MR05

MONTHLY REPORT • ECONOMIC AND FINANCIAL MARKET OUTLOOK
MAY 2022

ECONOMIC & FINANCIAL ENVIRONMENT

FINANCIAL MARKETS
On the increase in sovereign debt yields

INTERNATIONAL ECONOMY
EU and China: mapping out a strategic interdependence

PORTUGUESE ECONOMY
Mortgage Loans in Portugal: between the pandemic, regulations and rising interest ratess

In Portugal, the war in Ukraine (also) means a return to the external deficit

State budget 2022 and post-war measures in Ukraine

SPANISH ECONOMY
How might rising interest rates affect households' mortgage payments?

DOSSIER: THE RESPONSE OF WAGES TO THE RISE IN INFLATION

Inflation on the rise: will wages follow?

Wage dynamics: another concern for the ECB?

The relationship between inflation and wages in Spain: it exists, but with important nuances

Wage dynamics in Spain: what does the CaixaBank Research wage growth tracker tell us?

BPI

MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK

May 2022

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

BPI Research (UEEF)
www.bancobpi.pt /
http://www.bancobpi.pt/grupo-bpi/estudos-e-mercados/mercados-financeiros
Paula Carvalho
Chief Economist

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
Clàudia Canals and Nuria Bustamante
Monthly Report coordinators
Javier Garcia-Arenas
Dossier coordinator

Date this issue was closed:
30 April 2022

INDEX

In search of the balance we lost

More than two months after the outbreak of war in Ukraine, the general feeling is that the economic outlook remains open and is subject to the continuing high level of uncertainty regarding the evolution of the war and its economic implications, the effect of partial closures of activity in China caused by the zero-COVID policy, as well as the implications of the general tightening of financial conditions. The interaction of the dynamics (and imbalances) that have been dragging on since the start of the pandemic with the growing geopolitical instability and rising interest rates, create a new and challenging scenario to which families, companies and governments will have to adapt their decision-making. This is, above all, due to the emergence of a new once-in-a-generation threat: inflation, which we now live with on a day-to-day basis after decades without the levels seen today.

It will not be easy for economic policy to protect the revenues of the most vulnerable agents, to fairly distribute the loss of activity generated by a supply shock, to allow prices to send the right signals to rebalance the markets most affected by the war and, at the same time, to normalise interest rate levels from an extremely expansionary situation. Or, at least, not without causing an intense cooling of activity in highly indebted economies. Furthermore, there is the added difficulty of making decisions without full visibility on the evolution of successive rounds of sanctions against Russia and their potential effects on energy markets. At the umpteenth crossroads faced by policymakers in recent years, the price to pay for an adequate response to the current (political and economic) challenges may be stagnant growth for two or three quarters; in exchange, the threat of consolidating a stagflationary process, whose digestion normally requires much greater sacrifices in the medium term, would be minimised. This assumes we maintain a coordinated response through economic policy in a world at risk of fragmentation into geopolitical blocs to limit the risks of financial instability and exchange rate misalignments.

The difficulty lies in the fact that we are still operating in a very volatile scenario dominated by a lot of noise and few solid signals. The diagnosis of the effects of all that has happened in recent months on activity is far from complete, since we only have growth data for the first quarter and the signs from the agents' surveys are inconclusive. In general, consumers are more cautious than business owners, while, among the latter, management in the industrial sector seem to be more concerned than those in the services sector. Nevertheless, all these signs are consistent with an economy that remains in positive growth. The key, as almost always, will be the behaviour of private expenditure, which will tossed back and forth between the negative effects of inflation on the purchasing power of agents and the existence of savings accumulated over the past two years that can be mobilised to serve as a counterweight. For the moment, the only certainty is that inflation continues to rise month after month and has become the main risk in the scenario. While we can take some consolation in that we are likely close to maximum levels in most OECD countries, there is concern that underlying inflation (especially in the US) is progressing to long-term inflation in the range of 3%, and not 2%, on both sides of the Atlantic, which would explain the abrupt change in central banks' communication policy.

The main development in this context is the sharp increase in nominal returns demanded by investors along the entire interest rate curve to offset inflationary risks. For now, the positive news is that real interest rates continue to behave modestly, reflecting a vote of confidence from investors that central banks will need to support by moving out from "behind the curve", which will mean, at minimum, remaining in the neutral interest rate zone for the next 18 months. Therefore, a more aggressive pace of monetary policy normalisation is to be expected, with key interest rates reaching a target close to 3% in the US and 1.5% in EMU. These levels have a moderate potential impact on financial stability and growth, especially if they are sufficient to anchor inflation expectations at 2%, although they stand in stark contrast to the financial conditions we have been used to over the last decade (12-month average Euribor of 0.05%). In short, in the coming months we will continue to push forward in a turbulent economic cycle characterised by geopolitical realignments, persistent disruptions in supply chains, volatility in financial markets and central banks trying to make up for lost time.

Chronology

APRIL 2022

1-31 The Russia-Ukraine war continues as Russia suspends gas supplies to Bulgaria and Poland.
China places numerous cities in lockdown to curb the new COVID outbreak.
24 Emmanuel Macron is re-elected president of France.

MARCH 2022

1-31 The war in Ukraine, the peace negotiations and the sanctions continue.
Refugee crisis (more than 4 million Ukrainians have taken refuge outside Ukraine).
23 The Taliban maintain the ban on women's secondary education.

FEBRUARY 2022

1-23 Escalation of tensions between Russia and the West over military manoeuvres on the Russian-Ukrainian border.
24 Russian invasion of Ukraine.
Start of international sanctions on Russia.

JANUARY 2022

1 Sixth wave of COVID in Spain.
23 A Taliban delegation begins talks with European powers and the US in Oslo.
24 The James Webb telescope reaches its final destination from which it will study the origins of the universe.

DECEMBER 2021

3 The European Commission authorises the disbursement of 10 billion euros of NGEU funds to Spain.
8 Tension rises in the Ukraine crisis.
28 An agreement is reached on labour reform in Spain.

NOVEMBER 2021

13 The COP26 Climate Summit closes with a new deal on climate.
15 Migration crisis on the border between Belarus and Poland.
22 New mobility restrictions in Europe and spread of the Omicron variant.

Agenda

MAY 2022

3 Portugal: industrial production index (March).
3-4 Federal Open Market Committee meeting.
4 Spain: registration with Social Security and registered unemployment (April).
6 Spain: industrial production index (March).
Portugal: Fitch rating.
11 Portugal: employment and unemployment (Q1).
13 Portugal: labour cost index (Q1).
17 Spain: foreign trade (March).
18 Japan: GDP (Q1).
19 Portugal: coincident indicators (April).
20 Portugal: Moody's rating.
26 Spain: loans, deposits and NPL ratio (March).
30 Spain: CPI flash estimate (May).
Spain: state budget execution (April).
Euro area: economic sentiment index (May).
31 Portugal: GDP breakdown (Q1).

JUNE 2022

2 Spain: registration with Social Security and registered unemployment (May).
8 Portugal: turnover in industry (April).
9 Governing Council of the European Central Bank meeting.
10 Spain: Fitch rating.
14-15 Federal Open Market Committee meeting.
16 Spain: quarterly labour cost survey (Q1).
23 Spain: loans, deposits and NPL ratio (Q1 and April).
Portugal: home prices (Q1).
23-24 European Council meeting.
24 Spain: quarterly national accounts (Q1).
Spain: balance of payments and NIIP (Q1).
Portugal: household savings rate (Q1).
29 Spain: CPI flash estimate (June).
Portugal: employment and unemployment (May).
Euro area: economic sentiment index (June).
30 Spain: household savings rate (Q1).
Spain: state budget execution (May).
Portugal: NPL ratio (Q1).

Economic activity is holding up

Can you imagine living in the current context without up-to-date information on the state of the economy? I mean objective, reliable data about issues such as employment, production, wages and prices. Most likely, it would be very confusing. In the current circumstances, everyone's perception of the economy is very different and can be strongly influenced by the sector in which they work or the region in which they live. Fortunately, there plenty of data available to help us compare our impressions of economic reality. The main indicators on the economic situation in the first quarter have been published this month and are very useful in helping us position ourselves in these uncertain times.

It seems certain that the growth rate of the global economy slowed during the first quarter of the year, but with important nuances when we evaluate the particular situation of each country. It is the US economy which has suffered the sharpest deceleration in relation to its growth rate in recent quarters. GDP growth fell in the first quarter of 2022, down 0.4% from the previous quarter. However, we should interpret this figure with caution because the main drivers of growth, such as consumption and investment, continued at a good pace. Economic activity in the Eurozone maintained its modest growth rate in line with expectations, with a growth of 0.2% and no great differences between the main countries. While Italy's GDP fell by -0.2%, France's remained stable, and those of Germany and Spain advanced by 0.2% and 0.3%, respectively. Portugal's results were particularly positive, growing 2.6% in the quarter, having benefited from the end of pandemic restrictions and a very positive boost from tourism.

The labour market, which normally reacts with some delay to changes in activity, continues to offer broadly positive figures. A strong level of economic activity in the United States has been observed for months, with ongoing problems relating to labour shortages and an unemployment rate close to historic lows. Figures for the Eurozone are also trending very positively, with a fall in the March unemployment rate fell to 6.8%, a historically low level by European standards. Labour shortages are proving to be a limiting factor for growth in the Eurozone, especially in countries like Germany and France.

In Portugal, the dynamics of the labour market remain resilient to the various adversities buffering the economy. Of particular note is the employment growth rate (0.4% quarter-on-quarter in Q1), surpassing pre-pandemic levels (+2.4% y-o-y in Q4 2019) and reaching a maximum since Q2 2010, along with the decrease in the unemployed population (6.7% y-o-y). This brought the unemployment rate down to 5.9%, the lowest since 2002 (excluding the one-off pandemic period). Meanwhile, the labour underutilisation rate, i.e. both those working part-time but who would like to work full-time and those looking for work, has improved 0.2 pp to 11.5%. The activity rate, meanwhile, has reached a maximum not seen since 1998 at 59.9%.

Despite the resilience of economic activity to date and good labour market figures, the overall economic outlook has worsened in recent months. This is due to a large extent to the sharp rise in inflation in the main developed countries. But again, the nuances are very important. In the United States, price increases are widespread across the entire basket of goods and are being accompanied by strong wage growth of over 5%. In contrast, most of the price increase in European countries is due to higher energy prices, with contagion to other goods, although growing, still limited.

These nuances are very important to bear in mind when it comes to assessing the reaction of central banks. All signs are that the Fed will have to enact repeated and sharp increases in interest rates in the coming months in an attempt to contain economic activity and, indirectly, inflationary pressures. The Fed will likely raise the benchmark rate by about two percentage points this year, which would be the steepest increase of rate hikes in four decades. In the Eurozone, the ECB is also expected to raise interest rates, but given the lower inflationary pressure, it is likely to do so at a much more gradual pace, with the benchmark rate rising between 0.50 and 0.75 percentage points over the year.

Apart from the increase in inflation and financing costs, and despite a notable deterioration in growth prospects that all this implies, the fact is that most analysts still expect relatively high growth rates for 2022 and 2023. Ending restrictions on mobility and activity is likely to provide a significant boost to economic activity if there are no new mutations of the virus. Despite downward revisions in recent months, we thus expect the US economy to grow by more than 3% this year, while the European economy could grow by around 2.6%, with the Portuguese economy growing by more than 4%.

There are certainly significant risks around this scenario, especially on the downside. The rise in energy prices due to an escalation of sanctions and counter-sanctions between Russia and European countries is one of the most worrying elements. The new wave of contagion and containment in China and its implications must also be closely monitored and could again cause a collapse of global supply chains and increase supply problems in various sectors. But things can also turn out better than expected, even if this seems unlikely at this stage. No data can predict the future, but we should try to look at all plausible scenarios. Just as we should not be complacent when things are going well, we should not be pessimistic when things are difficult.

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

Financial markets

	Average 2000-2007	Average 2008-2018	2019	2020	2021	2022	2023
INTEREST RATES							
Dollar							
Fed funds (upper limit)	3.43	0.68	1.75	0.25	0.25	2.50	2.75
3-month Libor	3.62	0.89	1.91	0.23	0.21	2.65	2.70
12-month Libor	3.86	1.40	1.97	0.34	0.52	3.15	3.00
2-year government bonds	3.70	0.95	1.63	0.13	0.62	2.55	2.60
10-year government bonds	4.70	2.61	1.86	0.93	1.45	3.00	3.10
Euro							
ECB depo	2.05	0.26	–0.50	–0.50	–0.50	0.00	0.75
ECB refi	3.05	0.82	0.00	0.00	0.00	0.50	1.25
Eonia	3.12	0.47	–0.46	–0.47	–0.49	0.05	1.00
1-month Euribor	3.18	0.58	–0.45	–0.56	–0.60	0.04	0.97
3-month Euribor	3.24	0.74	–0.40	–0.54	–0.58	0.12	1.03
6-month Euribor	3.29	0.88	–0.34	–0.52	–0.55	0.32	1.16
12-month Euribor	3.40	1.07	–0.26	–0.50	–0.50	0.53	1.29
Germany							
2-year government bonds	3.41	0.45	–0.63	–0.73	–0.69	0.75	1.30
10-year government bonds	4.31	1.70	–0.27	–0.57	–0.31	1.10	1.70
Spain							
3-year government bonds	3.62	1.87	–0.36	–0.57	–0.45	1.38	1.88
5-year government bonds	3.91	2.39	–0.09	–0.41	–0.25	1.58	2.08
10-year government bonds	4.42	3.40	0.44	0.05	0.42	2.30	2.70
Risk premium	11	171	71	62	73	120	100
Portugal							
3-year government bonds	3.68	3.66	–0.34	–0.61	–0.64	1.47	2.04
5-year government bonds	3.96	4.30	–0.12	–0.45	–0.35	1.72	2.24
10-year government bonds	4.49	5.03	0.40	0.02	0.34	2.25	2.70
Risk premium	19	334	67	60	65	115	100
EXCHANGE RATES							
EUR/USD (dollars per euro)	1.13	1.28	1.11	1.22	1.13	1.10	1.18
EUR/GBP (pounds per euro)	0.66	0.84	0.85	0.90	0.86	0.84	0.84
OIL PRICE							
Brent ($/barrel)	42.3	81.6	65.2	50.2	74.8	95.0	80.0
Brent (euros/barrel)	36.4	62.9	58.6	41.3	66.2	86.4	68.4

Forecasts

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

International economy

	Average 2000-2007	Average 2008-2018	2019	2020	2021	2022	2023
GDP GROWTH							
Global	4.5	3.4	2.9	–3.1	6.1	3.5	3.7
Developed countries	*2.7*	*1.4*	*1.8*	*–4.5*	*5.2*	*3.0*	*2.5*
United States	2.7	1.6	2.3	–3.4	5.7	3.2	2.4
Euro area	2.2	0.8	1.6	–6.5	5.4	2.6	3.1
Germany	1.6	1.3	1.1	–4.9	2.9	1.2	2.8
France	2.2	0.9	1.8	–8.0	7.0	2.9	2.3
Italy	1.5	–0.4	0.5	–9.1	6.6	2.4	2.0
Portugal	1.5	0.3	2.7	–8.4	4.9	4.2	2.8
Spain	3.7	0.5	2.1	–10.8	5.1	4.2	3.8
Japan	1.4	0.5	–0.2	–4.5	1.7	2.3	1.5
United Kingdom	2.6	1.3	1.7	–9.4	7.5	3.2	1.1
Emerging and developing countries	*6.5*	*5.0*	*3.7*	*–2.0*	*6.8*	*3.9*	*4.6*
China	10.6	8.2	6.0	2.2	8.1	4.7	4.9
India	7.2	7.0	4.5	–6.7	9.0	7.5	7.5
Brazil	3.6	1.7	1.2	–3.9	4.6	0.8	2.1
Mexico	2.4	2.1	–0.2	–8.2	4.8	2.5	2.3
Russia	7.2	1.3	2.2	–2.7	4.8	–8.1	–0.3
Turkey	5.5	4.9	0.9	1.8	11.0	3.3	3.9
Poland	4.2	3.6	4.8	–2.5	5.7	4.3	3.2
INFLATION							
Global	4.1	3.7	3.5	3.2	4.7	7.0	4.1
Developed countries	*2.1*	*1.6*	*1.4*	*0.7*	*3.1*	*5.8*	*2.1*
United States	2.8	1.8	1.8	1.3	4.7	6.9	2.3
Euro area	2.2	1.5	1.2	0.3	2.6	6.7	2.0
Germany	1.7	1.4	1.4	0.4	3.2	6.8	2.1
France	1.9	1.3	1.3	0.5	2.1	5.4	1.7
Italy	2.4	1.5	0.6	–0.1	1.9	6.6	1.9
Portugal	3.1	1.2	0.3	0.0	1.3	5.4	1.8
Spain	3.2	1.4	0.7	–0.3	3.1	6.8	1.1
Japan	–0.3	0.4	0.5	0.0	–0.2	0.9	0.7
United Kingdom	1.6	2.4	1.8	0.9	2.6	6.9	2.2
Emerging countries	*6.7*	*5.6*	*5.1*	*5.2*	*5.9*	*7.9*	*5.6*
China	1.7	2.6	2.9	2.5	0.9	1.9	1.7
India	4.5	7.7	3.7	6.6	5.1	5.5	4.5
Brazil	7.3	5.9	3.7	3.2	8.3	8.7	4.7
Mexico	5.2	4.2	3.6	3.4	5.7	6.2	4.0
Russia	14.2	8.2	4.5	3.4	6.7	14.0	7.5
Turkey	22.6	9.1	15.2	12.3	19.6	52.3	23.4
Poland	3.5	1.9	2.1	3.7	5.2	7.6	4.6

Forecasts

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

Portuguese economy

	Average 2000-2007	Average 2008-2018	2019	2020	2021	2022	2023
Macroeconomic aggregates							
Household consumption	1.7	0.3	3.3	–7.1	4.5	4.1	2.5
Government consumption	2.3	–0.5	2.1	0.4	4.1	1.8	0.2
Gross fixed capital formation	–0.4	–1.3	5.4	–2.7	6.4	4.7	6.6
Capital goods	3.2	2.7	1.6	–6.2	12.5	–	–
Construction	–1.5	–3.5	7.7	1.6	4.0	–	–
Domestic demand (vs. GDP Δ)	1.3	–0.2	3.0	–5.6	5.1	3.9	2.9
Exports of goods and services	5.2	3.9	4.1	–18.6	13.1	11.4	12.5
Imports of goods and services	3.6	2.4	4.9	–12.1	12.9	9.7	12.0
Gross domestic product	**1.5**	**0.3**	**2.7**	**–8.4**	**4.9**	**4.2**	**2.8**
Other variables							
Employment	0.4	–0.6	1.2	–1.9	2.8	1.0	0.4
Unemployment rate (% of labour force)	6.1	11.8	6.6	7.0	6.6	6.7	6.5
Consumer price index	3.1	1.2	0.3	0.0	1.3	5.4	1.8
Current account balance (% GDP)	–9.2	–3.2	0.4	–1.2	–1.1	–2.2	–1.6
External funding capacity/needs (% GDP)	–7.7	–1.9	1.2	0.1	0.7	0.1	0.7
Fiscal balance (% GDP)	–4.6	–5.5	0.1	–5.8	–2.8	–2.1	–0.9

Forecasts

Spanish economy

	Average 2000-2007	Average 2008-2018	2019	2020	2021	2022	2023
Macroeconomic aggregates							
Household consumption	3.6	–0.1	0.9	–12.2	4.7	3.3	4.5
Government consumption	5.0	1.0	2.0	3.3	3.1	0.1	0.4
Gross fixed capital formation	5.6	–1.9	4.5	–9.6	4.3	3.6	5.0
Capital goods	4.9	0.0	3.2	–12.9	16.0	4.5	5.0
Construction	5.7	–3.8	7.1	–9.6	–2.8	1.3	5.0
Domestic demand (vs. GDP Δ)	4.2	–0.3	1.3	–9.0	5.1	3.7	3.5
Exports of goods and services	4.7	2.9	2.5	–20.2	14.7	10.1	3.0
Imports of goods and services	7.0	0.1	1.2	–15.2	13.9	6.1	2.5
Gross domestic product	**3.7**	**0.5**	**2.1**	**–10.8**	**5.1**	**4.2**	**3.8**
Other variables							
Employment	3.2	–0.7	2.6	–7.6	6.6	3.8	2.9
Unemployment rate (% of labour force)	10.5	20.0	14.1	15.5	14.8	13.6	12.5
Consumer price index	3.2	1.4	0.7	–0.3	3.1	6.8	1.1
Unit labour costs	3.0	0.3	3.1	5.0	0.7	2.2	2.2
Current account balance (% GDP)	–5.9	–0.5	2.1	0.8	0.9	0.1	1.3
External funding capacity/needs (% GDP)	–5.2	–0.1	2.4	1.2	1.9	1.0	1.9
Fiscal balance (% GDP)[1]	0.4	–6.9	–3.1	–10.3	–6.9	–5.5	–4.8

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

Forecasts

The central banks in the spotlight

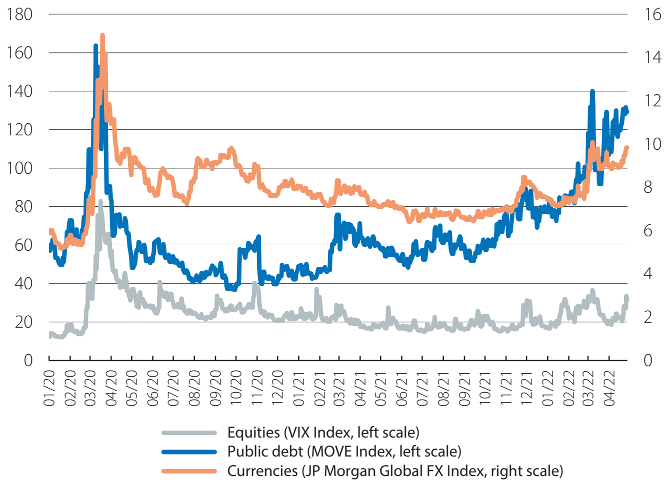
Volatility increases across all asset classes. The financial markets entered Q2 with the same unstable profile as the previous two months. On the one hand, the continued upward pressure on prices was accompanied by the tightening of rhetoric from monetary policymakers in the major developed economies, all of whom pointed out the need to take measures to quell the current high levels of inflation. On the other hand, the increase in lockdowns in China in the face of a rise in Omicron cases, coupled with the persistence and intensification of the war in Ukraine, added new doses of uncertainty to the global growth outlook. In short, all of these components weighed on investor sentiment, indicating a short- and medium-term outlook marked by an acceleration in interest rate hikes and a moderation of economic growth. Volatility also spiked and spread to all asset classes, especially sovereign yield curves.

