

# MR02

MONTHLY REPORT • ECONOMIC AND FINANCIAL MARKET OUTLOOK

NUMBER 475 | FEBRUARY 2023



## ECONOMIC & FINANCIAL ENVIRONMENT

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### FINANCIAL MARKETS

*Energy: with 2022 behind us, will 2023 be as turbulent?*

### INTERNATIONAL ECONOMY

*Europe benefits from a relatively mild winter*

### SPANISH ECONOMY

*The outlook for the Spanish economy improves*

## DOSSIER: INFLATION SPECIAL: IS IT HERE TO STAY?

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*Will inflation come down? The key trends for 2023*

*What will happen to inflation in the long term? A global perspective*

*Drivers of Spain's inflation in 2023: indirect effects and food*

*The effect of import prices on inflation in Spain*

## MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK

February 2023

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

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Date this issue was closed:  
3 February 2023

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## Financial markets versus central banks: a different view?

The growth data for the last quarter of 2022 have confirmed the intense and expected slowdown in global economic activity caused by the effects of rising energy prices and tightening monetary policy. However, far from causing corrections in financial asset prices, this intense downward adjustment in the business cycle is coinciding with near double-digit gains in the stock markets since the beginning of the year and cumulative falls in long-term government debt yields of around 50 bps. This increased risk appetite comes as investors anticipate that we are now leaving behind the worst economic omens that were feared after last summer (global stagflation), as the imbalances between supply and demand gradually dissipate and the inflationary pressures are gradually corrected.

The bottom line is that, once domestic demand reflects the effects of the interest rate hikes, the hardest part of the central banks' work will have been largely completed. The problem is that the markets are already – perhaps precipitously – pricing in an imminent shift in monetary policy, relying on a rapid change of trend in the more cyclical components of the consumer price baskets. Furthermore, the easing of financial conditions caused by this risk-on movement does little to help the monetary authorities' efforts to combat inflation. At the moment, the central banks are trying to use their communication policy to rein in expectations of a pivot in interest rates, but with little success (as evidenced by the historic daily decline in yields in Europe following the latest 50-bp rate hike). The central banks' goal is to try to limit a rise in financial instability in the event of further upside surprises in prices.

This game between investors and central banks will determine the performance of financial assets in 2023, in an economic context still subject to high volatility and uncertainty. Above all, in addition to the already known risks (such as inflation, the war in Ukraine and China), there are new ones appearing on the horizon, such as the debt ceiling in the US and the effects that changes in Japan's monetary policy could have on Japanese investors' international bond holdings. It therefore seems premature to assume there will be a soft landing that will allow the central banks to quickly reduce interest rates and keep the trends we have seen in the financial markets in the opening weeks of the year on track.

The good news is that the favourable (and unexpected) wealth effect of the first few weeks of the year comes in addition to other encouraging signs, including the buoyancy that most labour markets continue to show (53-year lows in the unemployment rate in the US), the strength of private sector balance sheets (with households in the US and China still hoarding significant savings), the improvement in household and business expectations since November and, above all, the improvement in the energy outlook in recent months. All this is translating into a widespread upward revision in economic forecasts, when we all thought this winter could bring the exact opposite. In our case, we have increased our forecast for average growth in the euro area in 2023 from 0.2% to 0.5%, which implies improvements for countries as important as Germany (from -0.2% to 0%), Italy (from -0.2% to 0.5%) and Spain (from 1% to 1.3%). In doing so, we move away from the scenarios that would entail job destruction, although the forecasts will remain subject to a high degree of unpredictability, reflecting the fact that we are in a year of transition in which the conditions must be laid for a return to a certain normality beginning in 2024. Therefore, we change the forecasts, but not the narrative, as we will continue to face a highly complex scenario in the short term, with more questions than answers about the changes that the economic environment is facing. And while the improvement in investor sentiment should be taken as an encouraging sign, it will only be endorsed by a downward adjustment in inflation that extends to most of the components of the consumer basket – a development that will no doubt require time and patience.

