0.5	0.6	0.1	0.4	0.2	0.4	0.1	0.0

Foreign sector

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

	2018	2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	01/20	02/20	03/20
Trade of goods									
Exports (year-on-year change, cumulative over 12 months)	5.1	3.6	3.3	2.1	3.6	...	3.6	...	...
Imports (year-on-year change, cumulative over 12 months)	8.2	6.6	8.3	7.8	6.6	...	5.3	...	...
Current balance	0.8	-0.2	-0.2	-0.6	-0.2	...	-0.2	...	...
Goods and services	1.5	0.8	0.5	0.2	0.8	...	1.0	...	...
Primary and secondary income	-0.7	-1.0	-0.8	-0.8	-1.0	...	-1.2	...	...
Net lending (+) / borrowing (-) capacity	2.8	1.9	1.7	1.4	1.9	...	1.9	...	...

Credit and deposits in non-financial sectors

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

	2018	2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	01/20	02/20	03/20
Deposits¹									
Household and company deposits	3.8	5.0	4.5	5.3	5.2	...	5.6	...	...
Sight and savings	14.3	14.4	13.3	15.1	14.9	...	16.5	...	...
Term and notice	-3.0	-2.4	-2.3	-2.5	-2.8	...	-3.4	...	...
General government deposits	-1.9	-13.6	-11.9	-17.1	-13.7	...	-3.7	...	...
TOTAL	3.5	4.0	3.6	4.1	4.2	...	5.3	...	...
Outstanding balance of credit¹									
Private sector	-1.5	-1.2	-1.3	-0.7	-0.6	...	-0.4	...	...
Non-financial firms	-4.0	-4.2	-4.1	-3.3	-3.3	...	-3.7	...	...
Households - housing	-0.8	-0.1	0.0	0.0	-0.2	...	0.0	...	...
Households - other purposes	4.2	4.1	2.7	4.2	6.3	...	8.7	...	...
General government	2.4	-8.5	-8.2	-6.4	-7.1	...	-4.9	...	...
TOTAL	-1.4	-1.5	-1.6	-1.0	-0.9	...	-0.5	...	...
NPL ratio (%)²	9.4	6.1	8.3	7.7	6.1	...	...	...	...

Notes: 1. Residents in Portugal. The credit variables exclude securitisations. 2. Period-end figure.

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

Ageing in Spain and Portugal and its impact on economic growth: a regional approach

The ageing of the population will be one of the key factors, together with the technological revolution and climate change, that will redefine our societies in the coming decades. An older population will not only change the configuration of our societies but also that of our economies, since the ageing of the population has a significant impact on economic growth. This is the matter that we will address in this and the following articles of the Dossier, with a focus on the Spanish and Portuguese economies.

Ageing affects economic growth by reducing the labour force, but it also does so by reducing its productivity

In a context of population ageing, the main factor that can directly hold back an economy's level of production is the reduction of the labour force. In the absence of significant changes in the employment rates of the older population, a decline in the working-age population will reduce the aggregate labour force and, therefore, the economy's overall capacity for growth. Similarly, if there is a reduction in the relative weight of the working-age population relative to the population as a whole, this will also decrease the growth in GDP per capita.

On the other hand, ageing also affects the economy's aggregate productivity, since each age group has a different set of abilities and skills. Changes in the population's age structure affect the composition of its aggregate skills, which can translate into changes in labour productivity. As shown in a recent study by the Bank of Spain,¹ older workers have greater planning and interpretation skills, whilst their physical, writing and numerical skills decrease. Also, according to some studies, companies with older workforces are more risk averse when it comes to making investment decisions and have fewer incentives to adopt technological changes, which can end up causing them to be less productive.²

Spain and Portugal are increasingly aged societies

Spanish and Portuguese societies are increasingly grey haired. In 2019, one in every five Spaniards was aged 65 or over, and in 2050 this age group is expected to account for one in every three, or more than 17.5 million people. In Portugal, the figures in question are 22% of the population in 2019 and 35% (3.2 million) in 2050.³

The reduction in the birth rate is the main factor behind this ageing, as it narrows the lower part of the population pyramid. As far back as the beginning of the 1980s, in both Spain and Portugal the fertility rate stood below the replacement rate (the rate that would allow the total population to remain constant without immigration, which is around 2.1 children per woman). Since the 1990s, it has stood well below this threshold, at around 1.3 children.⁴

In addition to the low birth rate, there is an increase in life expectancy, which widens the top of the population pyramid as the elderly population grows. Life expectancy has risen to 86 years in Spain and 84.3 years in Portugal, and in 2050 it is expected to reach above 89 years in both countries. What is more, not only will there be an increase in life expectancy, but we will live our latter years in better conditions. According to the OECD, half of the life expectancy over the age of 65 will be spent in good health.⁵