The Fed could accelerate the pace of interest rate hikes. Although there was no FOMC meeting in April, the future of monetary policy in the US has been a major point of interest for investors. The rally in inflation in March (reaching 8.5% in the case of headline inflation), the likelihood of the inflationary pressures persisting for much of 2022 and the strength of the US labour market were sufficient grounds for several members of the Fed, including Jerome Powell, to adopt a more hawkish tone. Specifically, Powell pointed out that, as long as the strength of the economy permitted it, the Fed was contemplating several interest rate hikes, potentially even bringing rates into neutral territory (estimated by the Fed to be 2.4%) by the end of the year. These statements fed investors' expectations of a more aggressive pattern of rate hikes, which could be kicked off at the May meeting with a 50-bp rise, bringing rates up to the 0.75%-1.00% range, and they caused yields to rise along the sovereign yield curve. Similarly, investors assumed that the process of reducing the size of the central bank's balance sheet (quantitative tightening) will begin in May at a rate of 95 billion dollars a month, as noted in the minutes of the Fed's latest meeting.

The ECB is also considering further steps for monetary normalisation. At its April meeting, the central bank announced that the latest economic indicators reinforced its intention to bring asset purchases under the APP to an end in Q3 2022. Among these indicators, Christine Lagarde highlighted inflation expectations, which had risen above 2% following the start of the war in Ukraine, and which the Governing Council was monitoring closely in view of the risk of them moving above target. This statement, and Lagarde's words that the ECB would begin to raise rates «some time after» the end of asset purchases, were sufficient grounds for investors to estimate that the ECB would introduce its first rate hike before the end of the year. This is despite the fact that the ECB's own assessment of the economic outlook was not particularly optimistic, as a result of the uncertainty

Implicit volatility in the financial markets

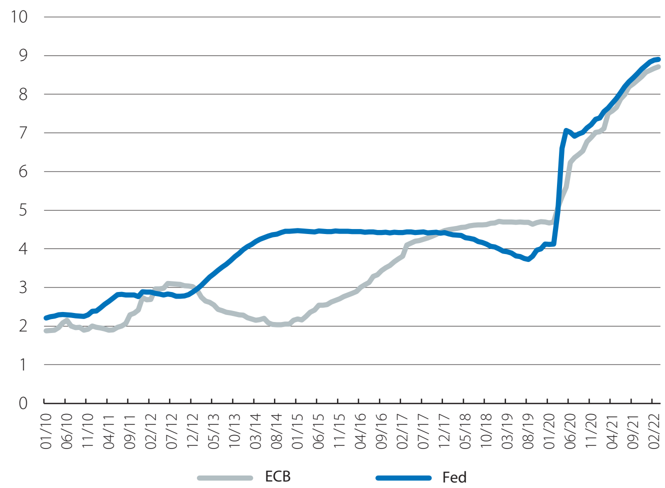
Index *Index*



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

Central bank balance sheets

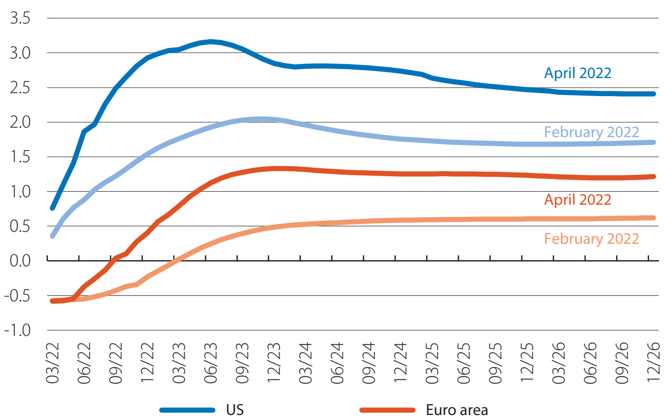
(EUR and USD trillions)



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

Expectations for Fed and ECB reference interest rates

(%)



Note: *Forwards on the EFFR and the OIS of the euro area derived using the NSS model based on market yield curves*
Source: *BPI Research, based on data from Bloomberg.*

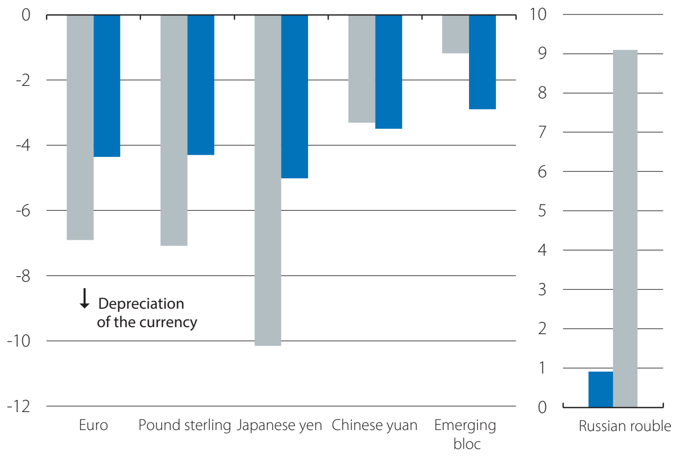
triggered by the war. Nevertheless, euro area sovereign yield curves rose significantly in the month, with the 10-year *bund* approaching 1% and an increase in the periphery risk premia.

The dollar goes from strength to strength. The more aggressive tone shown by the members of the Fed stood in contrast to the ECB's gradual approach and to the uncertainty triggered by the health situation in China and the war in Ukraine. In short, these factors supported the dollar, which, favoured by its role as a safe-haven asset, continued to appreciate against all other currencies. In particular, it registered notable gains against the Japanese yen (another currency considered a safe-haven asset), where the divergence in monetary policy between the two economies and the absence of measures from the Japanese authorities to support its currency weakened the yen to a 20-year low.

Energy prices remain highly volatile. For yet another month, the uncertainty arising from the war in Ukraine was the main factor behind the instability in the energy markets. On the one hand, the interruption of the supply of Russian gas to Poland and Bulgaria (due to their refusal to pay for imports in roubles) triggered a new episode of volatility in European natural gas prices, which was partly offset by the increase in imports of liquefied natural gas. All these swings occurred as the EU was discussing the possibility of imposing a new round of sanctions on Russia that could affect the gas market. On the other hand, the price of a barrel of Brent remained above 100 dollars, supported by new supply barriers in some producing countries and despite the downward revision of estimates of global crude oil demand following the surge in the pandemic in China.

The stock markets register new declines. Expectations of a tightening of monetary policies, signs of moderation in China's growth and the war all weighed on investors' risk appetite for yet another month, causing the major stock market indices to end the month with losses, with the S&P 500 down more than 8%. In the background, the Q1 2022 corporate earnings campaign got underway, and despite a widespread tightening of margins due to rising inflation there was still a large proportion of positive surprises (in more than 65% of cases up until the end of April). The MSCI EM Index, meanwhile, fell by nearly 6%, where the poor performance of the Chinese indices (punished by the worsening domestic economic outlook and the limited actions by its central bank) combined with losses in the main Latin American indices.

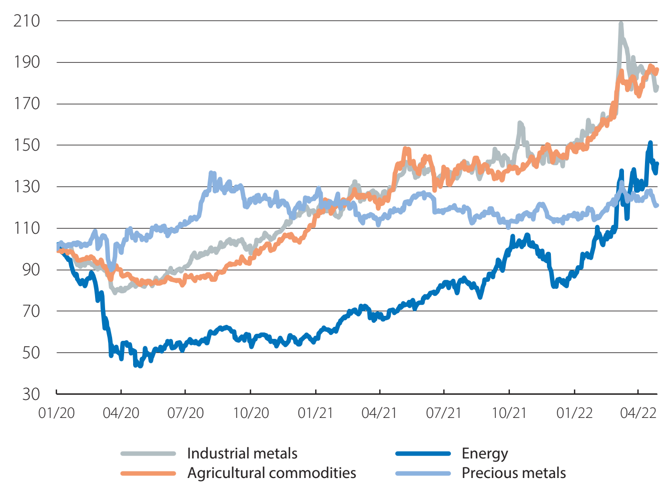
Currencies against the US dollar



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

Commodity price index

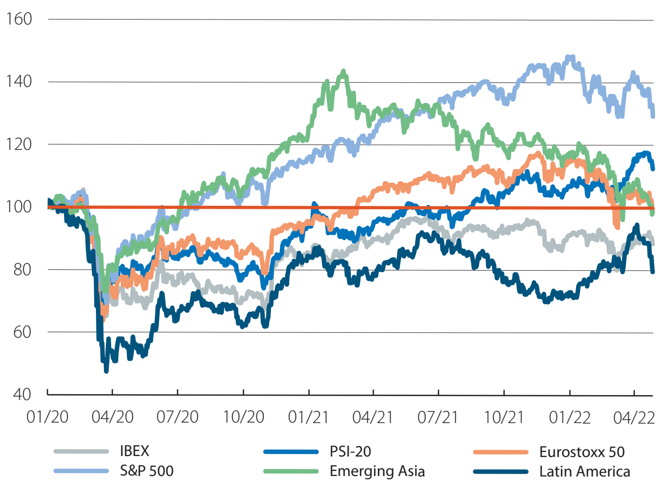
(100 = January 2020)



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

Major international stock markets

Index (100 = January 2020)



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

On the increase in sovereign debt yields

The intensification of inflationary pressures, a phenomenon aggravated by the war in Ukraine, has led to a sharp shift in the direction of monetary policy. Mass bond purchases by the central banks are being left behind, while official rates are already being ratcheted up.

In the financial markets, this change has been reflected in a sharp rise in sovereign debt yields – a trend which, due to their role as a benchmark, has also affected other financial assets.

In the US, for instance, investors are demanding that a 10-year Treasury bond provides a yield 140 bps higher than that of last December (2.9% at the end of April). Similarly, the yield on the German *bund* is clearly in positive territory (0.9% at the end of April) and has already accumulated a 110-bp rise so far this year. In the rest of the euro area, yields have increased by around 140-150 bps (see first chart), implying a moderate response from risk premia.

What is behind the increase?

The breakdown of sovereign bond yields between inflation expectations and real rates reveals somewhat differentiated patterns from region to region (see second chart).

Whereas in European debt the upward adjustment in nominal rates is due to the expected increase in inflation over the next decade, in the US the rise in Treasury yields is largely driven by an increase in real rates. In the US, the term premium – another important component of nominal sovereign rates – has also followed a downward trend according to Fed estimates.

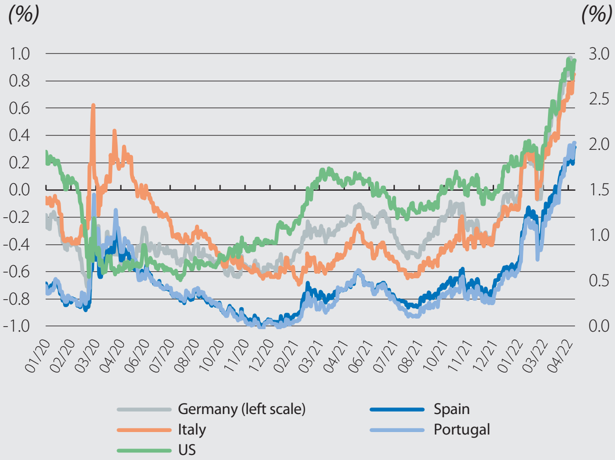
These different patterns between the two regions are most likely a reflection of different positions in the business cycle (with the US being well ahead of the euro area), on the one hand, and of a more aggressive stimulus withdrawal strategy from the Fed compared to the ECB, on the other. These factors have been reflected in an appreciation of the dollar against the euro (7% since the beginning of the year).

However, even in the US real 10-year rates have remained in negative territory, far from the pre-pandemic range and well below their level during the decade prior to the financial crisis of 2008-2009. As the Fed proceeds with its monetary-policy normalisation process, we expect real rates to continue to climb to more «normal» levels, perhaps settling around the average rate of the five years prior to the pandemic (0.5%-1.0% for the 10-year bond). This would be consistent with a nominal 10-year rate of around 3.0%, assuming that inflation expectations stabilise at 2%.

In Europe, we expect real rates to rise as well, as the ECB proceeds with its own stimulus withdrawal process, first ceasing net purchases and then gradually raising official rates.

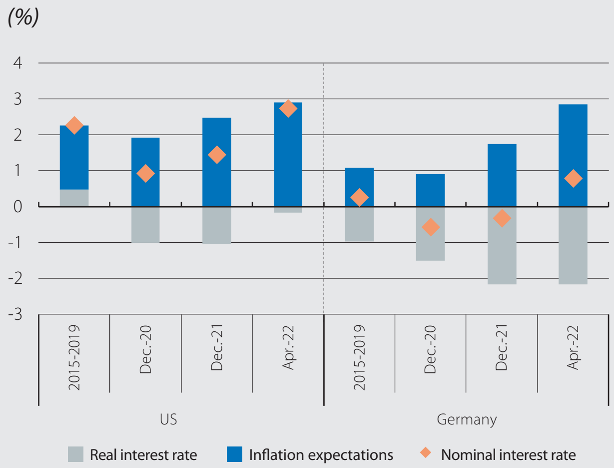
For both regions, the equilibrium level at which real rates end up settling will depend on structural factors associated, among other things, with the potential growth of the economy, a subject which we will analyse in more detail in another Focus.[1]

10-year sovereign debt yields



Note: *US, Spain, Italy and Portugal, right-hand scale.*
Source: *BPI Research, based on data from Bloomberg.*

Breakdown of 10-year sovereign debt yields



Note: *Average for the period.*
Source: *BPI Research, based on data from Bloomberg.*

1. The equilibrium rate is that at which saving equals investment, i.e. that which places the economy's growth at its potential. See the Focus «What is the new equilibrium interest rate?» in the MR09/2017.

What does the shape of the curve in the US tell us?

In this section, we focus on a theme that tends to attract a lot of attention in the financial markets: the shape of the sovereign yield curve and, in particular, the slope of the US Treasury curve.

Indeed, the spread between rates in certain segments of the curve is frequently seen by investors as a barometer for expectations regarding the direction of monetary policy and long-term economic growth.

In fact, the inversion of the sovereign yield curve has correctly predicted every recession in the US over the last 60 years, with the exception of 1966 and the brief episode in 1998. It is therefore no surprise that the recent inversion of the Treasury yield curve in certain segments (e.g. the 10-year bond versus the 2-year bond) has set off some alarm bells about the possibility of a recession.

An scenario, however, that is not reflected in the consensus expectations, which, like ours, projects positive (albeit declining) GDP growth in the coming years.

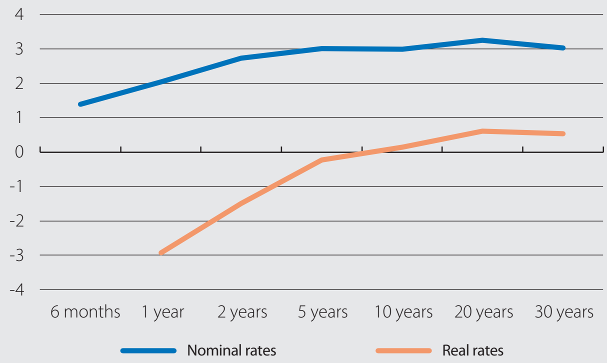
In our opinion, this divergency can be explained by various factors:

Firstly, the yield curve is distorted by technical factors, which in turn is a reflection of the Fed's sudden shift in its asset purchase policy. After all, in a matter of just a few months the central bank not only stopped adding government bonds to its balance sheet (at a monthly rate of 80 billion dollars), but it also announced that it expects to begin reducing its asset portfolio this year (with a monthly limit of 60 billion).

Secondly, we must take into account how quickly the central bank's communication regarding the normalisation of official rates has also shifted. In just six months, the FOMC's median voter went from ruling out rate hikes in 2022 (at the September 2021 meeting) to favouring at least seven rate hikes this year (at the March 2022 meeting), with a view to bringing the rate range above the estimated long-term level in 2023. This adjustment has pushed up both implicit rates in the money markets and sovereign rates in the short segments of the curve, which are more heavily influenced by the level of official interest rates.

Thirdly, the apparent distortion in the sovereign yield curve also reflects a somewhat unusual trajectory in inflation expectations, with very high levels over the next 24 months but moderating towards the central bank targets over the long term. In fact, in inflation-indexed bonds, the 10-2-year spread remains positive and close to the peak since 2015, giving little sign of recession (see third chart). This is consistent with estimates produced

US: sovereign debt yields over different terms
(%)



Note: *At the close of 30 April 2022.*
Source: *BPI Research, based on data from Bloomberg.*

using our statistical model, which, based on the spread between 3-month and 10-year nominal rates, assigns a probability of less than 15% to a recession occurring, similar to recent statements by the Fed.[2]

Our baseline scenario of economic resilience is based on the assumption that, on the one hand, the buoyancy of the labour market and the strong financial position of the private sector could more than offset the negative effects of high inflation and monetary stimulus withdrawal. On the other hand, the supply disruptions and the conflict in Ukraine ought to gradually improve. Nevertheless, the balance of risks around this outlook remains skewed to the downside.

2. See https://www.federalreserve.gov/econres/notes/feds-notes/dont-fear-the-yield-curve-reprise-20220325.htm and the Focus «On the likelihood of a recession in the US» in the MR05/2018.

Interest rates (%)

	30-April	31-March	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	–0.43	–0.46	3	14.3	10.6
1-year Euribor	0.17	–0.07	24	66.7	64.7
1-year government bonds (Germany)	–0.23	–0.45	22	41.4	41.4
2-year government bonds (Germany)	0.26	–0.07	34	88.1	94.3
10-year government bonds (Germany)	0.94	0.55	39	111.5	114.0
10-year government bonds (Spain)	1.97	1.44	54	140.9	149.8
10-year government bonds (Portugal)	2.02	1.35	67	155.2	153.7
US					
Fed funds (upper limit)	0.50	0.50	0	25.0	25.0
3-month Libor	1.33	0.96	37	112.6	115.8
12-month Libor	2.63	2.10	53	204.5	234.7
1-year government bonds	2.06	1.60	46	168.2	201.0
2-year government bonds	2.71	2.33	38	198.2	255.6
10-year government bonds	2.93	2.34	60	142.4	130.8

Spreads corporate bonds (bps)

	30-April	31-March	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
Itraxx Corporate	90	73	17	42.1	39.9
Itraxx Financials Senior	102	81	21	47.2	43.6
Itraxx Subordinated Financials	197	153	44	89.3	89.7

Exchange rates

	30-April	31-March	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
EUR/USD (dollars per euro)	1.055	1.107	–4.7	–7.3	–12.3
EUR/JPY (yen per euro)	136.950	134.670	1.7	4.6	4.2
EUR/GBP (pounds per euro)	0.839	0.842	–0.4	–0.3	–3.6
USD/JPY (yen per dollar)	129.700	121.700	6.6	12.7	18.7

Commodities

	30-April	31-March	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	643.3	634.4	1.4	11.2	20.9
Brent ($/barrel)	109.3	107.9	1.3	40.6	62.6
Gold ($/ounce)	1,896.9	1,937.4	–2.1	3.7	7.2

Equity

	30-April	31-March	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (USA)	4,131.9	4,530.4	–8.8	–13.3	–1.2
Eurostoxx 50 (euro area)	3,802.9	3,902.5	–2.6	–11.5	–4.3
Ibex 35 (Spain)	8,584.2	8,445.1	1.6	–1.5	–2.6
PSI 20 (Portugal)	5,930.0	6,037.0	–1.8	6.5	17.4
Nikkei 225 (Japan)	26,847.9	27,821.4	–3.5	–6.8	–6.8
MSCI Emerging	1,076.2	1,141.8	–5.7	–12.6	–20.1

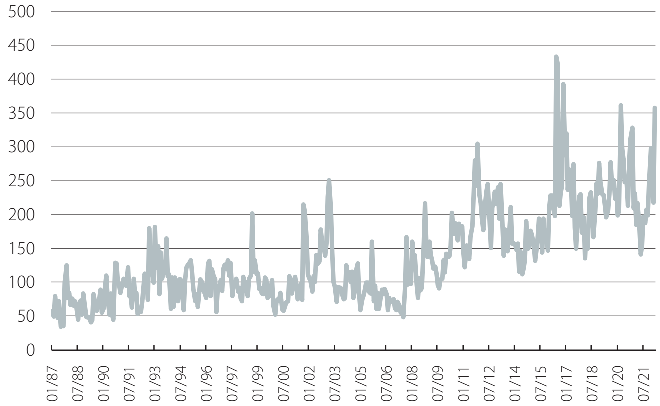
The prices of war

Global impact of the Russia-Ukraine conflict. With no sign of a truce in the invasion of Ukraine, the multiple economic effects of the war continue to add up. The recent surge in the price of the major commodities is rapidly translating into higher inflation, which will dent households' purchasing power and lead to the global economy growing significantly less than was expected a few months ago. In this regard, the IMF cut its growth forecasts for the global economy by 0.8 pps for this year and by 0.2 pps for 2023, anticipating growth of 3.6% in both years (3.5% and 3.7%, respectively, are our projections here at CaixaBank Research). By geographic area, the biggest adjustment affected emerging economies, with their growth being cut by 1 pp this year (to 3.8%, according to the IMF) due to the collapse of the Russian economy (expected to shrink by more than 8% this year) and weaker growth in India and China. Uncertainty will remain the key factor in this macroeconomic environment, particularly in Europe, where it has reached levels similar to those seen at the start of the pandemic and following the Brexit referendum.

Economic activity indicators in the EU show signs of weakness. In a turbulent Q1 2022, still marked by the outbreaks of the Omicron variant and the outbreak of the war in Ukraine, euro area GDP growth managed to remain in positive territory, advancing by 0.2% quarter-on-quarter (5.0% in year-on-year terms). Yet, growth figures are somewhat uneven from country to country. On the downside, France disappointed by stagnating relative to the previous quarter and Spain grew less than we had anticipated (0.3% quarter-on-quarter, see the Spanish Economy section). On the other hand, Germany provided a positive surprise by growing by 0.2% and avoiding a technical recession in the first half of the year. The impact of the war in Ukraine, however, will begin to become more visible in Q2 2022. Indeed, the March and April confidence indicators, although above expectations, show a clear deterioration in economic agents' expectations. In particular, households are being affected by inflation, while industry is feeling the impact of the high commodity prices and persistent global bottlenecks. On the other hand, the services sector continues to be favoured by the boost from the lifting of health-related restrictions. In this context, it should be noted that the French presidential elections gave a landslide victory to Macron, with 58.5% of the votes in the second round against Le Pen. This result will provide stability to the markets at a time when uncertainty in Europe due to the war in Ukraine is very high.

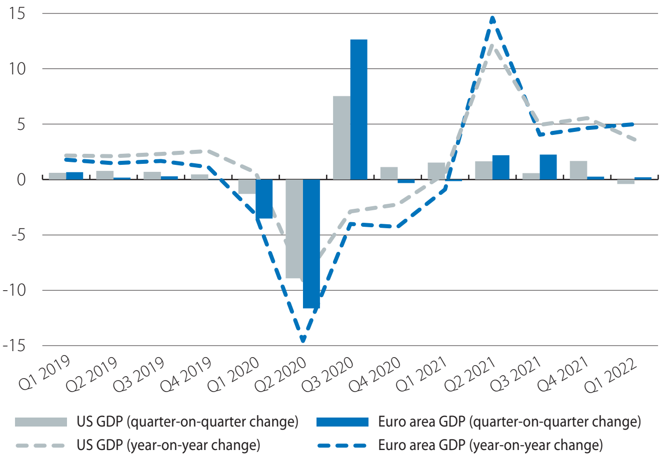
Inflation: the high energy prices are spreading to the rest of the components and core inflation reaches 3.5% in the euro area. Headline inflation rose by 1 decimal point in the euro area, bringing it to 7.5%, while core inflation rose to 3.5%, representing a 0.6-pp increase in a single month.