**José Ramón Díez**  
February 2023

## Chronology

### JANUARY 2023

- 1 Croatia joins the euro area and the Schengen Area.
- 8 China reopens its borders to foreign travellers after three years.

### NOVEMBER 2022

- 2 The Fed raises official interest rates by 75 bps.
- 15 The world's population reaches 8 billion people.

### SEPTEMBER 2022

- 8 Queen Elizabeth II dies after a 70-year reign.
- 16 The death of Mahsa Amini sparks a wave of mass protests in Iran.
- 27 Sabotage on the Nord Stream 1 and 2 gas pipelines.
- 30 The European Council approves measures to reduce energy demand.

### DECEMBER 2022

- 14 The Fed raises official interest rates by 50 bps.
- 15 The ECB raises official interest rates by 50 bps and announces that it will reduce reinvestments under the APP.

### OCTOBER 2022

- 5 OPEC agrees to cut crude oil production by 2 million barrels a day compared to August 2022 levels.
- 23 Xi Jinping receives a third term as general secretary of the Chinese Communist Party.
- 27 The ECB raises official interest rates by 75 bps.

### AUGUST 2022

- Summer 2022** Heat waves and drought in Europe and other countries around the world.
- Summer 2022** Disruptions in the supply of Russian energy to Europe.
- 31 Mikhail Gorbachev, the last president of the USSR, dies.

## Agenda

### FEBRUARY 2023

- 2 Spain: registration with Social Security and registered unemployment (January).  
Governing Council of the European Central Bank meeting.
- 8 Portugal: employment and unemployment (Q4).
- 9 Portugal: turnover in industry and services (December).
- 10 Portugal: labour costs (February).
- 14 Japan: GDP (Q4).
- 16 Spain: foreign trade (December).
- 24 Spain: loans, deposits and NPL ratio (December).
- 27 Euro area: economic sentiment index (February).
- 28 Spain: CPI flash estimate (February).  
Spain: balance of payments (December).  
Portugal: GDP breakdown (Q4).  
Portugal: CPI flash estimate (February).

### MARCH 2023

- 2 Spain: registration with Social Security and registered unemployment (February).  
Euro area: CPI flash estimate (February).
- 10 Portugal: S&P rating.
- 16 Spain: quarterly labour cost survey (Q4).  
Portugal: industrial production prices (February).  
Governing Council of the European Central Bank meeting.
- 17 Spain: S&P rating.
- 21-22 Federal Open Market Committee meeting.
- 22 Portugal: home prices (Q4).
- 23 Spain: loans, deposits and NPL ratio (Q4).
- 23-24 European Council meeting.
- 24 Spain: Q4 GDP (2<sup>nd</sup> estimate).  
Spain: balance of payments and NIIP (Q4).  
Portugal: general government key figures (2022).
- 30 Spain: CPI flash estimate (March).  
Euro area: economic sentiment index (March).  
Portugal: NPL ratio.
- 31 Spain: household savings rate (Q4).  
Spain: state budget execution (February).  
Portugal: CPI flash estimate (March).

## The three key elements of the new outlook for the Spanish economy

The Spanish economy remains immersed in an adverse context, marked by geopolitical uncertainty, high inflation and rising interest rates, which limits its capacity to grow. Despite this, during the last few months it has managed to overcome the adversities better than expected. Furthermore, the recent moderation in energy prices invites us to believe that the recovery could be somewhat more dynamic.

All this leads us to [slightly improve our economic forecast for this year](#), with GDP growth now anticipated to reach 1.3%, 0.3 pps above the previous projection. On the other hand, we place inflation at 4.2%, somewhat lower than the 4.5% previously predicted. Uncertainty remains very high and there are multiple factors that could modify the course of the Spanish economy in the coming months, both for better and for worse. Among all these factors, there are three which stand out: the evolution of energy prices, the resilience of the labour market and the execution of the European NGEU funds.

