

MR04

MONTHLY REPORT • ECONOMIC AND FINANCIAL MARKET OUTLOOK

NUMBER 455 | APRIL 2021



ECONOMIC & FINANCIAL ENVIRONMENT

FINANCIAL MARKETS

New fiscal package in the US: overheating in sight?

INTERNATIONAL ECONOMY

The factors behind the rise in euro area inflation

SPANISH ECONOMY

Taking stock of the «intermediate» sectors in Spain

DOSSIER: CHALLENGES FACING CENTRAL BANKS IN THE POST-PANDEMIC WORLD

Waiting for inflation

The shadow of fiscal dominance

Central bank independence: from the theory to the practice

Central banks and digital currencies: a major challenge not without its difficulties

MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK

April 2021

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

CaixaBank Research
www.caixabankresearch.com
research@caixabank.com

Enric Fernández
Chief Economist

José Ramón Díez
Head of International Economies
and Financial Markets

Oriol Aspachs
Head of Spanish Economy

Sandra Jódar
Head of Strategic Planning

Adrià Morron Salmeron
Monthly Report coordinator

Javier Garcia-Arenas
Dossier coordinator

BPI Research (UEEF)
www.bancobpi.pt /
<http://www.bancobpi.pt/grupo-bpi/estudos-e-mercados/mercados-financeiros>
deef@bancobpi.pt

Paula Carvalho
Chief Economist

Date this issue was closed:
31 March 2021

INDEX

1 EDITORIAL

3 KEY POINTS OF THE MONTH

4 FORECASTS

7 FINANCIAL MARKETS

9 *Quo vadis, Chinese debt?*
Jordi Singla

11 *New fiscal package in the US: overheating in sight?*
Clàudia Canals and Màxim Ventura

14 INTERNATIONAL ECONOMY

17 *The factors behind the rise in euro area inflation*
Ricard Murillo Gili

21 SPANISH ECONOMY

23 *Taking stock of the «intermediate» sectors in Spain*
Oriol Carreras Baquer

25 *A much-needed aid package for businesses and self-employed workers in Spain*
Javier Garcia-Arenas

27 *Automation: a race we are not devoting enough effort to*
Clàudia Canals and Oriol Carreras

29 PORTUGUESE ECONOMY

32 DOSSIER: CHALLENGES FACING CENTRAL BANKS IN THE POST-PANDEMIC WORLD

32 *Waiting for inflation*
Adrià Morron Salmeron and Javier Garcia-Arenas

34 *The shadow of fiscal dominance*
Adrià Morron Salmeron and Javier Garcia-Arenas

36 *Central bank independence: from the theory to the practice*
Javier Garcia-Arenas and Adrià Morron Salmeron

39 *Central banks and digital currencies: a major challenge not without its difficulties*
Javier Garcia-Arenas and Adrià Morron Salmeron

Bitcoins at 50,000 euros: any more bids?

The price of Bitcoin reached 50,000 euros at the end of March, around 10 times more than 12 months ago and 3 times more than the peak reached in December 2017. The 10,000 bitcoins that were paid for two pizzas in 2010 would now be worth some 500 million euros, and the value of all the bitcoins in circulation is approaching 1 trillion euros, a figure that lies between the market capitalisation of Google and Facebook. These are dizzying figures that make us wonder whether we are facing an enormous bubble.

Why would someone pay 50,000 euros for a bitcoin? They certainly do not do so because it is a widely accepted means of payment, because it is not. Its acceptance remains anecdotal, although its use is more common in the world of illicit activities. It is also not because they think of Bitcoin as an asset that can generate an income stream in the form of dividends, since it does not pay any and it never will. It also makes no sense to think of Bitcoin as a stable store of value, given its high volatility.

The most plausible reason why someone is willing to pay 50,000 euros for a bitcoin is because they hope to be able to sell it for a higher price. We are talking about speculation supported by a narrative that seeks to justify ever-higher prices.

The idea has spread, for example, that Bitcoin provides protection against the alleged risk of hyperinflation posed by the current monetary expansions. However, better protection is offered by indexed bonds, which pay a coupon that depends on the inflation rate. On the other hand, gold, a safe-haven asset against inflationary risks, is trading at almost the same levels as a year ago, so it does not seem that these fears could explain Bitcoin's renewed appeal. It is also said that the cryptocurrency serves to protect against negative interest rates, but it does not seem that an instrument that pays 0% interest and whose price fluctuates as much as Bitcoin's offers such protection. Moreover, not only are dollar interest rates not negative, but they have increased significantly in recent months.

Another element of the current narrative that has helped to boost the price of Bitcoin is the supposed entry of institutional investors who would be adding the cryptocurrency into their investment portfolios. Unfortunately, there are no reliable data to corroborate this development. The entry of such institutional investors is known because several companies and hedge funds have themselves announced that they have made such investments, but it is not clear whether this is a sign of a broader trend. Yet these announcements have served to feed this narrative of Bitcoin's unstoppable advance. On the other hand, no one should be surprised that there are hedge funds that wish to take advantage of a speculative bubble in order to achieve short-term gains.

Several events could trigger a puncture in the Bitcoin price. To begin with, vertigo. It will become increasingly difficult to justify that the price still has room to grow and thus sustain a continued appreciation. Yet the same price stabilisation could prove to be the precursor to its collapse, because there will be investors who, in the absence of expectations of continued appreciation, will no longer be interested in maintaining their positions. A price correction could, in turn, place the focus on narratives other than those mentioned above and which would justify further declines: the market's low level of liquidity, which triggers big price movements with a low transaction volume; the vulnerability of the Bitcoin market to manipulation, given the absence of almost any regulation or supervision; the energy waste that Bitcoin involves in a context of greater awareness in the fight against climate change, or the emerging threat in the form of digital currencies issued by central banks, cryptocurrencies which would be legal tender.

In 2018, the price of Bitcoin plummeted by more than 80%. Will we see something similar again in 2021? It could happen, although no one knows for sure. As Isaac Newton put it after losing his investment in the South Sea Company bubble of 1720, «I can calculate the motion of heavenly bodies, but not the madness of people».

Enric Fernández
April 2021

Chronology

MARCH 2021

- 5 The EU and the US suspend tariffs which they had imposed on each other in retaliation for state aid to their respective aerospace industries.
- 11 The ECB indicates that it will increase the rate of weekly debt purchases under the pandemic emergency purchase programme (PEPP), although it did not alter the programme's design or total capacity (1.85 trillion euros).
- 19 Various EU countries resume use of the AstraZeneca COVID-19 vaccine (suspended mid-month) after the European Medicines Agency reiterated its safety and efficacy.

JANUARY 2021

- 15 The official global COVID-19 death toll surpasses 2 million people.
- 20 Joe Biden takes the oath of office to become the new US president. Earlier in the month, Donald Trump supporters had stormed Congress in protest at the election results.

NOVEMBER 2020

- 15 Australia, New Zealand and 13 Asian economies (including China) sign a large-scale trade agreement known as the Regional Comprehensive Economic Partnership.
- 20 The first COVID-19 vaccines seek official approval from the authorities after the trial phase comes to an end.

FEBRUARY 2021

- 13 The US Senate absolves Donald Trump from impeachment for the second time.
- 24 Ghana is the first country to receive a vaccine package as part of COVAX, the WHO-led programme aimed at ensuring equitable access to COVID-19 vaccines among developing countries.

DECEMBER 2020

- 2 The United Kingdom becomes the first Western country to approve the use of a vaccine against COVID-19.
- 10 The ECB increases the PEPP budget to 1.85 trillion, prolongs its net purchases until March 2022 and launches three new TLTRO-III operations.
- 24 The EU and the United Kingdom reach a trade agreement to regulate their economic relations from 1 January 2021, when the United Kingdom leaves the single market and customs union.

OCTOBER 2020

- 16 The rating agency Moody's downgrades the United Kingdom's credit rating from Aa2 to Aa3.
- 25 The Spanish government declares a new state of emergency.
- 28 France announces a new lockdown and other European countries (such as Germany) also impose tighter mobility restrictions than in previous months.

Agenda

APRIL 2021

- 5 Portugal: employment and unemployment (February).
- 6 Spain: registration with Social Security and registered unemployment (March).
- 9 Portugal: international trade (February).
- 14 Portugal: tourism activity (February).
- 15 Spain: financial accounts (Q4).
- 16 Portugal: state budget execution (March).
- 22 Spain: loans, deposits and NPL ratio (February).
Governing Council of the European Central Bank meeting.
- 27-28 Federal Open Market Committee meeting.
- 29 Spain: CPI flash estimate (April).
Spain: labour force survey (Q1).
Euro area: economic sentiment index (April).
US: GDP (Q1).
- 30 Spain: GDP flash estimate (Q1).
Spain: state budget execution (March).
Portugal: GDP flash estimate (Q1).
Euro area: GDP (Q1).

MAY 2021

- 5 Spain: registration with Social Security and registered unemployment (April).
- 6 Portugal: new lending (March).
- 7 Spain: industrial production index (March).
- 10 Portugal: turnover in industry (March).
- 12 Portugal: employment and unemployment (Q1).
- 14 Portugal: Fitch rating.
- 17 Spain: foreign trade (March).
- 18 GDP of Japan (Q1).
- 26 Spain: loans, deposits and NPL ratio (March).
- 28 Euro area: economic sentiment index (May).
Portugal: business and consumer confidence indicator (May).
- 31 Spain: CPI flash estimate (May).
Spain: state budget execution (April).
Portugal: CPI flash estimate (May).

European frustration

It seemed like this time was different. Historically, the European project has advanced reluctantly, seeking to make virtue of necessity. To a large extent, the broad European institutional fabric has been shaped in response to events, following long and tense negotiations. In contrast, the measures taken since the start of the pandemic, such as the Next Generation EU economic stimulus programme, which is of a magnitude never before seen in the Old Continent and has been adopted relatively quickly, or the ECB's unwavering action, invited optimism. It seemed that this time Europe was shifting gear and taking some initiative.

However, China first and more recently the US have shown that Europe remains one step behind. While those economies are consolidating their economic expansion, the major European countries have once again folded to curb the spread of the virus, with the consequent impact on the economy. Translated into figures, China's GDP will close Q1 more than 6% above the pre-pandemic level. In the US, GDP growth will be around 1.5% quarter-on-quarter for Q1 and will likely reach the pre-pandemic level in Q2 of this very year. In contrast, in the euro area the decline in GDP could approach -1% in Q1, and it is not expected to reach pre-pandemic levels until the second half of 2022.

In the case of the US, in addition to the encouraging data for economic activity and the labour market, there appears to be another economic stimulus package on the horizon. The Biden administration is very active, and just a few weeks after approving a 1.9-trillion-dollar fiscal package to stimulate the economy in the short term, it announced its intention to implement another ambitious programme, this time focusing on medium-term investment in infrastructure and education, which could amount to 2 trillion dollars spread over several years. This has reinforced the expectation that economic activity will continue to gather strength over the coming quarters, so we have revised our growth forecasts for this year up by slightly more than 1 pp, to 6%. The improvement in the outlook is widespread among the analyst community, which is helping to consolidate the rally in the yield on the 10-year US bond. It has already amassed an increase of more than 75 bps since the beginning of the year. This is a significant rally which was not expected just a few months ago, and one which the Fed does not see as cause for concern since it largely reflects the improved economic outlook.

The situation is rather different in Europe. We have revised the growth expected for this year slightly downwards due to the tightening of the measures imposed to combat the

pandemic in the major European countries. We now place it at 4.1%, 0.2 pps below the previous forecast. The ECB has increased the pace of asset purchases to ensure that interest rates remain close to the levels of recent months. The economy is still too fragile to allow for even the slightest sign of tightening in the financial conditions. Furthermore, the German Constitutional Court has once again taken centre stage by temporarily suspending the ratification of the European recovery fund (its implementation requires its ratification by all Member States). Let us hope this will not lead to delays in the first disbursements of the fund which *a priori* are expected this summer.

The European context is not helping the Spanish economy, and neither have the developments in the pandemic in recent months, having forced the authorities to maintain the restrictions on mobility and activity, and in some cases even to tighten them. Thus, following the stagnation of the recovery process in Q4 last year, we are likely to see a slightly negative growth rate for Q1 this year, of around -0.5% quarter-on-quarter according to CaixaBank Research estimates. That is what is suggested by CaixaBank Research's consumption indicator, which closed Q1 2021 with a slightly bigger decline than that registered in Q4 2020, as well as by developments in the labour market.

The recent trends in Spain's economic activity indicators fit in with CaixaBank Research's scenario, so we maintain the GDP growth anticipated for this year at 6.0% (in line with the Bank of Spain's new baseline scenario). We are confident that the impasse in the economic revival in which the Spanish economy and other European countries currently find themselves will be overcome in Q2. We expect the vaccination rate to gain momentum over the coming weeks, which will allow the population at risk to be immunised during this Q2 and thus enable the restrictions to be significantly eased, paving the way for Spain to follow those countries that are one step ahead. In addition, in Spain it is imperative that the programme of direct aid to businesses recently approved by the government is implemented quickly. This should provide important support for businesses that are suffering the most as a result of the measures imposed to contain the pandemic. The fact that there are other countries that are one step ahead is certainly a source of frustration, but it must also give us hope. Very soon, we will find ourselves in a similar situation.

Oriol Aspachs

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

Financial markets

	Average 2000-2007	Average 2008-2017	2018	2019	2020	2021	2022
INTEREST RATES							
Dollar							
Fed funds (upper limit)	3.43	0.55	2.50	1.75	0.25	0.25	0.25
3-month Libor	3.62	0.75	2.79	1.91	0.23	0.25	0.45
12-month Libor	3.86	1.26	3.08	1.97	0.34	0.50	0.80
2-year government bonds	3.70	0.80	2.68	1.63	0.13	0.25	0.50
10-year government bonds	4.70	2.58	2.83	1.86	0.93	1.90	2.10
Euro							
ECB depo	2.05	0.32	-0.40	-0.50	-0.50	-0.50	-0.50
ECB refi	3.05	0.90	0.00	0.00	0.00	0.00	0.00
Eonia	3.12	0.55	-0.36	-0.46	-0.47	-0.45	-0.45
1-month Euribor	3.18	0.67	-0.37	-0.45	-0.56	-0.48	-0.43
3-month Euribor	3.24	0.85	-0.31	-0.40	-0.54	-0.50	-0.40
6-month Euribor	3.29	1.00	-0.24	-0.34	-0.52	-0.48	-0.38
12-month Euribor	3.40	1.19	-0.13	-0.26	-0.50	-0.45	-0.35
Germany							
2-year government bonds	3.41	0.55	-0.60	-0.63	-0.73	-0.60	-0.45
10-year government bonds	4.30	1.82	0.25	-0.27	-0.57	-0.35	0.00
Spain							
3-year government bonds	3.62	2.06	-0.02	-0.36	-0.57	-0.36	-0.06
5-year government bonds	3.91	2.59	0.36	-0.09	-0.41	-0.24	0.12
10-year government bonds	4.42	3.60	1.42	0.44	0.05	0.15	0.50
Risk premium	11	178	117	71	62	50	50
Portugal							
3-year government bonds	3.68	4.02	-0.18	-0.34	-0.61	-0.29	0.05
5-year government bonds	3.96	4.67	0.47	-0.12	-0.45	-0.28	0.14
10-year government bonds	4.49	5.35	1.72	0.40	0.02	0.15	0.53
Risk premium	19	353	147	67	60	50	53
EXCHANGE RATES							
EUR/USD (dollars per euro)	1.13	1.29	1.14	1.11	1.22	1.17	1.17
EUR/GBP (pounds per euro)	0.66	0.83	0.90	0.85	0.90	0.89	0.90
USD/GBP (pounds per dollar)	0.59	0.64	0.79	0.76	0.74	0.76	0.77
OIL PRICE							
Brent (\$/barrel)	42.3	82.5	57.7	65.2	50.2	64.0	63.0
Brent (euros/barrel)	36.4	63.2	50.7	58.6	41.3	54.7	53.8

 Forecasts

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

International economy

	Average 2000-2007	Average 2008-2017	2018	2019	2020	2021	2022
GDP GROWTH							
Global	4.5	3.4	3.5	2.8	-3.3	5.7	4.3
Developed countries	2.7	1.3	2.2	1.6	-4.8	4.9	3.5
United States	2.7	1.5	3.0	2.2	-3.5	6.0	3.9
Euro area	2.2	0.7	1.9	1.3	-6.8	4.1	3.3
Germany	1.6	1.3	1.6	0.6	-5.3	3.0	3.2
France	2.2	0.8	1.7	1.5	-8.2	5.7	3.1
Italy	1.5	-0.5	0.8	0.3	-8.9	3.8	3.7
Portugal	1.5	0.0	2.9	2.5	-7.6	4.9	3.1
Spain	3.7	0.3	2.4	2.0	-10.8	6.0	4.4
Japan	1.4	0.5	0.6	0.3	-4.9	2.8	1.9
United Kingdom	2.9	1.1	1.3	1.4	-9.8	6.2	4.1
Emerging and developing countries	6.5	5.1	4.5	3.6	-2.2	6.2	4.9
China	10.6	8.3	6.7	6.0	2.3	8.3	5.6
India	9.7	6.9	6.7	5.0	-7.0	10.6	7.3
Brazil	3.6	1.6	1.8	1.4	-4.1	3.5	2.5
Mexico	2.4	2.1	2.2	0.0	-8.2	4.0	2.5
Russia	7.2	0.9	2.5	1.3	-3.1	3.0	2.2
Turkey	5.4	5.1	2.8	0.9	1.6	4.0	3.4
Poland	4.2	3.4	5.4	4.6	-2.7	3.7	4.3
INFLATION							
Global	4.1	3.7	3.6	3.5	3.2	3.5	3.2
Developed countries	2.1	1.5	2.0	1.4	0.6	1.5	1.5
United States	2.8	1.7	2.4	1.8	1.2	2.4	2.2
Euro area	2.1	1.4	1.8	1.2	0.3	2.0	1.2
Germany	1.7	1.3	1.9	1.4	0.4	2.5	1.4
France	1.8	1.2	2.1	1.3	0.5	2.0	1.2
Italy	1.9	1.5	1.2	0.6	-0.1	1.9	1.1
Portugal	3.0	1.2	1.0	0.3	0.0	0.9	1.3
Spain	3.2	1.4	1.7	0.7	-0.3	1.1	1.5
Japan	-0.3	0.3	1.0	0.5	0.0	0.1	0.6
United Kingdom	1.9	2.4	2.5	1.8	0.9	1.9	1.4
Emerging countries	6.7	5.7	4.9	5.1	5.1	4.3	4.3
China	1.7	2.6	2.1	2.9	2.5	1.3	2.3
India	4.5	8.0	3.9	3.7	6.6	5.5	4.7
Brazil	7.3	6.1	3.7	3.7	3.2	4.1	3.5
Mexico	5.2	4.2	4.9	3.6	3.4	3.8	3.7
Russia	14.2	8.7	2.9	4.5	4.9	3.5	4.0
Turkey	27.2	8.4	16.2	15.5	14.6	10.4	8.0
Poland	3.5	2.0	1.2	2.1	3.7	3.4	2.7

Forecasts

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

Spanish economy

	Average 2000-2007	Average 2008-2017	2018	2019	2020	2021	2022
Macroeconomic aggregates							
Household consumption	3.6	-0.6	1.8	0.9	-12.4	6.8	4.0
Government consumption	5.0	0.9	2.6	2.3	3.8	3.7	1.7
Gross fixed capital formation	5.6	-2.8	6.1	2.7	-11.4	6.8	5.7
Capital goods	4.9	-0.5	5.4	4.4	-13.0	12.7	5.8
Construction	5.7	-5.2	9.3	1.6	-14.0	3.7	5.7
Domestic demand (vs. GDP Δ)	4.4	-0.7	3.0	1.4	-8.7	5.7	3.8
Exports of goods and services	4.7	3.1	2.3	2.3	-20.2	11.4	7.8
Imports of goods and services	7.0	-0.3	4.2	0.7	-15.8	11.3	6.2
Gross domestic product	3.7	0.3	2.4	2.0	-10.8	6.0	4.4
Other variables							
Employment	3.2	-1.0	2.6	2.3	-7.5	1.6	2.1
Unemployment rate (% of labour force)	10.5	20.5	15.3	14.1	15.5	16.5	15.3
Consumer price index	3.2	1.4	1.7	0.7	-0.3	1.1	1.5
Unit labour costs	3.0	0.1	1.2	2.4	5.3	-4.3	-0.6
Current account balance (% GDP)	-5.9	-0.8	1.9	2.1	0.7	1.5	1.6
External funding capacity/needs (% GDP)	-5.2	-0.3	2.4	2.6	2.6	1.7	1.8
Fiscal balance (% GDP) ¹	0.4	-6.7	-2.5	-2.9	-11.0	-8.8	-6.3

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

■ Forecasts

Portuguese economy

	Average 2000-2007	Average 2008-2017	2018	2019	2020	2021	2022
Macroeconomic aggregates							
Household consumption	1.7	0.1	2.6	2.6	-5.9	3.8	4.1
Government consumption	2.3	-0.6	0.6	0.7	0.5	3.5	0.2
Gross fixed capital formation	-0.3	-2.0	6.2	5.4	-2.2	3.8	5.5
Capital goods	1.2	1.2	8.9	2.8	-	-	-
Construction	-1.5	-4.4	4.7	7.2	-	-	-
Domestic demand (vs. GDP Δ)	1.3	-0.5	3.1	2.8	-4.6	3.7	3.8
Exports of goods and services	5.2	4.0	4.2	4.0	-18.7	15.8	9.3
Imports of goods and services	3.6	2.2	5.0	4.7	-12.1	12.4	10.5
Gross domestic product	1.5	0.0	2.9	2.5	-7.6	4.9	3.1
Other variables							
Employment	0.4	-0.6	2.3	1.0	-2.0	-0.6	1.3
Unemployment rate (% of labour force)	6.1	11.8	7.0	6.5	6.8	9.1	7.7
Consumer price index	3.0	1.2	1.0	0.3	0.0	0.9	1.3
Current account balance (% GDP)	-9.2	-3.5	0.6	0.4	-1.2	-0.7	-0.4
External funding capacity/needs (% GDP)	-7.7	-2.2	1.6	1.2	0.1	0.0	0.0
Fiscal balance (% GDP)	-4.6	-6.1	-0.3	0.1	-5.7	-5.7	-3.2

■ Forecasts

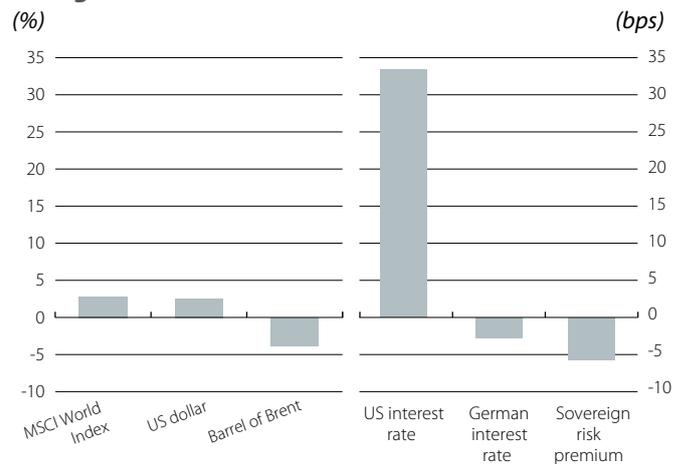
Optimism in the financial markets improves with caution

Investor sentiment goes back and forth. During March, investors followed the erratic global developments in the pandemic, the Biden Administration’s fiscal stimulus and fears of overheating in the US economy as the main drivers of the market. Among these factors, it was the US fiscal stimulus which dominated, driving up the major stock market indices and, above all, long-term yields on US sovereign debt. However, there were sessions in which doubts surrounding the evolution of the pandemic (whether due to a slower than expected vaccination rate in some regions, the rise in cases at the global level or the extension of restrictions) dampened investor sentiment. However, one sphere in which there was no doubt was monetary policy, as both the US Federal Reserve and the ECB reiterated their intention not to withdraw the monetary stimulus in the short term. In fact, in the euro area, the ECB announced that it would accelerate the pace of asset purchases under the PEPP with the aim of maintaining accommodative financial conditions.