As a result of these trends, the elderly population will continue to grow, while the working-age population is most likely to remain constant or even decline. Therefore, the dependency rate, which is the ratio between the population over the age of 65 and the working-age population, and which stood at 29.6% in 2018 in Spain (33.9% in Portugal), will rise to 49.6% by 2040 (56.4% in Portugal).⁶

1. See B. Anghel and A. Lacuesta (2020). «Envejecimiento, productividad y situación laboral». Economic Bulletin 1/2020.

2. See A. Ozimek, D. DeAntonio and M. Zandi (2018). «Aging and the productivity puzzle». Moody's Analytics.

3. See European Union (2018). «The 2018 Ageing Report».

4. According to the basic demographic indicators of the National Statistics Institute of Spain.

5. See OECD (2015). «Health at a glance». Paris.

6. See European Union (2018). «The 2018 Ageing Report».

The depopulated regions of Spain and Portugal are ageing faster than the rest

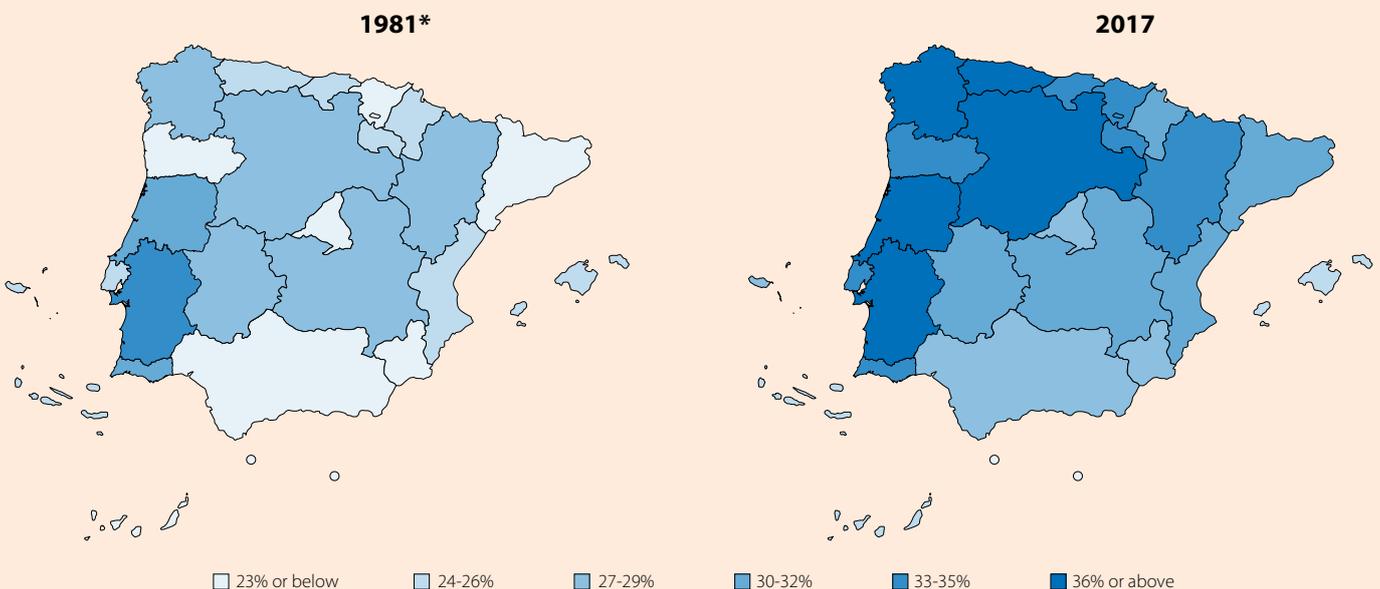
The ageing of the population has a particularly marked effect in the regions of the so-called «empty» Spain and «deserted» Portugal, as the areas that have suffered from significant depopulation in recent years are popularly known.

The main reason for this is that, for several decades now, a significant portion of the population, mostly of working age, has been emigrating from these areas towards the country's main urban centres (in Spain, located in coastal areas and in Madrid), creating a key demographic imbalance between regions. Starting from the 2000s, however, foreign immigration offset part of this imbalance, and today almost all autonomous community regions are net receivers of immigrants to a greater or lesser degree.⁷ However, this immigration has not been able to fully compensate for the loss of population that the regions of the so-called empty Spain and deserted Portugal continue to suffer. An inevitable consequence of this is that, at present, only four autonomous communities (Madrid, Murcia, the Balearic Islands, and Ceuta and Melilla) have a positive natural growth rate (i.e. the difference between the total number of births and deaths), and in some regions such as Galicia and Castile and León it is particularly negative. In contrast, in the early 1980s, in all autonomous communities there were more births than deaths.