Europe: uncertainty index
(100 = average up until December 2010)



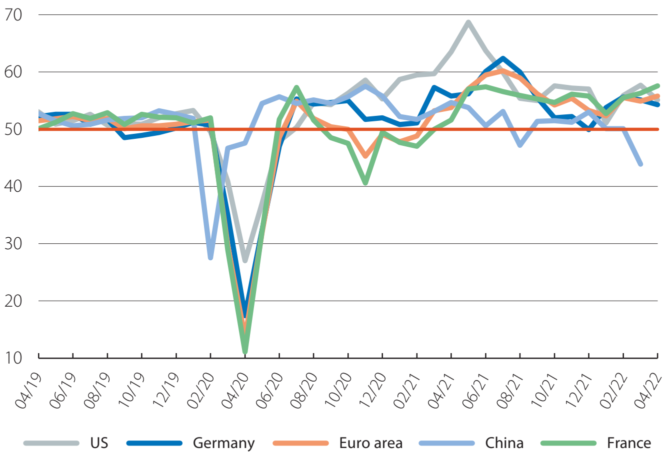
Note: The uncertainty index is calculated using archives from 10 European newspapers. The number of newspaper articles containing the terms «uncertain» or «uncertainty», «economic» or «economy», and one or more relevant terms on public policy, is counted and compared against the total number of articles in the same newspaper and period.
Source: BPI Research, based on data from S. Baker, N. Bloom and S. Davis (2022). «Measuring Economic Policy Uncertainty» from www.PolicyUncertainty.com (data available up to 25/04/2022).

US and euro area: GDP
(%)



Source: BPI Research, based on data from the Bureau of Economic Analysis and Eurostat.

Global: PMI
Level



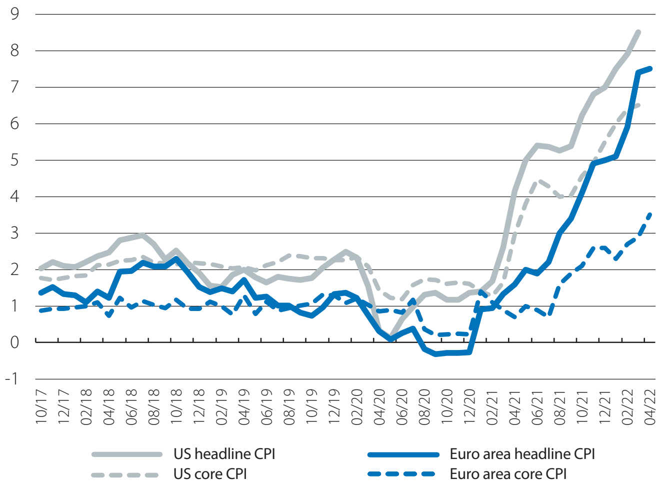
Note: For some countries, we use the flash estimate.
Source: BPI Research, based on data from Markit PMI and from S&P Global, via Refinitiv.

The latest data suggest that the increase in energy prices is rapidly spreading to the other components of the consumer price index, which will lead to further pressure on the ECB to accelerate its monetary policy normalisation process (see the Financial Markets section). Both food prices and those of goods and industrial services registered significant year-on-year increases this month. Despite the slight cooling in energy prices, as a result of both base effects and reduced tensions in the main commodity markets, inflation is expected to remain high in the coming months and the core components could still rise a few more decimals. On the other hand, in the US there are some signs that inflation could be approaching its peak. In March, headline inflation reached 8.5% year-on-year (compared to 7.9% in March), primarily as a result of the increase in the energy component. Thus, core inflation rose to 6.5% (6.4% in February).

US: unexpected fall in GDP in Q1, but with encouraging signs from consumption. US GDP fell by 0.4% quarter-on-quarter in Q1 2022 (+3.6% in year-on-year terms), in contrast with the 1.7% quarter-on-quarter growth in the previous quarter. This change of gear is mostly explained by the negative contribution from the foreign sector and the change in stocks. Domestic demand, meanwhile, continued to register strong growth, favoured by the strength of the labour market and the savings accumulated in recent years. Specifically, private consumption grew by 0.6% quarter-on-quarter (versus 0.7% in Q4 2021) and business investment accelerated, with non-residential investment up 2.2% quarter-on-quarter (versus 0.7% in Q4 2021). In April, the monthly data continue to withstand the uncertainty, although the risks to the US economy are by no means insignificant: the pandemic itself, the persistence of inflationary tensions and the risks surrounding the monetary normalisation process initiated by the Fed.

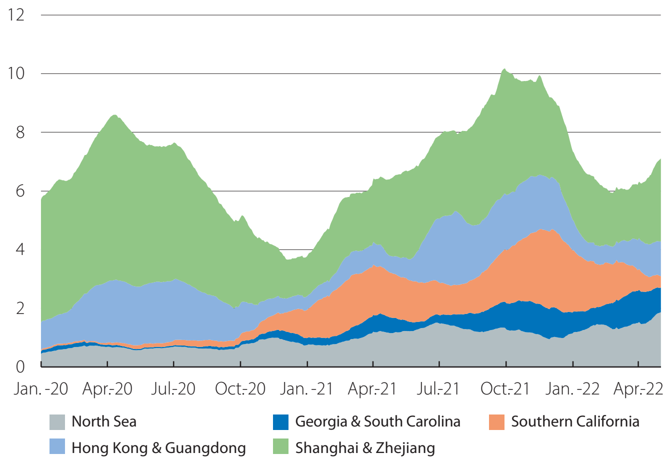
The Chinese economy in lockdown. China's GDP grew by 4.8% year-on-year in Q1 (versus 4.0% in Q4 2021), following a recovery in January and February. However, the economic activity data for March suggest a significant weakening of the economy. This downward trend has been exacerbated by the recent lockdowns in many important cities in the country, as a result of the circulation of the Omicron variant and the maintenance of a strict zero-COVID policy. Thus, retail sales declined by 3.5% year-on-year in March, the first fall since July 2020. China's official manufacturing PMI fell by more than 2 points in April to 47.4 points, its lowest level since February 2020, while the Caixin manufacturing PMI also registered a marked decline, falling by the same amount. The official non-manufacturing PMI, meanwhile, plummeted to 41.9 points in April (48.4 in March), also marking the lowest level in business confidence since February 2020. This weakness at the heart of the Asian supply chain will undoubtedly be felt in global supply chains, which are already heavily stressed and are also affected by the conflict in Europe.

US and euro area: CPI
Year-on-year change (%)



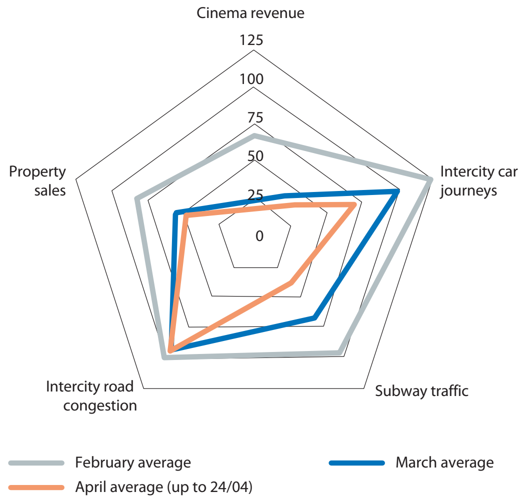
Source: *BPI Research, based on data from the Bureau of Labor Statistics and Eurostat.*

Global: congestion at major ports
Waiting container ships (% of global capacity)



Note: *A 60-day moving average is used.*
Source: *BPI Research, based on data from the Kiel Institute for the World Economy.*

China: daily economic activity indicators
(% of the 2019 level)



Source: *Capital Economics.*

EU and China: mapping out a strategic interdependence

China's aspiration to become a global economic, military and geopolitical power has generated occasional tensions with Western countries since the early 2000s. These tensions culminated in a sharp escalation of trade restrictions with the US beginning in 2018 and a decoupling process between the two powers. The outbreak of the pandemic in 2020, and more recently the war in Ukraine, has accelerated this decoupling trend, and Europe also appears to have joined in, albeit somewhat timidly for now.

New terms are appearing in the political discourse, such as «strategic autonomy», «reshoring» and «nearshoring», in an attempt to increase supply chain resilience and guarantee security in the consumption of essential products in the face of supply shocks, whether triggered by tensions in the health, climate or geopolitical spheres.

But is this much-sought-after «strategic autonomy» possible, or even desirable? To answer this question, in this article we look at the EU's dependence on China.

The Chinese origin of European final demand: 2% *made in China*

Over time, China has become the main source of imports into the European bloc. In 2020, China accounted for 22% of the EU's total gross imports of goods, compared with 12% for the US and 9% in the case of the UK. This contrasts with the situation back in the year 2000, when only 6% of European imports of goods came from China, well behind the United Kingdom's 19%, the US' 16% or even 8% in the case of Japan.[1]

The data on imports and exports in gross terms do not allow us to make an accurate assessment of the origin of

Value added originating in China in final demand
(% of final demand)

	Germany			Spain			France			Italy			EU-27			US			Japan	Brazil	Russia	India
	2015-2018	1995-2000	2002-2007	**2015-2018**	1995-2000	2002-2007	**2015-2018**	1995-2000	2002-2007	**2015-2018**	1995-2000	2002-2007	**2015-2018**	1995-2000	2002-2007	**2015-2018**	1995-2000	2002-2007	**2015-2018**	**2015-2018**	**2015-2018**	**2015-2018**
TOTAL	**2.1**	**0.3**	**0.8**	**1.9**	**0.3**	**0.9**	**1.8**	**0.3**	**0.7**	**1.6**	**0.3**	**0.7**	**1.9**	**0.3**	**0.8**	**2.2**	**0.5**	**1.2**	**3.1**	**1.5**	**3.2**	**3.2**
Agriculture	**1.6**	**0.3**	**0.6**	**1.1**	**0.2**	**0.4**	**1.0**	**0.2**	**0.4**	**1.1**	**0.3**	**0.5**	**1.2**	**0.2**	**0.5**	**1.4**	**0.4**	**0.7**	**2.9**	**1.2**	**1.9**	**0.4**
Mining	**1.0**	**0.3**	**0.3**	**0.9**	**1.9**	**0.5**	**7.8**	**0.3**	**0.7**	**0.8**	**0.1**	**0.4**	**1.7**	**0.4**	**0.4**	**1.0**	**0.2**	**0.5**	**1.3**	**1.5**	**1.3**	**1.1**
Manufacturing	**5.7**	**0.8**	**2.1**	**6.1**	**0.9**	**2.4**	**6.1**	**0.9**	**2.3**	**4.6**	**0.7**	**1.8**	**5.7**	**0.8**	**2.2**	**8.4**	**1.5**	**4.2**	**9.4**	**4.8**	**8.7**	**7.5**
Food	1.8	0.4	0.8	1.9	0.3	0.8	1.6	0.3	0.5	1.3	0.3	0.5	1.7	0.3	0.7	1.9	0.4	0.9	3.8	1.3	2.6	1.1
Textile & clothing	23.2	3.6	8.9	21.8	2.2	7.5	25.0	2.9	9.4	11.0	1.8	4.8	19.1	2.6	7.4	37.1	6.8	18.9	42.2	9.0	31.6	7.0
Wood & paper	1.8	0.4	0.7	1.7	0.4	0.8	2.1	0.5	0.8	1.5	0.3	0.6	1.7	0.4	0.7	3.2	0.8	1.4	2.5	1.5	2.7	3.0
Coke & refined oil prod.	1.1	0.3	0.7	1.0	0.4	0.3	1.9	0.4	0.5	0.9	0.2	0.5	1.2	0.3	0.5	0.8	0.3	0.4	2.1	1.5	0.8	1.6
Chemicals & pharma.	3.1	0.5	0.9	3.8	0.7	1.3	3.1	0.6	1.1	2.8	0.6	1.1	2.9	0.5	1.0	2.7	0.6	1.1	3.6	4.0	4.4	6.7
Rubber & plastics	3.1	0.6	1.1	4.7	0.8	1.5	4.5	0.9	1.4	3.3	0.6	1.1	3.8	0.7	1.3	6.2	0.9	2.3	5.7	3.7	7.1	9.6
Other non-metal minerals	3.5	0.4	1.7	3.3	0.3	1.3	3.4	0.3	1.4	3.0	0.3	1.2	3.4	0.4	1.6	5.8	1.0	3.4	4.8	2.4	4.3	2.8
Metals	3.3	0.6	1.4	4.5	0.6	1.8	4.2	0.5	1.4	2.7	0.3	1.2	3.6	0.5	1.4	4.8	0.7	2.4	3.7	3.6	5.1	4.0
Computers & electronics	19.0	2.0	7.8	20.5	2.7	8.6	22.9	2.6	9.6	12.4	1.8	5.0	17.8	2.0	7.5	19.8	2.0	9.2	19.5	16.7	26.4	26.5
Electrical products	9.3	0.6	1.9	12.9	0.7	2.6	16.7	1.2	3.8	9.6	0.5	1.9	11.1	0.7	2.7	18.8	1.9	6.4	19.2	11.3	14.1	16.3
Machinery	4.3	0.5	1.5	7.7	0.8	2.5	6.9	0.7	2.4	4.9	0.5	1.9	5.5	0.6	2.0	8.1	1.0	3.5	7.7	7.4	13.8	13.4
Motor vehicles & trailers	2.4	0.3	0.9	3.3	0.4	1.1	3.3	0.3	1.0	3.1	0.3	1.1	2.9	0.3	1.0	5.5	0.6	2.0	4.6	3.0	6.2	4.6
Other transport equipment	5.8	0.7	2.6	4.8	0.5	2.1	4.4	0.6	1.8	4.5	0.4	1.8	5.7	0.7	2.6	3.6	0.6	1.7	5.3	16.4	6.2	10.8
Other manufacturing	7.7	0.8	1.8	9.5	1.1	2.3	8.4	0.8	1.8	5.9	0.7	1.4	7.8	0.9	1.9	16.0	3.5	7.8	9.7	5.6	12.6	11.0
Services	**1.2**	**0.2**	**0.5**	**1.1**	**0.2**	**0.5**	**1.0**	**0.1**	**0.4**	**0.8**	**0.2**	**0.4**	**1.1**	**0.2**	**0.5**	**1.0**	**0.2**	**0.5**	**1.7**	**0.6**	**1.8**	**1.9**
Commercial services	1.6	0.2	0.5	1.5	0.2	0.6	1.6	0.2	0.5	1.2	0.2	0.5	1.6	0.2	0.5	1.8	0.4	0.9	2.9	0.9	2.0	2.6
Logistics	3.2	0.5	1.5	2.1	0.4	1.3	2.6	0.4	1.1	1.9	0.6	1.0	2.5	0.5	1.2	2.7	0.6	1.5	2.6	1.4	3.6	3.4
Hospitality	1.0	0.3	0.7	0.8	0.1	0.4	0.8	0.2	0.5	0.6	0.2	0.4	0.8	0.2	0.5	0.8	0.3	0.5	1.7	0.7	2.1	1.0
Information & communication	1.6	0.4	0.6	2.6	0.4	0.9	1.7	0.2	0.5	1.2	0.2	0.5	1.8	0.3	0.6	1.1	0.2	0.5	2.8	0.8	2.6	3.0
Finance	0.6	0.1	0.2	0.5	0.1	0.2	0.6	0.1	0.2	0.4	0.1	0.2	0.6	0.1	0.2	0.4	0.1	0.1	1.0	0.2	0.6	0.7
Real estate	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.0	0.1	0.2	0.0	0.1	0.3	0.1	0.1	0.3	0.1	0.1	0.3	0.1	0.6	0.3
Other services	1.2	0.3	0.5	0.9	0.2	0.5	0.9	0.1	0.3	0.7	0.1	0.3	1.0	0.2	0.4	0.8	0.2	0.3	1.8	0.6	2.2	1.7

Notes: *The data refer to the average for the years 1995-2000 (before China joined the WTO in 2001), 2002-2007 (after China joined the WTO, pre-financial crisis) and 2015-2018 (the latest period). We use data from the most recent update of the OECD TiVA tables, in November 2021.*
The colouring in the table reflects the degree of integration between the two economies. Blue and green indicate a lower percentage of final demand for each indicated country or region originating in China, while orange and red indicate a higher percentage of final demand originating in China.
Source: *BPI Research, based on data from OECD TiVA (November 2021).*

1. According to data from the Observatory of Economic Complexity (OEC). Unlike the TiVA database, which we use next, these data only include trade in goods (i.e. they exclude services).

Value added originating in China in exports
(% of exports)

	Germany	Spain	France	Italy	EU-27			US			Japan	Brazil	Russia	India
	2015-2018	2015-2018	2015-2018	2015-2018	2015-2018	1995-2000	2002-2007	2015-2018	1995-2000	2002-2007	2015-2018	2015-2018	2015-2018	2015-2018
TOTAL	1.5	1.6	1.6	1.5	1.6	0.3	0.7	1.3	0.3	0.8	2.7	1.3	1.2	1.9
Agriculture	1.0	0.8	0.9	0.5	0.9	0.2	0.4	1.0	0.2	0.4	1.7	1.0	1.3	0.4
Mining	0.9	1.1	1.2	0.5	0.8	0.1	0.4	0.8	0.2	0.3	1.6	1.1	0.6	2.1
Manufacturing	1.9	2.4	2.4	2.0	2.1	0.3	0.9	2.3	0.5	1.4	3.4	1.9	1.7	2.9
Food	1.0	1.1	1.0	0.8	1.1	0.2	0.5	1.3	0.3	0.6	1.7	0.9	1.7	0.8
Textile & clothing	3.3	4.5	4.8	3.4	3.6	0.7	1.6	3.9	1.2	2.4	4.8	3.1	6.9	3.3
Wood & paper	1.1	1.4	1.5	1.1	1.1	0.2	0.4	2.0	0.4	0.9	1.7	1.2	1.7	2.3
Coke & refined oil prod.	0.9	0.9	2.3	0.7	1.1	0.3	0.3	0.7	0.2	0.2	1.9	1.5	0.6	0.9
Chemicals & pharma.	1.4	1.7	1.3	1.5	1.2	0.3	0.5	1.4	0.3	0.7	2.6	1.8	1.8	3.4
Rubber & plastics	1.7	2.4	1.6	1.7	1.8	0.3	0.7	2.3	0.4	1.0	2.8	2.0	3.5	3.8
Other non-metal minerals	1.2	1.7	1.4	1.3	1.4	0.2	0.6	1.7	0.4	0.9	1.9	1.1	2.1	1.9
Metals	1.6	2.0	1.8	1.8	1.7	0.3	0.8	2.1	0.4	1.1	1.8	1.5	1.7	2.6
Computers & electronics	3.9	4.5	3.4	2.8	4.6	0.6	2.3	2.1	0.7	2.4	4.4	6.3	7.5	5.0
Electrical products	3.0	3.6	3.9	3.2	3.4	0.4	1.2	3.3	0.6	1.6	4.9	2.9	4.6	3.7
Machinery	2.1	2.9	2.8	2.1	2.3	0.3	0.9	3.2	0.5	1.5	3.2	2.4	4.2	3.0
Motor vehicles & trailers	1.7	3.4	2.9	2.3	2.2	0.3	0.8	4.2	0.5	1.8	3.6	2.0	4.2	4.1
Other transport equipment	2.5	2.7	3.5	2.5	3.1	0.4	1.2	2.7	0.5	1.2	3.0	5.2	4.1	4.2
Other manufacturing	2.5	2.0	2.3	1.8	2.0	0.3	0.8	2.3	0.5	1.2	3.4	2.2	3.6	5.1
Services	0.7	0.8	0.8	0.5	0.8	0.1	0.4	0.5	0.1	0.2	1.3	0.4	1.1	0.7
Commercial services	0.5	0.6	0.8	0.5	0.7	0.1	0.3	0.6	0.1	0.2	1.5	0.3	0.8	0.4
Logistics	0.9	0.7	1.0	0.6	1.1	0.2	0.5	0.5	0.1	0.2	1.3	0.7	1.0	1.6
Hospitality	0.7	0.8	0.6	0.4	0.6	0.1	0.3	0.6	0.1	0.3	1.5	0.6	1.1	0.4
Information & communication	0.8	1.5	1.0	0.7	1.1	0.2	0.4	0.7	0.1	0.3	1.3	0.6	1.9	0.6
Finance	0.5	0.4	0.5	0.3	0.6	0.1	0.4	0.3	0.1	0.1	0.9	0.2	0.5	0.4
Real estate	0.2	0.1	0.2	0.1	0.2	0.0	0.1	0.3	0.0	0.1	0.3	0.1	0.5	0.3
Other services	0.5	0.8	0.6	0.6	0.6	0.1	0.3	0.5	0.1	0.2	0.9	0.4	1.9	0.8

Notes: *The data refer to the average for the years 1995-2000 (before China joined the WTO), 2002-2007 (after China joined the WTO, pre-financial crisis) and 2015-2018 (the latest period). We use data from the most recent update of the OECD TiVA tables, in November 2021.*
The colouring in the table reflects the degree of integration between the two economies. Blue and green indicate a lower percentage of final demand for each indicated country or region originating in China, while orange indicates a higher percentage of final demand originating in China.
Source: *BPI Research, based on data from OECD TiVA (November 2021).*

the goods and services that are consumed. In this regard, the OECD's TiVA (Trade in Value Added) database, based on international input-output tables, offers us a more detailed view of the degree of economic integration between China and the EU, allowing us to measure the actual dependencies for each country and sector. By identifying the exact origin and destination of each good and service that is traded, we can investigate the composition and the actual origin of final demand and exports.[2]

In aggregate terms, Chinese goods and services have accounted for 2% of European final demand in recent years (see first table). This is a similar level to that in the US, but lower than in countries such as Japan or India, which have value chains that are more closely integrated with China.

Between the EU and other countries we find some common trends worth highlighting. Firstly, this dependence on China has increased significantly in the last two decades and in all sectors analysed, including both manufacturing and services. Secondly, it is clear that the Asian giant has transformed itself into a global manufacturing power, accounting for 5%-10% of the manufacturing sector's final demand worldwide. In particular, the dominance of the Chinese value chain in the textile and electronics sectors is unquestionable, accounting for over 20% of the final demand of these sectors in the largest EU economies, 40% in the case of textiles in Japan and the US, and more than 25% in electronics in India and Russia.

Focusing on the EU in particular, the bloc's integration with China has increased in the last decade, particularly in more advanced sectors such as electronics and machinery, but also in commercial services and in information and communication services.

This strong integration of China into European value chains is evident when analysing the growing weight of Chinese goods and services in the European export sector (see second table), mainly in technologically advanced manufacturing sectors. This indicates the penetration capacity of intermediate products produced in China in highly integrated production chains, such as electronics,

2. For more details on the use of this database, also see the Focus «European dependence on Russia: a primary issue» in the MR04/2022.

machinery and transportation equipment. It is noteworthy that Spanish exports of electronics and French exports of transportation equipment incorporate a greater proportion of Chinese goods and services than the corresponding export sectors in Japan. Europe's textile industries are also among the most highly integrated with China in the world. Moreover, in the EU-27 this integration accelerated in the last decade, contrary to what has happened in the US, for instance, where exports of electronic products now contain a smaller proportion of Chinese goods than they did a few years ago.