The steepening of the US sovereign yield curve remains the focus of attention. As has been the case since January, the long-term yield on treasuries continued to rise due to the expectation of higher inflation rates in the coming years as well as the rise in real rates. The possibility that the fiscal package approved by the Biden administration could lead the US economy to overheat, combined with the Fed’s greater tolerance of inflation rates above 2%, is translating into increases in inflation expectations and rebounds in nominal rates (for more details, see the Focus «[New fiscal package in the US: overheating in sight?](#)» in this same *Monthly Report*). In the euro area, however, the story is somewhat different. The rise in the long-term yield on German debt since the beginning of the year has been smaller (+28 bps, compared to +83 in the case of US treasuries) and there are no fears of overheating in the European economy. Thus, during the month as a whole, the yield on German debt deviated from its American counterpart and registered a slight decline, while peripheral risk premiums fell.

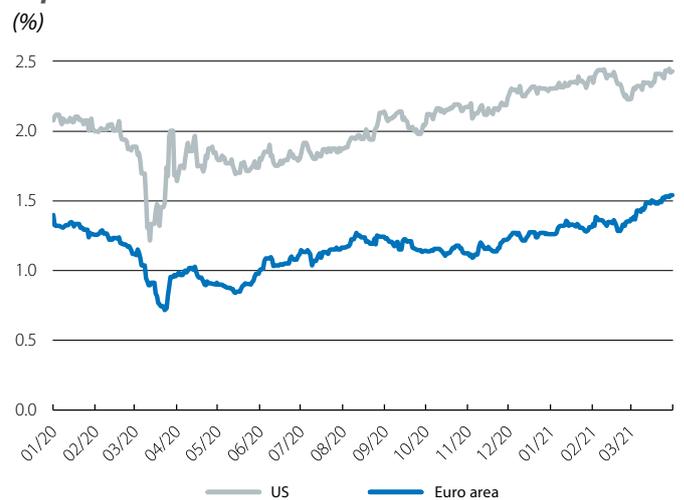
The Fed keeps its monetary policy unchanged. Despite the improvement in the economic outlook reflected in its new macroeconomic forecasts and the expectation of higher inflation in the coming years, at its March meeting the Fed reiterated that it does not expect to raise interest rates until at least 2023. Jerome Powell insisted that the Fed’s current priority is to achieve the goal of maximum employment, and recalled that there is still a lot of ground to recover in this regard. On the other hand, the Fed also stood still in the face of the recent rises in 10-year treasury yields, and Powell repeated his usual discourse: Fed members do not view the rise as cause for concern, since it reflects a better medium-

Select financial variables: change in March



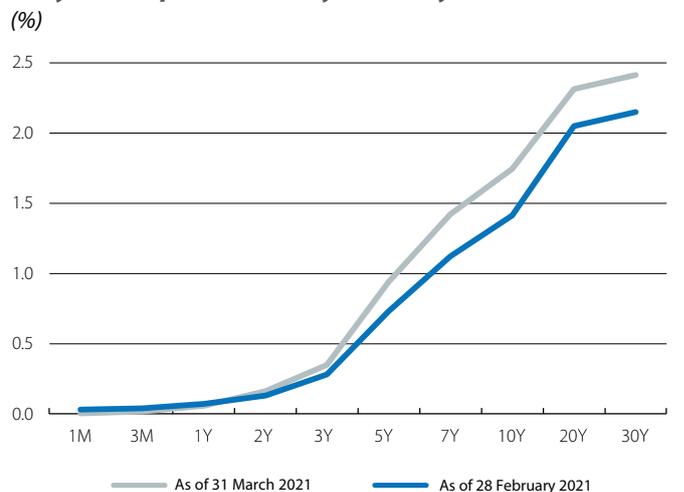
Note: * Weighted average of Spain, Italy and Portugal.
Source: CaixaBank Research, based on data from Bloomberg.

5-year, 5-year forward inflation expectation rate



Source: CaixaBank Research, based on data from Bloomberg.

US: yield on public debt by maturity



Source: CaixaBank Research, based on data from Bloomberg.

term economic outlook. The Fed thus kept the official interest rate within the 0.00%-0.25% range, as well as leaving the rate of asset purchases unchanged: currently 80 billion dollars in treasuries and 40 billion dollars in MBSs per month.

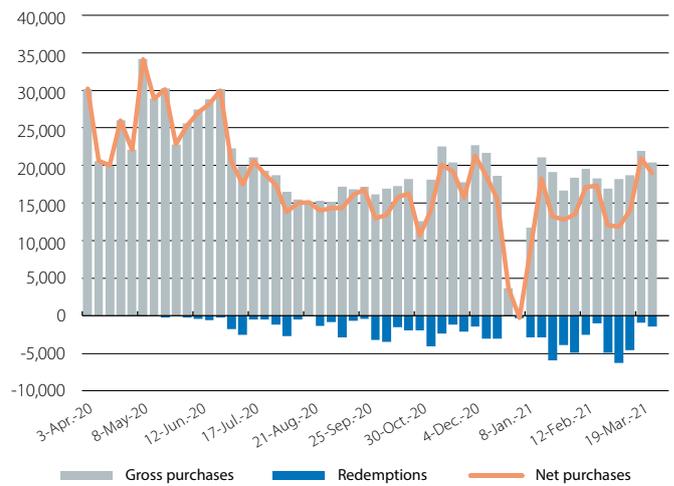
The ECB, however, responds to the rise in sovereign yields.

In its quest to maintain an accommodative financial environment to support the economic recovery, Christine Lagarde explained after the Governing Council’s March meeting that the ECB would accelerate the rate of purchases under the emergency programme (PEPP). Data published during March already showed that weekly net purchases had been above 20 billion euros, compared to an average of 15 billion since January. Furthermore, the ECB did not change its view of the economic outlook for the euro area and published a forecast table very similar to December’s, with the difference of higher headline and core inflation during 2021 due to technical and temporary factors (see the Focus «The factors behind the rise in euro area inflation» in this same *Monthly Report*). The ECB thus kept interest rates at minimum levels (the depo rate at -0.50% and the refi rate at 0%), while it made no changes to its asset purchase programme (APP) or to the communication regarding its tools.

The US dollar strengthens. In this scenario marked by higher long-term interest rates in the US, greater tolerance from the Fed of potential spikes in inflation, and higher economic growth, the dollar appreciated against most advanced and emerging-economy currencies, while the euro fluctuated below 1.18 dollars. Of particular note was the depreciation of the Turkish lira (-10% against the dollar), after President Recep Tayyip Erdoğan dismissed Naci Ağbal, who had been governor of the country’s central bank up until March. The dismissal came just days after the central bank had raised official interest rates by 2 pps, continuing the trend of the previous months (+10.75 pps since August 2020) which had restored some confidence in the Turkish lira. However, the contagion of this depreciation to other emerging currencies was limited.

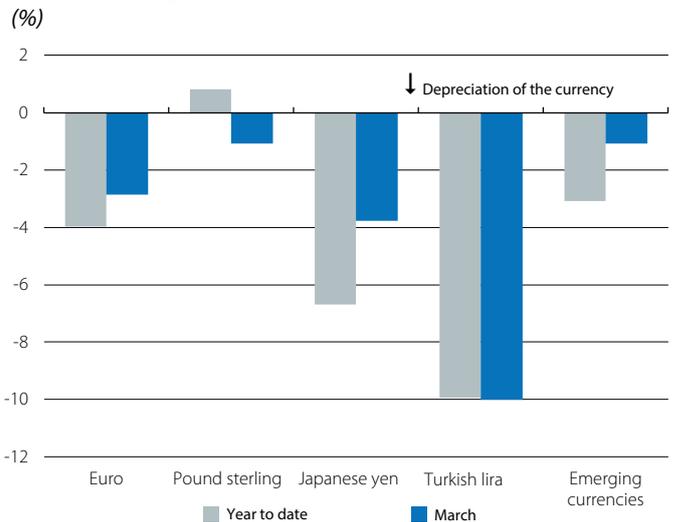
Optimism returns to the stock markets, spurred on by the US fiscal stimulus. The main stock market indices registered significant gains in March, continuing those of February and the recent sector rotation. In particular, in the last two months, stocks in sectors most closely linked to the business cycle have shown better performance, while sectors more sensitive to interest rate hikes (such as technology, which also benefited from changes in consumption patterns in 2020 brought about by the pandemic) showed a more contained tone. Thus, the Nasdaq index (with a greater weight of technology firms) ended the month on par, while the Dow Jones index and the S&P 500 climbed more than 4%. This rotation also drove up the euro area indices, which registered gains of between +4% in the Ibx 35 and +9% in the German DAX.

ECB: weekly purchases under the PEPP
(EUR millions)



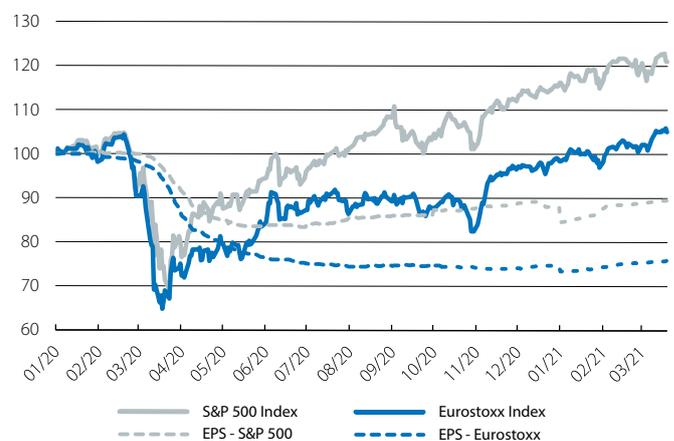
Source: CaixaBank Research, based on data from Bloomberg.

Currencies against the dollar



Source: CaixaBank Research, based on data from Bloomberg.

S&P and Eurostoxx: evolution of the index and 2021 earnings expectations
Index (100 = January 2020)



Note: Earnings estimates calculated by Bloomberg for the 2021 fiscal year.
Source: CaixaBank Research, based on data from Bloomberg.

¿Quo vadis, Chinese debt?

The Chinese debt market ended 2020 as it began. In January last year, the Chinese monetary authorities launched «Operation Clean-up» to tighten credit ratings and reduce dependence on aid from China’s central bank (the PBoC), resulting in a rise in defaults (53 billion yuan in January 2020). The outbreak of the pandemic put this process on hold. The consolidation of the recovery (China is the only major economy to have grown in 2020) and favourable financial conditions allowed «Operation Clean-up» to be resumed in October. Once again, the immediate consequence was a rise in defaults. Whereas between February and September 2020 there were only 15 bond defaults with an outstanding balance of 80 billion yuan, the combined figure for November-December raised the total for 2020 to 200 billion yuan (or 31 billion dollars) in an 8-trillion dollar market (government and non-financial corporate bonds). The starting gun was fired on 10 November with the default of a bond of Yongcheng Coal & Electricity, a coal extraction firm that was supposedly the most profitable in China. In the following week, the yield of the AAA-rated bond market rose from 3.2% to 3.6%. Another well-known name on the list of defaults was Shandong Ruyi Technology Group, owner of Lycra and Gieves & Hawkes, nicknamed the LVMH of China. In addition, the authorities announced a zero tolerance policy for misconduct. This resulted in Golden Credit Rating, China’s biggest rating agency which had classified Yongcheng’s debt as safe, having its licence withdrawn.

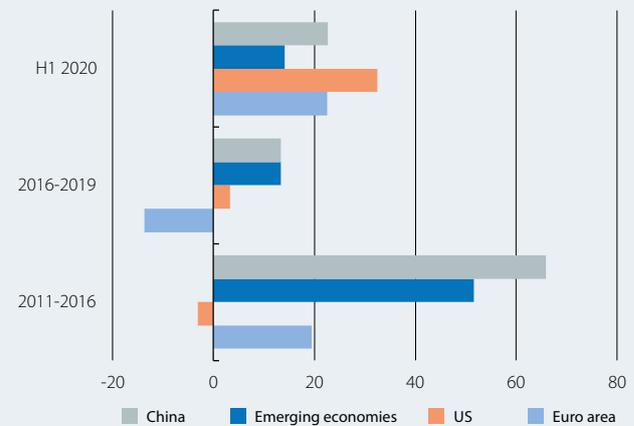
Why is the clean-up needed?

China aspires to be a leading player in the global financial markets, but the oversight standards of its financial sector remain below those of advanced economies. China’s debt (including non-financial firms, households and government) reached 280% of GDP in June 2020 and it more closely resembles the 301% of advanced economies (286% for the US and 283% for the euro area) than the 210% of emerging economies (140% in the case of the other big emerging economy, India).

It has to be said, however, that China has made progress in containing its debt. Whereas in the years following the Great Recession, from late 2011 to March 2016, debt rose by 65.9 pps of GDP (from 178.4% to 244.3% of GDP), between then and the end of 2019 it rose by a more modest 13.3 pps (to 257.6%). This increase was similar to that of the emerging bloc as a whole and greater than that of the advanced bloc (US, 3 pps, and euro area, -27 pps), except with higher economic growth (China’s GDP grew by 21.1% in the period 2017-2019, higher than the US’ 7.7% or the euro area’s 5.8%). Furthermore, under the emergency triggered by the pandemic China’s debt

China: debt increase comparison

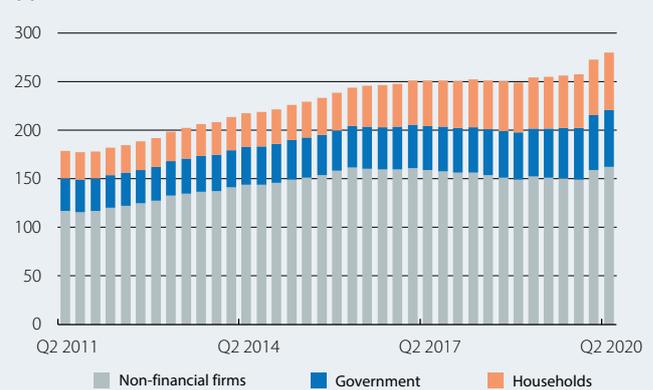
(pps of GDP)



Source: CaixaBank Research, based on data from the Bank for International Settlements.

China: evolution of debt by economic sector

(pps of GDP)



Source: CaixaBank Research, based on data from the Bank for International Settlements.

rose by just over 20 pps. This is similar to the increase registered in the euro area and smaller than those registered in the US (more than 30 pps) or in the emerging bloc as a whole (28 pps).

However, beyond the total amount of China’s debt, its composition is a source of concern. Of the 280 pps of GDP, 162 is comprised of debt of non-financial firms, more than half of which are state conglomerates. In this regard, there is a risk that pockets of irregular financing may have been generated. Moreover, much of the economy’s savings are channelled into these state-owned enterprises (SOEs), which tend to have a low return on capital and could eventually experience difficulties in servicing their debts, as the case of the coal company Yongcheng demonstrates. The problem is exacerbated by the lack of independent oversight and shadow banking, through which local governments generated a significant increase in low-quality debts.

China resumes the clean-up process

Cleaning up the country's finances was a must and by the end of 2020 the environment began to be sufficiently favourable for the process to be resumed. China had recovered pre-pandemic GDP levels as early as Q2 2020 and continued to grow in Q3 and Q4. Moreover, the trade war with the US caused many of the Chinese firms that were refused from being listed on the US stock market to return to the Hong Kong stock market, boosting the latter's liquidity and importance and encouraging an influx of capital. Also, in late September it was decided that Chinese bonds would be admitted to the influential FTSE Russell index (although their *de facto* inclusion is not expected until autumn 2021) and they were thus considered a solvent investment. In this context, the Chinese authorities' desire to clean up and strengthen the country's finances, no longer held back by fears of a recession due to the pandemic, only responds to the cautious confidence that international markets and their regulators have placed in Chinese financial assets.

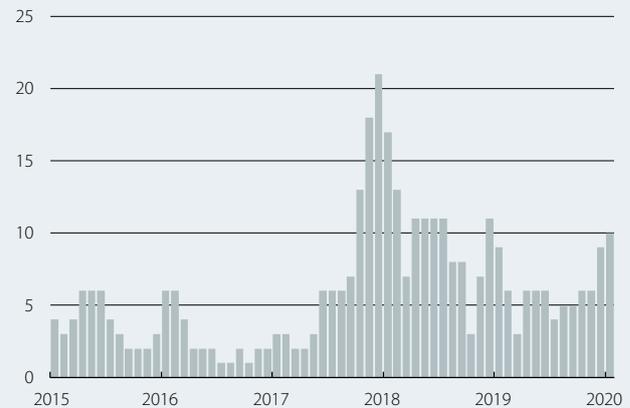
However, the resumption of the financial clean-up process was preceded by a political battle. The trade tensions and decoupling with the US are making it difficult for China to obtain supplies of inputs with US technological content, and this could jeopardise China's technological progress in manufacturing chips for its tech giants (such as Huawei), as well as evoking bitter memories of the 19th century, when China was outdone by the technology of colonial powers. This is why there is a pro-growth political faction, led by Jack Ma (the founder of Alibaba, the Chinese Amazon), which wants to prioritise economic growth over financial stability. They want to go faster and they criticise the SOEs for their cumbersome size and the banking system for its lack of agility. Facing them in the ring is the PBoC, more in favour of tackling risks related to financial stability. In early November this conflict began to reach a resolution: priority was officially given to resuming the financial clean-up, an anti-monopoly law was passed, and the share capital increase of Ant (Alibaba's financial arm) was halted.

What will happen from now on?

China's financial clean-up means improving the quality of its debt, as well as that of its financial system. This will enable more balanced growth, with a greater emphasis on private consumption and high-value-added exports, as stipulated in the 19th National Congress of the Chinese Communist Party in October. The Chinese authorities' decision has been well received by the markets (initially, the defaults generated some turbulence and contagion to other financial asset prices, but this did not last long), and the incipient improvement in the quality of debt in January 2021 attests to this. In particular, in the first few

China: number of suspensions of payments

3-month moving sum of the number of debt issuers that default on their payments



Source: CaixaBank Research, based on data from Goldman Sachs.

weeks of the year there has been a relaxation in the risk premiums on corporate bonds and an increase in issuances, although with the Lunar New Year in February the latest data must be interpreted with caution.

The clean-up process seeks to mitigate the risks of financial instability, but it could lead to financial turbulence along the way. Firstly, the process is not yet over and we expect more defaults in 2021. In fact, with the economic recovery well established, we can expect the authorities to gradually tighten reference interest rates and financial conditions in general. Furthermore, the criticism of the pro-growth faction has its *raison d'être*, since the primary source of low-quality debt lies precisely in that sector of the state which wants to perform the clean-up, whether due to its SOEs, the shadow banking stimulated by local governments, or its opacity in the face of independent oversight. After all, there is a risk that Operation Clean-up could lead to greater state control of firms such as Alibaba, JD.com or Huawei, which could lead to lower returns on capital, less independent oversight and greater debt problems. Thirdly, the Chinese authorities do not follow the same logic as the monetary authorities of advanced economies, such as the Fed or the ECB, which, without it being explicitly written, ensure the smooth functioning of the financial markets. The PBoC will also seek stability in the economy and markets, but its experience and priorities are not the same as those of the Fed, and there may be a certain degree of discretion and less predictability in its decisions. Finally, if the recent rise in US treasury yields continues, then the relative appeal of Chinese assets could decrease, leading to a greater-than-desired tightening of financial conditions.

Jordi Singla

New fiscal package in the US: overheating in sight?