With regard to energy prices, the major development has been the recent fall in oil and gas prices. In addition, the futures markets suggest that prices will remain at similar levels for the rest of the year. If this scenario is confirmed, then the headline inflation rate will move away from the high levels registered last year and, more importantly, the pressure on production costs will gradually fade.

As we set out in the [Dossier on inflation included in this same report](#), the indirect effects that usually occur following an energy price shock are significant and persistent. The transmission of the rise in production costs to final prices occurs gradually, so the core inflation rate will remain high this year. But the first step in order for this process to lose momentum is a moderation in energy prices.

If the inflationary pressures remain contained during the course of the year, this will also make it easier for the ECB to stop raising interest rates in 2023. The combination of these two factors is of paramount importance for households to maintain their consumption levels and for companies to carry out their investment plans at such a key time of economic transformation.

The second key factor for determining the outlook is the resilience of the labour market. To date, [employment has performed better than expected](#), in terms of both the number of jobs created and the reduction in temporary employment. This has also helped to sustain consumption:

directly, because the income of Spanish households as a whole increases when there are more people in work, and moreover because when jobs are created in the economy as a whole, people are less fearful of losing their job – an especially important factor in the difficult current context. In previous crises, when unemployment tended to experience a sudden surge, households reacted by increasing their savings for precautionary reasons, which accentuated the weakness of consumption.

The labour market tends to have a delayed reaction to changes in the macroeconomic environment, so the pace of job creation can be expected to lose steam over the coming months. That said, we do not expect to see a rise in the unemployment rate: specifically, we place it at 12.8% for 2023 as a whole, slightly below our previous forecast and at a very similar level to that recorded in 2022.

Finally, we should consider the important role that the execution of the European NGEU funds will have throughout this year. While it is true that the implementation of this programme was initially somewhat slower than expected, the latest data show greater dynamism. In this regard, if the level of execution reached during the second half of 2022 is maintained, then the NGEU funds could contribute around 1 pp to GDP growth in 2023.

The execution of the NGEU funds should accelerate the transformation of the Spanish economy, boosting the digitalisation of businesses and making the production process more environmentally friendly. In addition, it should facilitate further improvements in the public accounts. This aspect gains relevance now that the ECB will gradually reduce its holdings of public debt and with the forthcoming approval of a new fiscal rules framework in the EU.

**Oriol Aspachs**

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

## Financial markets

	Average 2000-2007	Average 2008-2019	2020	2021	2022	2023	2024
<b>INTEREST RATES</b>							
<b>Dollar</b>							
Fed funds (upper limit)	3.43	0.81	0.25	0.25	4.50	5.00	3.75
3-month Libor	3.62	1.01	0.23	0.21	4.74	4.75	3.50
12-month Libor	3.86	1.48	0.34	0.52	5.47	4.50	3.50
2-year government bonds	3.70	1.04	0.13	0.62	4.41	4.00	2.80
10-year government bonds	4.70	2.57	0.93	1.45	3.62	3.20	2.80
<b>Euro</b>							
ECB depo	2.05	0.20	-0.50	-0.50	1.77	3.50	2.50
ECB refi	3.05	0.75	0.00	0.00	2.27	4.00	3.00
€STR	-	-0.54	-0.56	-0.58	1.57	3.41	2.48
1-month Euribor	3.18	0.50	-0.56	-0.60	1.72	3.36	2.42
3-month Euribor	3.24	0.65	-0.54	-0.58	2.06	3.31	2.35
6-month Euribor	3.29	0.78	-0.52	-0.55	2.56	3.38	2.46
12-month Euribor	3.40	0.96	-0.50	-0.50	3.02	3.44	2.56
<b>Germany</b>							
2-year government bonds	3.41	0.35	-0.73	-0.69	2.37	3.20	2.50
10-year government bonds	4.31	1.54	-0.57	-0.31	2.13	3.00	2.80
<b>Spain</b>							
3-year government bonds	3.62	1.69	-0.57	-0.45	2.66	3.23	2.93
5-year government bonds	3.91	2.19	-0.41	-0.25	2.73	3.38	3.15
10-year government bonds	4.42	3.17	0.05	0.42	3.18	4.10	3.80
Risk premium	11	164	62	73	105	110	100
<b>Portugal</b>							
3-year government bonds	3.68	3.33	-0.61	-0.64	2.45	3.46	3.20
5-year government bonds	3.96	3.94	-0.45	-0.35	2.53	3.57	3.38
10-year government bonds	4.49	4.68	0.02	0.34	3.10	4.05	3.80
Risk premium	19	314	60	65	97	105	100
<b>EXCHANGE RATES</b>							
EUR/USD (dollars per euro)	1.13	1.26	1.22	1.13	1.06	1.10	1.15
EUR/GBP (pounds per euro)	0.66	0.84	0.90	0.85	0.87	0.86	0.85
<b>OIL PRICE</b>							
Brent (\$/barrel)	42.3	80.1	50.2	74.8	81.3	93.0	80.0
Brent (euros/barrel)	36.4	62.5	41.3	66.2	76.8	85.1	69.8