At this point, it is also important to emphasise that at a more disaggregated level the interdependence between countries may be much greater in certain specific products. If, in addition to having a significant dependence on imports of a particular product, the exporting country also has market dominance, then the risk of disruptions in production chains is greater in the event of supply issues, whether due to logistical difficulties or diplomatic tensions.

In this regard, the EU's dependence on China is significant in the case of certain rare raw materials (crucial for the energy transition), such as manganese or scandium, as well as in various components that are essential to the production of pharmaceutical goods, such as active agents and vitamins, and in electronic components – both final and intermediate – such as LED lamps or permanent magnets. In all these products, China has a global market share of over 50%, representing as much as 90% of global production in some cases.[3]

A sustainable attachment?

In the last *Monthly Report*, we analysed the impact of the current tensions with Russia, concluding that the negative effects of the decoupling process will be particularly visible in the short term and in economies that are more dependent on fossil fuels for their energy needs. However, in the medium term, and as some countries have already demonstrated in recent years, reducing dependence on Russian commodities is not impossible, and moreover it is compatible with a quicker and more coordinated energy transition.

China, however, is much more densely interconnected with the EU, as well as with the rest of the world's major economies. In the EU in particular, this integration has accelerated in the last decade and the Chinese value chain is key to a large number of sectors, especially in manufacturing. Furthermore, in recent years the Chinese economy has come a long way in increasing its technological specialisation (see third table), thereby reaffirming a vital role in the global trading system. As the recurring supply problems experienced during the pandemic have shown, decoupling from China would have costs for the entire economy, being insurmountable in many cases. Unlike the European Green Deal, the feasibility of achieving «strategic autonomy» in many of these sectors, through reshoring part of the value chain, is not entirely clear. If the world enters a new geopolitical era that results in a process of de-globalisation is confirmed, then the inevitable tensions between the various blocs would most likely result in more losers than winners. Furthermore, a long-lasting commercial relationship between the EU and China will increasingly need to be underpinned by strong diplomacy. Not only will the European economy depend on such a diplomatic effort, but so will domestic politics, global geopolitical stability and – because there is never a bad time to recall it – the global fight against climate change.

Economic Complexity Index (ECI)
Position in the ECI ranking

	2000	2010	2020
Japan	1	1	1
Switzerland	3	3	2
Taiwan	22	5	3
Germany	2	2	4
US	5	8	9
France	10	13	15
Italy	13	18	19
Hong Kong	48	34	23
China	54	31	28
Spain	19	28	34
India	50	50	40
Russia	25	30	43
Brazil	29	35	47

Note: *The index can be interpreted as a measure of the relative intensity of knowledge in a particular economy and is calculated based on the profile of each country's exports.*
Source: *BPI Research, based on data from the Observatory of Economic Complexity (OEC).*

3. See European Commission (2021). «Strategic dependencies and capacities», Commission Staff Working Document. See also L. Salinas Conte (2021). «The dependency on China of Spain's supply chains», Elcano Policy Paper, Elcano Royal Institute.

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

UNITED STATES

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	01/22	02/22	03/22
Activity									
Real GDP	–3.4	5.7	12.2	4.9	5.5	3.6	–	–	–
Retail sales (excluding cars and petrol)	2.1	17.5	27.5	14.3	16.2	10.5	12.1	15.8	4.1
Consumer confidence *(value)*	101.0	112.7	122.1	116.7	112.9	108.1	111.1	105.7	107.6
Industrial production	–7.2	5.5	14.7	5.5	4.4	5.4	3.3	7.5	5.5
Manufacturing activity index (ISM) *(value)*	52.5	60.6	61.0	60.0	60.1	57.8	57.6	58.6	57.1
Housing starts *(thousands)*	1,396	1,605	1,588	1,562	1,670	1,753	1,679	1,788	1,793
Case-Shiller home price index *(value)*	228	267	262	274	283	...	292	299	...
Unemployment rate *(% lab. force)*	8.1	5.4	5.9	5.1	4.2	3.8	4.0	3.8	3.6
Employment-population ratio *(% pop. > 16 years)*	56.8	58.4	58.0	58.6	59.2	59.9	59.7	59.9	60.1
Trade balance [1] *(% GDP)*	–3.2	–3.7	–3.6	–3.7	–3.7	...	–3.8	–3.8	...
Prices									
Headline inflation	1.2	4.7	4.8	5.3	6.7	8.0	7.5	7.9	8.5
Core inflation	1.7	3.6	3.7	4.1	5.0	6.3	6.0	6.4	6.5

JAPAN

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	01/22	02/22	03/22
Activity									
Real GDP	–4.5	1.7	7.3	1.2	0.4	...	–	–	–
Consumer confidence *(value)*	31.0	36.3	36.1	37.5	38.3	34.8	36.5	35.2	32.8
Industrial production	–10.6	5.6	18.4	6.6	1.1	–0.6	–1.6	0.5	–0.8
Business activity index (Tankan) *(value)*	–19.8	13.8	14.0	18.0	18.0	14.0	–	–	–
Unemployment rate *(% lab. force)*	2.8	2.8	2.9	2.8	2.7	2.7	2.8	2.7	2.6
Trade balance [1] *(% GDP)*	0.1	–0.3	0.6	0.3	–0.3	–1.3	–0.8	–1.0	–1.3
Prices									
Headline inflation	0.0	–0.2	–0.7	–0.2	0.5	0.9	0.5	0.9	1.2
Core inflation	0.2	–0.5	–0.9	–0.5	–0.7	–0.9	–1.2	–0.9	–0.7

CHINA

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	01/22	02/22	03/22
Activity									
Real GDP	2.2	8.1	7.9	4.9	4.0	4.8	–	–	–
Retail sales	–2.9	12.4	14.1	5.1	3.5	1.6	...	6.7	–3.5
Industrial production	3.4	9.3	9.0	4.9	3.9	6.3	...	7.5	5.0
PMI manufacturing *(value)*	49.9	50.5	51.0	50.0	49.9	49.9	50.1	50.2	49.5
Foreign sector									
Trade balance [1,2]	524	681	605	636	681	735	704	699	735
Exports	3.6	30.0	30.7	24.4	23.1	15.7	24.1	6.2	14.6
Imports	–0.6	30.1	44.1	25.4	23.6	9.5	19.8	10.4	–0.1
Prices									
Headline inflation	2.5	0.9	1.1	0.8	1.8	1.1	0.9	0.9	1.5
Official interest rate [3]	3.9	3.8	3.9	3.9	3.8	3.7	3.7	3.7	3.7
Renminbi per dollar	6.9	6.5	6.5	6.5	6.4	6.3	6.4	6.3	6.3

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	01/22	02/22	03/22
Retail sales *(year-on-year change)*	–0.8	5.4	12.6	2.4	4.1	...	8.4	5.0	...
Industrial production *(year-on-year change)*	–7.9	8.8	24.4	6.0	0.2	...	–1.5	2.0	...
Consumer confidence	–14.3	–7.6	–5.5	–4.6	–6.7	–12.0	–8.5	–8.8	–18.7
Economic sentiment	88.0	110.1	113.2	116.8	115.7	111.7	112.7	113.9	108.5
Manufacturing PMI	48.6	60.2	63.1	60.9	58.2	57.8	58.7	58.2	56.5
Services PMI	42.5	53.6	54.7	58.4	54.5	54.1	51.1	55.5	55.6
Labour market									
Employment (people) *(year-on-year change)*	–1.5	1.1	2.0	2.1	2.1	...	–	–	–
Unemployment rate *(% labour force)*	8.0	7.7	8.1	7.5	7.1	...	6.9	6.8	...
Germany *(% labour force)*	3.9	3.6	3.7	3.5	3.3	...	3.1	3.1	...
France *(% labour force)*	8.0	7.9	8.2	7.8	7.5	...	7.5	7.4	...
Italy *(% labour force)*	9.3	9.5	9.8	9.1	9.0	...	8.6	8.5	...
Real GDP *(year-on-year change)*	–6.5	5.6	14.6	4.1	4.7	5.0	–	–	–
Germany *(year-on-year change)*	–4.9	3.1	10.4	2.9	1.8	3.7	–	–	–
France *(year-on-year change)*	–8.0	7.4	19.1	3.5	5.5	5.3	–	–	–
Italy *(year-on-year change)*	–9.1	7.0	17.7	3.9	6.2	5.8	–	–	–

Prices

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	01/22	02/22	03/22
General	0.3	2.6	1.8	2.8	4.6	6.1	5.1	5.9	7.4
Core	0.7	1.5	0.9	1.4	2.4	2.6	2.3	2.7	3.0

Foreign sector

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	01/22	02/22	03/22
Current balance	2.1	2.6	3.1	3.2	3.3	3.2	3.2	3.0	...
Germany	7.1	7.4	8.1	8.1	7.9	7.8	7.2	7.2	...
France	–1.9	–0.6	–1.6	–1.2	–0.9	–0.9	–0.4	–0.4	...
Italy	3.8	2.4	4.3	4.1	4.0	3.8	1.0	0.9	...
Nominal effective exchange rate [1] *(value)*	**93.9**	**94.2**	**94.9**	**94.0**	**92.7**	**92.2**	**92.3**	**92.7**	**91.7**

Credit and deposits of non-financial sectors

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	01/22	02/22	03/22
Private sector financing									
Credit to non-financial firms [2]	6.3	3.5	2.3	1.8	3.3	4.4	4.4	4.5	4.2
Credit to households [2,3]	3.2	3.8	3.9	4.1	4.1	4.4	4.3	4.4	4.5
Interest rate on loans to non-financial firms [4] *(%)*	1.2	1.2	1.2	1.3	1.1	...	1.2	1.1	...
Interest rate on loans to households for house purchases [5] *(%)*	1.4	1.3	1.3	1.3	1.3	...	1.4	1.4	...
Deposits									
On demand deposits	12.9	12.6	12.4	11.4	10.5	9.1	9.4	9.3	8.7
Other short-term deposits	0.6	–0.8	–0.6	–2.0	–1.5	–0.3	–0.2	–0.3	–0.3
Marketable instruments	8.2	11.4	12.2	10.2	9.2	0.7	0.8	–0.4	1.6
Interest rate on deposits up to 1 year from households *(%)*	0.2	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: *BPI Research, based on data from the Eurostat, European Central Bank, European Commission, national statistics institutes and Markit.*

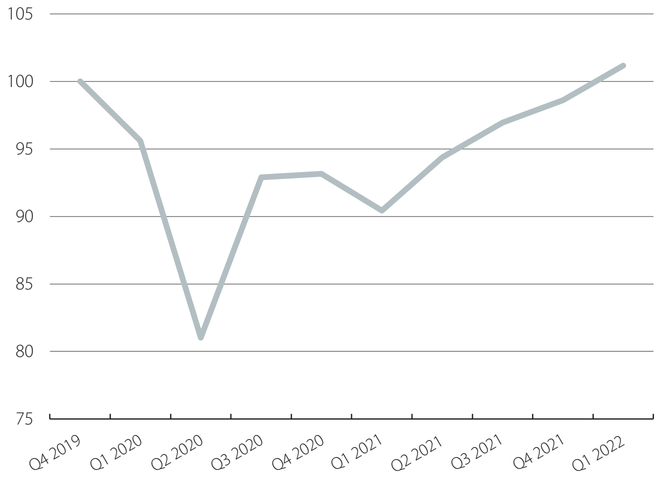
Portugal: resilience, in a challenging environment

In Q1 2022, the economy surpassed pre-covid levels by 1.2%. Surprisingly, GDP grew 2.6% quarter-on-quarter and 11.9% year-on-year, reflecting the robustness of private consumption and the recovery of tourism. This result suggests that our current growth forecast for the year as a whole (4.2%) is likely to prove too conservative. However, taking into account the potential for worsening outcomes caused by the conflict in Ukraine, given the signs of cooling from European partners in addition to the notorious rise in market interest rates, we prefer to adopt a more conservative stance that leaves our forecast for 2022 unchanged, for now. Meanwhile, the first indicators for Q2 show no signs of cooling, with the daily activity indicator rising by 10.3% in April and sentiment indicators improving slightly compared to March in response to the onset of the conflict in Ukraine. Among consumers, after the initial shock of the war, sentiment improved slightly as a result of small perceived improvements in the household financial situation and expectations of major purchases in the next 12 months. In terms of supply, the economic climate indicator recovered by one tenth of a percentage point in April compared to March, standing at 2.2%, as a result of improved sentiment in industry, services and trade, which more than offset the worsening sentiment in the construction sector. In the latter, the lower optimism reflects the slowdown in the order book. In industry, confidence improved to -1.5 points from -4 points in March, benefiting from a more positive outlook for production in the next 3 months and a slightly less negative reading on overall demand. The lack of raw materials continues to be a major obstacle for industrial production, but it has not worsened compared to the last months of 2021 and the first months of 2022.

Consumer prices do not let up in April. The year-on-year change of 7.2% in the CPI is the highest since March 1993. As we have seen since mid-2021, the energy component remains the major dynamo of this price increase, and its year-on-year change now sits at an extraordinary 26.7% (19.8% in March). Elsewhere, the other most volatile component of the basket, unprocessed food products, is expected to have seen a variation of 9.5% (5.8% in March). All data point to consumer prices remaining high in the coming months: the conflict in Ukraine puts pressure on the prices of energy and several commodities; the lockdowns in China prevent the normalization of logistics chains; and industrial production prices in March also showed a significant year-on-year variation (26.3%).

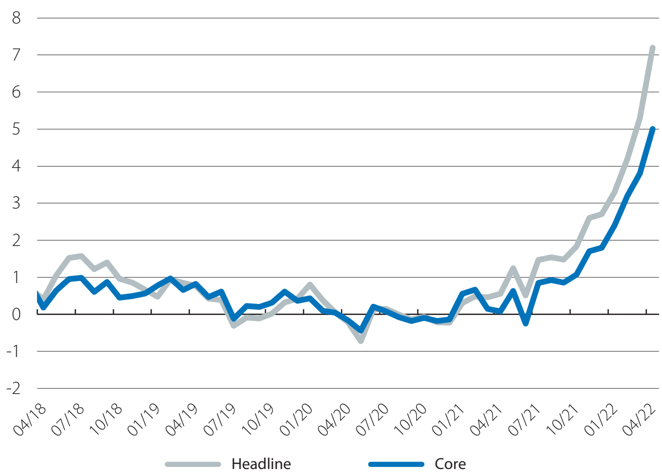
The job market remains at arm's length from geopolitical tensions. Unemployment registered at job centres fell in March to pre-pandemic levels, for a total of 326,251 jobseekers. This represents 7,500 fewer people looking for work compared to March 2019 and a reduction of 5.2% compared to February 2022 (i.e. -18,000 jobseekers). This reduction is largely explained by four activity sectors: accommodation & food services, real

Portugal: GDP
Index (100 = Q4 2019)



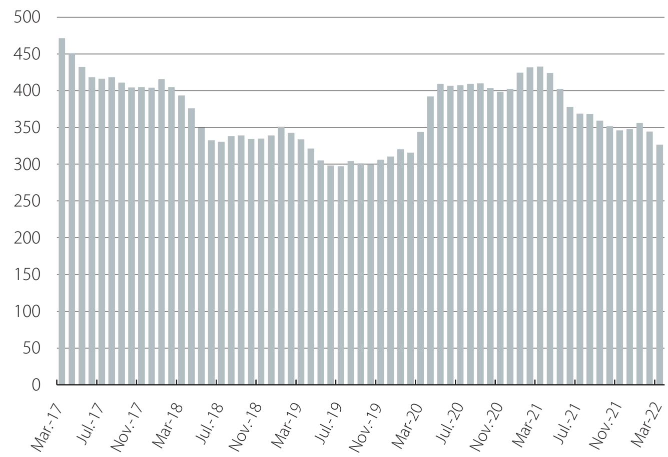
Source: *BPI Research, based on data from the National Statistics Institute of Portugal.*

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



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

Portugal: unemployment as recorded at job centres
(Thousand Individuals)



Source: *BPI Research, based on data from the IEFP (Institute for Employment and Vocational Training).*

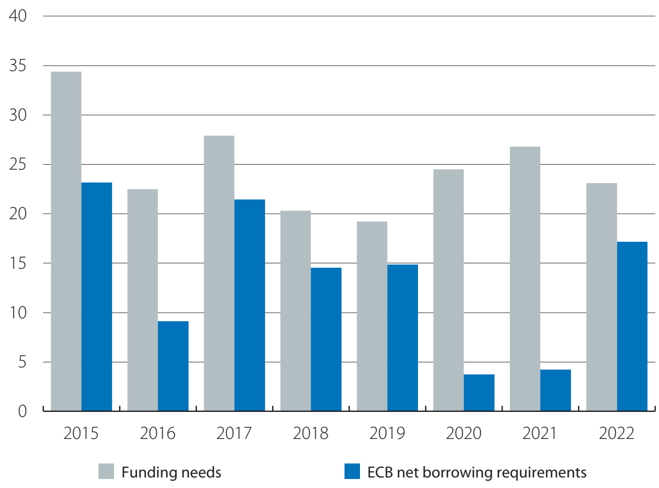
estate, administrative & support services, commerce and construction. Compared to pre-pandemic levels, commerce and construction are already recording lower unemployment levels. This reflects the reports of shortages of human resources in these sectors. In turn, the latest official data shows that the unemployment rate in February remained at 5.8% for the third consecutive month, with employment growing by 4.2% year-on-year and 2.7% compared to the pre-COVID period. It is possible that there will be a slowdown in employment growth over 2022, reflecting a lower appetite for hiring due to rising energy and raw material costs for businesses.

State funding needs decrease in 2022. According to the state budget for 2022, public financing needs will be €23 billion, €4 MM less than in 2021. Until April, the Treasury issued €8.3 billion in bonds, equivalent to 36% of funding needs. The average term of the issues is around 13.5 years, while the average cost was 1.26%. In 2022, the ECB remains a major buyer of public debt, having purchased €2.8 billion by the end of Q1. By the end of the year, we estimate that the ECB will have bought between €5-6 billion, equivalent to around 20-25% of the year's funding needs.

The war worsened the external imbalance in 2022. In the first two months of the year, the deficit worsened by around €810 million euros compared to the same period the previous year, reaching €1.023 billion. The deterioration of the goods deficit was the main factor behind the worsening of the external balance and mainly reflects the increase in the prices of imported goods, especially energy. Although not enough to offset the worsening of the goods balance, the recovery in tourism could be seen in the improved tourism balance surplus, which, in the period under review, was close to that recorded in the same period of 2019. Indeed, in January and February, the tourism balance was €1.118 billion, only 100 million less than in January and February 2019. For the year as a whole, we anticipate that the current account deficit will increase to 2.2% of GDP (see focus "Em Portugal, a guerra na Ucrânia significa (também) regresso a défice externo" [In Portugal, the war in Ukraine (also) means a return to the external deficit], in this publication).

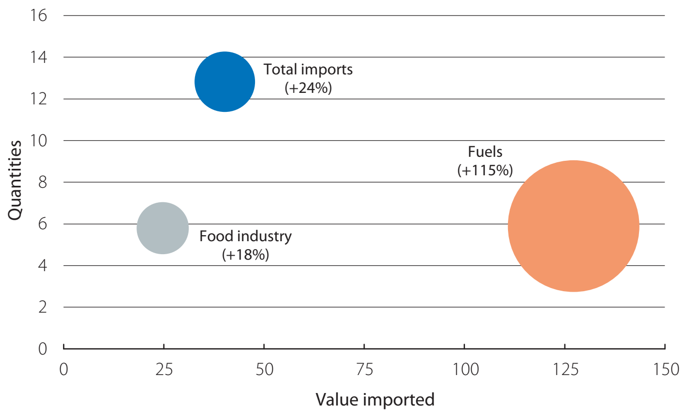
Banks anticipate increased demand for credit in Q2. Banks reported higher demand from SMEs and lower demand from large companies in Q1, pointing to a demand for credit for debt restructuring or renegotiation. In turn, household demand increased in consumer credit and other lending. For Q2, banks expect demand from SMEs to increase, especially for short-term loans, and household demand to increase, both for home purchases and consumption. As far as lending criteria are concerned, banks manifested slightly less restrictive criteria in the case of consumer credit and other lending and stable criteria in the other credit segments in Q1 this year. Less restrictiveness is explained by competition and more risk tolerance. For Q2, banks anticipate slightly tighter credit standards for loans to SMEs only. The result of this survey suggests that the level of indebtedness may continue to increase. In February, debt in the non-financial private sector amounted to €428.6 million – €280.3 million euros for non-financial companies and €148.3 million for households – €1.7 million more than at the end of 2021.

Portugal: state funding needs
(Millions of euros)



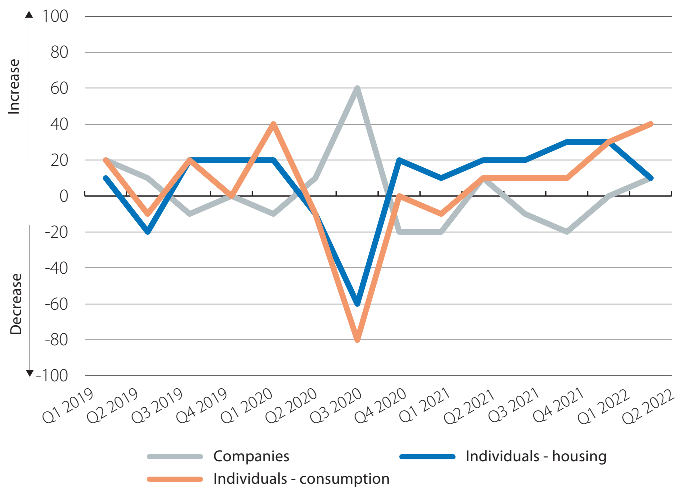
Source: *BPI Research, based on data from IGCP, VCE and OE 2022.*

Portugal: imports of goods in January-February 2022
Year-on-year change



Note: *The size of the circles represents the year-on-year change in the unit price of imports, with the figure shown in brackets.*
Source: *BPI Research, based on data from the National Statistics Institute of Portugal.*

Portugal: demand for credit
Diffusion index



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

Mortgage Loans in Portugal: between the pandemic, regulations and rising interest rates

New mortgage lending has grown strongly over the last two years, marked by the COVID-19 pandemic. Mortgage loans increased by 34% in 2021 after an increase of 8.1% in 2020, ending last year at a level around 45% higher than 2019. What explains this growth in mortgage lending? And how is the situation expected to evolve in the near future?