In 2020, the US government approved fiscal aid packages to combat the COVID-19 crisis amounting to 4 trillion dollars (around 20% of GDP). A new package worth 1.9 trillion dollars has also just been approved, in line with President Biden's initial proposal.

However, in an economy that is experiencing a relatively buoyant recovery, is a 1.9-trillion stimulus too much? It is not just Republican voices, such as in the case of Larry Summers, that are warning about the risks of overheating in the US economy in the face of a package on such a scale.¹ Moreover, the idea is beginning to permeate into the financial markets, with marked increases in the long end of the yield curve (see first chart).

Solid but still incomplete US growth

The economic shock of the COVID-19 crisis in the US has been less intense than in other advanced economies, and its recovery is proving stronger. In Q4 2020, US GDP stood 2.5% below that of Q4 2019, and by mid-2021 it is expected to reach pre-pandemic levels. In contrast, in the euro area, at the end of 2020 GDP was still slightly more than 5% lower than a year earlier and we do not expect it to reach pre-pandemic levels before 2022.

Despite this relative strength in the US, the recovery is still incomplete – even more so than some economic activity indicators would appear to suggest at first glance. For instance, although the US unemployment rate is relatively low at around 6% (compared to the peaks of around 15% registered in the spring of 2020), this rate conceals major weaknesses. One of them is that a vast number of people (some five million) have left the labour market for reasons such as caring for people (especially young children, in the face of the total or partial closure of schools). In this regard, alternative measures of the unemployment rate place it closer to 11%.²

New fiscal package: inflationary arguments and nuances

The big question about Biden's new fiscal stimulus is whether the strength of the recovery that is already underway (though incomplete) really needs support of such magnitude. A simple and quick way to assess this is by looking at the output gap, which measures how far

US: yield on sovereign bonds



Source: CaixaBank Research, based on data from Bloomberg.

registered GDP is from potential GDP.³ According to the Congressional Budget Office (CBO), the US' output gap stood at -3% at the end of 2020. This is equivalent to saying that GDP was roughly 650 billion dollars below its potential. In the face of this output gap, the sum of Biden's new stimulus and the package approved at the end of December (worth 0.9 trillion dollars) amounts to 2.8 trillion – more than four times the size of the gap. Although the amounts implemented in 2021 will be lower, the figures are high enough to highlight the risk of generating inflationary pressures.⁴

Nevertheless, there are a number of nuances which lead us to believe that the risk of overheating is not as high as the critics of the fiscal package would have us think. Firstly, the output gap is uncertain and difficult to measure. In fact, both the CBO and other institutions that calculate this gap for the US regularly revise their estimates of both future and past values, often making substantial changes. Indeed, some other estimates suggest a much larger gap in the US economy, closer to -6% than -3% .⁵

Secondly, the extent to which a fiscal stimulus translates into aggregate demand and thus helps to narrow the output gap largely depends on the type of spending that occurs, as well as on the well-known fiscal multipliers associated with different types of spending.⁶ An increase in health spending to combat the pandemic (with a

1. See Larry Summers' article in the Washington Post of 4 February 2021, *The Biden stimulus is admirably ambitious. But it brings some big risks, too*.

2. See the Real-Time Population Survey.

3. Potential GDP is the maximum level of output that a country can achieve with the available resources and is compatible with stable inflation around a target rate. See the article «Potential GDP, a key but diffuse concept» in the Dossier of the MR05/2013.

4. According to CBO estimates, around 70% of the new 1.9-trillion-dollar package will be disbursed in 2021. See <https://www.cbo.gov/system/files/2021-03/Recountable.pdf>.

5. See T. Powell, L. Sheiner and D. Wessel (2021). «What is potential GDP, and why is it so controversial right now?». Brookings Series.

6. For instance, a multiplier of 0.5 means that for every dollar of public spending, 50 cents of output is generated.

multiplier clearly greater than 1) is not the same as sending stimulus cheques to citizens (with a multiplier of around 0.5). In this regard, around 40% of the measures included in the new package fit with this second type of proposal (for example, stimulus cheques of 1,400 dollars and extra weekly unemployment benefits). These measures will have less power to drive aggregate demand, since a large portion of these cheques are saved.⁷

Finally, one of the most compelling arguments in favour of decisive fiscal stimuli is that the risks posed by a package that is too large, while still relevant, pale in comparison to those posed by one that is too small. Janet Yellen, current secretary of the Treasury, herself acknowledges the risks of inflation, but emphasises that the biggest risk right now is not doing enough and leaving the economy «scarred» in the long run.

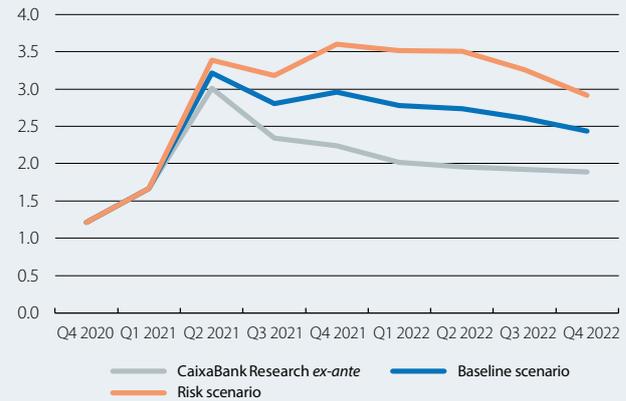
Inflationary risks: just how much are we talking about?

To answer this question, we use the Phillips curve model (which correlates an economy’s inflation to its output gap)⁸ and propose a scenario in which, with the new fiscal package, the output gap would go from -3% at the end of 2020 (estimated by the CBO) to +2% by the end of 2021 and to +1% by the end of 2022. This is a reasonable scenario based on Sheiner and Edelberg’s projections published in Brookings.⁹ Due to the high degree of uncertainty in the estimates, we propose a risk scenario (less likely and more extreme) in which the stimulus translates into even greater aggregate demand and the output gap would reach +5% by the end of 2021.¹⁰

In the second chart we illustrate the evolution of inflation (based on the consumer price index, or CPI) under the two scenarios and compare them with CaixaBank Research’s forecast prior to news of the substantial 1.9-trillion-dollar package. In all three cases, inflation rises in Q2 2021 to around 3% as a result of base effects.¹¹ However, whereas in the first case (CaixaBank Research *ex-ante*) the rise in inflation is temporary and

US: inflation scenarios*

Year-on-year change (%)



Note: * Inflation based on the Consumer Price Index (CPI).
Source: CaixaBank Research.

rapidly falls back down to around 2%, in the two alternative scenarios inflation remains significantly above 2% through to the end of 2022.¹²

In particular, in the baseline scenario, CPI inflation is around 2.7% for much of 2021 and 2022. This means that inflation among the components of personal consumption expenditure, which is the Fed’s preferred measure, would be somewhat below 2.5%. This inflation trajectory should not alter the Fed’s roadmap given that, under its new strategy, the monetary institution is willing to temporarily tolerate inflation rates slightly above its target (2%).¹³

However, in the risk scenario, in which CPI inflation would remain above 3% for longer, the Fed might have to withdraw the stimulus earlier than planned. While we consider this to be a less likely scenario, it exemplifies the shift in the balance of risks towards a scenario with higher inflation which is thus prone to turbulence as financial asset prices adjust to a higher-interest-rate environment.

Clàudia Canals and Màxim Ventura

7. In part, the fiscal packages are comparatively larger in the US because unemployment coverage is very low, whereas the European welfare state already automatically plays a stabilising role.

8. The Phillips curve formula used is: $\pi_t = \rho\pi_t^e + (1 - \rho)\pi_{t-1} + \beta(y_t - y_n) + \varepsilon_t$ (where π is CPI inflation, π^e is the long-term inflation expectations, $y - y_n$ is the output gap, ρ and β are parameters and ε is an error term). We allow the inflation expectations to be endogenous and estimate the system using a linear regression model with time series error. The results are robust to using the PCE price index.

9. W. Edelberg and L. Sheiner (2021). «The macroeconomic implications of Biden’s \$1.9 trillion fiscal package». Brookings.

10. This is the scenario presented by Blanchard in his recent article in the PIIE (<https://www.piie.com/blogs/realtime-economic-issues-watch/defense-concerns-over-19-trillion-relief-plan>).

11. The price index in Q2 2021 will be comparable with the levels reached during the strictest lockdowns (which led to significant declines in several components).

12. Historically, PCE inflation lies around 3 decimal points below CPI inflation.

13. For more details on the Fed’s new strategy, see the Focus «The Fed’s new strategy» in the MR10/2020.

Interest rates (%)

	31-Mar.	28-Feb.	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
Euro area					
ECB Refi	0.00	0.00	0	0.0	0.0
3-month Euribor	-0.54	-0.53	-1	0.7	-19.5
1-year Euribor	-0.48	-0.48	0	1.5	-31.6
1-year government bonds (Germany)	-0.63	-0.61	-2	8.3	-1.5
2-year government bonds (Germany)	-0.69	-0.66	-3	0.9	-5.0
10-year government bonds (Germany)	-0.29	-0.26	-3	27.7	16.6
10-year government bonds (Spain)	0.34	0.42	-9	29.0	-36.6
10-year government bonds (Portugal)	0.23	0.32	-9	19.7	-66.3
US					
Fed funds (upper limit)	0.25	0.25	0	0.0	0.0
3-month Libor	0.20	0.19	1	-3.7	-123.5
12-month Libor	0.29	0.28	0	-5.5	-71.6
1-year government bonds	0.06	0.07	-1	-4.8	-6.1
2-year government bonds	0.16	0.13	3	3.9	-4.6
10-year government bonds	1.74	1.40	34	82.7	115.7

Spreads corporate bonds (bps)

	31-Mar.	28-Feb.	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
Itraxx Corporate	52	51	1	4.6	-51.0
Itraxx Financials Senior	60	63	-3	0.8	-63.5
Itraxx Subordinated Financials	108	118	-9	-2.8	-161.6

Exchange rates

	31-Mar.	28-Feb.	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
EUR/USD (dollars per euro)	1.173	1.208	-2.9	-4.0	7.0
EUR/JPY (yen per euro)	129.860	128.670	0.9	2.9	10.5
EUR/GBP (pounds per euro)	0.851	0.867	-1.8	-4.8	-4.0
USD/JPY (yen per dollar)	110.720	106.570	3.9	7.2	3.3

Commodities

	31-Mar.	28-Feb.	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	506.7	486.5	4.1	14.2	38.9
Brent (\$/barrel)	63.5	66.1	-3.9	22.7	156.8
Gold (\$/ounce)	1,707.7	1,734.0	-1.5	-10.0	7.3

Equity

	31-Mar.	28-Feb.	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (USA)	3,972.9	3,811.2	4.2	5.8	60.8
Eurostoxx 50 (euro area)	3,919.2	3,636.4	7.8	10.3	46.2
Ibex 35 (Spain)	8,580.0	8,225.0	4.3	6.3	30.4
PSI 20 (Portugal)	4,929.6	4,702.2	4.8	0.6	23.5
Nikkei 225 (Japan)	29,178.8	28,966.0	0.7	6.3	61.5
MSCI Emerging	1,316.4	1,339.3	-1.7	1.9	59.1

A transatlantic gap opens up in the world economy

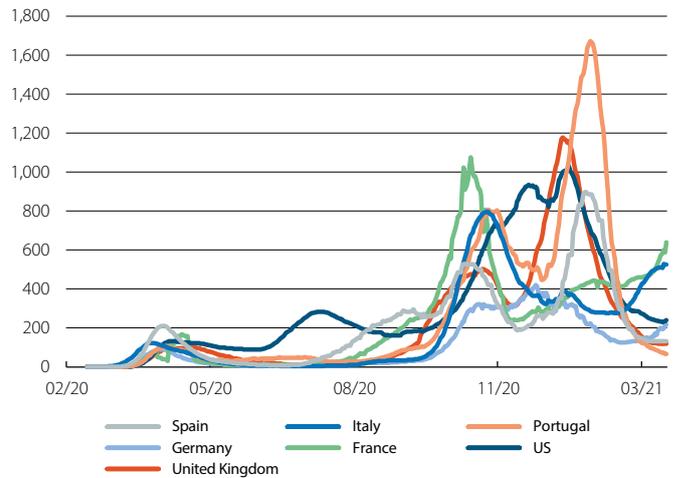
The pandemic continued to weigh down on the global economy during the first quarter of the year, during which restrictions were maintained to reduce the spread of COVID-19 in most major countries around the world. Despite the fact that economies are showing greater resilience to these restrictions (particularly in the manufacturing sector), the recovery in economic activity has been constrained, and some countries likely suffered a slight decline in GDP in Q1. This could be the case in the euro area, where restrictions remained in place throughout the first quarter of the year. Given the recent rise in the number of COVID-19 cases in Italy, France and Germany, restrictions are likely to continue to weigh down on economic activity at the beginning of Q2. In contrast, in the United Kingdom and the US the curve of new cases improved at the end of March and restrictions were eased in certain regions and states.

The vaccination process accelerates, but at differing rates. The rollout of the vaccines has been relatively slow in Europe so far. Supply and distribution problems have led to frustration between countries, and the EU even raised the possibility of banning vaccine exports to the United Kingdom. However, Europe's vaccination process is expected to accelerate during Q2 as the vaccine supply and distribution issues are resolved. France, for instance, recently announced that at least 35 «vaccinodromes» – mass vaccination centres with the capacity to administer 1,000-2,000 vaccines a day – will be opened across the country in the coming days. In contrast, in the United Kingdom and the US the vaccination process is already much further ahead, which will no doubt enable their economies to reopen and recover sooner. In the US, for instance, President Joe Biden has doubled his initial promise to vaccinate 100 million people in the first 100 days of his presidency, and more recently has promised access to the vaccine for all adults from 1 May.

ADVANCED ECONOMIES

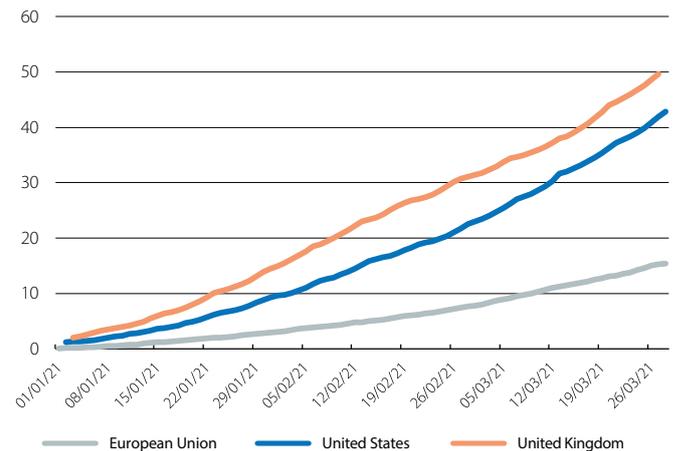
Infections slow consumption and the revival of the euro area. According to the latest estimate by Eurostat, the fall in GDP in Q4 2020 (-0.7% quarter-on-quarter) was mostly due to weak household consumption, which fell by 3% quarter-on-quarter, while the rest of the components of demand registered moderate growth. Behind this weakness in consumption lies a build-up of pent-up demand as a result of the COVID-19 crisis (we estimate that it exceeds 3% of GDP). Over the coming quarters, this could help to spur the recovery once improvements in the pandemic allow the restrictions to be eased and uncertainty over the future evolution of the economy clears. For the time being, the indicators suggest a contained performance from euro area economic activity at the beginning of the year, and although it improved in March

Advanced economies: new COVID-19 cases
Cases per 100,000 inhabitants (14-day cumulative figures)



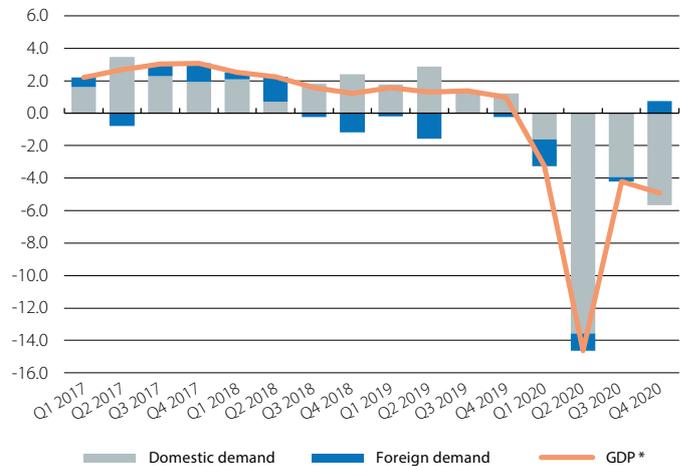
Source: CaixaBank Research, based on data from Johns Hopkins CSSE, UN World Population Prospects.

COVID-19 vaccination rollout around the world
Vaccines administered per 100 inhabitants



Source: CaixaBank Research, based on data from Our World in Data.

Euro area: GDP
Contribution to year-on-year growth (pps)



Note: * Year-on-year change (%).

Source: CaixaBank Research, based on data from Eurostat.

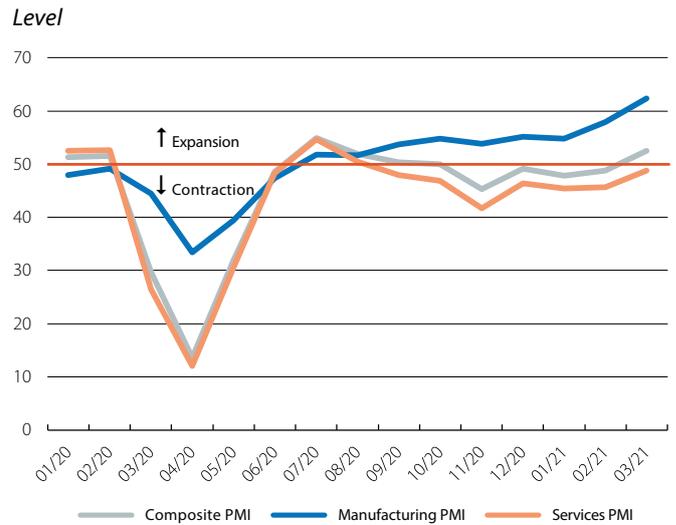
(52.5 points, up from the 48.8 in February), the composite Purchasing Managers' Index (PMI) remains close to the 50-point threshold which separates recession from expansion, weighed down by the services component.

The US shows far more buoyancy than the euro area, as is clearly reflected in its composite business sentiment index, which stood at 59.1 points in March. Not only is this level well above the European index but it also indicates a marked increase in economic activity during Q1 (despite the winter storm that affected the south of the country in February). One of the explanations for this greater buoyancy, besides the US economy's greater resilience to the pandemic, is the scale and ambition of the fiscal policy measures introduced by the Biden administration. Last month's *Monthly Report* documented the approval of the new COVID-19 aid package (worth 1.9 trillion dollars, with 1,400-dollar cheques going out to most Americans), which came in addition to the 0.9 trillion approved in December. Meanwhile, the Democratic Party has announced its intention to legislate another fiscal package, this time focusing on medium-term investments in infrastructure and education, which could amount to around 2 trillion dollars. All in all, the US economy is expected to recover to its pre-crisis level in 2021, well before the euro area, illustrating the ambition of the US rescue measures, the resilience of its economy and the faster rate of vaccination compared to the EU. In this regard, the NGEU European recovery plan, through which the EU will provide some 750 billion euros in grants and loans to Member States, remains crucial in preventing the widening of the transatlantic economic gap that is beginning to open up. NGEU is expected to be activated in the coming months. However, the risk of further delays from European institutions was highlighted at the end of March when the German Constitutional Court temporarily suspended ratification of the European recovery fund, raising the possibility that the fund's first transfers expected during the summer could be delayed.

The financial markets also bet on a quicker economic recovery in the US. This is reflected in the rise in US sovereign yields, fuelled by investors who expect the country's economy to normalise more quickly. The debate on the future path of US inflation also continues, with price growth standing at 1.7% in February (3 decimal points above the figure for January), largely driven by the sharp rise in petrol prices. Core inflation, meanwhile, stood at 1.3%. For the coming months, inflation is expected to continue to rise as a result of pandemic-related base effects (headline inflation could temporarily reach around 3%). In this context, all the indicators suggest that the potential risks of higher inflation and overheating in the country will remain present (see the Focus «[New fiscal package in the US: overheating in sight?](#)» in this same *Monthly Report*).

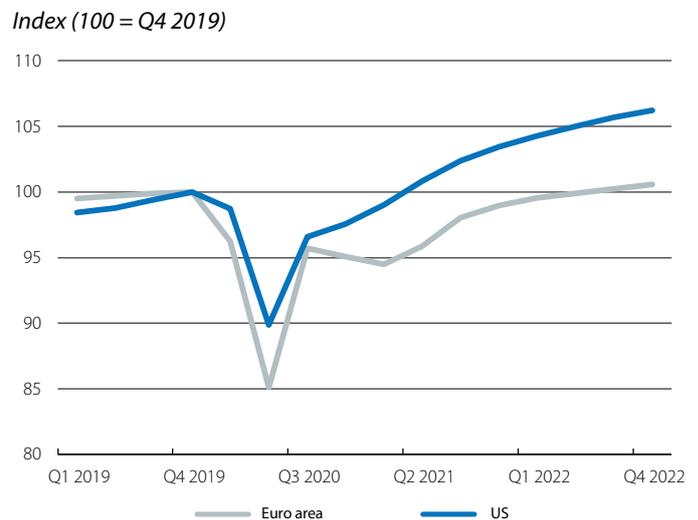
The Federal Reserve, meanwhile, anticipates a temporary rise in inflation. The latest forecasts presented by the US central bank in March suggest that the increase in inflation

Euro area: PMI



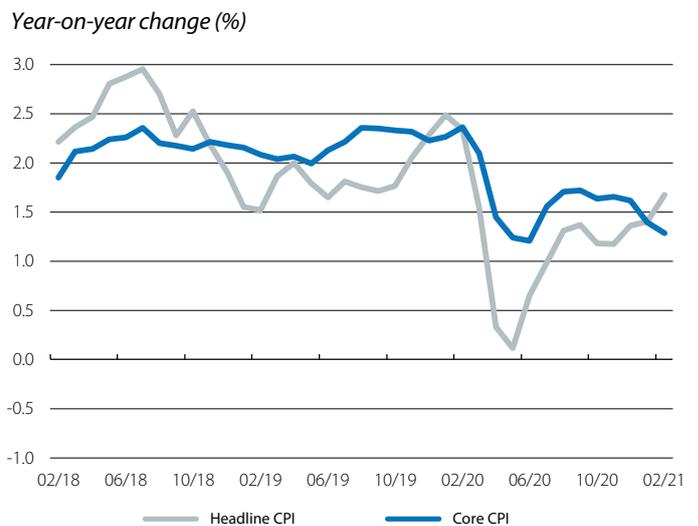
Source: CaixaBank Research, based on data from Markit.