Forecasts

Change in the average for the year versus the prior year average (%), unless otherwise indicated

### International economy

	Average 2000-2007	Average 2008-2019	2020	2021	2022	2023	2024
<b>GDP GROWTH</b>							
<b>Global</b>	4.5	3.3	-3.0	6.0	3.1	2.7	3.4
<b>Developed countries</b>	2.6	1.4	-4.4	5.2	2.6	1.0	1.7
United States	2.7	1.7	-2.8	5.9	2.1	0.9	1.4
Euro area	2.2	0.8	-6.3	5.3	3.5	0.5	1.6
Germany	1.6	1.2	-4.1	2.6	1.9	0.0	1.4
France	2.2	1.0	-7.9	6.8	2.6	0.3	1.4
Italy	1.5	-0.3	-9.1	6.7	3.9	0.5	1.1
Portugal	1.5	0.5	-8.3	5.5	6.7	1.0	2.1
Spain	3.7	0.6	-11.3	5.5	5.5	1.3	1.9
Japan	1.4	0.4	-4.5	2.1	1.2	1.3	1.1
United Kingdom	2.6	1.3	-11.0	7.6	3.9	-1.7	-0.9
<b>Emerging and developing countries</b>	6.5	4.9	-1.9	6.6	3.5	3.9	4.5
China	10.6	8.0	2.2	8.4	3.0	5.2	5.1
India	7.2	6.8	-6.7	9.0	7.3	6.0	6.7
Brazil	3.6	1.6	-3.3	5.0	1.8	0.9	1.8
Mexico	2.4	1.9	-8.0	4.7	1.9	1.4	2.5
Russia	7.2	1.3	-2.7	4.8	-8.1	-3.2	3.0
Turkey	5.5	4.5	1.9	11.4	3.1	3.0	3.2
Poland	4.2	3.7	-2.0	6.9	4.9	0.7	3.2
<b>INFLATION</b>							
<b>Global</b>	4.1	3.7	3.2	4.7	8.6	6.0	4.1
<b>Developed countries</b>	2.1	1.6	0.7	3.1	7.2	4.0	2.0
United States	2.8	1.8	1.2	4.7	8.0	4.1	2.7
Euro area	2.2	1.4	0.3	2.6	8.4	5.3	2.7
Germany	1.7	1.4	0.4	3.2	8.6	5.9	3.0
France	1.9	1.3	0.5	2.1	5.9	4.3	2.6
Italy	2.4	1.4	-0.1	1.9	8.7	5.9	2.6
Portugal	3.1	1.1	0.0	1.3	7.8	5.5	2.8
Spain	3.2	1.3	-0.3	3.1	8.4	4.2	2.6
Japan	-0.3	0.4	0.0	-0.2	2.5	2.3	0.9
United Kingdom	1.6	2.3	0.9	2.6	9.1	5.7	2.9
<b>Emerging countries</b>	6.7	5.6	5.1	5.9	9.7	7.4	5.6
China	1.7	2.6	2.5	0.9	2.0	1.5	1.6
India	4.5	7.3	6.6	5.1	6.7	5.3	5.0
Brazil	7.3	5.7	3.2	8.3	9.3	5.1	4.0
Mexico	5.2	4.2	3.4	5.7	7.9	4.7	3.8
Russia	14.2	7.9	3.4	6.7	13.8	7.5	6.8
Turkey	22.6	9.6	12.3	19.6	72.3	36.4	29.0
Poland	3.5	1.9	3.7	5.2	14.9	7.0	3.7