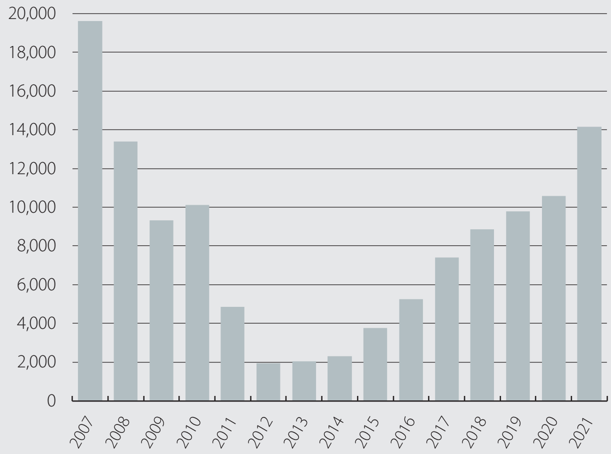
This dynamism in mortgage lending is accompanied by a very positive performance in the residential property market, both in terms of prices (up 9.4% in 2021) and in terms of transactions carried out (20.5%), which reached their highest value in the historical series. The average purchase price exceeded 179,000 euros by the end of the year, the highest level since information has been available (2009), which helps to explain the growth in new home loan transactions. Home purchases with mortgage loans only accounted for around 50% of the total amount transacted in 2021, however.

Due to several factors, the current environment has been especially favourable for the purchasing of homes. Low interest rates and a high accumulation of savings during the pandemic boosted demand for housing, not only for residential purposes but also for investment.[1] Indeed, the interest rate on new credit operations moved from 1.10% at the end of 2019, to 0.83% at the end of 2021. At the same time, the pandemic brought considerable changes in the labour market, with the extensive use of remote work and expectations that hybrid work arrangements will remain in the post-pandemic period. This has led families to placing greater value on their living conditions, looking for homes with more outdoor space and for remote working.

With such significant growth in the residential property market, in a context where interest rates in the Eurozone are expected to rise, and in view of the challenges for families arising from the sharp rise in inflation fuelled by the outbreak of the Russia-Ukraine conflict, fears have been raised as to the future impact on the Portuguese financial system. From as early as 2018, the Bank of Portugal has put forward a set of macroprudential measures aiming to prevent the accumulation of excessive risk on banks' balance sheets and to ensure that households obtain sustainable financing, minimising the risk of default. Particularly notable among these measures[2]

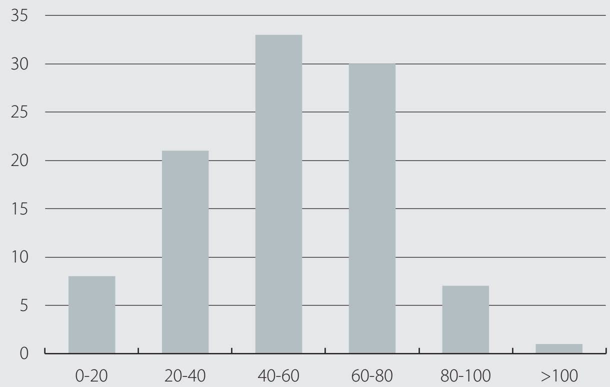
1. We estimate that in the first year of the pandemic, surplus savings were close to €8bn (almost 4% of 2019 GDP), falling to levels around €5.6bn in 2021 (2.6% of GDP).
2. For more information, see the Bank of Portugal's website: https://www.bportugal.pt/page/limites-ao-racio-ltv-ao-dsti-e-maturidade

Portugal: new mortgage loan transactions
Accumulated in the year (millions of Euros)



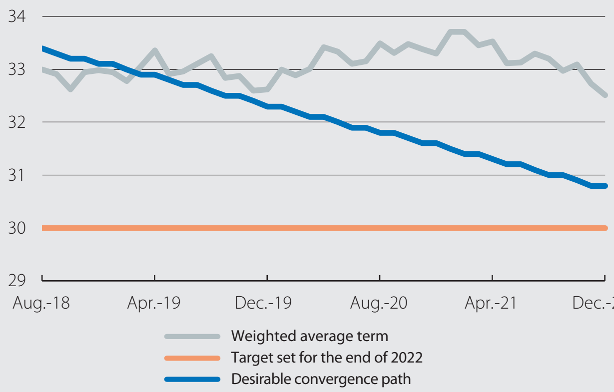
Source: *BPI Research, based on data from Banco de Portugal.*

Portugal: distribution of the stock of mortgage loans according to their LTV ratio
(% of the stock of loans)



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

Portugal: average term of new housing loans
(Years)



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

are the requirements for a loan-to-value (LTV) ratio (i.e. the percentage of the value of the house that is financed by loans) to be equal to or less than 90% in the case of owner-occupied and permanent housing, the establishment of a limit for the debt service-to-income ratio (DSTI)[3] at equal to or less than 50%, and limits on loan maturity, with the aim of convergence to an average maturity of 30 years by the end of 2022. More recently, and in view of evidence of a failure in this convergence of loan maturity, the central bank put forward a recommendation to link the maturity of loans to the age of the borrower, in force since the beginning of April.[4] Specifically, the maximum maturity for borrowers aged up to 30 is set at 40 years, reducing to 37 years for individuals aged between 30 and 35 years and falling to 35 years for individuals aged over 35 years.

Let's look at the current situation of these indicators. As regards the LTV ratio, in 2021, the vast majority of new loan contracts complied with the Bank of Portugal's recommendations, with around half featuring an LTV of less than 80%. As for the loan portfolio, 92% had a ratio of 80% or less, and 62% had an LTV of 60% or less. Likewise, around 94% of new mortgage loan contracts had a DSTI equal to or less than 50%.[5] Meanwhile, the average maturity of new housing credit contracts at the end of 2021 was 32.5 years, above what would be required for convergence to 30 years at the end of 2022.[5] This situation led to a new recommendation from the Portuguese central bank, as already mentioned. Indeed, the vast majority of new mortgage contracts have a maturity of between 30 and 40 years (representing 63% of new loans at the end of 2021), with almost half falling between 35 and 40 years. These figures compare with much lower average maturities in other European countries, such as Spain and France (23 and 21.1 years, respectively, in 2020).[5] In fact, such long repayment periods mean that loans mature after the retirement age of the borrowers in many cases (for 63% of the total mortgage portfolio, the age of borrowers at the end of the contract will be over 70. More specifically, for around 25% of the portfolio, the age of borrowers at the maturity of their loan contracts will be 75 or 76 if there are no early repayments).[5] Weighing up all these factors, it seems that the dynamics of new mortgage loan operations should slow, making it possible for deleveraging in a context of high levels of family indebtedness. Whether due to fears about the impact of the Russia-Ukraine conflict on their employment situation, or due to uncertainty about the indirect impact on prices, especially of food and energy, we are in an environment of greater uncertainty and lower household confidence.[6] In this sense, it is possible that savings accumulated during the pandemic will predominantly be used to meet rising consumer prices, and that longer-lasting investment decisions, such as buying a house, will be postponed. At the same time, the recommendation of the Bank of Portugal, implemented since the beginning of April, should contribute to greater prudence in access to mortgage credit, adding to the effects that the prospect of rising interest rates may have on future home purchase decisions.[7]

3. This represents the proportion of monthly income (after taxes and social security contributions) that is destined to the payment of all monthly instalments of all loans held by the borrower, including the impact of an increase in the interest rate and a reduction in income should their age be over 70 at the end of the contract.
4. See the Bank of Portugal press release: https://www.bportugal.pt/comunicado/comunicado-do-banco-de-portugal-sobre-implementacao-da-recomendacao-macroprudencial-em-2-0
5. For more information, see Bank of Portugal (2022). «Acompanhamento da recomendação macroprudencial sobre novos créditos a consumidores».
6. Consumer confidence fell significantly in March to levels close to those seen at the start of the pandemic, with impacts on the outlook for future prices.
7. For example, for a 35-year loan of 120,000 euros, an increase in interest rates of around 1pp would contribute to an increase of around 60 euros in each monthly instalment. This is especially important if we consider that around 20% of monthly family expenses are related to housing (which also includes expenses for water, light, gas and other fuels).

In Portugal, the war in Ukraine (also) means a return to the external deficit

The expectation that control over the pandemic and economic growth would allow the current account deficit to shrink in 2022 has been dashed by the outbreak of conflict in Ukraine. The impact this is having on the price of imported goods and on the growth of some of Portugal's most important trading partners is, on the contrary, accentuating the worsening deficit seen in recent years and has put off the long awaited correction until 2023.

Firstly, the increased prices of energy goods will worsen the energy balance deficit, which has already reached €5.776 billion in 2021 (the highest deficit since 2014), already reflecting the increase in the prices of energy products in that year and increased purchases of oil and gas, associated with the recovery of activity. In the absence of substitutes, the demand for energy goods is relatively rigid, and therefore no significant reduction in imported quantities is expected. In addition, the increase in the price of Brent by 10 dollars per barrel and in the price of gas by 20 euros per megawatt will lead net energy imports to cost an additional €4.7 billion (about 2% of GDP). Taking these two assumptions into account, it is estimated that the energy deficit will increase to around €12 billion in 2022, exceeding the €8 billion figure recorded in 2008.

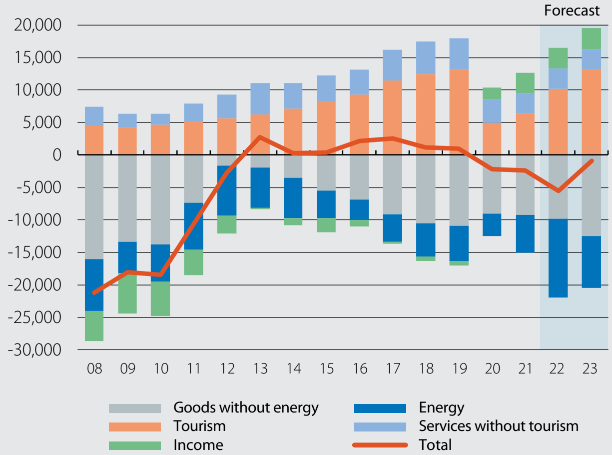
Secondly, although trade relations with Ukraine and Russia are relatively small — imports from these countries represent 0.4% and 1.3%, respectively, of total Portuguese imports — the truth is that these countries have an important weight in certain supplies: 13% of imports of coke and petroleum products come from Russia, while 35% of corn and 31% of sunflower oil come from Ukraine. The war will also affect trade flows with other economies through lower demand from important trading partners.

In third place, we have the tourism balance, whose performance in 2021 was promising and recovered to around €6.4 billion, or approximately 50% of the surplus balance recorded in 2019. This performance was accentuated in the first two months of 2022, when the respective surplus rose to €1.118 billion, only €100 million less than in the same period of 2019. Additionally, Russian tourism is relatively small in Portugal, accounting for around 1% in both visitor numbers and total non-resident visitor expenditure (2019 data). Although aware that there is much uncertainty regarding the impact of the conflict on European tourism – European countries account for the most tourists to Portugal – the indicators for March and April make us confident that Portugal benefits from its perception as a safe destination. With this in mind, while we are cautious, we foresee that the tourism surplus will be close to 80% of that recorded in 2019 and will reach about €10.2 billion euros.

In short, we expect the tourism balance to offset part of the worsening goods balance caused mainly by the deepening energy deficit. However, this compensation will be not be enough to avoid a worsening of the current account deficit, which may reach 2.2% of GDP in 2022 (1.1 percentage points more than in 2021) and thus postpone the return to a more balanced performance of Portuguese external accounts until 2023. In 2023, if oil and gas price developments do not deviate too much from what we expect and if tourism continues on its track to pre-covid levels, we estimate that the current account deficit could narrow to around 0.5% of GDP.

Portugal: current account balance

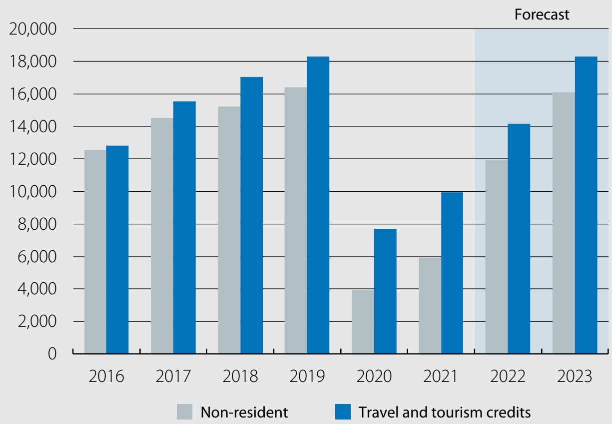
(Millions of euros)



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

Portugal: evolution of tourism

Thousands of people and millions of euros



Source: *BPI Research, com base on data from Banco de Portugal and INE (Portuguese National Institute of Statistics).*

State budget 2022 and post-war measures in Ukraine

The Portuguese Government presented its Draft State Budget for 2022 in April, after the new government took office following early legislative elections in January, in which the Socialist Party obtained an absolute majority in Parliament.

The macroeconomic assumptions underlying the State Budget include an assessment of the impact of the Russia-Ukraine conflict, albeit mostly indirectly, on economic activity in Portugal. The Government forecasts that GDP will grow by 4.9% in 2022 (lower than the October 2021 forecast), in anticipation that consumer prices will accelerate by 3.7% and that the labour market will continue its post-pandemic recovery. Though more optimistic than the scenario anticipated by BPI Research, the macroeconomic scenario is balanced in overall terms.

For its part, the Government maintains its commitment to budgetary consolidation. After the deficit stood at 2.8% of GDP in 2021, substantially lower than the official forecast (-4.3%), the government is forecasting a deficit of 1.9% in 2022. Revenue increases by 6.0% compared to 2021, bringing the ratio of total revenue to GDP to 44.7%, 2.1 p.p. above that recorded in 2019 (43.4%, excluding RRP funds). Tax and contributory revenues increase by around 6.0%, and the revenue expected from funds received under the RRP (around EUR 3 billion) is also noteworthy.

Expenditure, meanwhile, has grown by 4.1%, which represents an increase of 4.15 billion euros compared to 2021, of which around half is the result of measures taken in previous years. Current expenditure is expected to reach 41.7% of GDP, up 2.1 p.p. compared to the pre-pandemic level, explained, in large part, by two factors: personnel expenditure and social benefits, which are relatively rigid expenditures (i.e. structural expenditures which are more difficult to reduce in the future). Compared to 2021, these are also two of the items that have grown the most, at 3.6% and 3.8% respectively, reflecting measures such as the 0.9% increase of public servant salaries and a one-off increase to pensions. Meanwhile, the interest burden should continue to fall in 2022 (2.2% of GDP), though less significantly than in previous years, but in line with the gradual normalisation of the ECB's monetary policy and the financial context. On the other hand, and in line with RRP investments, public investment may increase by 37.6%, reaching 3.2% of GDP, which would be the highest level since 2011. However, it is important to bear in mind that the execution of public investment has been below budget in recent years.

The pandemic will continue to affect public accounts, especially on the expenditure side, with spending on vaccines, tests, prophylactic isolation and other items assumed to have a budgetary impact of around 0.4% of GDP in 2022 (about €1 billion), which is still substantially below spending in 2021 (1.9% of GDP).[1] Similarly, the Government has also moved forward with the implementation of measures to mitigate the adverse effects of the Russia-Ukraine conflict, namely the worsening of energy and food costs. The Government estimates that these measures will have an impact of 0.5% of GDP (around 1.1 billion euros), together with additional support in the form of new credit lines to companies (see next section).

In this context of an improving budget bottom line, the Government anticipates an expected reduction of the

Macroeconomic outlook: comparison between State Budget, BPI and Banco de Portugal

	2021	2022			
		State budget 2022 (rejected)	State budget 2022 (April 2022)	BPI	BdP
GDP	**4.9**	**5.5**	**4.9**	**4.2**	**4.9**
Private consumption	4.5	4.7	3.8	4.1	3.6
Public consumption	4.1	1.8	1.3	1.8	1.5
Investment	6.4	8.1	7.9	4.7	9.2
Exports	13.1	10.3	13.1	11.4	14.2
Imports	12.9	8.2	11.1	9.7	12.3
CPI*	1.3	0.9	3.7	5.4	4.0
Employment	2.1	0.8	1.3	1.0	1.4
Unemployment rate (%)	6.6	6.5	6.0	6.7	5.9
Current account	-1.1	-0.7	-1.7	-2.2	–

Note: ** HICP in the case of the BdP.*
Source: *BPI Research, based on the April 2022 State Budget Proposal and the one rejected in October 2021 and the March 2022 Economic Update.*

1. In the assessment of measures for COVID-19, we have removed expenses related to support for the transport sector, amounting to 900 and 600 million euros in 2021 and 2022, respectively, including, for example, support for TAP and SATA.

Main items in the public accounts

	% GDP 2019	% GDP 2021	% GDP 2022	Variation 2022 *vs.* 2019 (million euros)	Variation 2022 *vs.* 2021 (million euros)	2019-2022 Growth rate (%)
Current revenue	42.2	44.2	43.6	8,562	5,669	9.5
Tax revenue	24.7	25.0	24.8	3,310	3,476	6.2
Taxes on production and imports	15.0	15.3	15.2	2,369	2,202	7.4
Current taxes on income, wealth	9.7	9.7	9.6	941	1,274	4.5
Social contributions	11.8	12.8	12.5	3,040	1,251	12.0
Capital revenue	0.4	1.1	1.1	1,662	56	204.1
Total revenue	**42.6**	**45.3**	**44.7**	**10,224**	**5,725**	**11.2**
Current expenditure	39.6	44.4	41.7	9,851	1,046	11.6
Intermediate consumption	5.1	5.8	5.6	1,662	458	15.1
Personnel expenses	10.8	11.8	11.4	2,635	900	11.4
Social benefits	18.1	19.6	18.9	4,178	1,569	10.8
Subsidies	0.4	2.0	0.9	1,068	-2,233	116.2
Interest	3.0	2.4	2.2	–1,324	–169	–20.9
Capital expenditure	2.8	3.8	4.9	5,023	3,104	82.4
Gross fixed capital formation	1.8	2.5	3.2	3,393	2,001	86.5
Total expenditure	**42.5**	**48.1**	**46.6**	**14,874**	**4,151**	**16.3**
Overall balance	**0.1**	**-2.8**	**-1.9**	**-4,650**	**1,574**	**n. a.**
Primary balance	**3.1**	**–0.4**	**0.3**	**-5,974**	**1,405**	**n. a.**
Primary structural balance	**1.6**	**1.0**	**1.0**	**n. a.**	**n. a.**	**n. a.**

Source: *BPI Research, based on the Draft State Budget 2022.*

public debt ratio to 120.7% of GDP (127.4% in 2021), still 4.1 p.p. above 2019 level.

What is the Government's plan of action to alleviate the impact of the war in Ukraine?

The Executive has put forward a set of measures to mitigate worsening energy and food costs for families and companies, with an added support package for agriculture to mitigate the adverse effects of the drought on food prices, and which further aggravates the consequences of the war on consumer prices.

For the most vulnerable families, the Government is putting forward a measure to mitigate the increase in food prices with the granting of a 60 euro support to households receiving minimum social benefits. This is accompanied by another payment of 10 euros for the purchase of bottled gas.

At the same time, the Government has reinforced monthly support under the Autovoucher scheme, where individuals who have joined the programme receive a monthly reimbursement after refuelling, rising from 5 euros a month previously to 20 euros. This is the equivalent to a reimbursement of 40 cents per litre of fuel, up to a maximum of 50 litres per month. However, this programme ended in April and was replaced by another measure reducing the Petroleum Tax (ISP), equivalent to a reduction in VAT from 23% to 13%. Taking effect in May, this temporary measure has been enacted despite the European Commission not authorising the effective reduction of VAT on fuels.

In addition to this support is the suspension of the increase in the carbon tax until the end of the year, and the support for fuel supply for companies in the transport sector, including a subsidy of 30 cents/litre of fuel for passenger and goods transport vehicles, and up to 30 cents per litre for passenger transport vehicles associated to electronic platforms (TVDE).

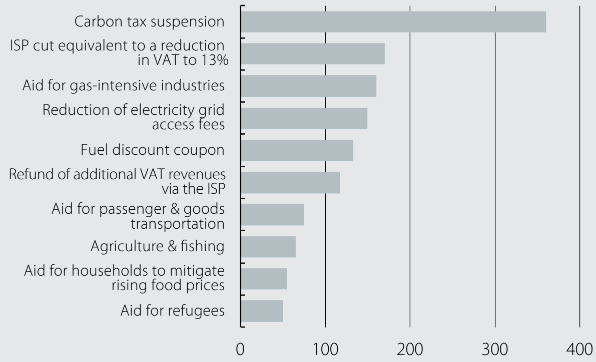
Added to these measures is the support programme for gas-intensive companies, by which the State subsidises increased energy costs by 30%.

For agriculture, and to also mitigate the adverse effects of the drought, the Government has advanced with the temporary exemption of VAT on fertilisers and animal feed to mitigate rising costs and support for the installation of photovoltaic panels.

The Government has also launched credit lines (of 459 million euros), including one for the pig and dairy sectors, to address the adverse effects of drought and the «Production Support» credit line. This credit line is provided by Banco de Fomento and is aimed at manufacturing, transport and storage companies for which energy costs account for 20% or more of production costs, which face an increase of 20% or more in the cost of goods sold and consumed, or which have experienced a drop in operating turnover of 15% or more as a result of a reduction in orders due to problems in obtaining raw materials, components or intermediate goods.[2] Added to these measures is a deferral of tax obligations and social security contributions for the most vulnerable sectors such as transport, allowing the payment of taxes in several instalments.

Reflecting a smaller imbalance than expected in 2021, we have revised our forecast downwards for the budget deficit in 2022 from 2.9% to 2.1%. This forecast incorporates the slightly more cautious BPI Research on the macroeconomic outlook, implying lower tax and contributory revenues and relatively higher costs. Risks tend towards a possible worsening of the deficit, given the marked uncertainty about the size, duration and extent of the conflict in Ukraine, influencing the performance of public accounts in 2022.