US and euro area: GDP



Source: CaixaBank Research, based on internal forecasts.

US: inflation



Source: CaixaBank Research, based on data from the BLS.

will be temporary, peaking in 2021 before gradually falling back down to around the 2% target over the coming years. The Fed also significantly increased its economic growth forecasts to incorporate the impact of the new fiscal package, and it now expects year-on-year GDP growth in Q4 2021 to reach 6.5% (previously 4.2%), with the unemployment rate falling below 4% in 2022 (in the previous forecasts, this threshold was not expected to be crossed until 2023). Although this improvement in the economic outlook has begun to generate expectations of a reduction in the stimuli in the financial markets, the Fed kept its monetary policy stance unchanged. It also reaffirmed that its current priority is to achieve the goal of maximum employment (recalling that there is still a lot of ground to recover in this regard) and reiterated that, as long as the data do not show otherwise, the risk of persistent inflation will remain a secondary consideration.

EMERGING ECONOMIES

The dollar's appreciation puts the financial conditions of emerging economies under the spotlight. As explained in the Financial Markets section, most emerging currencies have weakened in the face of rising US sovereign interest rates and the strength of the dollar. Nevertheless, the reaction so far has been much more contained than during the taper tantrum of 2013, when expectations of a normalisation in US monetary policy led to significant stress in the most vulnerable countries' currencies. In Turkey, in contrast, the lira plummeted following the removal of the governor of the central bank, which occurred within days of a 200-bp interest rate hike that brought them up to 19%. This action by President Erdogan highlights the risk of continued political interventionism in the country, and the external financial conditions are likely to remain stressed. In any case, so far this episode does not appear to have had too much impact on the currencies of other emerging countries, whose recent depreciation against the dollar has been contained and largely driven by the strength of the US.

The COVID-19 crisis is affecting emerging economies to different extents. In March, the number of COVID-19 cases fell in Mexico and Russia, but rose in India and Brazil, where the situation is more alarming. In Brazil, the number of cases reached 485 per 100,000 inhabitants (14-day cumulative figure), a situation complicated by the increase in political polarisation in the country. China, meanwhile, awoke following the Lunar New Year's party with a temporary rebound in economic activity. In the combined period for January and February, its industrial production grew by 35.1% year-on-year and its retail sales, by 33.8%. Although this rebound should not surprise us, since in the first two months of 2020 China had shut down much of the country in order to contain the virus, both figures exceeded expectations.

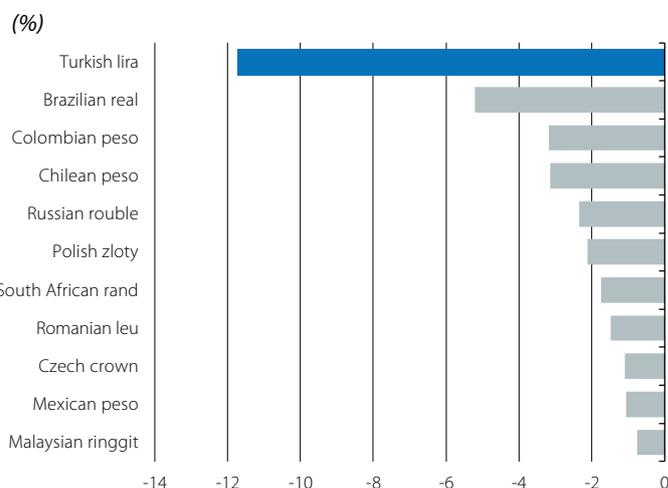
US: the Fed's macroeconomic forecasts

	2021	2022	2023	Long term
GDP growth	6.5 (4.2)	3.3 (3.2)	2.2 (2.4)	1.8 (1.8)
Unemployment rate	4.5 (5.0)	3.9 (4.2)	3.5 (3.7)	4.0 (4.1)
Headline inflation	2.4 (1.8)	2.0 (1.9)	2.1 (2.0)	2.0 (2.0)
Interest rate	0.1 (0.1)	0.1 (0.1)	0.1 (0.1)	2.5 (2.5)

Notes: The figures in brackets indicate the December 2020 forecasts. GDP and inflation are expressed in terms of year-on-year change versus Q4. Inflation corresponds to the PCE price index. The unemployment rate corresponds to the average for Q4.

Source: CaixaBank Research, based on data from the Federal Reserve.

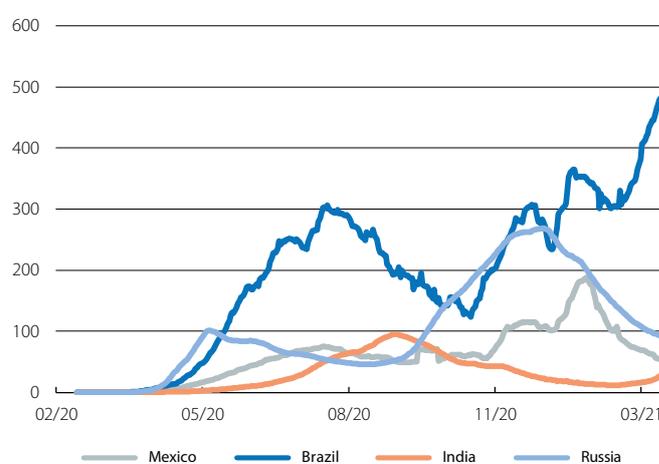
Emerging currencies: change relative to the US dollar since 19 March



Source: CaixaBank Research, based on data from Bloomberg.

Emerging economies: new COVID-19 cases

Cases per 100,000 inhabitants (14-day cumulative figures)



Note: Data available up to 24 March 2021.

Source: CaixaBank Research, based on data from Johns Hopkins CSSE, UN World Population Prospects.

The factors behind the rise in euro area inflation

- Inflation has surged in early 2021, but most of the factors driving it are of a technical and temporary nature and should not affect the ECB's monetary policy stance.
- However, there are some risks that could cause the inflationary pressures to persist, such as bottlenecks in some industries and pent-up demand.

In January, the euro area's year-on-year inflation rate suffered its biggest increase since 1997, with a change of +1.2 pps versus the previous month's figure. This spike was not driven by prices that are usually erratic: core inflation, which excludes the most volatile components, also rose sharply and stood at 1.4%, a level not seen since 2015. However, while we are likely to see headline inflation climb above 2% at some points during 2021, this rebound is mainly due to technical and temporary factors that will have vanished by 2022.

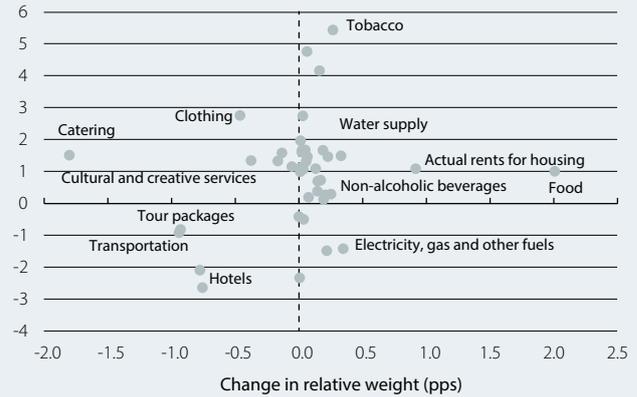
The factors that have driven inflation up...

One key element in explaining the rise in inflation at the beginning of this year is the change in the relative weights of the various components that make up the consumer price index. Each year Eurostat assigns a weight to each component depending on the products and services that were consumed during the previous year. Thus, given the exceptional nature of 2020, there have been significant changes in the relative weights of several components. For example, in 2021, the combined weight of the transportation, catering and package holiday components has fallen by more than 5 pps, while that of food and rents has risen by almost 4 pps. The impact of these changes is significant: if the composition had remained unchanged, inflation in January would have been 3 decimal points lower. In other words, the change in the composition of the index could explain 25% of the rise in inflation.

Another factor that has pushed up inflation is the VAT rise in Germany. Following the outbreak of COVID-19, several euro area states, including Germany, temporarily cut VAT as part of their fiscal stimulus packages, which drove down inflation from mid-2020. In January, with the return of VAT to pre-pandemic levels, the year-on-year inflation rate undid the movement observed in the second half of 2020 and the impact was significant: it is estimated that this factor explains around 0.4 pps of the rise in the euro area's headline inflation rate in January.¹ However, this factor has not yet fully normalised, as the base effects resulting from last year's VAT cut will materialise in mid-2021. Thus, during the second half of the year, the VAT effect could once again push inflation slightly up until next January, when this factor will finally fade.

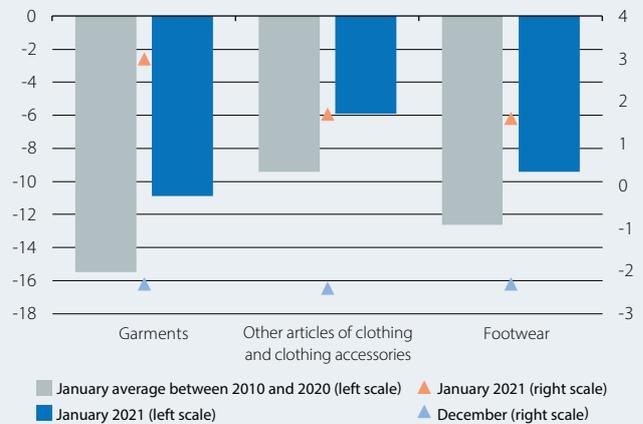
1. See ECB (2021). «Economic Bulletin. Issue 1.»

Components of the euro area's HICP: change in relative weight and year-on-year inflation
Year-on-year change in price (%)



Source: CaixaBank Research, based on data from Eurostat.

Price of the clothing and footwear components
Month-on-month change (%) Year-on-year change (%)



Source: CaixaBank Research, based on data from Eurostat.

A third element that drove up inflation was the delay and/or cancellation of discount sales in the retail sector in some euro area countries. January is a month usually marked by significant drops in clothing and footwear prices. However, this time the declines were more moderate: as the second chart shows, the lower month-on-month decline led to a sharp increase in inflation among these products in year-on-year terms. This is a factor that has already disappeared since February and should not push inflation up in the coming months. In January 2022, however, it is likely to push inflation down: products with the usual discounts in 2022 will be

compared against products in 2021 that had been reduced by less.

The final push to inflation was provided by the energy component, which is no longer providing a negative contribution. The oil price roller coaster, which began with the outbreak of the pandemic, led this component to register an average year-on-year inflation of -6.8% in 2020. Between January and February 2021 this rate has already moderated to -3% and we estimate that for 2021 as a whole it will be $+8.6\%$. Moreover, year-on-year growth in energy prices could momentarily reach peaks as high as 13% (remember that the Brent oil price, now above 60 dollars, fluctuated around the 30-dollar mark between April and May 2020).

This impact of the oil price, together with the re-emergence of the base effect of VAT mid-year, makes it very likely that we will see headline inflation of around 2.5% in the second half of 2021. Although this has not happened for a sustained period since 2012, it should not affect the ECB's course of action. After all, these factors which will drive up inflation are of a technical and temporary nature and will fade over time due to the very mechanics of the index.

...and those that could gain prominence in the future

However, over the coming months, other elements may appear that will push up inflation. These include bottlenecks in certain supply segments. Indeed, economic sentiment surveys indicate that delays in shipping are occurring and that there are pockets of shortages of intermediate materials, resulting in production cost overruns that could lead to rises in inflation in the coming months. Furthermore, the inflationary effect of these bottlenecks could be exacerbated by the release of pent-up demand among a large part of the population, having accumulated savings as a result of their consumption being held back by the restrictions on mobility and activity. While these pressures could add background noise to the ECB's meetings, they should not alter its course of action: they are also factors of a temporary nature and should fade as supply and demand gradually return to normal.

However, there is one more element that could add uncertainty and volatility: the availability of data itself. Where it is not possible to gather information on the price of a particular component (as is currently the case, since some products or services cannot be sold), national statistics institutes manually assign the price which they believe the product or service in question should have. In January and February, 13% of the price index's components have had their values manually assigned in this way (18% in the case of core inflation). Thus, when it

Euro area: industrial production prices and core inflation



Source: CaixaBank Research, based on data from Eurostat.

is eventually possible to gather information on the price of these products in the future, there is a risk of significant price variations.

When the storm of the pandemic has passed and the recovery is on track, all these elements will have dissipated and inflation is likely to remain contained. Between 2015 and 2019, the economic literature devoted much attention to understanding why we did not observe higher inflation rates consistent with the pace of economic growth. Much of this phenomenon was put down to structural elements (e.g. globalisation, or a lower pass-through of a tightened labour market to wages and prices). For now, the ECB considers that these elements will prevail in the medium and long term, but the jury is still out. As we see in an article of the Dossier of this same *Monthly Report*,² there are arguments that indicate otherwise.

Ricard Murillo Gili

2. See the article «[Waiting for inflation](#)» in the Dossier of this same *Monthly Report*.

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

UNITED STATES

	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020	12/20	01/21	02/21
Activity									
Real GDP	2.2	-3.5	0.3	-9.0	-2.8	-2.4	-	-	-
Retail sales (excluding cars and petrol)	4.0	1.9	3.0	-5.0	5.1	4.6	2.0	9.6	6.1
Consumer confidence (value)	128.3	101.0	127.3	90.0	93.1	93.8	87.1	88.9	91.3
Industrial production	0.9	-6.7	-1.9	-14.2	-6.3	-4.3	-3.5	-2.0	-4.2
Manufacturing activity index (ISM) (value)	51.2	52.5	50.4	45.7	55.0	59.0	60.5	58.7	60.8
Housing starts (thousands)	1,295	1,395	1,484	1,079	1,432	1,584	1,670	1,584	1,421
Case-Shiller home price index (value)	217	228	222	224	229	239	242	245	...
Unemployment rate (% lab. force)	3.7	8.1	3.8	13.1	8.8	6.8	6.7	6.3	6.2
Employment-population ratio (% pop. > 16 years)	60.8	56.8	60.7	52.9	56.1	57.4	57.4	57.5	57.6
Trade balance ¹ (% GDP)	-2.7	-3.3	-2.6	-2.7	-2.9	-3.3	-3.3	-4.5	...
Prices									
Headline inflation	1.8	1.2	2.1	0.4	1.2	1.2	1.4	1.4	1.7
Core inflation	2.2	1.7	2.2	1.3	1.7	1.6	1.6	1.4	1.3

JAPAN

	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020	12/20	01/21	02/21
Activity									
Real GDP	0.3	-4.9	-2.1	-10.3	-5.8	-1.3	-	-	-
Consumer confidence (value)	38.9	31.1	36.0	24.7	30.5	33.0	31.8	29.6	33.8
Industrial production	-2.7	-10.3	-4.3	-20.5	-12.6	-3.5	-4.2	-2.0	...
Business activity index (Tankan) (value)	6.0	-19.8	-8.0	-34.0	-27.0	-10.0	-	-	-
Unemployment rate (% lab. force)	2.4	2.8	2.4	2.7	3.0	3.0	3.0	2.9	2.9
Trade balance ¹ (% GDP)	-0.3	0.1	-0.2	-0.5	-0.3	0.1	0.1	0.3	0.2
Prices									
Headline inflation	0.5	0.0	0.5	0.1	0.2	-0.8	-1.2	-0.6	-0.4
Core inflation	0.6	0.2	0.7	0.3	0.1	-0.3	-0.4	0.1	0.2

CHINA

	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020	12/20	01/21	02/21
Activity									
Real GDP	6.0	2.3	-6.8	3.2	4.9	6.5	-	-	...
Retail sales	8.1	-2.9	-18.2	-4.0	0.9	4.6	4.6	...	33.8
Industrial production	5.8	3.4	-7.3	4.4	5.8	7.1	7.3	...	35.1
PMI manufacturing (value)	49.7	49.9	45.9	50.8	51.2	51.8	51.9	51.3	50.6
Foreign sector									
Trade balance ^{1,2}	421	535	361	411	450	535	535	...	...
Exports	0.5	3.6	-13.6	-0.2	8.4	16.7	18.1	...	483.3
Imports	-2.7	-1.1	-3.1	-9.9	2.9	5.0	6.5	...	156.6
Prices									
Headline inflation	2.9	2.5	5.0	2.7	2.3	0.1	0.2	-0.3	-0.2
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	6.9	6.9	7.0	7.1	6.9	6.6	6.5	6.5	6.5

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 Refinitiv.

EURO AREA

Activity and employment indicators

Values, unless otherwise specified

	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020	12/20	01/21	02/21
Retail sales (year-on-year change)	2.4	-1.1	-1.1	-6.8	2.3	1.1	0.9	-6.4	...
Industrial production (year-on-year change)	-1.3	-8.7	-5.9	-20.2	-7.0	-1.5	-0.2	0.1	...
Consumer confidence	-7.0	-14.3	-8.6	-18.5	-14.4	-15.6	-13.8	-15.5	-14.8
Economic sentiment	103.7	88.3	100.8	72.2	88.6	91.4	92.4	91.5	93.4
Manufacturing PMI	47.4	48.6	47.2	40.1	52.4	54.6	55.2	54.8	57.9
Services PMI	52.7	42.5	43.8	30.3	51.1	45.0	46.4	45.4	45.7
Labour market									
Employment (people) (year-on-year change)	1.2	-1.6	0.4	-2.9	-2.1	-1.9	-	-	-
Unemployment rate (% labour force)	7.6	7.9	7.3	7.6	8.6	8.2	8.1	...	...
Germany (% labour force)	3.1	4.2	3.6	4.2	4.5	4.6	4.6	...	...
France (% labour force)	8.5	8.0	7.7	7.1	9.1	8.1	7.8	...	...
Italy (% labour force)	9.9	9.1	9.2	8.5	9.6	9.1	9.0	...	...
Real GDP (year-on-year change)	1.3	-6.8	-3.3	-14.6	-4.2	-4.9	-	-	-
Germany (year-on-year change)	0.6	-5.3	-2.2	-11.3	-4.0	-3.6	-	-	-
France (year-on-year change)	1.5	-8.2	-5.6	-18.6	-3.7	-4.9	-	-	-
Italy (year-on-year change)	0.3	-8.9	-5.8	-18.2	-5.2	-6.6	-	-	-

Prices

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

	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020	12/20	01/21	02/21
General	1.2	0.3	1.1	0.2	0.0	-0.3	-0.3	0.9	0.9
Core	1.0	0.7	1.1	0.9	0.6	0.2	0.2	1.4	1.1

Foreign sector

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

	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020	12/20	01/21	02/21
Current balance	2.4	2.4	2.1	2.3	2.1	2.4	2.4	2.6	...
Germany	7.5	7.0	7.3	6.8	6.8	7.0	7.0	7.0	...
France	-0.7	-2.3	-0.8	-1.4	-1.8	-2.3	-2.3	-2.2	...
Italy	3.0	3.6	3.2	3.0	3.5	3.6	3.6	3.7	...
Nominal effective exchange rate¹ (value)	92.4	93.9	91.2	93.4	95.6	95.7	96.1	96.3	95.8

Credit and deposits of non-financial sectors

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

	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020	12/20	01/21	02/21
Private sector financing									
Credit to non-financial firms ²	3.8	6.3	3.9	7.1	7.1	7.0	7.1	6.9	7.1
Credit to households ^{2,3}	3.4	3.2	3.6	3.0	3.1	3.2	3.1	3.0	3.0
Interest rate on loans to non-financial firms ⁴ (%)	1.2	1.2	1.1	1.2	1.3	1.3	1.3	1.2	1.2
Interest rate on loans to households for house purchases ⁵ (%)	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3
Deposits									
On demand deposits	8.0	12.9	9.3	12.9	14.1	15.2	16.3	17.1	17.0
Other short-term deposits	0.3	0.6	-0.2	0.3	1.0	1.4	1.7	1.1	1.0
Marketable instruments	-1.9	10.0	3.8	7.1	10.9	18.3	25.0	18.5	14.2
Interest rate on deposits up to 1 year from households (%)	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2

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.

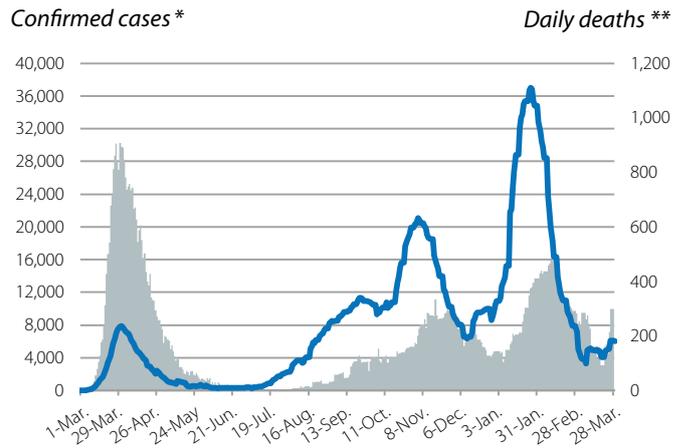
Spain: a sinuous first quarter

The third wave of the pandemic slowed the economic recovery in the opening months of the year. Nevertheless, in recent quarters the learning curve of how to manage and live with a pandemic has led to greater resilience in economic activity. Furthermore, although the restrictions continued to hold back the economy in Q1 2021 as a whole, in March the infection rate remained contained with new confirmed cases stabilising at around 5,000 (seven-day average), well below the average of 36,000 reached in January. The percentage of positive tests also fell in March, down to 5% (having reached almost 20% in January), while the vaccination rate improved despite the supply problems. The pandemic remains the major determining factor for the economic outlook, and although our forecasts contemplate the possibility of further outbreaks, over the coming months the immunisation of risk groups in Q2 is expected to help further contain the spread of the virus and relieve pressure on the health system, allowing for a more sustained revival of economic activity.