Forecasts

Change in the average for the year versus the prior year average (%), unless otherwise indicated

### Spanish economy

	Average 2000-2007	Average 2008-2019	2020	2021	2022	2023	2024
<b>Macroeconomic aggregates</b>							
Household consumption	3.6	0.0	-12.4	6.0	4.4	1.2	2.3
Government consumption	5.0	1.1	3.5	2.9	-0.9	1.0	0.5
Gross fixed capital formation	5.6	-1.4	-9.7	0.9	4.3	1.5	2.5
Capital goods	4.9	0.1	-13.3	6.3	3.8	0.4	3.3
Construction	5.7	-2.9	-10.2	-3.7	4.2	2.0	2.0
Domestic demand (vs. GDP Δ)	4.9	-0.3	-4.5	4.9	2.8	1.2	1.9
Exports of goods and services	4.7	2.9	-19.9	14.4	14.9	2.4	2.0
Imports of goods and services	7.0	0.2	-14.9	13.9	7.7	2.3	2.0
<b>Gross domestic product</b>	<b>3.7</b>	<b>0.6</b>	<b>-11.3</b>	<b>5.5</b>	<b>5.5</b>	<b>1.3</b>	<b>1.9</b>
<b>Other variables</b>							
Employment	3.2	-0.4	-6.8	6.6	3.8	1.1	1.4
Unemployment rate (% of labour force)	10.5	19.5	15.5	14.8	12.9	12.8	12.4
Consumer price index	3.2	1.3	-0.3	3.1	8.4	4.2	2.6
Unit labour costs	3.0	0.6	7.7	0.3	0.5	3.6	2.5
Current account balance (% GDP)	-5.9	-0.3	0.6	1.0	0.3	0.3	1.0
External funding capacity/needs (% GDP)	-5.2	0.1	1.1	1.9	1.5	1.5	2.0
Fiscal balance (% GDP) <sup>1</sup>	0.4	-6.5	-10.3	-6.9	-4.0	-4.0	-3.3

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

Forecasts

### Portuguese economy

	Average 2000-2007	Average 2008-2019	2020	2021	2022	2023	2024
<b>Macroeconomic aggregates</b>							
Household consumption	1.7	0.5	-6.9	4.7	5.9	0.9	0.9
Government consumption	2.3	-0.3	0.4	4.6	2.1	1.0	1.0
Gross fixed capital formation	-0.4	-0.7	-2.2	8.7	1.3	2.5	8.2
Capital goods	3.2	2.6	-5.4	13.9	-	-	-
Construction	-1.5	-2.6	1.0	5.5	-	-	-
Domestic demand (vs. GDP Δ)	1.3	0.1	-5.3	5.8	4.5	1.1	2.3
Exports of goods and services	5.3	4.0	-18.8	13.5	17.1	4.3	6.1
Imports of goods and services	3.6	2.7	-11.8	13.3	10.8	4.5	6.3
<b>Gross domestic product</b>	<b>1.5</b>	<b>0.5</b>	<b>-8.3</b>	<b>5.5</b>	<b>6.7</b>	<b>1.0</b>	<b>2.1</b>
<b>Other variables</b>							
Employment	0.4	-0.5	-1.9	2.7	2.0	0.1	0.4
Unemployment rate (% of labour force)	6.1	11.4	7.0	6.6	6.0	6.4	6.1
Consumer price index	3.1	1.1	0.0	1.3	7.8	5.5	2.8
Current account balance (% GDP)	-9.2	-2.9	-1.2	-1.1	-1.5	-1.0	-0.3
External funding capacity/needs (% GDP)	-7.7	-1.6	0.1	0.6	-0.7	1.3	1.6
Fiscal balance (% GDP)	-4.6	-5.1	-5.8	-2.9	-1.1	-0.9	-0.8