Portugal: support measures to mitigate the effects of the Russia-Ukraine conflict
Millions of euros



Source: *BPI Research, based on data from the State Budget Proposal 2022.*

2. For more information, see https://www.bpfomento.pt/pt/catalogo/linha-de-apoio-a-producao/

Activity and employment indicators

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	02/22	03/22	04/22
Coincident economic activity index	–5.4	2.6	2.3	4.8	5.3	5.6	5.6	5.5	...
Industry									
Industrial production index	–6.9	4.5	25.0	–4.7	–1.5	–2.3	–4.1	0.5	...
Confidence indicator in industry *(value)*	–15.8	–5.7	–5.0	–1.5	–2.7	–1.2	–0.5	–1.6	–1.6
Construction									
Building permits - new housing (number of homes)	0.7	12.6	–28.7	–0.9	–7.2	...	27.5	...	...
House sales	–11.2	20.5	58.2	22.1	17.2	...	–	–	–
House prices *(euro / m² - valuation)*	8.3	8.6	8.5	8.7	11.0	11.5	11.9	12.1	...
Services									
Foreign tourists *(cumulative over 12 months)*	–76.2	52.0	–74.2	–38.7	52.0	259.0	175.9	259.0	...
Confidence indicator in services *(value)*	–21.6	–2.9	–9.9	5.5	11.9	9.5	9.1	8.8	14.6
Consumption									
Retail sales	–3.0	4.9	16.5	3.1	7.3	12.7	17.2	10.0	...
Coincident indicator for private consumption	–6.2	4.3	4.4	7.0	6.6	5.1	5.2	4.5	...
Consumer confidence index *(value)*	–22.4	–17.2	–17.3	–13.6	–13.5	–19.3	–17.1	–22.1	–27.2
Labour market									
Employment	–1.9	2.8	4.5	4.7	3.1	...	4.6	3.7	...
Unemployment rate (% *labour force*)	7.0	6.6	6.7	6.1	6.3	...	5.6	5.7	...
GDP	**–8.4**	**4.9**	**16.5**	**4.4**	**5.9**	**11.9**	–	–	–

Prices

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	02/22	03/22	04/22
General	0.0	1.3	0.8	1.5	2.4	4.3	4.2	5.3	7.2
Core	0.0	0.8	0.2	0.9	1.5	3.1	3.2	3.8	5.0

Foreign sector

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	02/22	03/22	04/22
Trade of goods									
Exports *(year-on-year change, cumulative over 12 months)*	–10.3	18.2	9.5	13.4	18.2	...	23.0	...	...
Imports *(year-on-year change, cumulative over 12 months)*	–14.8	21.4	1.8	10.3	21.4	...	31.7	...	...
Current balance	**–2.1**	**–2.4**	**–1.6**	**–1.9**	**–2.4**	**...**	**–3.2**	**...**	**...**
Goods and services	–3.9	–5.6	–4.1	–4.4	–5.6	...	–6.5	...	...
Primary and secondary income	1.7	3.2	2.5	2.5	3.2	...	3.3	...	...
Net lending (+) / borrowing (–) capacity	**0.0**	**1.4**	**0.6**	**1.5**	**1.4**	**...**	**0.2**	**...**	**...**

Credit and deposits in non-financial sectors

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	02/22	03/22	04/22
Deposits [1]									
Household and company deposits	10.0	9.3	8.6	8.7	9.3	8.9	8.3	8.9	...
Sight and savings	18.8	16.3	15.3	15.5	16.3	15.3	14.2	15.3	...
Term and notice	1.2	1.2	1.0	1.0	1.2	1.1	1.4	1.1	...
General government deposits	–21.0	–4.1	–15.0	–5.2	–4.1	9.8	–2.1	9.8	...
TOTAL	**8.9**	**9.0**	**7.7**	**8.2**	**9.0**	**8.9**	**8.0**	**8.9**	**...**
Outstanding balance of credit [1]									
Private sector	4.6	2.9	4.4	4.2	2.9	2.8	2.7	2.8	...
Non-financial firms	10.5	2.2	7.2	5.8	2.2	1.2	1.6	1.2	...
Households - housing	2.1	3.3	2.6	3.3	3.3	3.0	2.9	3.0	...
Households - other purposes	–1.1	3.1	3.0	3.2	3.1	6.4	4.7	6.4	...
General government	–4.2	3.8	4.5	4.1	3.8	5.4	6.0	5.4	...
TOTAL	**4.2**	**2.9**	**4.4**	**4.2**	**2.9**	**2.9**	**2.8**	**2.9**	**...**
NPL ratio *(%)* [2]	**4.9**	**3.6**	**4.3**	**4.0**	**3.6**	**...**	–	–	–

Notes: *1. Residents in Portugal. The credit variables exclude securitisations. 2. Period-end figure.*
Source: *BPI Research, based on data from the National Statistics Institute of Portugal, Bank of Portugal and Refinitiv.*

The Spanish economy shows resilience in an adverse context

GDP growth moderated to 0.3% quarter-on-quarter in Q1 2022. In Q1 2022, conditioned first by the sixth wave of COVID-19 and later by the outbreak of the war in Ukraine and the increase in disruptions in industry due to the lorry strike, GDP growth weakened compared to the preceding quarter, with quarterly growth standing at 0.3% compared to the previous 2.2%, marking the most moderate growth rate in the last 12 months. In year-on-year terms, GDP was 6.4% above the level of Q1 2021 and 3.4% below the pre-pandemic level (Q4 2019). This slowdown was due to weak private consumption, which fell by 3.7% quarter-on-quarter, pushing it 9.8% below the pre-pandemic level. The rise in uncertainty and inflation, with a surge in the price of essential goods, led to a marked contraction in spending on durable consumer goods (–11.3% quarter-on-quarter). Conversely, investment in equipment and exports increased their contribution to GDP growth. Specifically, investment in equipment rose by 7.6% on a quarterly basis and exports by 3.4%, driven by tourism (+21.9 quarterly), which now stands at 95.3% of the level of Q1 2019.

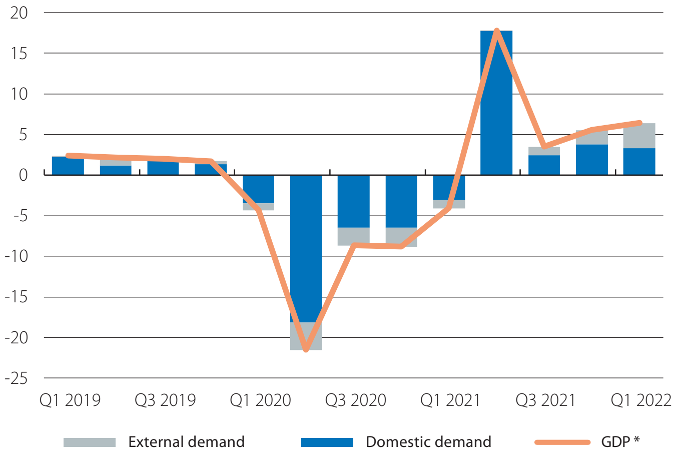
Ups and downs in the latest indicators. On the downside, the crisis is taking a heavy toll on inflation and on the energy component of the trade balance, where the deficit in annual terms has reached its highest since 2015. The economic sentiment indicators, meanwhile, show mixed signals, with a slight recovery in April among consumers and the services sector, while it continues to recede in the case of industry. On the other hand, there were positive surprises in the form of the significant recovery in tourism and the resilience of the labour market, which, albeit at a more moderate pace, continue to create jobs.

Headline inflation may have peaked in March, but core inflation is still on the rise. According to the National Statistics Institute's flash estimate, there was a marked moderation in inflation in April, as it stood at 8.4% year-on-year (9.8% in March, the highest rate since 1985). While we await the breakdown by component, this reduction is most likely explained by the declines in electricity and fuel prices. The high energy prices continue to leak into the other components of the consumer price index. In particular, in April processed food prices pushed up core inflation (i.e. excluding the most volatile components), which climbed 1 point to 4.4%, the highest rate since December 1995. The agreement between Spain and Portugal and the European Commission to limit the price of gas used for electricity production to an average of €50/MWh over the next 12 months (a measure that has not yet entered into force) will help to contain inflationary pressures.

Economic sentiment indicators, following the sharp deterioration in March, show a slight improvement. The consumer confidence indicator published by the European

Spain: GDP

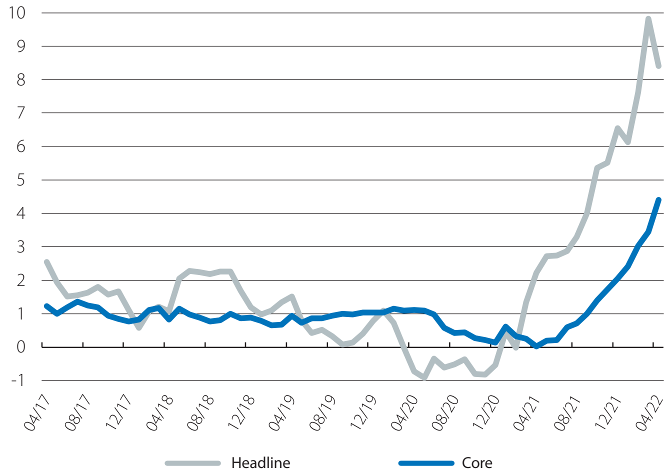
Contribution to year-on-year growth (pps)



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

Spain: CPI

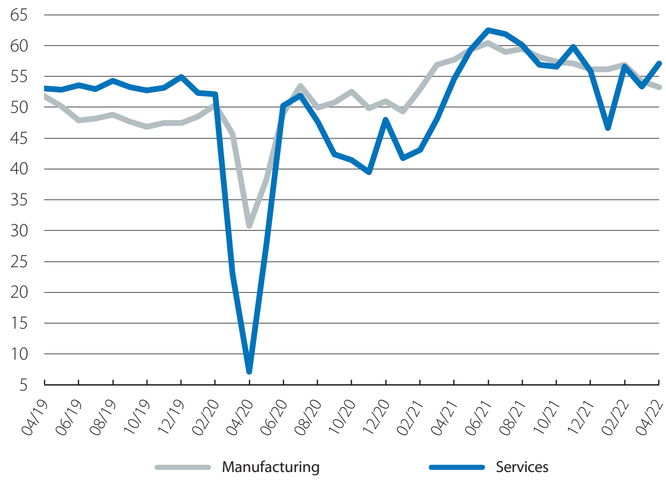
Year-on-year change (%)



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

Spain: PMI

Level



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

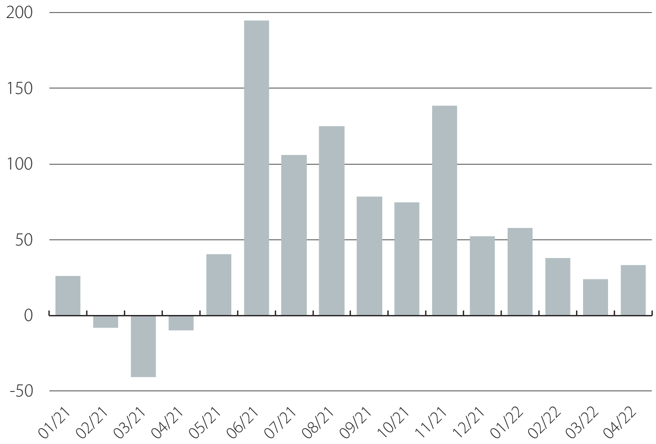
Commission improved slightly in April, +1.2 points to –27.1 points, while the services sector's PMI climbed 3.7 points to 57.1 points, its highest level since November 2021, thanks to the surge in activity following the lifting of COVID-related restrictions. However, the industrial sector is the one suffering the most at the hand of the rising costs and supply constraints. Hence, the manufacturing PMI posted a 0.9-point decline in April, brining it to 53.3 points. This marks a 14-month low, albeit still in expansionary territory (above 50).

The labour market exhibits a positive tone and recruitment on permanent contracts continues to grow. Both the results of the Q1 2022 LFS and the rise in Social Security affiliation confirm the resilience of the labour market. The number of people in employment according to the LFS grew at a quarterly, seasonally adjusted rate of 1.08% and the unemployment rate stood at 13.65%, 2.3 pps less than a year earlier. Social Security affiliation, meanwhile, gathered pace in April, driven by the spike in the tourism sector over Easter, growing by 184,577 people compared to 134,396 in April 2021. In seasonally adjusted terms, job creation is once again on the rise following the moderation in the previous two months. For the first time, the total number of Social Security affiliates exceeds 20 million, standing at 20,019,080, which is 963,782 more than a year ago. One particularly encouraging aspect is the significant increase in permanent contracts, representing 48.5% of all the contracts registered in the month, compared with the typical level in the month of April of around 10%. This growth was driven by the conversion of temporary jobs into permanent ones following the three-month adaptation period for the labour reform's entry into force.

The sharp deterioration in the energy trade balance counteracts the improvement in tourism revenues. In the first two months of the year, the current account balance shows a deficit of 2,354 million euros, 35.9% more than in the same period of 2021. This deterioration is mainly explained by the widening of the energy deficit (–6,985 million compared to –3,110 million in 2021), in a context of a recovery in import volumes and a sharp rise in energy prices, which are 48.8% higher than in the first two months of last year.

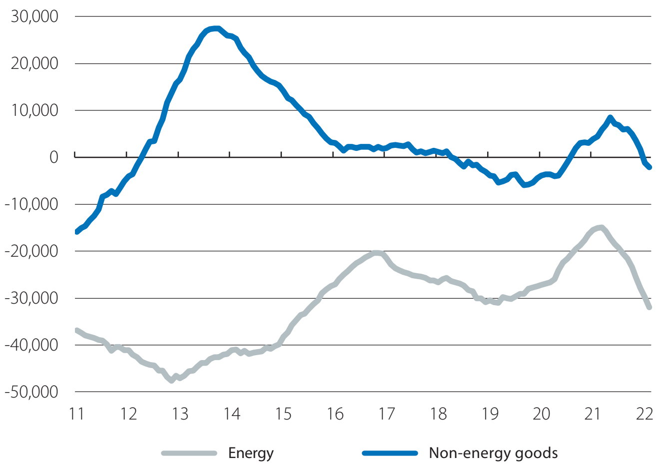
In contrast, the tourism sector shows a significant recovery, narrowing the gap separating it from the figures of 2019. In particular, the surplus accumulated in the first two months of the year amounts to 4,639 million euros, compared to 281 million in 2021. The first indicators that have been revealed bode very well for the summer season. For now, overnight stays by foreigners in hotel accommodation establishments reached 81% of the pre-pandemic level in March (74.5% in February) and spending registered on foreign cards over Easter was 4% higher than in the same period in 2019. Also, tourist mobility is recovering and interest in travelling to Spain is rapidly picking up, as reflected by the number of flights operated at Spanish airports and Google searches on trips to Spain, which are already at levels similar to those of 2019.

*Spain: registered workers affiliated with Social Security **
Month-on-Month change (thousands)



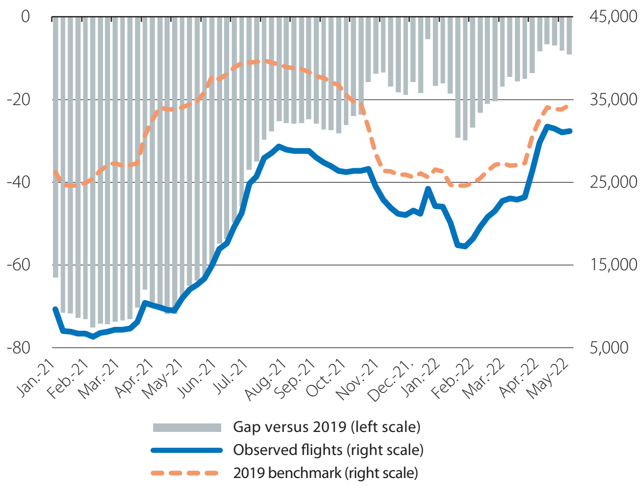
Note: ** Seasonally adjusted series.*
Source: *BPI Research, based on data from the Ministry of Labour and Social Economy.*

Spain: trade balance
12-month cumulative data (EUR millions)



Source: *BPI Research, based on data from the Customs department.*

Spain: flights operated at Spanish airports
Change versus 2019 (%) *Number of weekly flights*



Source: *BPI Research, based on data from Eurocontrol.*

How might rising interest rates affect households' mortgage payments?

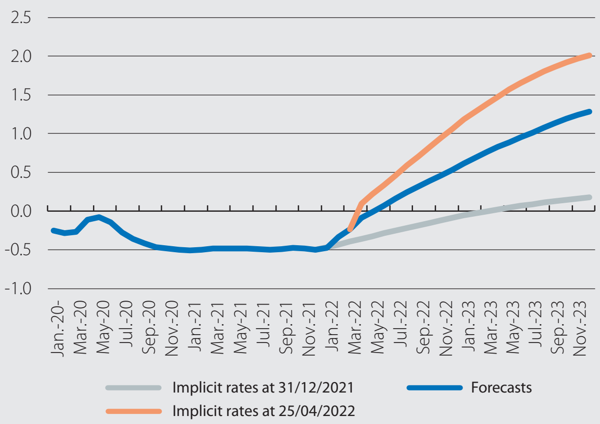
The rise in inflationary tensions in the euro area has triggered a major shift in the ECB's monetary policy. Expectations of official interest rate hikes are already being reflected in rates in the interbank market. Indeed, in mid-April, the 12-month Euribor entered positive territory after six years below zero, marking a significant increase compared to the low levels of last year (around –0.50% on average in 2021). The financial markets are expecting this upward trend to continue in the coming months, although the increases will be gradual and it should be borne in mind that the starting point was very low (see first chart).

Rising interest rates could take some of the steam out of the demand for housing by increasing the cost of mortgages associated with buying a home. To assess the extent to which housing demand could be affected, we calculated the expected trend in the theoretical mortgage burden ratio,[1] according to our current forecast scenario here at CaixaBank Research, which we recently revised following the invasion of Ukraine.[2] The main ingredients of this ratio are the forecasts for home prices, for the gross disposable income of the median household and those of mortgage interest rates.

According to our forecasts, the rise in home prices (which we expect to reach 3.5% in 2022, partly due to rising construction costs, before returning to a more moderate growth path from 2023 onwards) will be almost entirely offset by the increase in the gross disposable income of households as a whole, given the continued strength of job creation despite the recent downward revision due to the impact of the war in Ukraine (around 300,000 jobs per year on average in 2022-2023). On the other hand, the rise in mortgage interest rates will increase the burden ratio by around 3.2 pps in 2 years (from 33.4% of household income in Q4 2021 (latest available figure) to 36.6% in Q4 2023). This is a considerable increase, although the ratio is still a far cry from the levels reached during the housing crisis. However, the financial markets are currently anticipating somewhat more aggressive action by the ECB. In particular, as of 25 April 2022, the implicit market interest rates were anticipating that the 12-month Euribor interest rate would stand at 1.06% at the end of this year and at 2.0% at the end of 2023. Thus,

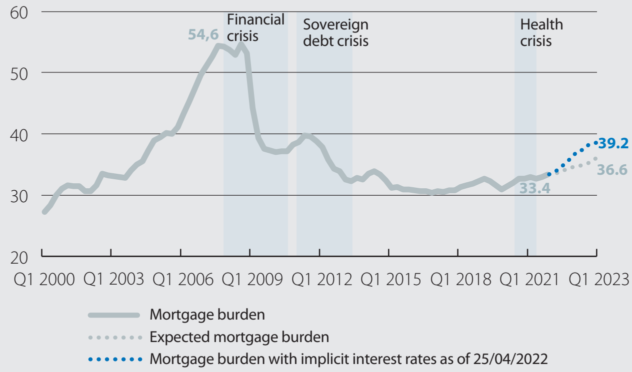
1. The theoretical mortgage burden is a statistic published each quarter by the Bank of Spain which measures the percentage of income that the median household has to allocate to servicing mortgage payments in the first year after the acquisition of a standard home financed by a standard loan for 80% of the property value.
2. See the Focus «The war between Russia and Ukraine will slow the recovery of the Spanish economy» published in the MR04/2022.
3. For an analysis of the mortgage burden ratio according to the characteristics of households (income quintile, age group and mortgage contract year), see the article «The financial situation of households during the COVID-19 crisis: this time it is different», published in the Real Estate Sector Report for the first half of 2022 (content available in Spanish).

Spain: 12-month Euribor
(%)



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

Spain: theoretical mortgage burden
(% of the median household's gross disposable income)



Note: *Amount of the median household's mortgage payments in the first year after the purchase of a standard home financed by a standard loan of 80% of the property value, expressed as a percentage of the household's annual disposable income.*
Source: *BPI Research, based on data from the Bank of Spain.*

if we use the implicit market interest rates as of mid-April, the mortgage burden ratio shows a much steeper increase, climbing to 39.2% at the end of 2023 (see second chart).

In short, the expectation of interest rate hikes following the ECB's shift towards a strategy of monetary policy normalisation may somewhat cool the demand for housing, by increasing the mortgage burden of the median household in the first year after buying a home. In addition, rising interest rates will also tend to increase the mortgage burden of households that have already purchased their home on mortgage credit. Nevertheless, given the increased popularity of fixed-rate mortgages (which represented more than 60% of all those contracted in 2021, compared to less than 3% between 2003 and 2007), the rise in rates will have a limited impact on households who have taken out a mortgage in recent years.[3]

The significant savings of Spanish households will help mitigate the impact of the rise in inflation

The saving capacity of households is being reduced due to the rise in inflation. Nevertheless, the level of savings in 2021 was still high. Specifically, the savings rate in 2021 was 11.4% of gross disposable income (GDI), lower than in the year of the pandemic (14.9%) but still well above 2019 (8.3%). We are talking about 86.5 billion euros in gross savings: 24 billion euros less than in 2020, but 22 billion more than in 2019.

The fall in the saving rate last year is explained by the fact that nominal consumption increased by far more than GDI (6.7% vs. 2.2%, respectively). Looking ahead to this year, we expect that household consumption will continue to register significant growth in nominal terms, spurred by inflation, while GDI is also expected to enjoy steady growth but most likely at a slower pace. This could place the savings rate at around 7.0%, similar to the level registered in pre-pandemic years.

It should be noted that households' financing capacity fell significantly in 2021, from 68,700 million euros in 2020 to just 19,220 million in 2021. The reason for this reduction, besides the lower level of savings, was the sharp increase in investments made by households in 2021, particularly in housing: investment totalled 70 billion euros, practically 30 billion more than in 2020 and than the average for 2018-2019. There is no doubt that households used some of their savings in 2021 to invest in housing, in a context marked by low returns on deposits and favourable financial conditions. Indeed, it should be recalled that some 565,000 home sales were registered in 2021, the highest figure in the last 14 years.

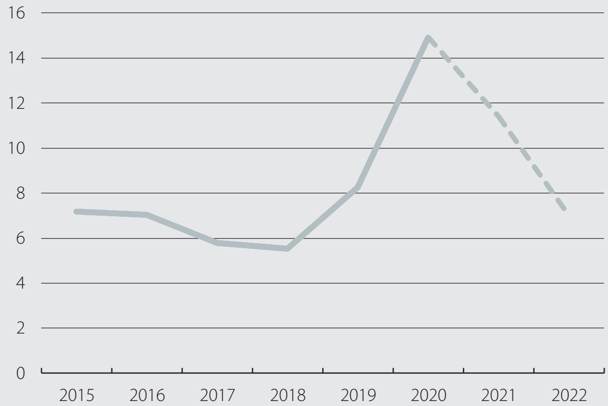
Strong household finances

One positive element worth emphasising is the fact that households' wealth continued to increase in 2021: at the end of 2021 their financial assets amounted to 2,695 billion euros, compared to 2,519 billion at the end of 2020. This increase of 176 billion can be broken down into a net acquisition of financial assets of 80 billion euros and a revaluation effect of 93.288 billion (the latter stands in contrast to the 20-billion-euro decline in asset values suffered in 2020).

What financial assets did households acquire in 2021? Looking at the different classes of financial assets, the volume allocated to deposits remained significant, albeit lower than in 2020, and there was a 25-billion-euro increase in investment funds (see third chart).