Economic activity is slowed by the COVID-19 pandemic in the early stages of 2021. The latest data from the National Statistics Institute show that GDP stagnated in Q4 2020 (+0.0% quarter-on-quarter), whereas a slight advance of +0.4% had been initially estimated. However, the institute's new estimate indicates that the economy had rebounded in Q3 by more than originally estimated (specifically, by 0.7 pps more, reaching 17.1%) and all this placed the fall in GDP for 2020 as a whole at 10.8% (compared to an initial estimate of 11.0%). For Q1, most of the available economic activity indicators mark a slight decline versus the previous quarter. In particular, for the quarter on average, the composite Purchasing Managers' Index (PMI), which measures business sentiment, stood below the 50-point threshold that separates contraction from expansion. This was despite Spain's manufacturing activity improving again in March, at 56.9 points. In this environment, the Bank of Spain revised its macroeconomic forecasts for Spain slightly downwards, and expects GDP in 2021 to be 5.6% below the 2019 level, a view reasonably in line with that envisaged in CaixaBank Research's forecast scenario. On the other hand, the public deficit in 2020 was 11.0% of GDP. This represents an increase of 8.1 pps of GDP over 2019, explained by a 5.0% drop in public revenues and a 10.1% increase in public expenditure in year-on-year terms, including interest charges. In addition, at the discretion of Eurostat, a figure of 0.9 pps has been included in the deficit to account for Sareb.

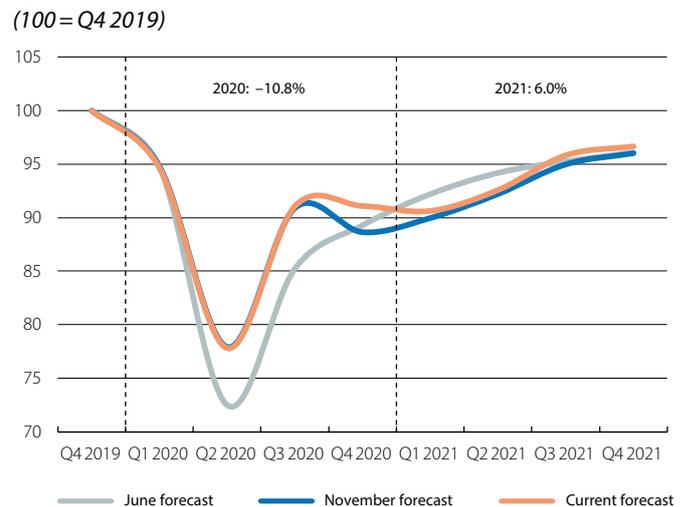
Control of the pandemic in March facilitated an improvement in economic activity. Following an 11% drop in CaixaBank's consumption indicator in February (after declines of 5% and 7% in Q3 and Q4, respectively), in March the decline moderated to 6%. Overall, however, the weakness of January

Spain: new confirmed cases and daily deaths



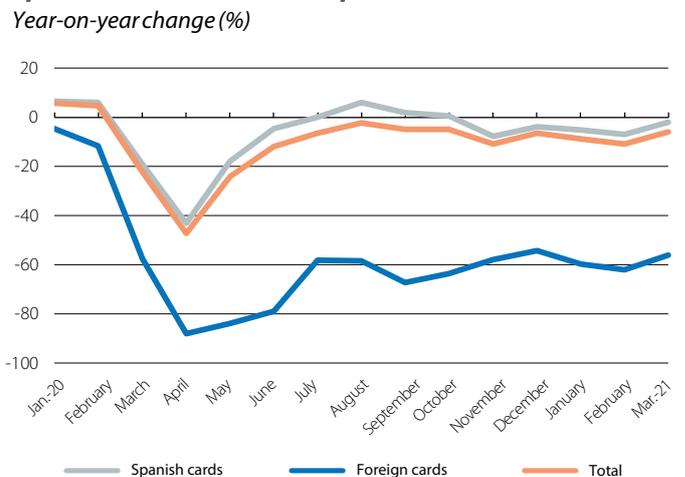
Notes: 7-day average for infections and deaths. * Number of positive PCR and antigen tests by notification date. ** Number of deaths by notification date.
Source: CaixaBank Research, based on data from the Ministry of Health.

Spain: evolution of real GDP



Source: CaixaBank Research.

Spain: CaixaBank consumption indicator *



Note: * This indicator includes expenditure on cards issued by CaixaBank, non-client expenditure registered on CaixaBank POS terminals and withdrawals at CaixaBank ATMs.
Source: CaixaBank Research, based on internal data.

and February weighed down the figure for Q1 as a whole, and the indicator shows a slight decline compared to Q4 2020. On the other hand, cement consumption recovered in February, with a fall of 1.9% year-on-year (after a drop of 12.4% in January), and the figure for new vehicle registrations moderated its decline (-38.4% year-on-year in February compared to 51.5% in January).

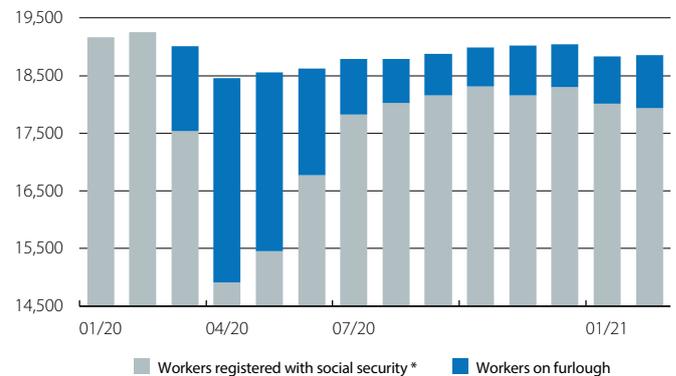
The evolution of the labour market is key to the economy.

Although the labour market showed encouraging performance in Q4 2020, the total number of workers under furlough (ERTE) schemes indicates less traction in the first quarter of the year, after an increase of 90,000 in February, largely concentrated in the service sectors most affected by the activity restrictions. On the other hand, the number of registered workers also shows a decline, with 30,000 fewer people in February than in the previous month (with seasonally adjusted data), representing the first month-on-month decline since May 2020. Finally, the number of unemployed people stood above 4 million, representing a 23.5% increase in year-on-year terms (21.8% in January). All this indicates that the temporary workforce reduction programmes will continue to play a key role over the coming months in order to avoid a major rebound in unemployment, ensure that household incomes are isolated from economic fluctuations and protect the business fabric in an environment marked by high uncertainty.

Spanish inflation rebounds in March. The CPI registered a year-on-year change of 1.3% in March, according to data advanced by the National Statistics Institute. This figure follows several months marked by high volatility (-0.5% in December, 0.5% in January and 0% in February), largely explained by fluctuations in electricity prices. All the indicators suggest that the trend in the CPI in March was also driven by energy prices, as core inflation remained at 0.3%. Looking ahead to the coming months, various base effects related to the pandemic (such as last year's low oil prices) are expected to continue to generate volatility in the inflation data, which could increase slightly in the second half of the year.

The balance of services is slow to recover, but the balance of goods shows improvement. In January, both exports and imports fell at double-digit rates (-11.4% and -16.4% year-on-year, respectively), affected by the tighter activity restrictions imposed across Europe. The deficit in the balance of goods stood at 1% of GDP (12-month cumulative balance), representing an improvement of 1.5 pps compared to the figure of a year ago. Much of this improvement is due to the lower energy deficit, as a result of the collapse in oil prices and domestic demand in the last year, so it ought to be undone over the next few months. However, the balance of non-energy goods also showed improved performance, with a surplus of around 4 billion euros for the first time since 2015.

Spain: evolution of the number of workers registered with social security and those on furlough
(Thousands of people registered with social security and on furlough)



Note: * Registered workers who are not on furlough (either total or partial).
Source: CaixaBank Research, based on data from the Ministry of Labour and Social Economy, and the Ministry of Inclusion, S.S. and Migration.

Spain: CPI
Year-on-year change (%)



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

Spain: foreign trade of goods *
Year-on-year change in the 12-month cumulative balance (%)



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

Taking stock of the «intermediate» sectors in Spain

- Some sectors have suffered enormously as a result of the pandemic, while others have managed to continue to grow. Between these extremes are those we can call «intermediate» sectors.
- Most sectors show a deterioration in their economic and financial situation, but they will bounce back quickly when the mobility and activity restrictions are lifted.

We are all well aware that the impact of the pandemic has varied widely from sector to sector. Those linked to tourism and leisure have suffered disproportionately. At the other end of the spectrum, some sectors, such as agriculture, forestry and fishing, or public administrations, education and health, have seen their activity increase during the pandemic. In this article, we focus on all the other sectors: the ones which, while having been dealt a heavy blow, have suffered less than those hardest hit. We will call them the «intermediate» sectors.

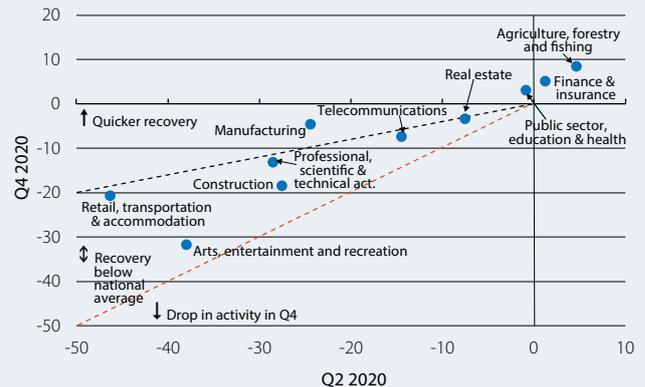
In the first chart, we show data on the gross value added (GVA) by economic sector (based on the official NACE classification). The horizontal axis shows the drop in GVA in Q2 2020 relative to the pre-crisis level of Q4 2019, while the vertical axis shows the drop in Q4 2020 compared to the pre-crisis level. The red dotted line separates the area denoting a recovery in the GVA between Q2 and Q4 2020 (above the line) from that denoting a further decline (below the line). The black dotted line, meanwhile, marks the recovery rate of GDP between Q2 and Q4 2020.¹

We can draw several messages from the chart. Firstly, there is a great deal of disparity in the drop in GVA between the various sectors. As is already known, the biggest declines in Q2 were endured by the retail, transportation and accommodation sectors, as well as that of arts, entertainment and recreation services exceeding 30%. In contrast, there are some sectors that have seen their GVA increase compared to Q4 2019. Secondly, we see how the recovery was widespread from Q2 onwards (all sectors are above the red dotted line). Thirdly, the pace of recovery between sectors has also been very uneven. The vast majority of sectors lie in the area between the red and black dotted lines: these are the sectors that have recovered since Q2, but have done so at a slower pace than domestic GDP. Among the sectors that had suffered the most in Q2, the manufacturing sector has recovered at a quicker rate than national GDP, while sectors such as construction and that of arts, entertainment and recreation services have recovered at a notably slower rate (i.e. they lie further away from the the black dotted line).

1. Specifically, if we take any given sector and start from the level of activity it has lost up until Q2, the black line tells us where this sector's level of activity would have been in Q4 if it had recovered at the same rate as aggregate GDP.

Spain: real gross value added by sector (NACE classification)

Deviation relative to the level of Q4 2019 (%)



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

To assess in further detail each sector's ability to bounce back, we use the Lockdown Index (LI) developed by CaixaBank. The LI measures the change in the banking transactions of small and medium-sized enterprises as a result of the COVID-19 crisis, taking into account a wide range of indicators.² A value close to or below zero denotes that the company's economic and financial situation is similar to or better than what it was in the same month of the previous year.³ A higher value, meanwhile, indicates that the company's economic and financial situation has deteriorated. In addition, values above 0.3 indicate a marked deterioration in the company's economic and financial situation.

In the second chart, we show the LI by sector between March and May 2020 and compare it with the values registered between December 2020 and February 2021.⁴ We emphasise different areas of the chart. Firstly, we can see that companies' economic and financial situation deteriorated in all sectors during the first few months of the pandemic (the index shows positive values for all sectors). However, we can also see that, since then, the situation has improved in almost all sectors (most are below the diagonal line). Secondly, we see that only one

2. These include indicators related to income (e.g. sales registered on POS terminals), expenditure (e.g. payroll or bill payments) and defaults, among other variables.

3. More specifically, a value below 0.08.

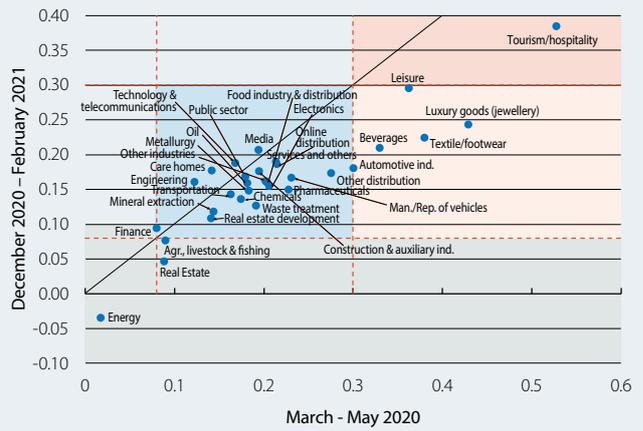
4. Since these are internal data, the economic sectors do not correspond exactly with the NACE codes.

sector – that of tourism/hospitality – continues to endure a very adverse economic and financial situation despite the improvement in recent months (it is the only sector in the dark red quadrant). In addition, a small set of sectors (light red area), including the leisure and the textile/footwear sectors, have gone from a severe deterioration in their financial situation to a moderate one. Finally, we see that the vast majority of sectors (light blue area) have continued to have a moderate deterioration in their economic and financial situation. Therefore, most sectors present a deterioration in their economic and financial situation, as we would expect given the crisis we are going through, but they should experience a rapid revival once the mobility and activity restrictions are lifted.

Following this performance in 2020, and bearing in mind that the third wave of infections in Q1 will most likely put the recovery on hold until Q2 2021, what contribution could the recovery of activity in these «intermediate» sectors provide to GDP?⁵ The answer is subject to a high degree of uncertainty, given the question marks over the speed with which the mobility/activity restrictions will be lifted and how this process will affect each sector. However, it is clear that the intermediate sectors, which make up 47.6% of the economy⁶ and have a good potential to recover, will make a significant contribution to the recovery of aggregate economic activity as the restrictions begin to be eased. By way of example, if in a given quarter the recovery was such that the whole of these intermediate sectors recovered up to 75% of the GVA that was lost between Q4 2019 and Q2 2020 (in Q4 2020 these sectors had already recovered 62%, so this assumption does not appear to be overly optimistic), then the contribution to quarterly GDP growth from these sectors would be around 1.4 pps.

Oriol Carreras Baquer

Spain: Lockdown Index by sector



Source: CaixaBank Research.

5. The «intermediate» sectors include that of manufacturing (NACE code B-E), construction (NACE code F); professional, scientific and technical activities (code M-N); telecommunications (code J); and real estate activities (code L). We exclude the retail, transportation and accommodation sectors (code G-I), as well as that of arts, entertainment and recreation (code R-T), as they are the sectors hardest hit by the pandemic and are expected to recover more slowly. We also exclude sectors that have seen their GVA increase during the pandemic (sectors with NACE codes A, K and O-Q).

6. According to data for Q4 2020.

A much-needed aid package for businesses and self-employed workers in Spain

Description of the main measures

The aid package approved by the Spanish government on 12 March consists of three funds. The largest of them, with a budget of 7 billion euros, is intended to provide direct aid to businesses and self-employed workers in order to help those experiencing liquidity problems that could turn into solvency problems. To access the aid, firms will have to demonstrate declines in revenue of more than 30% in 2020, a condition similar to those applied in Germany and France in their aid packages, as well as demonstrating that they had not incurred losses in 2019, two easily verifiable conditions. They must also be up to date with their tax and social security payment obligations, they must continue to undertake the activity for which the aid is granted until at least 30 June 2022 and no dividends may be distributed in 2021 or 2022. It should be noted that the aid will be granted for specific purposes, namely to pay suppliers, utilities, wages, rents and leases or financial debt. Firstly, they will be used to pay suppliers (in order of age) and then, where applicable, to repay guaranteed debt followed by non-guaranteed debt.

These aids will be managed by the Autonomous Community regions and, of the total amount, 2 billion euros will go to the Canary Islands and Balearic Islands and 5 billion to the rest. Specifically, this sum of 5 billion will be distributed among the various Autonomous Communities following the same criteria applied to allocate the funds from the REACT-EU programme¹ (see the attached chart with the allocation of direct aid by region) and they will receive the funds by the end of April. Finally, the aid available to self-employed workers who declare their taxes under the objective estimation scheme has been set at 3,000 euros; micro-enterprises and all other self-employed workers will be eligible to receive up to 40% of their loss in turnover in excess of the 30% drop;² and all other firms will be able to receive aid of up to 20% of their loss in turnover in excess of the aforementioned 30% (with a minimum of 4,000 euros and a maximum of 200,000 euros).³

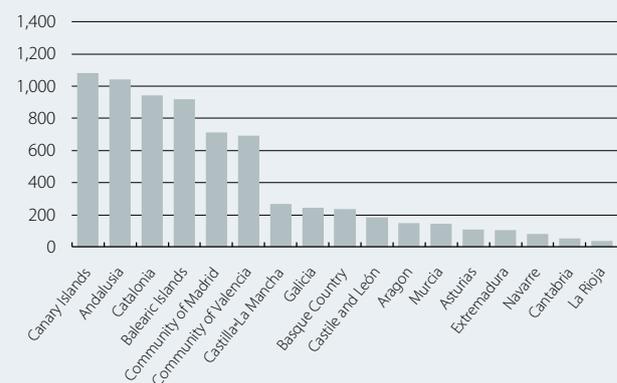
1. European recovery funds for the Autonomous Communities. The criteria for their allocation among the Autonomous Communities in mainland Spain take into account the drop in GDP in 2020 compared to 2019, divided by the relative weight of its per capita income (2/3 of the 5 billion), unemployment (two ninths) and youth unemployment (one ninth). For the Balearic Islands and Canary Islands, it is calculated based on the drop between 2019 and 2020 in the annual average number of social security affiliates excluding those under furlough (ERTE) schemes.
 2. Suppose a company billed 100,000 euros in 2019 and only 25,000 in 2020. As its turnover fell in 2020 below 70,000 euros, it fell by more than 30%, so it qualifies. This company could receive up to 40% of the loss of turnover below 70,000, i.e. 18,000 euros (if this amount were greater than 200,000, the maximum limit would be 200,000 euros).
 3. The Balearic Islands and Canary Islands may increase the loss coverage percentage or the maximum limit.

The second fund has a budget of 3 billion euros, it will be used to restructure loans under the government-backed ICO scheme and it will be applicable to those loans granted between 17 March 2020 and 13 March 2021. Three levels of measures will be considered, in the following order of priority: i) extension of the loan maturity beyond the term foreseen in the November decree⁴ (in this case, the guarantee will also be extended); ii) where this is insufficient, conversion into a participatory loan,⁵ maintaining the coverage of the guarantee, and iii) as a last resort, the Ministry of Economy will make specific transfers – to be received by financial institutions – to reduce the principal of ICO loans within any debt renegotiation agreements that are reached between debtors and financial institutions. Financial institutions will also assume a reduction in the outstanding capital due to be repaid.

The Council of Ministers will soon establish the applicable conditions and the requirements that must be met in order to qualify for these measures. A Code of Best Practice will also be adopted to facilitate and coordinate the use of these funds for restructuring secured loans.

Finally, a recapitalisation fund for medium-sized enterprises (1 billion euros) will be created to strengthen the solvency of these businesses, after assessing their viability, through different forms of debt, capital and

Direct aid by Autonomous Community: distribution
(EUR millions)



Note: Distribution according to the criteria set out in footnote 1 of this Focus.
 Source: CaixaBank Research, based on data from the Ministry of Finance.

4. In November, the government relaxed the terms of the ICO credit lines, extending the repayment period by three years (up to a maximum of eight years) and the grace period by 12 months (up to a maximum of 24 months).
 5. These instruments incorporate a variable remuneration component, linked to the company's future performance through different metrics, and they have the dual benefit of being counted as equity while the associated payments are still treated as interest for tax purposes.

quasi-capital instruments. In the event that capital instruments are used, the state will exercise its voting rights (and will be entitled to a share of future profits) for a maximum term of eight years. This fund will be managed by Cofides, a body attached to the Ministry of Industry, Trade and Tourism.

Positive overall assessment: fast and effective implementation is now required

The overall assessment of the support package for businesses and self-employed workers is positive. The set of measures boosts the aid that is available to those self-employed workers and firms that have been hardest hit by the pandemic. They come in addition to those already implemented in 2020 (furlough schemes, ICO guarantee lines and tax payment deferrals) and will help alleviate the liquidity and solvency problems that the businesses most affected by the pandemic are experiencing. It is also encouraging to note that the direct aid is targeted and will focus on covering fixed costs or reducing debt, as this makes it easier for the aid to reach the businesses that need it the most.