Moreover, within any given region, depopulation affects rural areas in particular, and it is precisely in the regions of the so-called empty Spain and deserted Portugal that we find many such areas. As such, population ageing in the rural parts of these regions is even higher than it is in urban areas, posing a huge social challenge.⁸

These regional differences in the ageing of the population can be seen more clearly when we look at the ratio of the population aged 60 or over compared to the adult population as a whole (aged 20 or over). Indeed, this is the key variable we will use to analyse the impact of ageing on economic activity in the following articles. This ratio increased in Spain from 23.6% in 1981 to 30.9% in 2017, and in Portugal it went from 27% in 1991 to 35% in 2017. This increase was especially pronounced in the depopulated regions of Spain and Portugal (see first chart). In 2017, regions such as the Basque Country, Asturias, Galicia, and Castile and León (and the Alentejo and Central regions of Portugal) registered ratios above 35%, while in the Canary Islands, the Balearic Islands and Murcia in Spain (and in the Azores and Madeira in Portugal) the ratio stood at around 26% (for more detail, see the full results in the table).

Ratio of the population aged 60 or over compared to the adult population as a whole (aged 20 or over)



Note: * 1991 for Portugal.

Source: CaixaBank Research, based on data from Reg Data Dem (Spain) and Eurostat (Portugal).

7. With the exception of Extremadura, and Ceuta and Melilla.

8. For more details, see Delgado *et al.* (2017), «Envejecimiento y desequilibrios poblacionales en las regiones españolas con desafíos demográficos», *Ería*, 1, in which they describe the demographic challenges within the eight autonomous community regions in the Forum of Spanish Regions with Demographic Challenges (Foro de Regiones Españolas con Desafíos Demográficos, FREDD): Aragon, Asturias, Cantabria, Castile and León, Castilla-La Mancha, Extremadura, Galicia and La Rioja.

Demographic and economic indicators by autonomous community

	Number of people						Percentage		Euros	
	Natural increase/(decrease)		Net immigration *		Population		Ratio 60+/20+		GDP per capita	
	1981	2017	1981	2017	1981	2017	1981	2017	1981	2017
Ceuta and Melilla	1,200	1,300	-700	-1,500	119,000	169,800	20.3	22.2	18,600	26,400
Canary Islands	15,000	-800	1,600	26,300	1,373,100	2,163,100	19.1	26.3	21,900	24,600
Balearic Islands	3,900	1,900	3,100	16,700	658,300	1,158,000	25.7	26.2	26,000	31,000
Murcia	9,500	3,200	2,400	2,200	959,400	1,473,600	22.4	26.6	18,200	27,200
Andalusia	62,000	-400	4,100	2,800	6,463,000	8,402,800	22.7	28.3	15,500	23,100
Madrid	37,400	11,600	2,400	71,300	4,702,600	6,504,800	20.3	28.9	26,600	41,900
Castilla-La Mancha	8,800	-3,700	-4,300	1,400	1,650,600	2,033,100	28.1	30.2	14,800	24,500
Catalonia	28,700	-1,900	-4,600	68,100	5,964,900	7,450,400	23.0	31.0	22,700	36,500
Valencia	23,800	-6,700	7,600	25,200	3,658,300	4,929,900	23.6	31.2	18,700	27,000
Navarre	2,500	-200	-100	5,400	510,100	641,000	24.5	32.0	21,800	38,300
Extremadura	6,500	-3,500	-4,200	-2,400	1,065,600	1,073,100	27.2	32.0	11,100	20,800
La Rioja	1,000	-700	500	1,100	254,900	312,400	25.5	33.2	16,900	31,500
Cantabria	3,300	-2,200	200	2,200	514,400	580,900	24.7	34.0	20,400	27,000
Aragon	3,900	-3,700	-1,100	4,000	1,198,200	1,315,700	27.6	33.7	18,500	33,200
Basque Country	12,300	-5,300	-8,800	10,300	2,144,100	2,167,600	19.8	35.2	23,100	39,800
Asturias	3,200	-7,400	-3,000	1,900	1,130,100	1,030,000	25.4	38.0	19,000	25,600
Galicia	10,700	-14,800	-10,200	10,600	2,812,800	2,703,400	26.7	37.1	14,500	26,200
Castile and León	10,800	-13,400	-6,800	900	2,585,200	2,423,300	27.5	37.4	15,500	27,500
Spain	244,600	-46,400	-21,900	246,500	37,764,500	46,532,900	23.6%	30.9%	19,400	30,500

Note: * Net immigration corresponds to migration to other regions as well as abroad (for autonomous community regions) and only to immigration abroad (for Spain).

Source: CaixaBank Research, based on data from RegData.