Forecasts

## A good start to the year in the financial markets

### Respite in the tightening of global financial conditions.

Investors welcomed the new year with a heightened appetite for risk, reducing the losses registered during a tumultuous 2022. Among the main reasons behind the optimism is the increased confidence among investors that the worst of the inflationary shock is probably behind us, mainly due to the improvement in the global bottlenecks and the stabilisation in the energy markets. These factors have materialised in a moderation in headline inflation in the major economies, despite greater persistence in the core components. In this context, investors are betting that the central banks will likely be able to complete their cycle of official rate hikes in the coming months and that, in turn, the process of monetary tightening will not lead to a global economic recession – or if it does, it would at least be a short and mild one. This optimism has been reflected in widespread gains in the fixed-income and equity markets, paving the way for a significant easing in the financial conditions indices and a some containment in the volatility metrics.

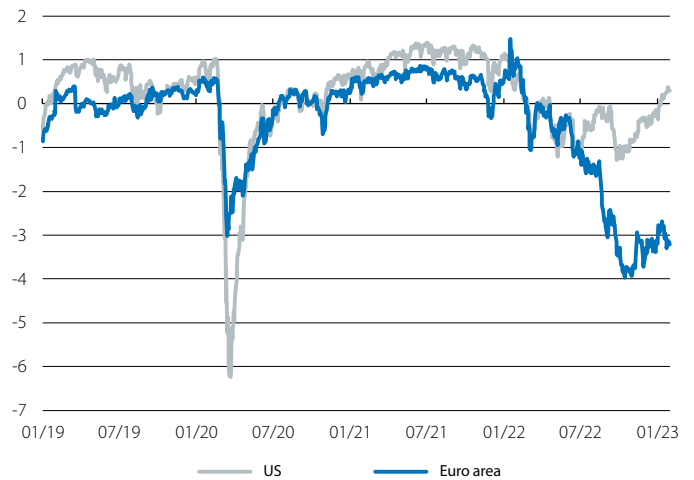
### The central banks are keeping their course, with the ECB at the helm.

The enthusiasm seen in the markets contrasts with the messages of the central banks, which have been firm in their rhetoric of continuing to tighten monetary policy. In this regard, at its meeting in early February the ECB once again announced a rise in official rates of 50 bps (placing the depo rate at 2.50% and the refi rate at 3.0%), while also indicating its intention to increase them at the same pace in March. It also confirmed the plan already announced in December for the gradual reduction in the bond portfolio under its asset purchase programme (APP) beginning in March (at an initial rate of €15 billion per month). The Federal Reserve, meanwhile, approved a 25-bp rise, placing rates in the 4.50%-4.75% range, and reiterated that additional adjustments will be needed, although it also signalled that the end of the cycle of rate hikes was in sight. In the money markets, investors are expecting both the ECB and the Fed to reach the peak in rates in the coming months, with cumulative increases of around 100 bps up to 3.5% in the euro area and of 25 bps up to the 4.75%-5.00% range in the US. Rate cuts are expected to begin this year in the case of the Fed and in early 2024 for the ECB.