The direct aid is also limited to 95 of the 538 sectors that comprise the official CNAE classification of economic activities. The aim is to focus on the sectors that have resorted most to the use of ERTE furlough schemes the most, as a way to identify those hardest hit by the crisis and thus prioritise the sectors with the most jobs at stake. That said, this approach could lead to other viable businesses that are also suffering greatly being excluded from the aid, such as businesses which fall outside the 95 sectors selected but are located in tourist areas. On the other hand, by setting relatively low limits (200,000 euros in mainland Spain), the aid will be more effective for self-employed workers and very small enterprises, and less so for medium-sized enterprises.

One of the big questions is how to distinguish in the current context between viable businesses (to which the aid should be addressed) and non-viable businesses. However, in the context of a pandemic like the present, it seems preferable to cast the net too wide rather than too narrow. Another positive element of the package of measures is that the requirements established for accessing the funds are easily verifiable and are geared towards benefiting businesses that are truly viable: they must have made a profit in 2019, continue to operate until June 2022, be up to date with their tax and social security obligations, not have applied for voluntary administration, not have been declared insolvent in any proceeding and not be in receivership. The restrictions on dividend payments and increases in executive remuneration are also ways of limiting the aid to those businesses that need it the most.

With regard to the fund for the restructuring of secured loans, it is positive that the decree enables the ICO to undertake restructuring operations and that the proposals should be made by financial institutions. The fund for the recapitalisation of medium-sized enterprises, meanwhile, could prove useful in certain cases (firms that need more resources in addition to the other two funds and can demonstrate that they are viable in the medium term).

Finally, the extension of the insolvency moratorium until the end of the year will provide an important lifeline for businesses and self-employed workers so that they can take advantage of the economic recovery anticipated for the second half of the year in order to normalise their income statement. This will be accompanied by the necessary modernisation and European approval of Spain's receivership law in order to solve its two chronic problems: the low number of proceedings and the fact that the vast majority of them (90%) end up in liquidation.

In short, this package will be a useful tool in helping the businesses that have been hardest hit by the pandemic. However, it will be essential that the aid reaches businesses and self-employed workers quickly, as it is precisely now, before the economy takes off, that we must boost the oxygen supply to the productive fabric of our economy. It would also be desirable to constantly monitor the volume of the funds in order to recalibrate them, if necessary, in light of how the pandemic, and thus the economy, develops over the coming months.

Javier Garcia-Arenas

Automation: a race we are not devoting enough effort to

Automation, along with digitalisation, represents one of the biggest changes to advanced countries' production structures in the coming years. Recent experience has also shown that automation and digitalisation make economic activity more resilient in disruptive contexts such as the present.¹

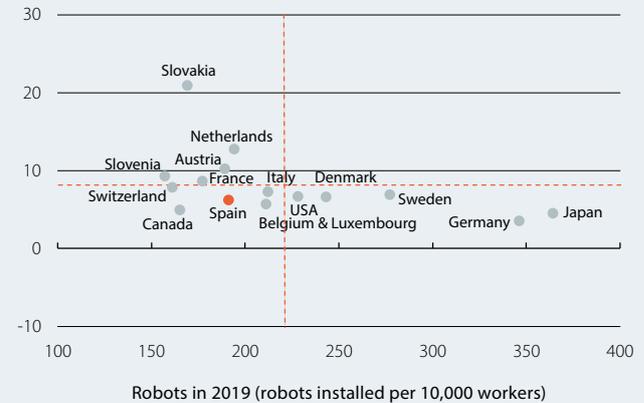
The new wave of automation – with increasingly skilled, smarter, cheaper and more digitally connected robots – is essential to the success of Industry 4.0.² In this field, the International Federation of Robotics (IFR) provides statistics on the number of robots installed for every 10,000 workers in the manufacturing sector in a large number of countries, giving us an idea of where Spain currently stands and how it is progressing.

In its latest report, the IFR states that Spain has a density of 191 robots, placing it above both the global average (113) and the European average (114). However, this figure is still well below that of major advanced countries, such as Germany (346) or the US (228), and a far cry from the pioneers in the field (Singapore, 918; Korea, 855; and Japan, 364).³ In fact, if we take a more appropriate selection of advanced countries to compare against, we see that not only is Spain slightly below the average but it is also far from closing the gap with these countries, since its growth rate is also slightly below the average (see chart).

In industries that are important in terms of size for our economy, such as the agri-food sector, there has been considerable growth in the use of robots over the past decade. More specifically, the agri-food sector has gone from having around 40 robots per 10,000 workers in 2007 to around 100. However, this increase is no match for the efforts of countries such as Italy, which has gone from being at the tail end of Europe, with a density of 20 robots in 2007, to being at the forefront in the automation of the agri-food sector alongside the Netherlands, with a density of 180 robots in 2017.

The automotive industry also stands out, as it is the most highly automated of all the manufacturing sectors. In this sector, the use of robots has remained virtually constant

Robot density in the manufacturing sector *
Composite annual growth for 2015-2019 (%)



Notes: * Selection of countries, mainly advanced ones. We exclude South Korea, Singapore and China, as their level and/or growth rate is well above the average for the standard of most advanced countries. Korea and Singapore have a density of around 900 and China's growth rate is around 300%. The horizontal and vertical lines correspond to the average for the selection of countries.

Source: CaixaBank Research, based on data from the International Federation of Robotics.

in Spain over the last decade, at around 750 robots per 10,000 workers. In contrast, the German and US automotive industries have intensified their degree of automation: whereas in 2007 they had a density similar to Spain's, by 2017 they already had around 1,250 robots per 10,000 workers.⁴

In short, the Spanish economy shows similar degrees of automation to those of our main international competitors. However, the speed of growth in this field in recent years is insufficient to catch up with the most cutting-edge economies. At the gates of the new industrial revolution, Spain will have to do more in its process of automation if it wants to be in good shape within Industry 4.0.

Clàudia Canals and Oriol Carreras

1. This article focuses on automation. For an analysis more focused on the digitalisation of the Spanish economy, see the Dossier «[Digitalisation and European funds: a winning pair](#)» in the MR03/2021.

2. Industry 4.0, a concept still under development, refers to a new way of organising production resources, centred around smart factories and hyper-connectivity.

3. Unsurprisingly, estimates name Korea, Japan and the city-state of Singapore as the countries that are expected to have the oldest population in a few decades.

4. See R. Anderton *et al.* (2020). «Virtually everywhere? Digitalisation and the euro area and EU economies». ECB Occasional Paper Series, December.

Activity and employment indicators

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

	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020	12/20	01/21	02/21
Industry									
Industrial production index	0.7	-9.5	-6.8	-23.2	-5.3	-2.5	-1.5	-2.2	...
Indicator of confidence in industry (value)	-3.9	-14.0	-5.4	-27.8	-11.9	-11.0	-10.6	-6.6	-9.6
Manufacturing PMI (value)	49.1	47.5	48.2	39.4	51.4	51.1	51.0	49.3	52.9
Construction									
Building permits (cumulative over 12 months)	17.2	-12.8	0.1	-12.5	-19.1	-19.9	-19.5	-19.8	...
House sales (cumulative over 12 months)	3.6	-13.1	-3.7	-12.3	-18.2	-18.1	-17.7	-19.0	...
House prices	5.1	2.1	3.2	2.1	1.7	1.5	-	-	-
Services									
Foreign tourists (cumulative over 12 months)	1.4	-36.8	-1.0	-22.8	-50.7	-72.5	-77.1	...	...
Services PMI (value)	53.9	40.3	42.5	28.4	47.3	43.0	48.0	41.7	43.1
Consumption									
Retail sales	2.3	-7.1	-3.7	-18.4	-3.5	-2.7	-1.5	-9.4	-5.9
Car registrations	-3.6	-29.2	-27.6	-68.6	-7.5	-13.2	0.0	-51.5	-38.4
Consumer confidence index (value)	-6.3	-22.8	-10.3	-27.9	-26.9	-26.3	-23.1	-23.7	-25.2
Labour market									
Employment ¹	2.3	-2.9	1.1	-6.0	-3.5	-3.1	-	-	-
Unemployment rate (% labour force)	14.1	15.5	14.4	15.3	16.3	16.1	-	-	-
Registered as employed with Social Security ²	2.6	-2.0	1.2	-4.4	-3.0	-2.0	-1.9	-1.7	-2.1
GDP	2.0	-10.8	-4.3	-21.6	-8.6	-8.9	-	-	-

Prices

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

	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020	12/20	01/21	02/21
General	0.7	-0.3	0.6	-0.7	-0.5	-0.7	-0.5	0.5	0.0
Core	0.9	0.7	1.1	1.1	0.5	0.2	0.1	0.6	0.3

Foreign sector

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

	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020	12/20	01/21	02/21
Trade of goods									
Exports (year-on-year change, cumulative over 12 months)	1.8	-10.0	1.0	-7.2	-8.9	-10.0	-10.0	-11.1	...
Imports (year-on-year change, cumulative over 12 months)	1.0	-14.7	-1.0	-9.3	-13.3	-14.7	-14.7	-16.0	...
Current balance	26.6	7.4	27.5	18.1	11.5	7.4	7.4	7.7	...
Goods and services	37.5	16.7	37.9	27.7	20.3	16.7	16.7	16.2	...
Primary and secondary income	-10.9	-9.3	-10.4	-9.6	-8.8	-9.3	-9.3	-8.5	...
Net lending (+) / borrowing (-) capacity	30.8	12.4	32.0	22.6	16.3	12.4	12.4	12.4	...

Credit and deposits in non-financial sectors³

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

	2019	2020	Q1 2020	Q2 2020	Q3 2020	Q4 2020	12/20	01/21	02/21
Deposits									
Household and company deposits	5.4	7.5	4.4	8.0	9.0	8.7	9.0	9.9	8.7
Sight and savings	10.7	12.3	8.9	13.0	13.8	13.7	13.9	15.4	14.0
Term and notice	-13.4	-16.5	-16.4	-16.1	-16.5	-17.1	-18.1	-18.7	-19.7
General government deposits	8.8	1.0	-6.2	-6.6	5.2	11.8	16.3	11.2	7.8
TOTAL	5.6	7.1	3.8	7.1	8.7	8.9	9.4	9.9	8.6
Outstanding balance of credit									
Private sector	-1.5	1.2	-1.0	1.5	2.0	2.4	2.5	2.3	2.6
Non-financial firms	-3.4	4.9	-1.7	6.1	7.1	7.9	8.2	8.0	9.1
Households - housing	-1.3	-1.8	-1.7	-2.1	-1.8	-1.5	-1.3	-1.1	-1.1
Households - other purposes	3.2	0.8	2.5	0.7	0.3	-0.1	-0.8	-1.8	-2.3
General government	-6.0	3.0	1.7	0.1	1.1	8.8	15.5	5.5	10.0
TOTAL	-1.7	1.3	-0.9	1.5	1.9	2.7	3.2	2.5	3.0
NPL ratio (%)⁴	4.8	4.5	4.8	4.7	4.6	4.5	4.5	4.5	...

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.

Resilience and positive response to the easing of the lockdown in Portugal

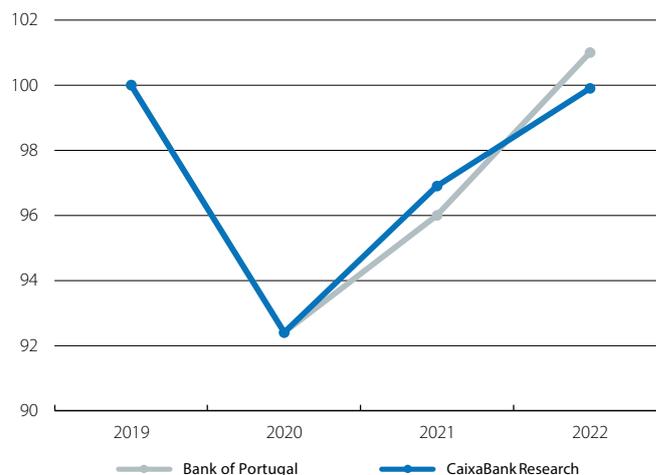
The Portuguese economy shows resilience despite the severe lockdown that marked the start of the year. This is reflected in the improved sentiment in March shown by the latest indicators. In particular, in a month in which the restrictions were gradually eased, the Portuguese National Statistics Institute's economic climate indicator rose to -0.7% in March, the highest level since July 2020, although the average for the quarter (-1.1%) was weighed down by the difficulties experienced in January and February. The improvement in sentiment in March was widespread across the various economic sectors (with the exception of construction), as well as among households (the consumer confidence index improved to -20.2 points in March). This improvement in the economic climate follows the stricter restrictions on activity in place in February, when industrial production fell by 2.4% year-on-year (-6.2% in January) and retail sales fell by 14.5% year-on-year (-10.7% in January), although online purchases helped to mitigate the decline in total consumption (they grew by more than 20%). Thus, the economic recovery in the quarter as a whole has been held back by the pandemic, but the indicators highlight a certain resilience in economic activity which has led the Bank of Portugal to keep its macroeconomic forecasts for 2021 unchanged ($+3.9\%$) and even to revise those of 2022 upwards (5.7% , 7 decimal points above its December forecast). Over the coming quarters, consumption and exports are the components that are expected to contribute the most to the recovery, although investment will also play an important role, favoured by EU funds. However, the degree of uncertainty remains very high and the speed of the recovery will largely depend on the ability to accelerate the rate of vaccination against COVID-19: at the end of March, just over 10% of the population had been vaccinated with at least one dose, but the authorities plan to accelerate the rollout from the current 30,000 vaccines a day to 100,000-120,000 a day in April.

Employment continued to fall in the first month of the year. In January, a month marked by a widespread lockdown, the population in employment declined for the second consecutive month ($-79,000$ people, based on seasonally adjusted data), while the unemployment rate rose to 7.2% (6.8% in December). Registered unemployment also increased by more than 29,500 people between the beginning of the year and February, placing this indicator at its highest level since mid-2017. The impact of the pandemic is expected to become more apparent in the second half of the year, as the support measures for employment come to an end.

Unlike in previous recessions, Portugal maintained its external lending capacity in 2020 ($+0.1\%$ of GDP, 9 decimal points less than in 2019). Of particular note was the increase in

Portugal: real GDP forecasts

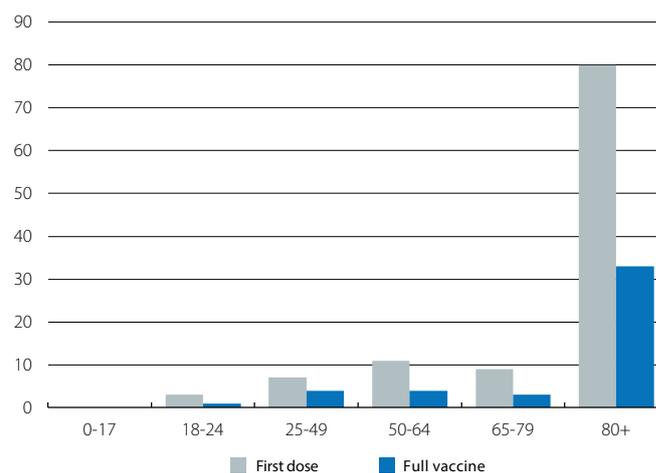
Level (100 = 2019)



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

Portugal: vaccines administered by age group

(% of the population of the group)

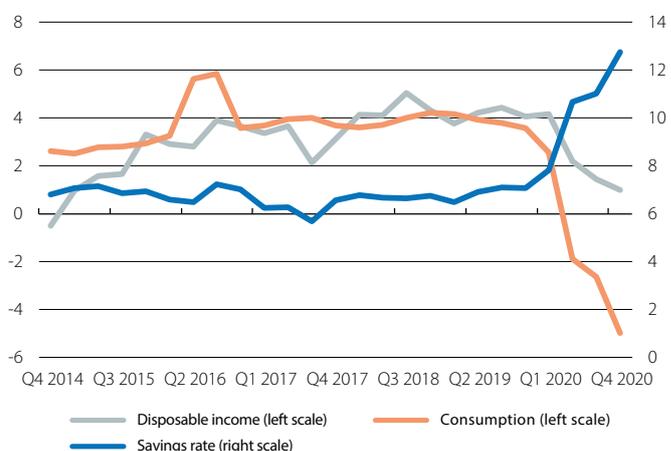


Source: CaixaBank Research, based on data from the Portuguese Directorate General of Health.

Portugal: household savings, consumption and disposable income

Year-on-year change (%)

Disposable income (%)



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

the lending capacity of households, which reached 5.9% of GDP (+4.4 pps). This is a reflection of the increase in their savings rate up to 12.8% (+5.7 pps), forced by the lockdown and its impact on consumption, as well as precautionary reasons in an environment marked by uncertainty. These accumulated savings could offer households a buffer to help them cope with potential future increases in their costs, for instance when the credit moratoria come to an end from April 2021.

The residential real estate sector shows great resilience.

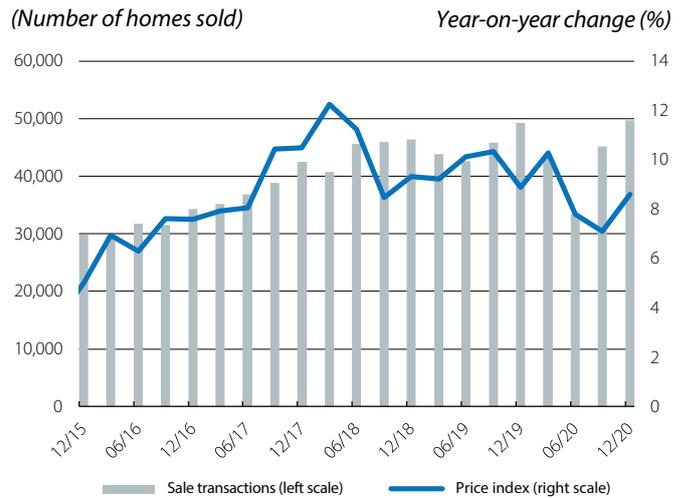
In Q4 2020, real estate prices continued to rise (+8.6% year-on-year and +2.1% quarter-on-quarter), as did the number of sale transactions: 49,734 homes, +1% year-on-year and 10.2% quarter-on-quarter. For the year as a whole, there was a moderate slowdown in price growth to 8.4% (-1.2 pps compared to 2019), and the number of homes sold fell by 5.3%. However, the real estate market tends to have a somewhat delayed reaction to GDP weakness, so the sector is likely to experience a slightly more pronounced slowdown in 2021. In addition, if the end of private moratoria (which reached around 17% of housing credit in February) is confirmed in April, and that of public moratoria in September, this would lead to additional finance costs for households, which could affect their home purchasing decisions.

The pandemic pushed the public accounts into the red.

The general government balance stood at -5.7% of GDP in 2020, a slightly less severe deterioration than that expected by analysts and the Portuguese government. This better-than-expected performance was due to greater revenue collection (+2,123 million euros), specifically income and wealth taxes, and lower expenditure execution (-801 million euros). COVID-related support measures, in terms of income and expenditure, amounted to 2.3% of GDP. The public debt ratio, meanwhile, reached 133.6% of GDP, +16.8 pps versus 2019, and exceeded 270 billion euros in 2020. In 2021, despite the foreseeable economic recovery, public spending will remain under pressure due to the extraordinary support measures in the context of the COVID-19 pandemic. Therefore, while we can expect some improvement in the government balance, it will still remain in deficit.

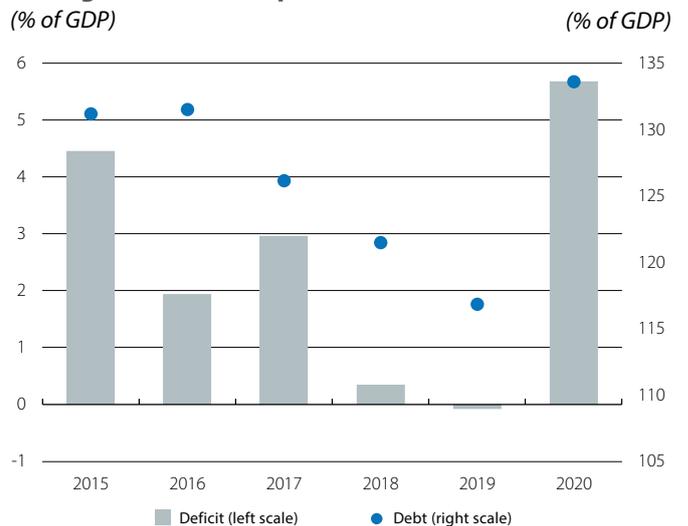
Downward trajectory of loan moratoria since the peak registered in September. The stock of credit with moratoria reached 45,577 million euros in February, a slight decrease compared to the previous month (-100 million euros); that month, moratoria represented 15.8% of all private individual credit and 33.3% of that of non-financial firms. In the accommodation and catering sector, moratoria reached 58.6% of the stock of credit. Despite the pandemic, the non-performing loan ratio for the non-financial private sector declined to 5.8% at the end of 2020 (7.0% in 2019). New lending to the non-financial private sector, meanwhile, fell overall by 4.8% year-on-year in February, with increases in segments such as housing credit (+11.1% year-on-year) and reductions in others such as consumer credit (-39.7% year-on-year). In the case of companies, the decline was marginal (-0.2%).

Portugal: homes prices and number of sale transactions



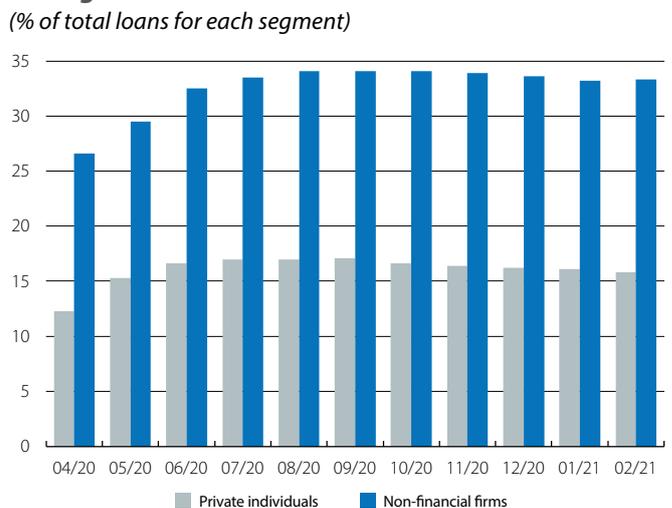
Source: CaixaBank Research, based on data from the National Statistics Institute of Portugal.