Spain and Portugal are more prosperous countries than in the past, but there is greater economic inequality between their regions

The regional differences are even more pronounced in the economic sphere than in the demographics. The well-being of all regions of Spain and Portugal has increased substantially in the last 40 years: GDP per capita in real terms stood at around 30,000 euros in 2017 in Spain (23,000 euros in Portugal), whereas in 1981 it was below 20,000 euros (11,500 euros in Portugal). However, whilst we now enjoy higher levels of GDP per capita, the relative differences between regions has not diminished. At the top end of the scale, in 2017 GDP per capita in Madrid remained 37% higher than the average for Spain (the same percentage as in 1981); that of the Basque Country, 30% higher (+19% in 1981), and that of Catalonia, 20% higher (+17% in 1981). At the bottom of the scale, GDP per capita in Andalusia was 24% lower than the average in 2017 (-20% in 1981) and that of Castilla-La Mancha, 20% lower (-24% in 1981). On the other hand, some autonomous community regions such as Aragon now have a higher-than-average GDP per capita, while Asturias and Cantabria are below the average, whereas in 1981 the well-being of these three regions stood at around the average.⁹

In the remaining articles, we will analyse how ageing affects economic growth in Spain and Portugal; we will then measure what portion of this impact is in response to changes in the size of the labour force and what portion is due to changes in labour productivity and, finally, we will discuss what policies can be implemented to counteract the impact of ageing.

Josep Mestres Domènech, Eduard Llorens i Jimeno and Daniel Filipe Belo

9. For more information about the factors that explain the economic diversity between Spanish regions, see A. de la Fuente (2019). «La dinámica territorial de la renta en España, 1955-2018. Los determinantes directos de la renta relativa: productividad, ocupación y demografía». FEDEA, Estudios sobre Economía Española nº 2020-04. Madrid.

The impact of ageing on economic growth in Spain and Portugal

Having described the phenomenon of population ageing in the first article of this Dossier, in this second article we analyse how ageing has influenced the economic growth of Spain and Portugal in recent years, as well as its implications for the future.

The international evidence indicates that population ageing results in lower economic growth. On average, the reduction in the working-age population is expected to weaken annual GDP growth by a considerable 0.64 pps in advanced countries up until 2025 (compared to the long-term historical trend).¹ Similarly, it is estimated that the growth of GDP per capita will be reduced by 0.25 pps annually in the 2030s in OECD countries.²

To analyse the effect of ageing on economic growth in Spain and Portugal, we estimate the impact of the ageing of the population, defined as the ratio between the number of people aged 60 or over and the number of people aged 20 or over, on GDP per capita. Obtaining a measure that helps us to quantify this impact is fundamental for understanding how the current demographic trends will affect our level of well-being and that of future generations in years to come.

How can we separate the impact of ageing on economic growth from other factors?

In order to accurately estimate the impact of ageing on economic growth, we must address a problem of reverse causality, since it is possible not only that ageing has an impact on economic growth, but also that the latter has an impact on ageing. For instance, a region that is growing more than its surroundings can have a less aged population because it offers more job opportunities to young people. Similarly, we want to separate the impact of ageing on economic growth from other variables that might also affect it and which, at the same time, are related to ageing. For example, the quality of public health services has a positive influence on economic growth (a healthier population is more productive) and, at the same time, it has a positive correlation with ageing (a healthier population lives longer).^{3,4}

The impact of ageing on the economic growth of Spain and Portugal

Using statistical techniques that allow us to identify the impact of ageing on economic growth in Spain and Portugal, we can see that, in the case of Spain, **when our measure of ageing increases by 1% in a particular autonomous community region, its economic growth reduces by 0.39%.** In other words, we find that the elasticity of economic growth relative to population ageing is -0.39 . In the case of Portugal, the effect is even greater, since we obtain an elasticity of -0.51 . Both elasticity figures are similar to that found by Maestas *et al.* (2016) for the case of the US (-0.55) and they show that ageing has a significant, negative impact on economic growth.

This result allows us to calculate the cost that ageing has had in Spain in the past. During the 1990s and 2000s, ageing did not grow significantly, so its impact on economic growth was modest. However, **in the last decade (2010-2019) ageing increased by 4.7 pps. This led to economic growth being 0.6 pps lower in annualised terms compared to the economic growth that there could have been had ageing remained constant during this decade. This means that in 2019, for instance, in the absence of the increase in ageing, the annual growth of GDP per**

Spain: GDP per capita in different demographic scenarios

Annual change (%)



Notes: In the absence of the observed growth in ageing during the 1990s, 2000s and 2010s, the annual growth in GDP per capita would have been 0.2 pps higher, 0.03 pps lower and 0.6 pps higher than that observed, respectively. The orange dotted lines represent the 95% confidence interval.

Source: CaixaBank Research, based on data from FEDEA and CSIC.

1. See Y. Aksoy, H. Basso, R. Smith and T. Grasl (2019). «Demographic structure and macroeconomic trends». American Economic Journal.