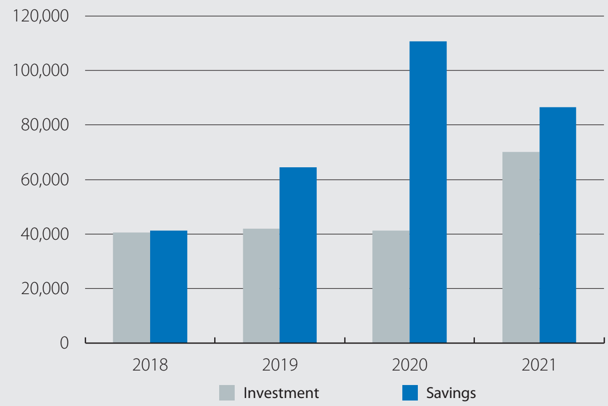
On the other hand, household debt barely changed, increasing by just 3.7 billion euros, bringing it to

Spain: household savings rate
(% of gross disposable income)



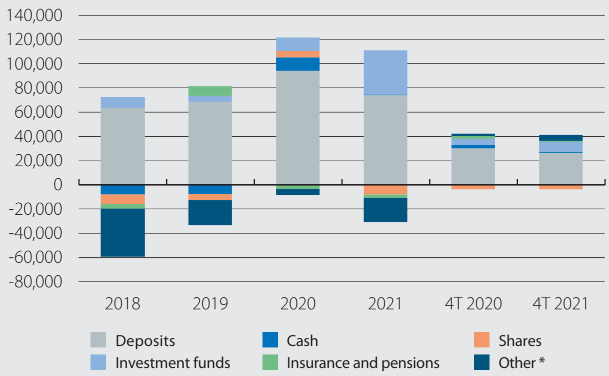
Source: *BPI Research, based on data from the National Statistics Institute and internal forecasts.*

Spain: household savings and investment
(EUR millions)



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

Spain: distribution of households' net acquisition of financial assets
EUR millions (flows)

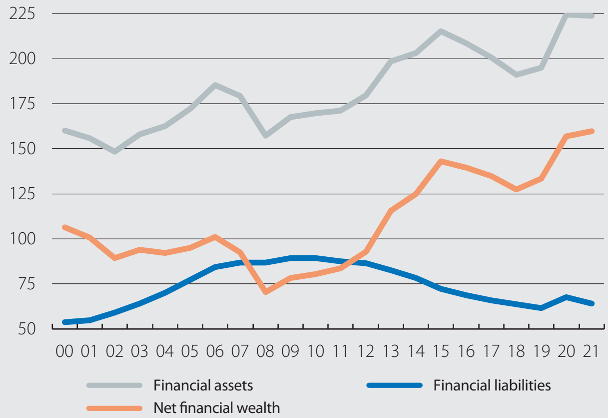


Note: ** Includes non-transferable deposits, other shareholdings and commercial loans.*
Source: *BPI Research, based on data from the Bank of Spain.*

704.1 billion (58.4% of GDP, 1.7 pps below the euro area). This increase was driven by a rise in new loans of 6,690 million euros, partially offset by repayments amounting to 3,100 million.

Thus, households' net aggregate financial wealth (the difference between their assets and liabilities) rose in 2021 to 1.92 trillion, up 9.4% from the previous year, placing it at 159.7% of GDP, 2.9 points above the level of 2020. This healthy financial situation among households will prove helpful in overcoming the impact of the inflationary tensions.

Spain: households' financial balance sheet
(Percentage of GDP)



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

Fill the tank? What Spanish households' spending at petrol stations tells us

The reader of this report will no doubt have noticed that it has cost more to fill the tank of their vehicle in recent weeks than before. The conflict in Ukraine has had a major impact on the global oil market, with Russia being one of the biggest producers,[1] triggering a sharp rise in fuel prices. This is also occurring following a period in which the demand for oil had plummeted during the pandemic, dragging prices down with it. But are all consumers reacting in equal measure?

To analyse this question, we have produced an indicator of monthly expenditure at petrol stations on the basis of the consumption registered by CaixaBank customers at these establishments.[2] The results show us that not everyone has adjusted their consumption in recent months in the same manner (see first chart).

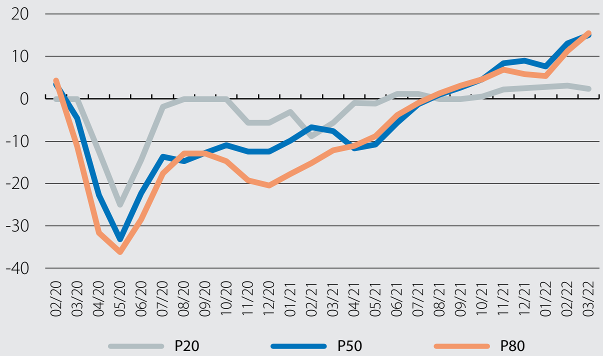
During the pandemic, there was a reduction in all levels of spending on fuel, including among both lower spenders (the 20th percentile) and higher spenders (50th percentile and above). As one would expect, the pattern of spending on fuel was closely correlated to the mobility restrictions imposed at the height of the pandemic (see second chart). Nevertheless, not everyone reacted in equal measure: in the month with the strictest mobility restrictions (April 2020), the amount spent on fuel fell by 13% in the 20th percentile, by 23% in the 50th percentile and by 32% in the 80th percentile.

In 2022, following the rise in fuel prices, not all consumers have reacted equally either. For the half of consumers spending the most, the amount spent on fuel was 15% higher in March 2022 than in the same month of 2019 (consumption in the 50th and 80th percentiles rose by almost the same proportion). However, in the case of customers spending less at the pump, there was little difference between the amount they spent in March 2022 and in March 2019. In the 20th percentile, for instance, the amount spent was just 2.3% higher, a much smaller increase than that observed among other customers as well as compared to the rise in the price of petrol.[3]

These results are indicative of how some consumers adjust their fuel consumption more than others following a rise in prices, either because they have less purchasing power or because they can substitute their consumption with something else. Over the coming months we will analyse how the temporary cut in fuel prices of 20 cents per litre,[4] which was approved by the government in late March, has altered the spending habits of different consumers.

Spain: monthly consumption at petrol stations

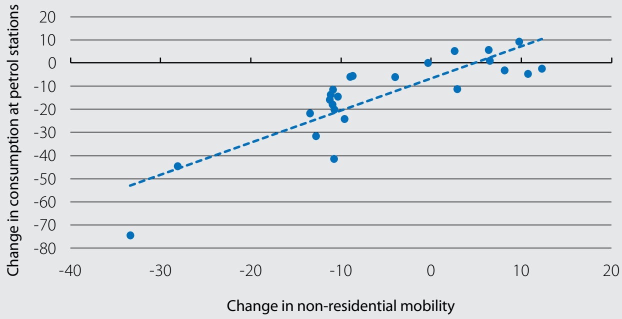
Monthly change versus *the same month in 2019 (%)*



Notes: *Aggregate amount spent at petrol stations by individual customers each month. 2-month moving average.*
Source: *BPI Research, based on internal data.*

Spain: correlation between mobility and consumption at petrol stations

(%)



Notes: *Monthly data between March 2020 and February 2022. In both cases, the figures correspond to the change relative to a baseline level. In the case of mobility, the baseline level corresponds to the average mobility registered on the same day of the week between 3 January and 6 February 2020. In the case of consumption at petrol stations, the baseline level corresponds to that of January 2020.*
Source: *BPI Research, based on internal CaixaBank data (consumption at petrol stations) and data from the Google Mobility Report (non-residential mobility).*

1. For further details, see the Focus «Russia puts the global outlook for oil in check» in the MR04/2022.
2. To calculate the monthly consumption at petrol stations, we add up all the purchases carried out by card by each customer at these establishments throughout the month, regardless of the number of times they have filled up.
3. In contrast, the liquid fuel component of the CPI for March 2022 was 63% higher than in March 2019.
4. For more details on this measure, see the Focus «Key points of the Action Plan: what measures will be taken in Spain to alleviate the impact of the war in Ukraine?» in the MR04/2022.

Activity and employment indicators

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	02/22	03/22	04/22
Industry									
Industrial production index	–9.4	8.7	28.5	2.0	1.6	–	3.0	...	...
Indicator of confidence in industry *(value)*	–13.6	0.6	–0.2	2.3	4.9	6.9	9.6	4.5	–1.1
Manufacturing PMI *(value)*	47.5	57.0	59.2	58.9	56.9	55.8	56.9	54.2	53.3
Construction									
Building permits *(cumulative over 12 months)*	–12.8	4.7	–1.8	15.0	24.6	–	32.7	...	...
House sales *(cumulative over 12 months)*	–12.5	9.6	0.7	22.3	32.4	–	43.1	...	...
House prices	2.1	3.7	3.3	4.2	6.4	...	–	–	–
Services									
Foreign tourists *(cumulative over 12 months)*	–77.3	64.7	–75.8	–34.5	64.7	...	225.4	...	...
Services PMI *(value)*	40.3	55.0	58.8	59.6	57.4	52.2	56.6	53.4	...
Consumption									
Retail sales	–7.1	5.1	20.4	–0.4	0.6	0.3	0.9	–4.2	...
Car registrations	–29.3	158.0	661.0	–24.5	–17.1	–7.5	6.6	–30.2	...
Consumer confidence index *(value)*	–22.8	–13.3	–11.1	–9.1	–10.8	–16.2	–9.4	–27.3	...
Labour market									
Employment [1]	–2.9	3.0	5.7	4.5	4.3	4.6	–	–	–
Unemployment rate (% labour force)	15.5	14.8	15.3	14.6	13.3	13.6	–	–	–
Registered as employed with Social Security [2]	–2.0	2.5	3.9	3.8	3.9	4.5	4.5	4.8	...
GDP	**–10.8**	**5.1**	**17.8**	**3.5**	**5.5**	**6.4**	–	–	–

Prices

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	02/22	03/22	04/22
General	–0.3	3.1	2.6	3.4	5.8	7.9	7.6	9.8	8.4
Core	0.7	0.8	0.1	0.8	1.7	3.0	3.0	3.4	4.4

Foreign sector

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	02/22	03/22	04/22
Trade of goods									
Exports *(year-on-year change, cumulative over 12 months)*	–10.0	21.2	8.7	15.2	21.2	–	27.5	...	...
Imports *(year-on-year change, cumulative over 12 months)*	–14.7	24.8	3.3	13.5	24.8	–	35.2	...	...
Current balance	**9.3**	**11.3**	**9.2**	**11.6**	**11.3**	–	**10.7**	...	...
Goods and services	16.5	18.2	17.1	19.2	18.2	–	16.8	...	...
Primary and secondary income	–7.3	–6.9	–7.9	–7.7	–6.9	–	–6.1	...	...
Net lending (+) / borrowing (–) capacity	**13.7**	**22.3**	**15.2**	**19.7**	**22.3**	–	**22.4**	...	...

Credit and deposits in non-financial sectors [3]

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

	2020	2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	02/22	03/22	04/22
Deposits									
Household and company deposits	7.5	6.1	4.9	4.8	5.8	–	5.0	5.5	...
Sight and savings	12.3	10.3	9.2	8.9	9.2	–	9.2	9.6	...
Term and notice	–16.5	–24.4	–23.5	–26.0	–27.6	–	–26.7	–26.3	...
General government deposits	1.0	15.5	16.3	15.1	19.4	–	19.1	18.5	...
TOTAL	**7.1**	**6.7**	**5.5**	**5.5**	**6.6**	–	**5.8**	**6.2**	...
Outstanding balance of credit									
Private sector	1.2	0.3	–0.4	–0.7	–0.1	–	0.3	–0.1	...
Non-financial firms	4.9	1.1	–0.7	–1.9	–0.9	–	–0.2	–1.3	...
Households - housing	–1.8	0.2	0.0	0.6	1.0	–	1.2	1.3	...
Households - other purposes	0.8	–1.2	–0.7	–1.2	–1.2	–	–1.1	–1.2	...
General government	3.0	15.3	17.4	22.7	11.6	–	4.5	2.4	...
TOTAL	**1.3**	**1.1**	**0.6**	**0.7**	**0.6**	–	**0.5**	**0.0**	...
NPL ratio (%) [4]	**4.5**	**4.3**	**4.5**	**4.4**	**4.3**	...	**4.3**	...	...

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: *BPI 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.*

Inflation on the rise: will wages follow?

In recent months we have seen inflation rise to historic levels on both sides of the Atlantic. In addition, in the US the rising prices have been accompanied by substantial wage increases, a worrying trend given the danger of a feedback loop. In addition to this is the inflationary pressure exerted by the war between Russia and Ukraine, on the one hand through the rise in energy prices and, on the other, due to the effect that uncertainty could have on the economic recovery, especially in Europe. This set of elements undoubtedly complicates what is already a complex process of monetary normalisation for the Fed and the ECB, following the ultra-accommodative measures they introduced back in March 2020. Of all these elements, in this article we will look at the dangers of a possible wage-price spiral in the current context.

Rising inflation: the pandemic and energy

Inflation rates in the US and the euro area have reached levels not seen in recent decades (8.5% and 7.5%, respectively, in March 2022). This situation is largely due to a series of imbalances generated by the pandemic. In particular, the reopening of the economy in 2021, coupled with relatively strong demand thanks to the support provided by economic policies, has come up against a supply that has been weakened by the disruptions associated with COVID. Although this imbalance between supply and demand ought to fade thanks to the improvement in the health context, the fact is that it has persisted for longer than expected. Moreover, new lockdowns in China in the face of recent outbreaks may increase tensions in global supply chains, thus affecting supply.

This situation of high inflation has also been fuelled by sharp rises in energy prices in global markets since 2021, which in turn have been driven by factors such as low gas reserves in Europe, at a time when Russia was reducing its supply in the gas spot market, and an increase in China's energy imports due to problems at its coal mines – factors which have only been exacerbated this year with the war in Ukraine. The futures markets anticipate that the pressure on energy prices is here to stay.

Wages and inflation: a two-way relationship

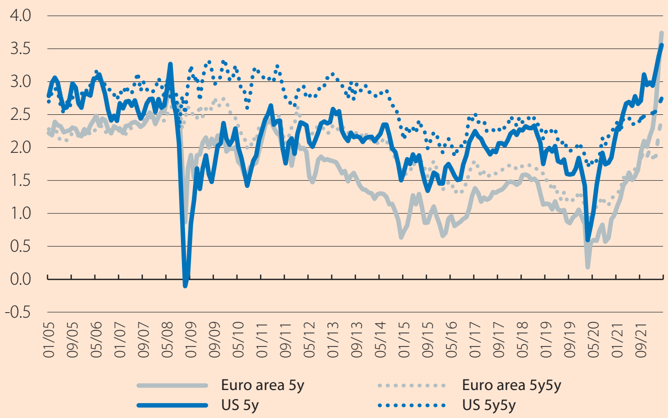
With these recent high inflation rates and the prospect of a certain degree of continuity during the remainder of 2022, one of the current concerns lies in the much-feared «second-round effects». That is, workers demand higher wages in order to maintain their purchasing power (in the face of past and/or future price increases). In the current context of supply shortages and rising logistics and energy costs, such wage increases add pressure to already dwindling business margins. Thus, firms could end up raising prices, which in turn would lead to renewed wage demands, triggering a «wage-price spiral» like that of the 1970s in the US.

In this two-way relationship between wages and prices, one of the key elements is that of inflation expectations, since the expected evolution of prices in the future is what drives wage demands. That is why the central banks pay such close attention to these expectations and strive to keep them anchored (or stable), close to their inflation target.

What has happened to inflation expectations in recent months? Very long-term inflation expectations based on financial instruments have risen, both in the euro area and in the US, but still within a reasonable range. In the US, longer-term expectations (five-year five-year) have risen from around 2% in December 2019 (before the pandemic) to around 2.7% at the end of April 2022. In the euro area, the rise has been larger still, from 1.3% to 2.4% over the same period. However, although they have increased, we could say they have remained relatively well-anchored, (see left-hand panel of the first chart).

US and euro area: long-term inflation expectations

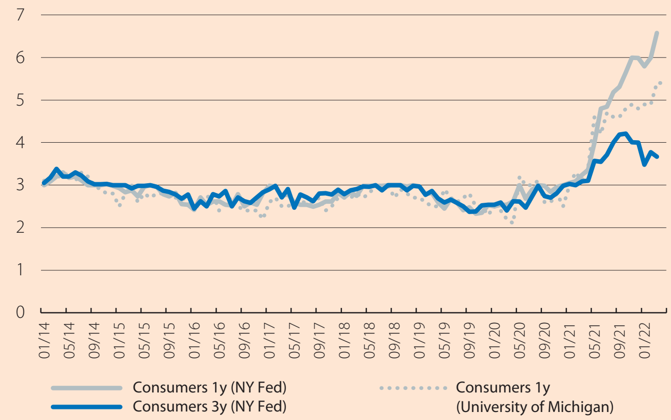
(%)



Note: *Expectations based on 5-year (5y) financial instruments and 5-year 5-year (5y5y) financial instruments.*
Source: *BPI Research, based on data from Bloomberg.*

US: consumer inflation expectations (1-year and 3-year)

(%)



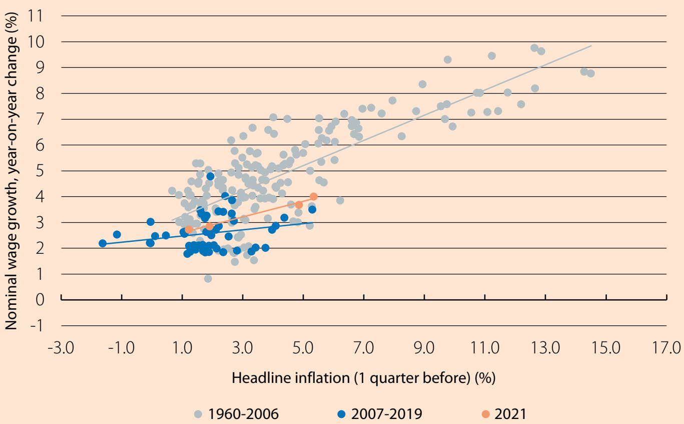
Notes: *Expectations based on consumer surveys: what they expect 1 year (1y) in the future and 3 years (3y) in the future.*
Source: *BPI Research, based on data from the Fed and the University of Michigan, via Refinitiv.*

Nevertheless, expectations according to consumer surveys (particularly relevant when assessing the risk of wage-price spirals) have increased more substantially, although the rise is more pronounced in the case of short-term expectations (1 year in the future) than in medium-term expectations (3 years in the future), providing some peace of mind (at least for now). In particular, in the case of the US, where consumer surveys ask respondents about their expectations for both of these time horizons, at the end of 2019 the responses for both 1-year and 3-year expectations were around 2.5%. Today, in contrast, 1-year expectations are just over 6.5%, compared to just over 3.5% in the case of 3-year expectations (see right-hand panel of the first chart). In the euro area, the European Commission's consumer surveys only ask about 1-year expectations, and in this case the average value has risen from 4.5% in Q4 2019 to around 9% in Q1 2022. This increase in short-term expectations is due to the fact that they are more closely linked to current events (such as the bottlenecks or the Ukraine crisis). In contrast, medium-term expectations are often more closely linked to central banks' credibility and their ability to meet their objectives.

Wages and inflation: other contributing factors

The recent path of inflation and future price expectations are not the only elements we must look at when analysing the current risks of second-round effects. There are other factors that also play an important role. Firstly, in recent decades the relationship between nominal wages and prices (or price expectations) has weakened due to phenomena such as globalisation, technology and the reduction in the proportion of workers employed in highly unionised sectors, all of which have reduced workers' bargaining power (see second chart). Also, the slowdown in labour productivity in advanced countries has contributed to the weakening of the price-wage relationship. Current developments in some of these factors, such as a slowdown in the process of globalisation (or even some reversal) or an increase in the relative weight of unions in a country like the US, could restrengthen the wage-price relationship. Others, such as the new technological advances as part of the Industrial Revolution 4.0, will continue to weaken the relationship.

US: nominal wage growth versus inflation



Notes: *Quarterly data. Historical data on nominal wages based on employee compensation and total employees. From 2007 to 2019, wage data from the BLS. The data for 2021 correspond to the employment cost index, with a constant composition of employment. Inflation corresponds to the CPI. The lines correspond to the linear relationship between the two variables in the different time periods.*
Source: *BPI Research, based on data from the BLS and the BEA, via Refinitiv.*

On the other hand, it is important to differentiate between what is going on in Europe versus the US. Specifically, the biggest nominal wage increases seen so far in advanced countries have been fairly limited to the US. In the euro area, hourly wage costs in Q4 2021 rose by 1.9% year-on-year (in the EU as a whole they rose by just over 2%, while in Spain they increased by 1.2%), and the latest collective wage negotiations do not show substantial increases (2.4%, for example, in the case of Spain in March, a figure which incorporates both new negotiations and agreements already negotiated previously). In the US, meanwhile, in March 2022 wages rose by 5.6% year-on-year, according to the establishment survey conducted by the US Bureau of Labor Statistics (BLS). These differences reflect the fact that the US labour market is currently tightened due to the rigidity of the supply of labour in recent months – a phenomenon that is rare in a market as efficient as the US and which has not materialised in most European countries.[1]

Even in the case of the US, however, the figures should be taken with caution. Some wage surveys are severely affected when there are significant inflows (and outflows) of workers, as has been the case during the pandemic. To avoid this variability, for a number of years now the BLS itself has been developing an employment cost index which keeps the composition of the labour force constant, thus providing a more reliable picture of changes in wages. According to this index, although the growth rate of this wage measure has increased, it is at somewhat more contained levels than those of other wage indicators, at around 4% as of the end of 2021.

Despite the latest increases, in real terms the remuneration of American workers is below pre-COVID levels and lies around 3% below where it would have been had the pre-pandemic growth trend continued. Also, since the 1980s the real wages of low- and mid-low-income workers in the US have barely increased.[2] In fact, even in recent years the wages in real terms of many workers in Europe, such as in Italy, Spain and Portugal, have remained flat.[3]

In short, in a context in which companies are suffering a decline in their margins as a result of the energy shock and the disruptions in global supply chains, and with workers affected by the recent high inflation rates as well as by more structural phenomena that have moderated their wage rises in recent years, a balanced deal between wage increases and corporate margins is needed. However, balancing the different preferences of all the agents involved will not be an easy task, given that we are still far from regaining normality following the series of shocks endured over the last two years.

1. See the Focus «The Great Resignation: paradigm shift in the US labour market?» in the MR02/2022.
2. See S.A. Donovan and D.H. Bradley (2019). «Real Wage Trends, 1979–2018». Washington DC: Congressional Research Service.
3. In the case of Italy and Spain, real wages actually declined between 2000 and 2020 (according to OECD data: https://stats.oecd.org/viewhtml.aspx?datasetcode=AV_AN_WAGE&lang=en).

Wage dynamics: another concern for the ECB?

Wage dynamics are a very important variable for the ECB's monetary policy. Indeed, the ECB's mandate is to ensure price stability, and wages are a key determinant of inflation: in the medium term, wages affect the evolution of prices, both on the supply side (because rising wages increase the cost of goods and services) and on the demand side (as higher wages increase the demand for goods and services, and hence their price).

In the current context of high inflation due to rising energy prices, one of the big questions is whether the increase in prices will spread to wages. Unsustainable wage increases could feed back into inflation, which would be an additional source of concern for the ECB. *A priori*, second-round effects (inflation spreading to wage rises) are less likely in a context of inflation triggered by an energy shock in a globalised world like ours, as it squeezes business margins and companies have less capacity to increase prices and wages. Thus, we must pay attention to current wage dynamics in the euro area and consider what path they might follow in the future.