Portugal: deficit and public debt



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

Portugal: loans under moratoria *



Note: * Includes both private and public moratoria. Source: CaixaBank Research, based on data from the Bank of Portugal.

Activity and employment indicators

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

	2019	2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	01/21	02/21	03/21
Coincident economic activity index	1.1	-5.2	-6.1	-6.4	-5.1	...	-4.4	-3.8	...
Industry									
Industrial production index	-2.2	-7.0	-23.5	-0.7	-2.5	...	-6.3	-2.4	...
Confidence indicator in industry (<i>value</i>)	-3.2	-15.8	-24.8	-19.1	-14.5	-13.9	-14.7	-14.1	-12.9
Construction									
Building permits (<i>cumulative over 12 months</i>)	5.9	-0.7	-0.8	-0.6	-0.7	...	...	...	...
House sales	1.7	...	-21.6	-1.5	...	...	...	...	...
House prices (<i>euro / m² - valuation</i>)	10.4	8.3	9.0	6.9	6.0	...	6.1	5.7	...
Services									
Foreign tourists (<i>cumulative over 12 months</i>)	7.8	-75.7	-29.7	-57.6	-75.7	...	-79.9	...	...
Confidence indicator in services (<i>value</i>)	12.9	-21.6	-36.9	-37.2	-18.0	-20.4	-18.3	-21.3	-21.5
Consumption									
Retail sales	4.4	-3.8	-12.9	-2.2	-3.1	...	-11.0	-15.1	...
Coincident indicator for private consumption	2.2	-5.0	-6.6	-6.6	-4.0	...	-1.8	-0.6	...
Consumer confidence index (<i>value</i>)	-8.0	-22.4	-27.7	-26.9	-26.2	-24.4	-25.7	-24.4	-23.0
Labour market									
Employment	1.0	-2.0	-3.8	-3.0	-1.0	...	-3.5	...	...
Unemployment rate (<i>% labour force</i>)	6.5	6.8	5.6	7.8	7.1	...	7.2	...	...
GDP	2.5	-7.6	-16.4	-5.6	-6.1	...	...	...	...

Prices

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

	2019	2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	01/21	02/21	03/21
General	0.3	0.0	-0.3	0.0	-0.2	0.4	0.3	0.5	0.5
Core	0.5	0.0	-0.1	-0.1	-0.1	0.6	0.6	0.7	0.2

Foreign sector

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

	2019	2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	01/21	02/21	03/21
Trade of goods									
Exports (<i>year-on-year change, cumulative over 12 months</i>)	3.6	-10.2	-6.8	-7.8	-10.2	...	-11.3	...	...
Imports (<i>year-on-year change, cumulative over 12 months</i>)	6.0	-15.2	-7.6	-12.0	-15.2	...	-16.5	...	...
Current balance	0.8	-2.4	-0.2	-2.2	-2.4	...	-2.5	...	...
Goods and services	1.6	-3.6	-0.6	-3.0	-3.6	...	-3.6	...	...
Primary and secondary income	-0.7	1.2	0.4	0.8	1.2	...	1.1	...	...
Net lending (+) / borrowing (-) capacity	2.6	0.3	2.4	0.3	0.3	...	0.2	...	...

Credit and deposits in non-financial sectors

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

	2019	2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	01/21	02/21	03/21
Deposits¹									
Household and company deposits	5.2	10.1	9.0	9.2	10.1	...	9.4	11.5	...
Sight and savings	14.8	18.8	20.1	18.4	18.8	...	17.3	21.1	...
Term and notice	-2.9	1.4	-1.0	0.4	1.4	...	1.3	1.8	...
General government deposits	5.6	-17.1	-15.7	-13.8	-17.1	...	-9.7	-7.5	...
TOTAL	5.2	9.1	7.9	8.2	9.1	...	8.7	10.8	...
Outstanding balance of credit¹									
Private sector	-0.1	4.6	0.5	2.1	4.6	...	4.5	5.0	...
Non-financial firms	-3.7	10.5	1.0	4.4	10.5	...	10.2	11.8	...
Households - housing	-1.3	2.1	-0.1	0.7	2.1	...	2.1	2.3	...
Households - other purposes	16.5	-1.2	1.5	1.3	-1.2	...	-1.4	-2.2	...
General government	-4.7	-4.3	-9.7	-5.7	-4.3	...	-3.8	-4.3	...
TOTAL	-0.3	4.2	0.1	1.8	4.2	...	4.2	4.6	...
NPL ratio (%)²	6.2	4.9	5.5	5.3	4.9	...	...	...	...

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.

Waiting for inflation

Like Vladimir and Estragon in *Waiting for Godot*, economists, academics and central banks have spent the last decade waiting for inflation that never came. At least until COVID-19 arrived on the scene. The rallies in the inflation data and expectations with which 2021 began have revived the debate about its arrival. For the time being, all the indicators suggest that the recent surge is due to technical and temporary factors which will fade as the COVID-19 crisis subsides and economies normalise.¹ But, after this transition, will we return to the world of stubbornly low inflation rates, or will the pandemic mark a turning point?

Two narratives: the flattening of the Phillips curve...

In recent decades, the growth in the prices of consumer goods and services has shown a pronounced and steady moderation: in the US, Germany and Spain, inflation has gone from rates of around 4%, 3%, and 7%, respectively, on average for the period 1980-2000 to levels only slightly above 1% in the period 2008-2020.

This moderation has occurred in times that have not always been placid for these economies. Indeed, inflation has not only moderated, but the link between the buoyancy of economic activity and inflationary pressures has been weakening. This has been called the «flattening of the Phillips curve»: as the first chart shows, the inverse curve that links inflation and unemployment, documented statistically by William Phillips in 1958, has flattened steadily since the 1980s.

Some of the factors behind the weakness in inflation have been inherited from the business cycle and, therefore, linked to the short-term environment (although they persisted longer than desired): the global financial crisis of 2008 and the Great Recession left demand weak and weighed down by a heavy debt burden, while its recovery was slow and, for many years, incomplete (especially in Europe).² In the current context, a slower-than-expected recovery following the COVID-19 crisis could reintroduce disinflationary pressures.

However, structural forces were also responsible for making the moderation in inflation a persistent and widespread phenomenon among advanced economies. Firstly, in the late 20th century, the major central banks set clear targets to combat inflation, while improvements in the quality and independence of their institutions succeeded in anchoring inflation expectations at moderate levels. Secondly, globalisation and demographic factors combined to exert disinflationary pressures, as the integration of China and other emerging countries into the global economy provided access to cheaper production factors, as well as generating a relative abundance of workers. Moreover, digitalisation and more flexible labour markets contributed to the moderation of inflation and its loss of traction with economic activity.³ To the extent that these forces are structural in nature, they could continue to weigh down inflation in the future.

... or reflation?

In the face of all these forces, the post-COVID-19 world could bring some changes. Firstly, the pandemic has not only confined demand, but it has also frozen much of the production structure. Thus, a quicker reactivation of demand (spurred by consumption which has been pent-up in the lockdown) than of supply (strained by disruptions in the global supply chain) could generate bottlenecks that trigger spikes in inflation. While these tensions would be a natural phenomenon as economies normalise and should fade over time, if they persist for longer than expected there is a risk that they could affect inflation expectations and lead to more persistent price pressures.

Secondly, the COVID-19 crisis could also sow the seed of inflation through the public debt burden with which it has left the central banks. The mass purchases of debt by the Fed, the ECB and others are necessary to combat an unprecedented crisis, but this need has led them to become major holders of public debt: a situation which also carries certain risks because it could generate political incentives to interfere with central banks' independence and make them more tolerant of inflation.⁴

US: sensitivity of inflation to unemployment



Note: * Coefficient β estimated in the regression $\pi_t = \alpha + \beta u_t + \gamma \pi_{t-1} + \varepsilon_t$ with 10-year data windows. π_t is the core year-on-year inflation and u_t is the unemployment rate.

Source: CaixaBank Research, internal estimates based on data from FRED.

1. Although in the short term they could intensify. See the Focus «[The factors behind the rise in euro area inflation](#)» in this same *Monthly Report*.

2. It took the euro area eight years to recover pre-crisis employment levels.

3. See A. Haldane (2021). «Inflation: a tiger by the tail?».

4. Remember that inflation has historically been a way of alleviating governments' debt burden. See the article «[What to do in the face of surges in public debt: a historical tour](#)» in the Dossier of the MR10/2020.

With regard to central banks, there is another factor that could generate inflation more directly: inflation is a monetary phenomenon and, as we show in the second chart, money supply has recently experienced significant growth. Two arguments mitigate this concern. On the one hand, the monetary expansion has been intended to cushion the blow of the COVID-19 crisis, and the central banks have the tools to withdraw it when necessary. On the other hand, the relationship between monetary aggregates and inflation applies in the medium and long term, but is weak in the short term.⁵ In fact, the significant monetary expansion that occurred in the Great Recession did not lead to strong inflationary pressures.⁶ However, this latest historical experience must be interpreted with caution. After all, the loss of traction of the monetary multiplier⁷ in the Great Recession can be explained by the financial crisis that preceded it.⁸ In contrast, the multiplier could now be more reactive, as the origin of the current crisis is neither financial nor economic and the transmission of the stimuli has been much greater thanks to decisive action from monetary and fiscal policies. For instance, in the US, fiscal policy has put money directly into consumers' pockets.

Money supply: M2 aggregate



Source: CaixaBank Research, based on data from the ECB and the US Federal Reserve.

In addition to these consequences of the COVID-19 crisis, there could be a reversal of two disinflationary factors in the future. On the one hand, the pandemic caused a collapse in world trade and, by freezing global supply chains, it has highlighted some of the downsides to the fragmentation and offshoring of production processes. This could lead to shorter value chains and, coupled with the protectionist shifts of recent years, to a certain degree of deglobalisation.⁹ On the other hand, there are the demographic dynamics.¹⁰ In recent decades, the world's working-age population has become relatively abundant relative to the rest. This relative abundance, which would have contributed to the lower sensitivity of inflation to economic activity in the past, seems likely to be reversed in the future as populations age.¹¹ This ageing has already been going on for some time in advanced economies, albeit without exerting inflationary pressures. The key is that inflation has become a more global phenomenon, and demographic inversion is expected to also occur in the large emerging economies as well.

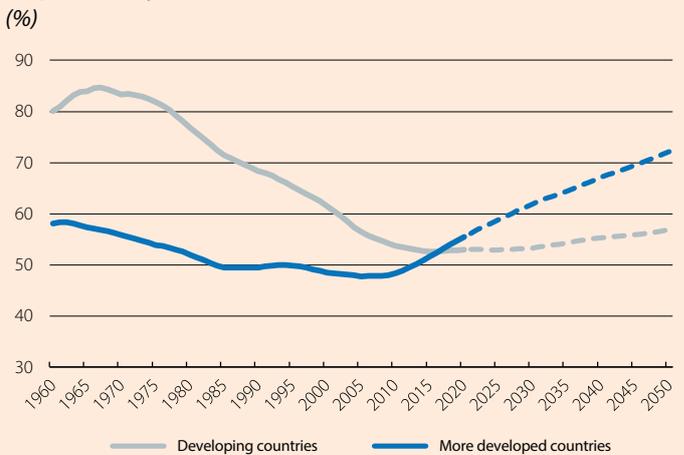
production processes. This could lead to shorter value chains and, coupled with the protectionist shifts of recent years, to a certain degree of deglobalisation.⁹ On the other hand, there are the demographic dynamics.¹⁰ In recent decades, the world's working-age population has become relatively abundant relative to the rest. This relative abundance, which would have contributed to the lower sensitivity of inflation to economic activity in the past, seems likely to be reversed in the future as populations age.¹¹ This ageing has already been going on for some time in advanced economies, albeit without exerting inflationary pressures. The key is that inflation has become a more global phenomenon, and demographic inversion is expected to also occur in the large emerging economies as well.

Will inflation come?

The intensity of the COVID-19 crisis is likely to continue exerting a force of «cyclical weakness» on inflation: not only because the recovery may take a long time to be completed, but also because the depth of the crisis could leave «psychological» scars and other consequences that will weigh down growth in economic activity, wages and inflation. However, the world has changed with COVID-19, and there are forces that could stimulate upward pressure on prices. Monetary policy certainly has the instruments necessary to keep inflation down, but in an extremely uncertain environment, central banks may face difficult situations in striking a balance between anchoring rates and avoiding sharp adjustments in the financial conditions.

In addition to these consequences of the COVID-19 crisis, there could be a reversal of two disinflationary factors in the future. On the one hand, the pandemic caused a collapse in world trade and, by freezing global supply chains, it has highlighted some of the downsides to the fragmentation and offshoring of production processes. This could lead to shorter value chains and, coupled with the protectionist shifts of recent years, to a certain degree of deglobalisation.⁹ On the other hand, there are the demographic dynamics.¹⁰ In recent decades, the world's working-age population has become relatively abundant relative to the rest. This relative abundance, which would have contributed to the lower sensitivity of inflation to economic activity in the past, seems likely to be reversed in the future as populations age.¹¹ This ageing has already been going on for some time in advanced economies, albeit without exerting inflationary pressures. The key is that inflation has become a more global phenomenon, and demographic inversion is expected to also occur in the large emerging economies as well.

Dependency ratio around the world *



Note: * Ratio between the non-working-age population (0 to 14 years and over 64 years of age) and the working-age population (15 to 64 years of age). Source: CaixaBank Research, based on data and forecasts by the United Nations.

Adrià Morron Salmeron and Javier Garcia-Arenas

5. See the article «A brief history of inflation as a monetary phenomenon» in the Dossier of the MR05/2016.
 6. They did not exert significant pressure on the components of the CPI, but in the last decade there has been significant price growth among financial and real estate assets.
 7. i.e. the absence of inflationary pressures despite strong monetary expansion.
 8. The tightening of financial regulations may also have contributed to weakening the monetary multiplier, as argued by H. Gersbach (2021). «Another disinflationary force vanishes: The tightening of bank equity capital regulation». VOX EU.
 9. See the article «How COVID-19 will change the way we produce» in the Dossier of the MR05/2020.
 10. See C. Goodhart and M. Pradhan (2020). «The Great Demographic Reversal: Ageing Societies, Waning Inequality, and an Inflation Revival». Palgrave Macmillan.
 11. A lengthening of people's working lives would mitigate this demographic force.

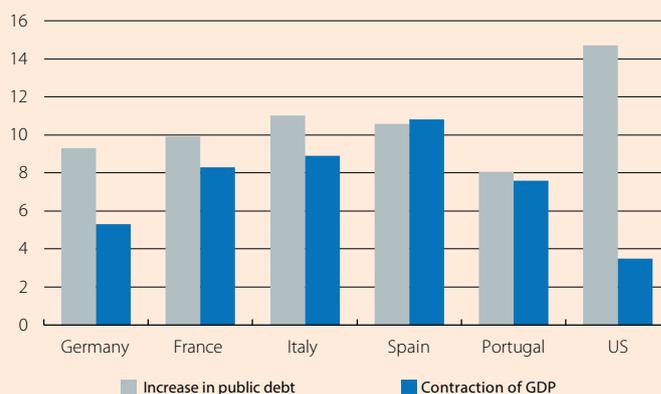
The shadow of fiscal dominance

In the face of an economic crisis as severe as that of COVID-19, it was inescapable that all spheres of economic policy would need to act in a coordinated and decisive manner.¹ However, the pressure on support and stimulus tools will not end when we overcome the COVID-19 pandemic. As we shall see below, when we do overcome the pandemic, the very need to take decisive monetary and fiscal action will leave behind after-effects which, depending on how they are managed, could restrict the smooth functioning of economic policy in the future.

In the face of unprecedented declines in economic activity, fiscal policy responded with direct spending and liquidity measures to protect demand and the productive fabric of our economies – in addition to the automatic stabilisers already in place. However, these measures inevitably led to an increase in public debt (see first chart).² Monetary policy, meanwhile, anchored a low-interest-rate environment and launched an extensive asset-purchase programme, indirectly providing coverage for the fiscal expansion and allaying fears over the sustainability of the debt.

This response has successfully attenuated the shock to households' and businesses' financial health, but it will leave a legacy in the form of high public debt. Moreover, as a result of the asset purchases undertaken by monetary policy, the COVID-19 crisis has made central banks one of the main holders of public debt securities (see second chart). Of course, for the time being, economic policy remains laser-focused on maintaining the stimuli in order to facilitate the revival of economic activity, but the rise in public debt in the hands of central banks entails medium- and long-term risks. This is illustrated by the fact that some voices are already proposing that the ECB should cancel the public debt held on its balance sheet.³

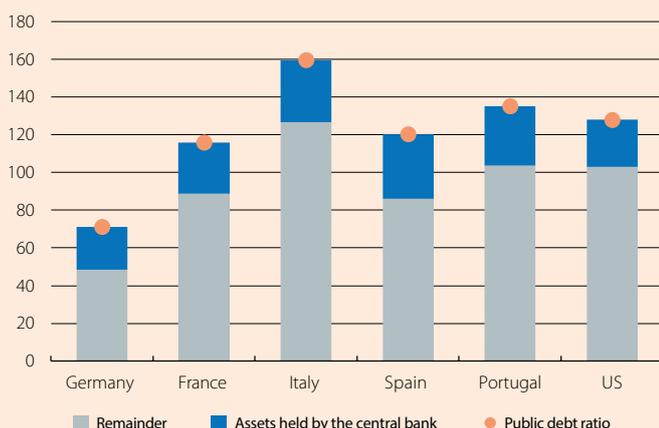
Increase in public debt and contraction of GDP in 2020
(pps of 2019 GDP)



Source: CaixaBank Research, based on internal forecasts and data and forecasts by the European Commission, Eurostat and FRED.

Public debt ratios in 2020

(% of GDP)



Source: CaixaBank Research, based on internal forecasts and data and forecasts by the European Commission, Eurostat, the ECB and FRED.

One of the major risks lies with central banks' independence. This is the so-called risk of fiscal dominance, that is, the risk that economies' fiscal situation could apply pressure on the central bank to deviate from its objectives, which would jeopardise price stability.

By influencing interest rates, and thus the cost of debt and public deficits, any monetary policy action has fiscal consequences. These consequences are currently accentuated by the fact that the public accounts are under stress and central banks hold large amounts of debt. Thus, the debt inherited from the COVID-19 crisis leaves us in a situation in which it could be more tempting to exert political pressure on central banks so that they tolerate higher inflation (which would reduce the face value of the debt) or to resort to financial repression (i.e. keep financing costs artificially low to make it easier for governments to finance their debt).

1. We discuss the importance of the response being coordinated at all levels in the article «[Economic policies in the face of COVID-19: will the boundaries of the impossible be broken?](#)» in the Dossier of the MR05/2020.

2. Debt helps to reduce the damage done by a drop in household and business incomes: borrowing involves splitting this exceptional decline up into smaller pieces and distributing it over time. Furthermore, it is the public sector that has the capacity to mobilise more resources, at a lower cost and with longer-term debt.

3. T. Piketty et al. (2021). *Anular la deuda pública mantenida por el BCE para que nuestro destino vuelva a estar en nuestras manos*. Opinion article published in Spanish in the newspaper *El País*.

Inflation variability 1970-1999**Inflation variability 2000-2012**

Note: Inflation variability is calculated using a moving standard deviation with a five-year window.

Source: CaixaBank Research, based on data from Garriga (2016).

This possible source of conflict between the fiscal and monetary authorities highlights the importance of having a strong institutional system. In other words, it is key to have robust institutions which allow fiscal and monetary policy to work side by side when the scenario demands it (if this had not been the case, we would no doubt have an economy much more bruised by the pandemic right now), but which at the same time allow their paths to diverge when the time comes.

Coordination between fiscal and monetary policies must thus be the result of both of them independently pursuing their respective mandates. This is a fundamental principle for the smooth functioning of economies, but we cannot take it for granted. It can easily be compromised by the simple fact that, as already mentioned, any monetary action has fiscal consequences. The European episodes of hyperinflation of the 20th century, as well as more recent experiences such as Venezuela, leave no room for doubt: when institutions are fragile and fiscal policy forces the central bank to repeatedly monetise public deficits, this ends up leading to a sharp rise in inflation and usually a collapse in the economy. Indeed, there is no need to refer back to such extreme cases to highlight the importance of robust institutions and independent monetary policy. As the last chart shows, and as we demonstrate exhaustively in another article in this same Dossier,⁴ over the last 50 years the greater institutional quality of central banks has resulted in better economic performance.

Adrià Morron Salmeron and Javier Garcia-Arenas

4. See «[Central bank independence: from the theory to the practice](#)».

Central bank independence: from the theory to the practice

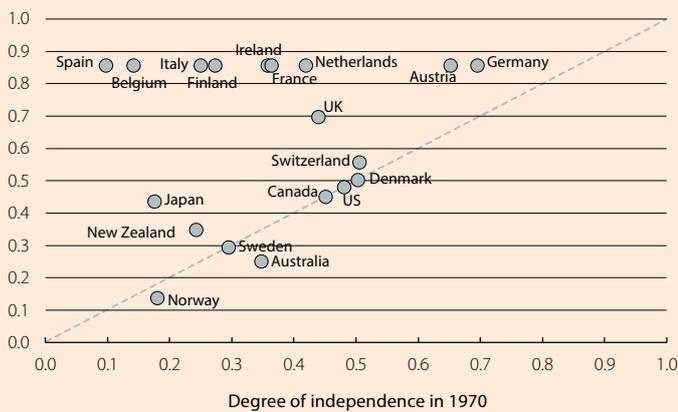
The independence of central banks seems indisputable, even more so in these times of pandemic, in which they have increased their use of unconventional policies and provided coverage for the high funding needs of states. In this article we will explore the theory and empirical evidence supporting the importance for central banks to maintain their independence.