2. See «The long view scenarios for the world economy to 2060». OECD Economic Policy Paper, 22 (2018).

3. In order to identify the relationship of interest and solve these problems, we use an instrumental variable defined as predicted ageing, which is built using demographic variables that date back to 10 years earlier. More specifically, we estimate the following equation:

$\Delta \log Y_t = \delta_1 + \delta_2 * \Delta \log \text{Elderly Population Ratio}_t + \delta_3 * \Delta \log X_t + \delta_t + \Delta \varepsilon_t$ where Y_t is the economic variable of interest, the *Elderly Population Ratio*_t is the proportion of individuals aged 60 or over, X_t is a set of control variables (proportion of employees in each economic sector and migratory flows between regions) and δ_t represents fixed year effects. We estimate how the increase in ageing that occurred in each decade (based on demographic variables that date back to 10 years earlier and using changes registered over 10-year periods, due to the fact that demographic variables change very slowly) affects the growth of GDP per capita in the same period.

4. Our estimation method is very similar to that proposed by Maestas *et al.* (2016) for the case of the US (see N. Maestas, K. Mullen and D. Powell (2016). «The effect of population aging on economic growth, the labor force and productivity». NBER Working Paper Series).

capita would have been 2.2% instead of the 1.6% observed. These results are clearly shown in the first chart (see previous page), in which the annual growth in the observed GDP per capita and its counterfactual without ageing almost overlap throughout the first two decades analysed, but clearly diverge starting from 2010.

The impact of ageing in the future

Having analysed what has happened in the last three decades in Spain, we ask ourselves what will happen in the next three. Combining the results of our estimates with population projections by age group from the National Statistics Institute, which forecast that Spanish society will continue to age, our estimates show that the detrimental impact of ageing on economic growth observed in the last decade will persist in the current decade and in the next. In annualised terms, **ageing will reduce economic growth by 0.7 pps in the current decade⁵ and by 0.6 pps in the next.** Looking ahead to the 2040s, since the population will

already be very aged, the forecast is that ageing will have less of an impact on economic growth. This is shown in the second chart, in which the last bar is smaller than the previous two.

Spain: historical annual growth in GDP per capita (%) and forecast of the impact of ageing by decade (pps)



In short, our estimates for Spain and Portugal show that **ageing has a considerable, negative impact on economic growth.** In the case of Spain, this impact has been felt since the last decade and will continue to be felt in both the current and the next one.

Eduard Llorens i Jimeno, Josep Mestres Domènech and Daniel Filipe Belo

Note: During the 2020s, 2030s and 2040s, ageing is expected to reduce annual growth in GDP per capita by 0.7, 0.6 and 0.1 pps, respectively.
Source: CaixaBank Research, based on data from FEDEA, CSIC and the National Statistics Institute.

5. This number is comparable to the one estimated by Maestas *et al.* (2016), who determined that, for the same decade and in annualised terms, ageing will reduce economic growth by 0.6 pps in the US.

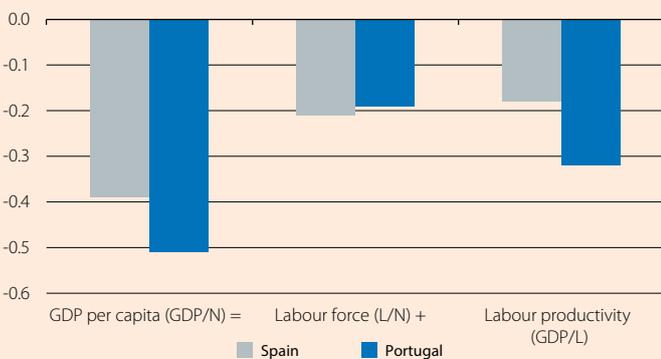
The impact of ageing on the labour force and productivity: six of one, half a dozen of the other

As we have seen in the previous articles, a population with more grey hairs reduces economic growth. The impact of ageing is not inevitable, and far from it, but in order to counteract it we must first identify the channels through which it affects the economy, as well as their relative importance.

As we explained at the beginning, ageing reduces economic growth because it affects the size and productivity of the labour force. Until now, many studies on ageing and economic growth focused on the reduction of the workforce, but very few analysed productivity. One study that did, however, was that conducted by Maestas *et al.* (2016) for the US, breaking down economic growth into changes in the proportion of the population that works (i.e. the number of workers per capita) and changes in the productivity of the labour force (GDP per worker).¹ We will extrapolate this approach to the case of Spain and, using this

Breakdown of the impact of ageing on GDP per capita between impact through the labour force and impact through productivity

Impact of the ageing ratio on each variable (pps)



Note: Each column represents the elasticity of the ageing ratio relative to each variable. The sum of the elasticities of the labour force and labour productivity correspond to the impact on GDP per capita. N corresponds to the population and L to the labour force. For more details on the methodology, see the specification in the preceding article in this same Dossier.
Source: CaixaBank Research.

breakdown, we will then estimate what impact ageing has on each of these factors using sophisticated statistical techniques similar to those used in the previous article.