**The euro consolidates its position against the dollar.** Other central banks also approved a new round of rate hikes, including the Bank of England (+50 bps up to 4.0%) and the Bank of Canada (+25 bps up to 4.5%). The latter surprised the markets by indicating that, in the absence of further shocks, it would not implement any further increases. The Bank of Japan, meanwhile, kept both official rates and the parameters of its yield curve control policy unchanged – announcements which contributed to a depreciation of the yen and a fall in sovereign debt yields. Meanwhile, in the context of a tightening of the hawkish narrative previously noted by the ECB, the euro consolidated its rally against the dollar

### Financial conditions

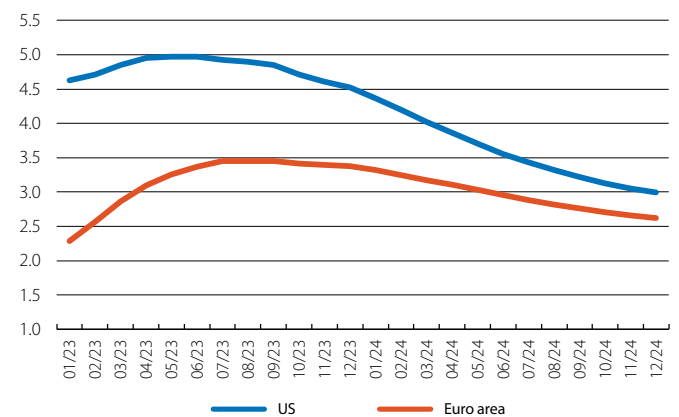
Index (0 = historical average)



Source: CaixaBank Research, based on data from Bloomberg.

### Expectations for Fed and ECB reference interest rates

(%)

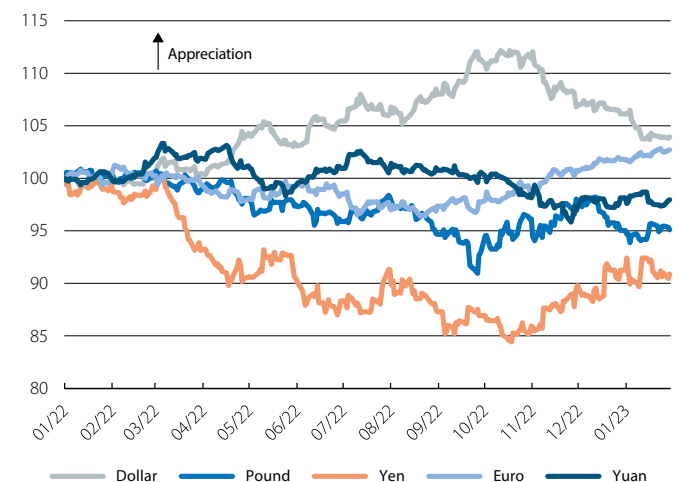


Note: Forwards on the EFR and the OIS of the euro area derived using market yield curves as of 31 January 2023.

Source: CaixaBank Research, based on data from Bloomberg.

### Currencies: effective nominal exchange rates

Index (100 = January 2022)



Source: CaixaBank Research, based on data from Bloomberg.

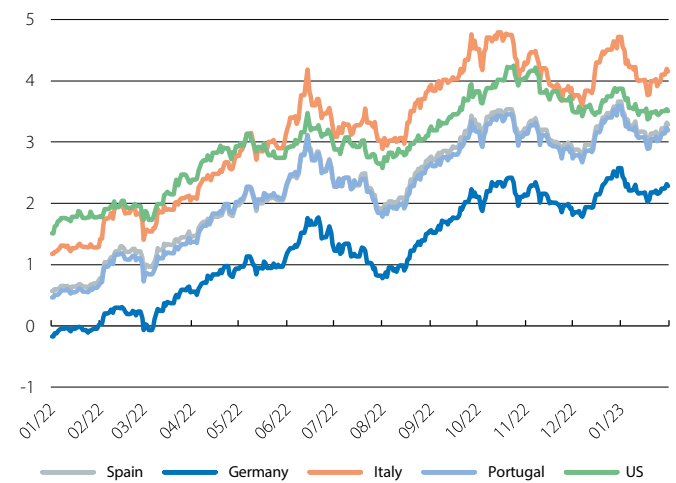
and traded near 1.10, the highest level since the spring of 2020. In contrast, the dollar weakened against most currencies, including those of both other advanced countries and the major emerging markets; in January, the dollar's nominal effective exchange rate weakened by 1%, following the depreciation of 9% already accumulated during Q4 2022.