The theory: what do we mean by independence and why is it so important?

Central bank independence is a more complex concept than it seems. In fact, it encompasses three spheres: i) the independence of its members, which is simply the limits imposed on politicians not to influence the composition of the central bank’s board of directors or its decisions; ii) financial independence, that is, central banks’ autonomy in order to manage their operations and not be captive to government decisions, and finally, iii) the independence of policies, or the central bank’s powers to elaborate and execute its monetary policy, for which, among others, it must not be forced to finance government spending and it must be able to set its own objectives or determine which instruments it uses (for example, the ECB sets the objectives for the euro area, while in the United Kingdom they are set by Parliament, but in both cases the central bank has autonomy in its use of instruments). Based on these three spheres, we can get an idea of whether a central bank is more or less independent.

Evolution of central bank independence

Degree of independence in 1999



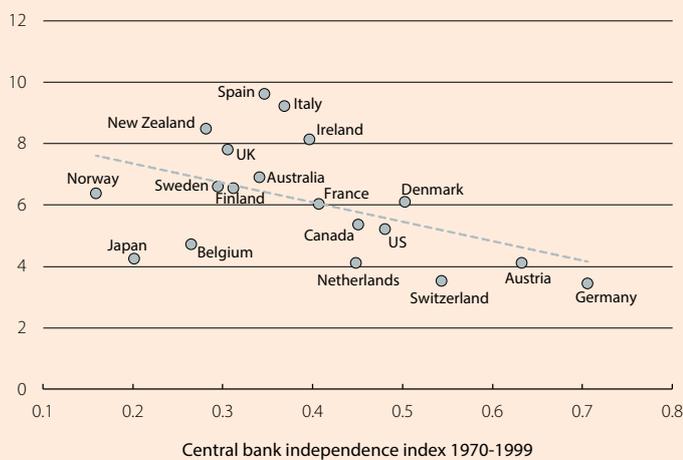
Source: CaixaBank Research, based on data from the index developed by Garriga (2016).

In order to approximate central banks’ degree of independence in quantitative terms, an aggregate index has been created which draws on the three spheres based on an analysis of the laws, decrees and constitutions that establish these institutions’ rules of operation around the world.¹ The index increased significantly in advanced economies between 1970 and the

late 1990s, by which time the independence regime had already been consolidated. Although after the Great Recession the index did not recede, more qualitative indicators do show a marked increase in political interference during the period 2010-2018,² a trend which continues to cast its shadow in the context of strained public finances resulting from the COVID-19 crisis.

Inflation 1970-1999

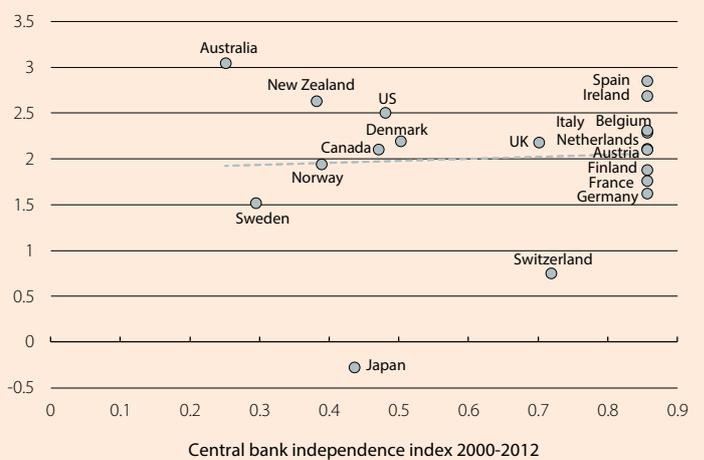
(%)



Source: CaixaBank Research, based on data from Garriga (2016).

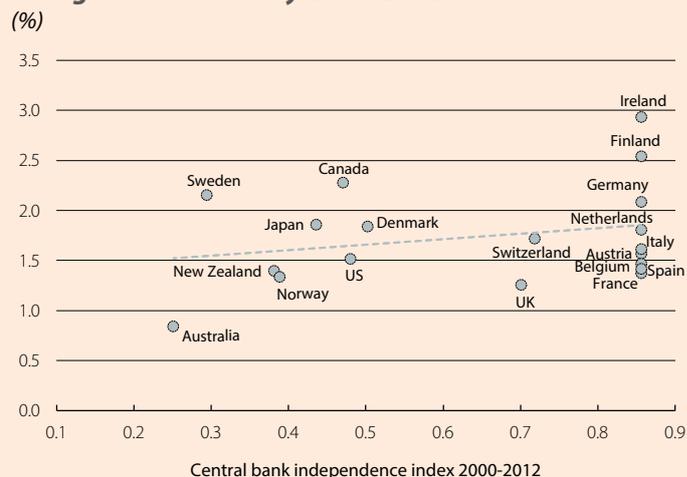
Inflation 2000-2012

(%)



1. See A.C. Garriga (2016). «Central bank independence in the world: A new data set». International Interactions, 42(5), 849-868.

2. See B. Vonessen et al. (2020). «The case for central bank independence: a review of key issues in the international debate». ECB Occasional Paper (2020248).

GDP growth variability 1970-1999**GDP growth variability 2000-2012**

Note: GDP growth variability is calculated using a moving standard deviation with a five-year window.
Source: CaixaBank Research, based on data from Garriga (2016).

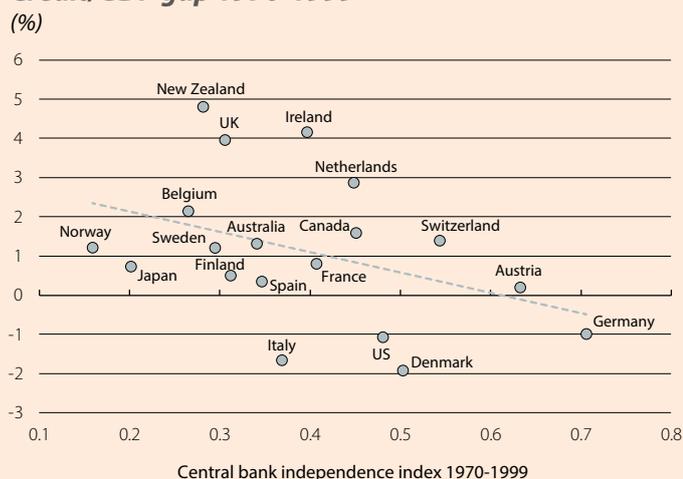
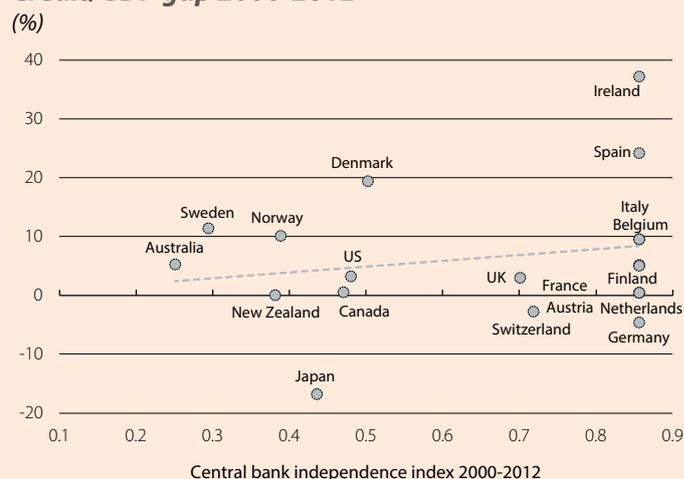
This process of strengthening independence arose out of concerns about high inflation between the late 1960s and the 1980s and consensus that an independent central bank with a well-defined objective – price stability – could reduce inflation without destabilising GDP. In the euro area, the creation of the ECB in 1998 in order to lead a common monetary policy made it possible to complete the convergence towards a model of independence like that of Germany (the Bundesbank was one of the few exceptions that already exhibited a high degree of independence in the post-war period, largely because the terrible recollection of the hyperinflation episode of the 1920s was still ingrained into the German people’s collective memory).

One of the main arguments in favour of central bank independence is to do with inconsistency over time: a central bank which focuses on the short-term and makes decisions tied to an electoral term, for instance, is incentivised to implement an expansive monetary policy to stimulate short-term growth, even if it results in a loss of credibility and an upward revision of medium- and long-term inflation expectations. For this reason, it is vital to lengthen central banks’ decision horizon and, in particular, to decouple them from the electoral horizons which largely dictate government decisions. If a central bank is to keep inflation expectations contained and stable, it must be credible, and that credibility is closely tied to its decision horizon. This is why central-bank members are often appointed for long mandates – eight years in the case of the ECB’s Executive Commission – which are not tied to the political cycle. Credibility is also achieved through the appointment of individuals who excel in their technical knowledge of monetary policy. It is also important that these individuals form an «epistemic community», that is, a group of people who talk the same language and have a similar world-view in order to strengthen the credibility and consistency of their decisions.

The practice: can the benefits of central bank independence be seen?

The theory is clear, but do the data support the benefits of this independence? Using the aforementioned central bank independence index, we explored whether strengthening the central bank’s independence actually allows inflation to be reduced without generating volatility in GDP growth. We performed this exercise for two very different periods: 1970-1999, the period in which central banks underwent the transition from somewhat lacking independence to being highly independent, and 2000-2012 (the latest available data for the index), when the new regime was fully consolidated.

The results show that, in the period 1970-1999, advanced economies with more independent central banks did a better job of containing inflation. The difference is stark: according to the statistical model – which is controlled using other important macroeconomic variables – if Italy (a country with a low degree of independence at 0.37 out of 1) had succeeded in increasing its central bank’s independence to Germany’s levels (the quintessence of independence in this period, with an index value of 0.71 out of 1), it would have been able to reduce its average level of inflation by more than 1.5 pps. These results empirically support the importance of preserving central bank independence. That said, caution must be taken in interpreting this relationship, as it does not take into account other parallel phenomena – such as globalisation or technological change – which also helped to curb inflation.

Credit/GDP gap 1970-1999**Credit/GDP gap 2000-2012**

Note: The credit/GDP gap is the deviation of the ratio between non-financial private debt and GDP from its trend.
Source: CaixaBank Research, based on data from the Bank for International Settlements and Garriga (2016).

The third chart shows the absence of any statistical relationship between the variability of GDP growth and central bank independence. This is reassuring, as it suggests that central bank independence helped to contain inflation without increasing GDP volatility.

Finally, a less studied aspect is the impact that central bank independence can have on macro-financial variables. To shed some light on this aspect, we looked at the relationship between the credit gap – the deviation of non-financial private credit from its trend – and the independence index in the period 1970-1999. The results show a statistically significant relationship in the desired direction: greater central bank independence enabled positive credit gaps (i.e. excessive deviations in credit above their trend) to be reduced. Logically, the benefits of having an independent central bank can also be extrapolated to the bodies that regulate and supervise financial stability; a recent study shows that those economies which have increased the independence of these bodies over the past 20 years have reduced their non-performing loan ratios without diminishing the efficiency of their financial system.³

In short, our small empirical incursion suggests that the benefits of central bank independence are more than just theoretical potential. In the current framework of the COVID-19 crisis, central banks have gained prominence in their role in providing essential support by keeping interest rates low and guaranteeing liquidity. In this particularly delicate context, it is imperative that monetary policy decision-makers preserve their independence and autonomy – something that is not at odds with accountability – in order to continue to make decisions with a long-term view, and that the necessary coordination between fiscal and monetary policy is the result of free and independent decisions.

Javier Garcia-Arenas and Adrià Morron Salmeron

3. See N. Fraccaroli, R. Sowerbutts and A. Whitworth (2020). «Does regulatory and supervisory independence affect financial stability?» Bank of England Staff Working Paper no. 893.

Central banks and digital currencies: a major challenge not without its difficulties

When we think of the main challenges facing central banks in the medium term, we have no choice but to talk about digital currencies. More specifically, we must address the possibility of central banks issuing their own digital currency (so-called central bank digital currencies, or CBDCs). What stage are we currently at? Are CBDCs an option that is making headway and, if so, how should they be designed?

These questions are particularly pertinent today. After all, a lot has happened since our last articles of the *Monthly Report* on this topic.¹ In this year and a half, there have been two highly relevant events for the subject matter in question.

Firstly, central banks have assimilated that private cryptocurrencies such as Libra may become a reality and that, if widely used, they would erode the central bank's capacity to influence the supply of money and interest rates.² Secondly, the pandemic may have accelerated the trend of using less cash. Indeed, according to a recent ECB study, 41% of respondents say they have used it less during the pandemic, and the vast majority expect to continue to pay less in cash after the pandemic has passed.³ A third factor to consider is the fact that if CBDCs begin to emerge in other jurisdictions as a result of this scenario, many central banks would also consider issuing their own in order to prevent their currency from losing importance.

The central banks are gathering pace: the evidence

The message in this article is clear: in this ever-changing context, central banks have taken a major step forward in the past year and a half, and are now seriously considering the possibility of issuing a digital currency in the future.

Some figures can serve to illustrate this change. According to a study by the Bank for International Settlements (BIS),⁴ in 2020, 60% of central banks were experimenting with digital currencies (42% in 2019) and 14% were already developing pilot schemes (half in 2019).

On the other hand, we have conducted a textual analysis on the tone of the ECB's and the major euro area central banks' discourse on digital currencies between 2017 and 2020. The results show a marked improvement in tone over this period (see first chart).

This change in central banks' perceptions is highly significant, although it does not necessarily mean the major central banks are about to issue digital currencies in the short term. In fact, 60% of central banks rank the chances of them issuing a CBDC in the short or medium term as unlikely.

Challenges in designing a CBDC and most likely scenarios

Currently, the ECB and the rest of the advanced economies' central banks are looking very closely at the pros and cons of CBDCs and how to design them optimally.

The two main arguments mentioned by advanced-country central banks in favour of eventually issuing a CBDC are to strengthen the payment system with a new agile and digital instrument, and to offset the reduced use of cash with a new form of risk-free currency which is issued by central banks and easy to use, while also serving as an alternative to cash if disruptions were to occur in existing digital payment infrastructures. In this regard, in order for it to be an attractive alternative to cash, it should be easy

Euro area: tone of central banks' discourse regarding digital currencies



Notes: * Based on an analysis of the 28 discourses of the ECB and the main European central banks on the topic of digital currencies during this period. The index measures the number of positive words on the subject as a percentage of the total number of both positive and negative words (standardised by subtracting the average and dividing by the standard deviation), based on a textual analysis.
Source: CaixaBank Research.

1. See the articles in the [Dossier of the MR10/2019](#).

2. For a detailed argument, see the article «[The e-monetary policy of the new digital economy](#)» in the Dossier of the MR10/2019.

3. See ECB (2020). «Study on the payment attitudes of consumers in the euro area (SPACE)». December.

4. See C. Boar and A. Wehrli (2021). «Ready, steady, go? Results of the third BIS survey on central bank digital currency». BIS Papers no. 114.

for most people to use, for instance with digital wallets, and should cover a wide range of relevant uses. In contrast, in emerging economies the main drivers are related to financial inclusion; a prime example is the digital currency issued in the Bahamas to facilitate the financial inclusion of a country of 390,000 inhabitants spread over 30 islands, many of them remote.

Speaking of emerging economies, China deserves a special mention in this article, as it is one of the countries with a more advanced pilot scheme. In 2020 it began testing the use of a digital currency for general usage in four cities, including the dynamic city of Shenzhen, and the test is expected to extend to Beijing in 2021. While there is still no specific date for a definitive issue nationwide, the Chinese monetary authorities have appeared to be in favour of CBDCs; if it ends up materialising, it would have long-standing implications for the use of cash in a highly digitalised society and for the diversification of the mobile payment system, currently dominated by two companies – Alipay and WeChat Pay – which hold 94% of this market.

At the European level, last October the ECB issued a detailed report⁵ which offers some clues as to what kind of CBDC they would consider desirable. In particular, it would be a digital currency intended to serve as an alternative to cash, but it does not aspire to replace it entirely. The central bank would be the issuer and would hold the new currency on its balance sheet, but a set of private entities would be responsible for customer interaction and innovation (the natural candidate would be the commercial banks). Following a public consultation process to gather opinions on a possible «digital euro», during 2021 the ECB is expected to take an official decision as to whether it will begin taking formal steps towards the issuance of a digital euro.⁶

The main risk to be taken into consideration is the impact that CBDCs could have on the cost of credit and financial stability if they are perceived as substitutes not only for cash, but also for deposits. If this were the case, the decline in the volume of deposits would tend to increase the cost of credit, and in times of uncertainty there could be deposit flight in favour of CBDCs, which could lead to episodes of financial instability. The ECB is aware of the risks, and some of the ideas it has put forward include: limiting the balance that can be held in digital euros,⁷ offering a staggered remuneration that is less attractive after exceeding a certain threshold in order to discourage it from becoming an investment tool, or placing limits on the sum of the payments that can be made with the CBDC per transaction or in a certain period. However, there are no definitive recipes for addressing these risks.

Finally, on anonymity, it seems that the ECB and the other advanced-economy central banks would advocate offering a certain degree of privacy that would allow the digital currency to be somewhat equivalent to cash, albeit with limits on the amounts in order to comply with the regulatory framework for the prevention of money laundering and the financing of terrorism, as well as to avoid excessive capital flows.

A final and not insignificant challenge posed by CBDCs is the possibility that they could entail coordination issues and impose externalities on other economies, especially if one of these currencies were to become predominant worldwide. Despite the formidable challenge this poses, it is quite encouraging to see that, under the umbrella of the BIS, the major advanced-economy central banks are committed to developing a coordinated digital payment architecture, in which these currencies are intended primarily for domestic use. Of course, the latter goal should be achieved without preventing CBDCs from being used for international payments, hence the importance of ensuring the interoperability of the various digital currencies – an interoperability which already exists today within the euro area, but not between the payment systems of the different monetary zones.

Javier Garcia-Arenas and Adrià Morron Salmeron

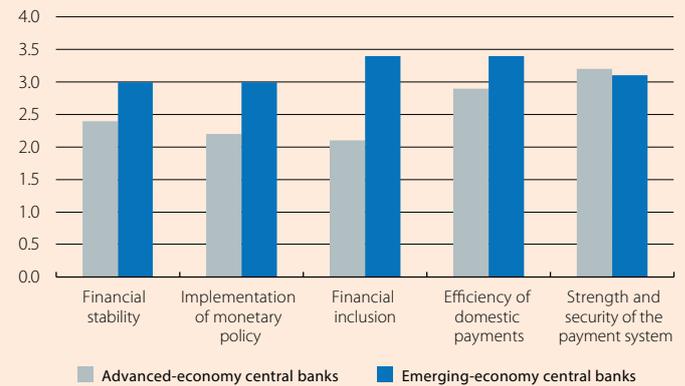
5. See ECB (2020). «Report on a digital euro», October.

6. Fabio Panetta, a member of the Governing Council, stated last February that the project would take around four or five years to be ready.

7. Fabio Panetta, a member of the ECB, has suggested setting the limit at 3,000 euros. If all euro area citizens were to use this amount in full, we would be talking about a very high sum: 1 trillion euros, practically as much as Spain's GDP.

Motivations for issuing digital currencies

Index



Nota: The index takes discrete values between 1 («not very important»), 2 («fairly important»), 3 («important») and 4 («very important»).

Source: BIS survey analysed in C. Boar and A. Wehrli (2021). «Ready, steady, go? - Results of the third BIS survey on central bank digital currency». BIS Papers, no. 14.

Through our studies, we help to stimulate debate and the exchange of views among all sectors of society, as well as to promote the dissemination of the major themes of the socio-economic environment of our time. Both the *Monthly Report* and the rest of CaixaBank Research's publications are available at: www.caixabankresearch.com

We recommend:

Digitalisation and European funds: a winning pair

Digitalisation is a key transformation in the current industrial revolution. How will production structures change? Where does Spain lie in this process? What role will the Next Generation EU programme play?



US stock market: rational exuberance?

The main index of the US stock market has risen exuberantly and with few pauses since its low point registered at the outbreak of the COVID-19 pandemic. Is the US stock market becoming detached from the economic fundamentals?



European fiscal rules: an end to the 60% limit?

There is a broad consensus on the need to reform European fiscal rules, which are too complex, unpredictable and insufficiently sensitive to the state of the business cycle. The COVID-19 crisis has forced their suspension and the Commission is debating their reform.



Big fish and not so big fish in the e-commerce retail sector

The COVID-19 outbreak has led to a paradigm shift in consumption habits and e-commerce in the retail sector in particular. How have retailers who were already selling online prior to the pandemic and new entrants to this sales channel contributed to the growth of e-commerce?



COVID-19 tracker

Visit our weekly tracker of the status of the pandemic, with updates on the incidence of infections, pressure on hospitals and the progress of vaccinations in Spain and the major international economies.



How has the COVID-19 crisis affected inequality?

We analyse the evolution of inequality and the role of the welfare state in real time, based on internal CaixaBank data and the application of big data techniques. View it and download the data at: <https://inequality-tracker.caixabankresearch.com/en>



Follow us on:



www.caixabankresearch.com



@CABK_Research



Newsletter



CaixaBank

The *Monthly Report* is a publication drawn up jointly by CaixaBank Research and BPI Research (UEEF) which contains information and opinions from sources we consider to be reliable. This document is provided for information purposes only. Therefore, CaixaBank and BPI shall take no responsibility for however it might be used. The opinions and estimates are CaixaBank's and BPI's and may be subject to change without prior notice. The *Monthly Report* may be reproduced in part, provided that the source is adequately acknowledged and a copy is sent to the editor.

© CaixaBank, S.A., 2021
© Banco BPI, 2021

Design and production: www.cegeglobal.com
Legal Deposit: B. 21063-1988 ISSN: 1134-1920