Ageing reduces economic growth both through a reduction in the labour force and, in equal or greater measure, by causing lower productivity

The first channel through which ageing affects the economy is the reduction in the relative size of the labour force. Our estimates suggest that a 1% increase in the proportion of the population aged 60 or over reduces the growth in the number of workers per capita by 0.21% in Spain, and by 0.19% in Portugal. However, the productivity channel is just as important in Spain, and even more so in Portugal. A 1% increase in the proportion of the population aged 60 or over reduces growth in labour productivity (GDP per worker) by 0.18% in Spain, and by 0.32% in Portugal. By construction, the aggregate impact of ageing on economic growth is the result of the sum of these two impacts: in Spain, the decline in productivity and the

reduction of the labour force are equally responsible for the slowdown in economic growth caused by ageing, while in Portugal they account for 63% and 37% of this slowdown, respectively.

The lower productivity growth due to the ageing of the population slows wage growth

Since we have seen that the ageing of the population has a significant impact on productivity growth, we consider it appropriate to analyse in which areas this is reflected. Thus, we break productivity growth down into three components: wages (the income per hour worked), the number of hours worked by each worker and the value added for each dollar of income.

According to our estimates, the lower productivity growth caused by the ageing of the population translates, above all, into lower wage growth (two thirds of the impact), as reflected in the table. In other words, a 1% increase in the proportion of the population aged 60 or over translates into a 0.13% lower annual wage growth (as a benchmark, the average annual wage growth in the past two decades has been 2.3%).² Also, one third of the impact of ageing on productivity occurs in the intensive margin of the supply of labour, i.e. a reduction in the number of hours per worker. This is a much smaller impact than that seen in salary adjustments.

Breakdown of the impact of ageing on productivity

Impact of the ageing ratio on:

	Labour productivity (GDP/L)	=	GDP/Income	+	Wages (income/hour)	+	(Hours/L)
Spain	-0.18 ***		0.01		-0.13 ***		-0.06
Portugal	-0.32 ***		0.01		-0.24 ***		-0.09 ***

Notes: The sum of the coefficients of the second, third and fourth column correspond to the impact presented in the first column. Each coefficient represents the elasticity of the ageing ratio relative to each variable. The level of statistical significance corresponds to 1% (***), 5% (**) and 10% (*), respectively. L corresponds to the labour force. For more details on the methodology, see the specification in the preceding article.
Source: CaixaBank Research.

1. For more details, see N. Maestas, K. Mullen and D. Powell (2016). «The effect of population aging on economic growth, the labor force and productivity». NBER Working Paper Series.

2. Based on the assumption that wages are approximately in line with the marginal productivity of labour, ageing should not affect GDP per euro of income, as we have identified in our analysis.

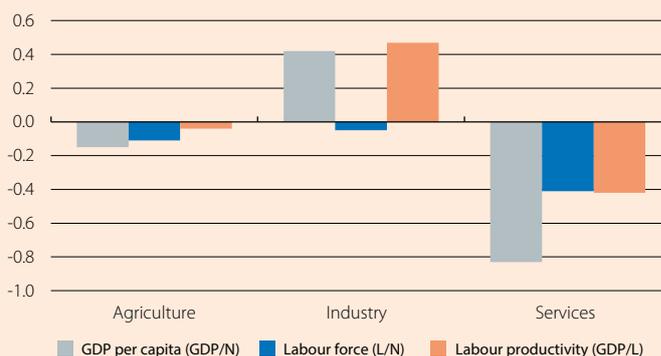
The impact of ageing on economic growth varies by sector

Ageing does not necessarily have to have a negative impact on labour productivity. Whether or not it does depends, among other factors, on the sectoral configuration of the economy, as well as on the response of workers, firms and the general government to counteract it. In fact, Acemoglu and Restrepo (2017)³ claim that greater ageing could be associated with higher productivity if it ends up driving investment in the automation of production processes. In the same vein, Jimeno (2019)⁴ discusses how ageing can incentivise the implementation of technological changes, although he also points out that these changes are unlikely to completely counteract the lower growth in GDP per capita.

As we have suggested, part of the discrepancies found in the economic literature on the impact of ageing on economic growth are due to the differing sectoral configurations of each economy and each sector's potential for automation. To explore this point, we grouped the autonomous community regions into three groups based on their most important economic sector (agriculture, industry or services) from the point of view of employment in relative terms (in comparison with the rest of the autonomous community regions),⁵ in order to calculate the impact of ageing on each of these groups separately. The results show that in regions where industry plays a greater role in the economy, the impact of ageing on economic growth is positive, thanks to gains in labour productivity that could be explained by the increased automation of industrial processes. In contrast, in regions dominated by services (less automated, due to the very nature of the sector), ageing significantly reduces growth in GDP per capita. This reduction is explained by the decline in both the labour force and productivity in equal parts. These differences in the results according to the predominant economic sector highlight the importance of taking into account economies' sectoral configurations when measuring the impact of ageing on economic growth, and they may help us to understand why some studies have identified a positive impact and others, a negative impact.