Wages, for now, remain contained

In the euro area, observing the evolution of wages is a somewhat more complicated task than in other advanced economies. The main problem we face is the delay in the publication of the data. Whereas in the US, for example, information on hourly wages is published every month on the first Friday of the following month; in the euro area, Eurostat's quarterly labour cost indicator is published two and a half months after each quarter end. Thus, as of the date of this article's publication, the latest data available in this series is that of Q4 2021.[1]

With this in mind, we can see in the first chart that the year-on-year growth in wages in Q4 2021 was 1.6%. This is a somewhat contained level; as a benchmark we can refer to the criteria established by Phillip Lane, the ECB's chief economist, according to which a 3.0% wage increase would be consistent with medium-term inflation of 2.0%, precisely the ECB's target.[2] This lower buoyancy in wages compared to in the US (+5.6% year-on-year in March) is due, among other factors, to the job-preservation mechanisms implemented during the pandemic in the euro area (such as Spain's ERTE furlough scheme). While these measures were highly effective in maintaining employment and avoiding drastic reductions in household incomes, when the economy finally reopened they did not allow workers to enjoy the wage rises that usually accompany job changes.[3]

Euro area: evolution of wages and labour costs

Year-on-year change (%)

Source: *BPI Research, based on data from the ECB and Eurostat.*

The current high inflation and the low unemployment rate could push wages up

For now, wages are still contained, but how will they evolve in the future? To answer this question, we analyse their relationship with the main determining factors: the unemployment rate, inflation expectations and past inflation.[4]

The rise in inflation observed since the end of 2021 and the increase in medium-term inflation expectations could contribute to more dynamic wages in the coming quarters (it should be noted that price increases do not generally spread to wages immediately, as there is an adjustment period).

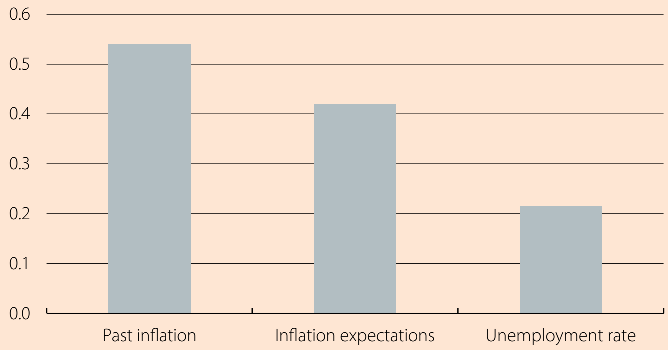
1. Another important issue to consider is the disparity between different countries, as the labour market in the EU is not as integrated as it is in the US and there are marked differences between countries, both in the unemployment rate and in terms of wages.
2. In this regard, the ECB has been assuring since July last year that it will not raise interest rates until it projects 2% inflation in the final year of its forecasting horizon, currently 2024. This is not quite the case for the moment, though, as the institution currently places inflation at 1.9% in 2024.
3. The OECD quantifies the wage increases obtained by US workers who moved jobs as amounting to four times those received by workers who stayed in their existing jobs. See O. Causa *et al.* (2021). «Labour market transitions across OECD countries: Stylised facts». OECD Economics Department Working Papers, nº 1692, OECD Publishing, Paris.
4. There are many other factors that determine wages, such as globalisation and institutional design, but for the calculations that follow we will focus on the more classic ones, in line with the approach taken by the IMF. See «Chapter 2: Recent Wage Dynamics in Advanced Economies: Drivers and Implications», World Economic Outlook, October 2017.

The inflation outlook also poses an upside risk for wages: we expect inflation to remain high in the euro area during the middle of the year, although it should gradually moderate (even in a scenario in which energy prices remain at their current levels, eventually the year-on-year inflation rate would fall due to base effects). Based on the historical relationship between inflation and wages, if average inflation in 2021 and 2022 were to be around 4.7% (the average rate consistent with our current inflation forecasts), this would imply a wage growth 0.54 pps higher in 2023, in year-on-year terms, than we would see if inflation were to average 2% between 2021 and 2022. Also, if we assume that this higher inflation would cause medium-term inflation expectations to move above target, increasing them by, say, 1.5 pps to 3.5%, then wage growth in 2023 would be 0.42 pps higher than in a scenario in which expectations remain anchored at 2%. Combining these two effects, wage increases in 2023 would be approximately 1 pp higher than they would be in a situation with controlled inflation and expectations anchored at 2%.

On the other hand, the unemployment rate could exert greater pressure on wages due to it being at historically low levels (6.8% in February 2022, or 2.6 pps below its historical average) thanks to the rapid recovery in the labour market.[5] However, what happens in the euro area's labour market in 2022 is uncertain and will largely depend on the duration of the war in Ukraine and the economic impact of the sanctions, especially for those economies that are more dependent on Russian gas (such as Germany and, to a lesser extent, Italy).

In summary, according to the available data, at the end of 2021 wage dynamics were not an additional concern for the ECB, being clearly below 3%. Indeed, the contained wage dynamics of the last year are one of the reasons why the ECB has not yet raised rates, despite the high inflation; in fact, the medium-term inflation projections have so far been below 2.0%. However, the scenario is changing. On one hand, the ECB has made a recent shift in its communications, highlighting that inflation expectations are now above 2%, so it is likely to raise rates this year in order to prevent these expectations from remaining above the target. On the other hand, the wage increases we are likely to see (taking into account the high inflation and a historically low unemployment rate) should lead to medium-term inflation of around 2%, allowing the ECB to gradually raise interest rates. Thus, we are likely to see net asset purchases brought to an end in Q3 and the first interest rate hike before the end of 2022. This and subsequent rate hikes should prevent the current high inflation rates from becoming chronic, both through inflation expectations and unsustainable wage dynamics.

Euro area: contributions to increased wage growth in 2023 *
(pps)



Notes: ** We estimate a multiple regression model where the dependent variable is the evolution of wages and the explanatory variables are labour productivity, past inflation, inflation expectations and the unemployment rate. We calculate the effect of average inflation being 4.7% between 2021 and 2022 instead of 2%; of medium-term inflation expectations at 3.5% instead of 2%, and of an unemployment rate in 2022 of 6.5% instead of the 2021 average (7.7%).*
Source: *BPI Research, based on CaixaBank data.*

5. If the unemployment rate were to continue its downward trend in 2022 and the average rate for the year were 6.5%, we estimate that wage growth in year-on-year terms would be 0.21 pps higher in 2023 than we would see with an unemployment rate at the 2021 level (7.7%).

The relationship between inflation and wages in Spain: it exists, but with important nuances

In the current context of high inflation, one cannot help but wonder about its impact on wage dynamics. To properly frame this burning issue, and in order to have sufficient information to answer it, it is essential to analyse the historical relationship between prices and wages.

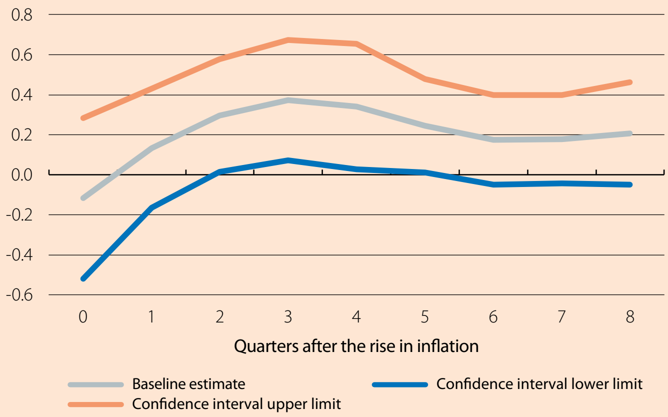
Wages and inflation: wages take a few months to react to price increases

To begin with, we analysed how long wages take to react to price increases in Spain. To this end, we studied the behaviour, since 2001, of the year-on-year growth of the wage cost per worker as a function of the evolution of core inflation. In doing so, we took into account other relevant factors that help to explain wage dynamics: productivity growth, the evolution of the labour market and labour policies.

The results (see first chart) confirm that if there is a surge in inflation (whether headline inflation or core inflation, the latter of which excludes energy and unprocessed foods), this increase is not immediately reflected in a rise in wage costs. In other words, there is an adjustment period before inflationary pressures begin to materialise in wage dynamics.

How long does this adjustment period typically last? According to the data, half a year. After that, wages begin to react to a rise in inflation. And we must wait nine months to a year after inflation begins to rise before the impact on wages is fully apparent (in the first chart we can see that the periods when the impact is greatest occur three quarters to one year after the rise in inflation). Specifically, according to the historical evidence, a 1-pp increase in core inflation would lead to an increase in the year-on-year change in wage costs of just under 0.4 pps one year later. From that point on, the magnitude of the impact begins to decrease, and a year and a half after the rise in inflation no impact is observed.[1]

Spain: historical reaction of the year-on-year growth in wage costs to a 1-pp increase in core inflation
(pps)



Notes: *These estimates are obtained using a multiple linear regression model of the year-on-year change in wage costs, which incorporates not only core inflation (current or delayed) but also the unemployment rate, a binary variable equal to 1 from Q2 2012 onwards to take into account the effects of the labour reform and the 5-year moving average for labour productivity growth. Historical data on a quarterly basis since 2001. The wage cost is seasonally adjusted and corresponds to the series maintained by the National Statistics Institute.*
Source: *BPI Research.*

Another interesting fact is that the reaction of wages is stronger (about twice as strong, one year after the price increase) in the face of a rise in core inflation compared to a similar rise in headline inflation. This confirms the importance of core inflation for monitoring wage dynamics (not in vain, core inflation is the key monetary policy metric monitored by the major central banks).

Dynamics over time: a fading relationship

Now that we have a more precise idea of the strength of the relationship between prices and wages, it is pertinent to analyse how this relationship has varied over time in Spain. Has it weakened or, on the contrary, intensified? The second chart provides the answer: the correlation between core inflation and wage rises agreed in collective labour agreements has gradually weakened over the last few years.[2]

A more detailed analysis confirms this first visual evidence: the impact of inflation on wage costs was higher in the period 2001-2011 – in that period, a 1.0-pp rise in core inflation would, on average, lead to an increase in the year-on-year change in wage costs one year later of more than 0.5 pps – whereas from 2012 onwards the impact is more modest. This fact suggests that certain structural elements – such as globalisation, technological change, the end of automatic indexation in collective labour agreements, or the 2012 labour reform – have contributed to weakening the channel through which price increases spread to

1. Although the coefficient after a year and a half is still positive, looking at the confidence interval we conclude that it is not statistically significant.
2. Specifically, these two variables had a correlation of 0.85 between 2000 and 2012 and of 0.13 from 2012 onwards.

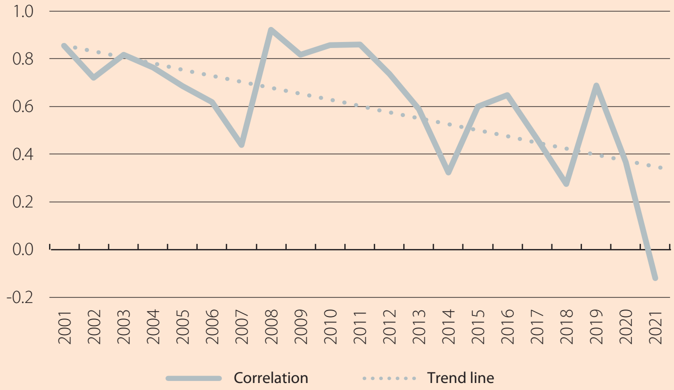
wages. Another important factor is the sharp rise in the unemployment rate in the years following the Great Recession, during which it was far higher than in the pre-crisis years.

In short, based on the historical evidence we conclude that inflationary pressures do spread to wages, although there is an adjustment period of around a year before this occurs. Moreover, this relationship has been very moderate in the last 10 years.

What do these results tell us in the current context? On the one hand, it is not so strange that the high inflation has not yet been reflected in second-round effects (in March, the latest figure available, the wage rise in collective labour agreements was 2.4% year-on-year, while headline inflation stood at 8.4% in April and core inflation, at 4.4%). On the other hand, the current inflationary pressures can indeed be expected to have an impact on wages, although this impact should not be as pronounced as that which would have occurred in the Spanish labour market of the turn of the century with a similar inflation rate.

Spain: relationship over time between core inflation and wage rises

Level (between –1 and +1)



Notes: *The correlation index between two variables takes values between –1 and +1 and measures the degree of the linear relationship between them; a correlation of 1 corresponds to a perfect positive linear relationship and a correlation of 0 corresponds to a non-existent linear relationship. Moving correlation of the last 5 years between core inflation and wage rises agreed under collective labour agreements with economic effects.*
Source: *BPI Research.*

In any case, while these historical relationships are useful for framing the current context, it should also be noted that the situation we are currently experiencing is exceptional, given that the rise in energy prices is being exacerbated by the war in Ukraine and due to its leakage into a large part of the basket of consumer goods. In this exceptional situation, the wage deal currently being negotiated by the social agents will be key, as it will largely determine wage dynamics for the next few years.

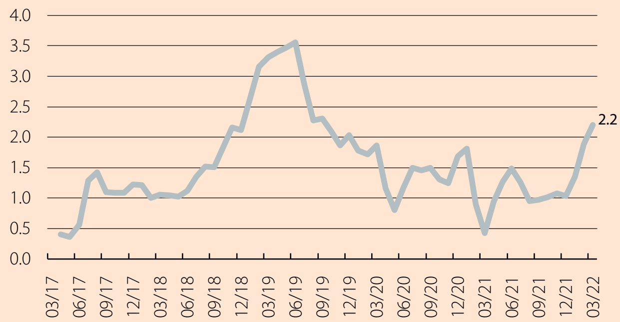
Wage dynamics in Spain: what does the CaixaBank Research wage growth tracker tell us?

In the current context of high inflationary pressures, there is concern that second-round effects will lead to a wage-price feedback spiral. In order to analyse wage dynamics in Spain, here at CaixaBank Research we have developed a real-time wage growth tracker based on payrolls deposited into CaixaBank accounts.[1] This indicator provides very up-to-date information on wage dynamics, with a high degree of detail at the geographic and sectoral level. This indicator therefore provides useful information not previously available, which can complement other wage income data sources.

CaixaBank Research's wage growth tracker corresponds to the median year-on-year change in the monthly payroll, which is calculated in a completely anonymous manner. This monthly payroll corresponds to the net wage income received during the month.[2, 3, 4]

Spain: CaixaBank Research wage growth tracker

Year-on-year change (%)

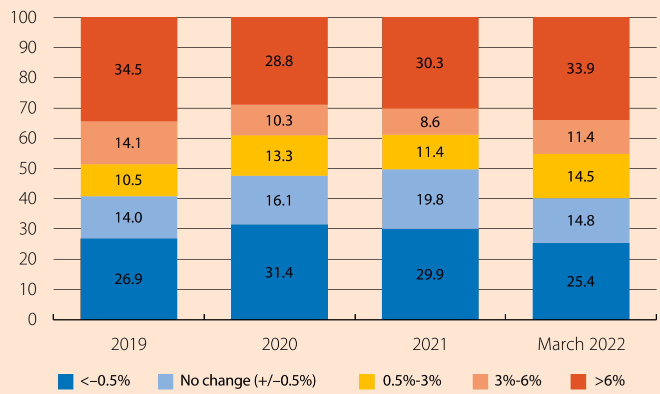


Notes: *CaixaBank Research's wage growth tracker corresponds to the median year-on-year change in the monthly payroll, which is calculated customer by customer. All customers with a payroll present in the previous month are considered as a stabilisation criterion. Data in nominal terms (not deflated). The indicator corresponds to the 2-month moving average.*
Source: *BPI Research, based on internal CaixaBank data.*

According to this internal indicator, in March 2022 wages in Spain rose by 2.2% year-on-year, a similar increase to that experienced prior to the pandemic (+2.1% year-on-year on average in 2018 and 2019) and higher than in 2020 and 2021 (see first chart). Thus, since last summer, workers' payrolls have steadily improved, with moderate increases that leave behind the containment experienced during the pandemic.

Spain: year-on-year change in monthly payroll

Proportion (%)



Notes: *The year-on-year change in the monthly payroll is calculated on a customer-by-customer basis and therefore requires that the customer was working in the same month of the previous year. All customers with a payroll present in the previous month are considered as a stabilisation criterion. Data in nominal terms (not deflated).*
Source: *BPI Research, based on internal CaixaBank data.*

Another, complementary measure for analysing wage dynamics involves looking at the proportion of payrolls that increase and decrease (see second chart). This «wage thermometer» shows that the proportion of workers whose payrolls rose by more than 3% in March 2022 (45.3% of the total) was lower than before the pandemic (48.6%). If we look at the percentage of workers who experienced wage increases in excess of 0.5%, we see that the proportion in March 2022 (59.8%) was already slightly higher than in 2019 (59.1%).

Wage dynamics by sector and region

The wage dynamics we observe are not the same across the board if we differentiate by type of employer (specifically, between the public and private sectors). Public sector employees saw their payrolls increase by 2.4% year-on-year in March 2022, somewhat lower than the growth they experienced prior to the pandemic (2.8% in 2018-2019) but slightly higher than private sector wages. For the latter, the payroll growth stood at 2.1% year-on-year in March 2022, already above the average rate for 2018-2019 (1.7%).

1. This indicator is part of a set of indicators used to monitor the economy in real time, due to be published shortly.
2. Payrolls are identified as a specific type of transfer among CaixaBank customers' account transactions (fully anonymised) and are stated in nominal terms (not deflated). All customers with a payroll present in the previous month are considered as a stabilisation criterion. The indicator corresponds to the two-month moving average. For further details, see the methodological note, due to be published shortly.
3. The distribution of payrolls is very similar to the wage distribution observed in the 2018 wage structure survey (the latest year with microdata available from the survey), as discussed in O. Aspachs, R. Durante, A. Graziano, J. Mestres, M. Reynal-Querol *et al.* (2021). «Tracking the impact of COVID-19 on economic inequality at high frequency». PLOS ONE 16(3): e0249121. https://doi.org/10.1371/journal.pone.0249121.
4. A similar indicator is the Wage Growth Tracker produced by the Atlanta Fed. This indicator measures the nominal wage growth of workers observed with a 12-month difference using data from the Current Population Survey (CPS) https://www.atlantafed.org/chcs/wage-growth-tracker.

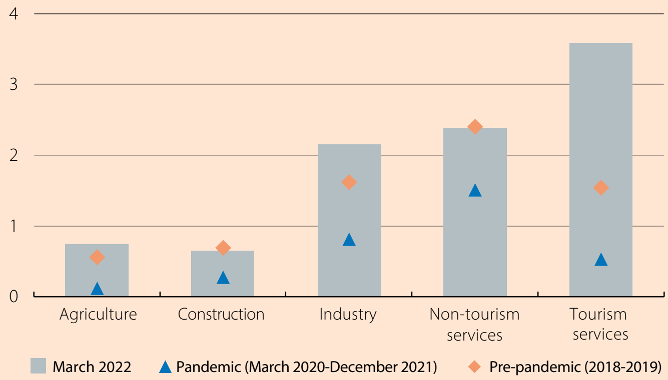
The wage dynamics are also different from one economic sector to another. Wages increased by 2.4% year-on-year in March in non-tourism services and by 2.1% in industry, while they are lagging further behind in the case of construction and agriculture (both 0.7%) (see third chart). We can conclude that, in all these sectors, wages are recovering some buoyancy as we emerge from the pandemic, with wage rises similar to those of 2018-2019. On the other hand, for the tourism services sector, which includes retail and hospitality, the payrolls increased by 3.6% year-on-year in March 2022, a higher rate than in 2018-2019. This reflects the recovery of the sector following the two years of pandemic during which they were heavily affected by activity restrictions.

By autonomous community region, in March 2022 wage rises of between 1.9% and 2.4% year-on-year were observed in most regions (see fourth chart). Also, in all regions, the wage growth observed for this period was higher than during the pandemic. However, there are marked differences between regions, with Asturias (1.6% year-on-year), Cantabria (1.8%) and Castilla-La Mancha (1.8%) registering the lowest wage rises. Those registered in Catalonia and the Community of Valencia were higher (2.4% and 2.5%, respectively), as one would expect given that these regions have also registered a recovery in economic activity above the national average.

In conclusion, for the time being there are no signs of significant wage pressures in Spain, neither in general, nor differentiating by sector or region. Nevertheless, the inflationary pressures and the uneven impact of the war in Ukraine across different sectors could change this situation in the coming months.[5] Here at CaixaBank Research we will analyse the trend in wages month by month in order to quickly shed light on what is happening in our labour market.

Spain: wage dynamics in different productive sectors

Year-on-year change (%)

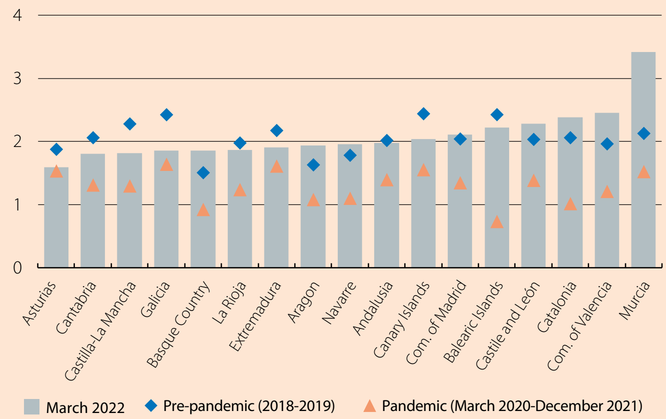


Notes: *CaixaBank Research's wage growth tracker corresponds to the median year-on-year change in the monthly payroll, which is calculated customer by customer. The economic sectors are defined based on the National Classification of Economic Activities (CNAE): Agriculture (CNAE section A), Industry (B-E), Construction (F), Tourism services (two-digit CNAE groups 49-51, 55, 56, 77, 79, 90, 91 and 93) and Non-tourism services (sections G to J and L to U, excluding those included in tourism services). Financial and insurance activities (section K) are excluded, due to CaixaBank's internal data sample being insufficiently representative for this sector. The indicator corresponds to the 2-month moving average.*

Source: *BPI Research, based on internal CaixaBank data.*

Spain: wage dynamics by autonomous community region

Year-on-year change (%)



Notes: *CaixaBank Research's wage growth tracker corresponds to the median year-on-year change in the monthly payroll, which is calculated customer by customer. All customers with a payroll present in the previous month are considered as a stabilisation criterion. Data in nominal terms (not deflated). The indicator corresponds to the 2-month moving average.*

Source: *BPI Research, based on internal CaixaBank data.*

5. See the Focus «Which sectors are most affected by the conflict in Ukraine?» in the MR04/2022.

All BPI studies and publications are available at: **www.bancobpi.pt**

MONTHLY REPORT

Analysis of the economic outlook for Portugal, Spain and at the international level, as well as the trends in financial markets, with specialized articles on topical subjects.

FLASH NOTES

Periodic analysis of relevant economic issues in the Portuguese economy (activity, prices, public accounts, external accounts, real estate market, banking sector) (only available in English).

COUNTRY OUTLOOK

Economic, financial and political characterization, of the main trading and investment partner countries of Portuguese companies. Brief analysis of the main economic and financial aspects and economic forecasts for the triennium.

Available in English: Mozambique Country Outlook

Design and production: www.cegeglobal.com

BPI