Impact of ageing according to the relative importance of each sector in the regions

Impact of the ageing ratio on each variable (pps)



Notes: The sum of the coefficients of the second and third column correspond to the impact presented in the first column. Each coefficient represents the elasticity of the ageing ratio relative to each variable. N corresponds to the population and L to the labour force. For more details on the methodology, see the specification in the preceding article in this same Dossier. Grouping of autonomous community regions according to the relative importance of each sector (in comparison with the rest of the autonomous community regions) in terms of employment: agriculture (Andalusia, Extremadura and Murcia), industry (Aragon, Catalonia, La Rioja, Navarre, the Basque Country and Valencia) and services (the Balearic Islands, the Canary Islands, Cantabria, Castilla-La Mancha, Castile and León, Galicia and Madrid).
Source: CaixaBank Research.

Josep Mestres Domènech, Eduard Llorens i Jimeno and Daniel Filipe Belo

3. See D. Acemoglu and P. Restrepo (2017). «Secular stagnation? The effect of aging on economic growth in the age of automation». American Economic Review.

4. See Juan F. Jimeno (2019). «Fewer babies and more robots: economic growth in a new era of demographic and technological changes». SERIEs 10.2: 93-114.

5. Grouping of autonomous community regions according to the relative importance of each sector (in comparison with the rest of the autonomous community regions) in terms of employment: agriculture (Andalusia, Extremadura and Murcia), industry (Aragon, Catalonia, La Rioja, Navarre, the Basque Country and Valencia) and services (the Balearic Islands, the Canary Islands, Cantabria, Castilla-La Mancha, Castile and León, Galicia and Madrid).

Policies to counteract the impact of ageing in Spain

In the second and third articles of this Dossier, we have seen how the ageing of the population has had – and will continue to have – a negative impact on economic growth in Spain. In keeping with the maxim stated by Henry Ford, «Don't find fault, find a remedy», in this final article we will analyse some of the measures that could help to counteract the adverse effect that ageing will have on the Spanish economy in the coming years.

The growth of GDP per capita can be broken down as the sum of the growth in the number of people in work per capita (extensive margin) and the growth in GDP per worker (labour productivity). As we have already seen, the impact of ageing will occur on both of these fronts, and therefore it is necessary to act on both of these fronts in order to counteract it.

Increasing the workforce, a task for everyone

To boost growth in the extensive margin in a context of population ageing, the main measures consist of increasing the birth rate, prolonging people's working lives, increased immigration and greater labour participation of the population. Increasing the birth rate feeds the base of the labour force, but it takes several decades to have an impact. Therefore, we will focus on the last three and we will analyse hypothetical scenarios to determine to what extent they could help offset the negative impact that ageing will have over the coming decades.¹

Prolonging working lives

The increase in life expectancy that we are enjoying is so significant that it makes it possible for us to allocate a small part of our extended lifetime to working more, either through flexible retirement to combine retirement and work or by delaying the retirement age.²

On this note, we wonder what increase we would see in the number of people in work per capita and, therefore, in economic growth if, during this decade (2020-2029), the next (2030-2039) and the one after that (2040-2049), the effective retirement age were increased to 66, 67 and 68 years, respectively. In annualised terms, economic growth would be 0.19 pps, 0.27 pps and 0.18 pps higher for each of the respective decades compared with a scenario in which the effective retirement age remained at the current age of 65. If we recall the figures for the negative impact of ageing on economic growth,³ these quantities would mean that **this hypothetical scenario of increasing the effective retirement age would offset the negative impact of ageing on economic growth by 27% and 45% in the current and next decade, respectively, and would offset the negative impact in the last decade entirely** (since the impact of ageing would be much lower in the period 2040-2049).

Increasing immigration

The second factor analysed that would help to increase the labour force is immigration. To put the scale of migratory movements in Spain in context, in 2017 the flows of immigrants from abroad who remained in Spain to live accounted for 0.7% of the total population. This figure is higher than that registered by countries such as Italy, Portugal or France, where the percentage stood at 0.4%, but lower than countries such as the Netherlands or Germany, where the figure was 0.8% and 1.1%, respectively. Taking the latter country as a benchmark to build a hypothetical scenario of migration flows, we will examine what increase we would see in economic growth if the inflows of immigrants relative to the total population in Spain were to converge, between now and 2049, with those observed in Germany in 2017. The results show that, in annualised terms, economic growth would be 0.02, 0.12 and 0.15 pps higher in the 2020s, 2030s and 2040s, respectively, compared to the scenario of immigrant flows forecast by the National Statistics Institute.⁴ This means that **this hypothetical scenario of «German-level» immigration flows would offset 3% and 17% of the negative impact of ageing on economic growth in the the current decade and the next, respectively, and would offset it entirely in the last decade.**

1. It is important to note that, while they are interesting for our analysis, we must take these simulations with a pinch of salt, since they are based on assumptions that will not necessarily be fulfilled or implemented by public policy makers.

2. Furthermore, extending people's working lives has a significant, direct impact on improving the sustainability of the public pension system. For more details, see «Presente y futuro de la Seguridad Social». Papeles de Economía Española (2019).

3. See the article «[The impact of ageing on economic growth in Spain and Portugal](#)» in this same Dossier.

4. The fact that during the 2020s the increase in economic growth is close to zero is due to the fact that our hypothetical scenario is very similar to the immigration forecasts elaborated by the National Statistics Institute. In contrast, for the following two decades the difference between the two scenarios increases, so the impact on economic growth is greater.

Reducing the unemployment rate

The last measure that we will analyse in terms of how to increase the labour force is related to the reduction of the unemployment rate – an important issue in Spain given that the unemployment rate (13.9%) is the second highest in the euro area, behind only Greece. It is on this point that we will focus our attention, quantifying by how much economic growth could be boosted with an economic policy that progressively cut the difference between the level of unemployment in Spain and the average level for the euro area (7.5%) in half by 2049. A reduction in unemployment on the scale described would result in economic growth being 0.12, 0.13 and 0.13 pps higher in annualised terms in the 2020s, 2030s and 2040s, respectively, compared to a scenario in which the unemployment rate remained at its current level. Thus, **the negative impact of ageing would be reduced by 17%, 22% and 130%** in the current and next two decades, respectively.

The three measures analysed that are aimed at increasing the extensive margin of the labour supply help to reduce the impact of ageing. However, the results obtained indicate that their effect is only partial and of varying scope in different periods (see table). Thus, **focusing only on economic policies that increase the number of people in work per capita is not enough to offset the negative impact that ageing will have in this decade and the next.** It is therefore also necessary to emphasise the other factor that sustains economic growth, labour productivity.

Measures to boost growth in the number people in work per capita

Annualised impact on economic growth (pps)

	2020s	2030s	2040s
Increasing the retirement age	0.19 (27%)	0.27 (45%)	0.18 (180%)
Increasing immigration	0.02 (3%)	0.12 (20%)	0.15 (150%)
Reducing unemployment	0.12 (17%)	0.13 (22%)	0.13 (130%)

Note: For each of the three measures analysed, we show the annualised impact on economic growth, as well as the percentage of the impact of ageing that could be offset by such measures.

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

Labour productivity

As we have discussed in [the third article of this Dossier](#), a major part of the impact of ageing on economic growth operates through labour productivity. This factor has often been overlooked when talking about ageing, but for Spain it is just as important as the extensive margin, and even more so for Portugal. For this reason, in order to address the impact of ageing, measures that encourage the growth of labour productivity in Spain must be taken into account. The trend followed by labour productivity has been somewhat mediocre in the last two decades, and there has been a long list of reforms seeking to improve it. In a previous Dossier,⁵ we discussed at length the role that new technologies will have in boosting productivity, especially as applications are consolidated, new business models mature, the training of workers improves and factors of production are reallocated.

Another important tool for facilitating productivity growth is education, both in its formal and in its continuous forms. The latter has a significant role to play in preventing a deterioration in workers' skills, including among older workers, as well as in improving their ability to adapt to new tasks to be performed within their companies, for instance due to technological change.

If we look at the labour productivity of the older population in particular, a recent study by the Bank of Spain⁶ highlights how workers' skills change as they get older. For this reason, workers' tasks should be reallocated so that older workers continue to have a productive career. An example would be replacing tasks that require more physical effort – and are therefore less suitable for older workers – with new ones that focus on other kinds of skills, such as those related to planning. More generally, increasing and improving not only productivity but also labour opportunities for older workers is a major challenge for society. Indeed, workers, firms and governments must all play their part in tackling this challenge, given that the workforce of the future will be an ageing one.⁷

In short, the message we must take away is that, although the measures that encourage the growth of the labour force help to reduce the impact of ageing, they will need to go hand in hand with an increase in labour productivity if the aim is to prevent the ageing of the population from taking a significant toll on economic growth.

Eduard Llorens i Jimeno and Josep Mestres Domènech

5. See the Dossier [«New technologies and productivity»](#) in the MR02/2020.

6. See B. Anghel and A. Lacuesta (2020). «Ageing, Productivity and Employment Status». Analytical Articles, Economic Bulletin.

7. See OECD Publishing (2019). «Working better with age». Paris.

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