**The price of government paper also begins the year in the green.** In the government bond market, sovereign yields declined in January by around 30 bps, both in Europe (the German 10-year bond stood at 2.3%) and in the US (3.5% in the case of the 10-year bond). However, sovereign yield curves have remained inverted in several sections in the main benchmark countries, serving as a warning of the risk of a possible recession. The risk premiums of the euro area periphery countries, meanwhile, went down (compared to Germany, by -10 bps in both Spain and Portugal) and for the time being they do not seem to reflect any substantial impact of the Quantitative Tightening plan announced by the ECB. Also, risk premiums have found support in the possibility of an agreement in the EU for the creation of a mechanism financed with EU debt to respond to the subsidies planned in the US (under the Inflation Reduction Act). Meanwhile, US Secretary of the Treasury Janet Yellen told Congress that the debt ceiling was reached on 19 January and, although there has been little reaction in the markets, warned that exceptional measures, some of which have already been put in place, could maintain the funding capacity until June.

**Widespread gains in the international stock markets.** Stock indices kick-started the year with cumulative gains in January of 6% in the US (S&P 500), 10% in Europe (Euro Stoxx 50) and 8% in the case of Emerging economies on aggregate. This is the best start to the year for the international stock markets since 2019, according to the global MSCI aggregate; in Europe, the advance is the most pronounced in a month of January in the last 40 years. The weak tone in corporate earnings forecasts during the Q4 2022 earnings season has been offset by the positive outlook for the global economy, the reopening process in China and the improvement in economic sentiment, most notably in Europe. In emerging markets, the advance in the stock markets also reflects the improvement in capital flows to these economies, as well as the aforementioned weakening of the dollar.

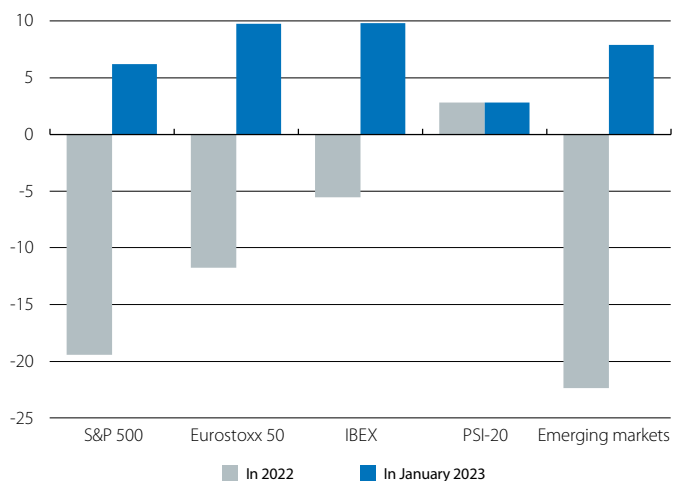
**Stabilisation in commodity prices, except metals.** In the commodity markets, the big surprise has been the correction in gas prices which, despite remaining at historically high levels, have stabilised at their lowest levels since Russia's invasion of Ukraine, dispelling the risks of a rationing of supplies (see the Focus [«Energy: with 2022 behind us, will 2023 be as turbulent?»](#) in this same report). The price of Brent oil, meanwhile, has fluctuated at around 85 dollars a barrel against a backdrop of upward revisions in the forecasts for demand, on the one hand, and a greater accumulation of reserves in the US, on the other. OPEC+ has also signalled that it is not planning any production cuts in the short term, in anticipation of the reopening process in China. This latter factor, however, has exerted upward pressure on industrial metal prices, while food prices have remained high.

### Interest rates on 10-year sovereign debt (%)



Source: CaixaBank Research, based on data from Bloomberg.

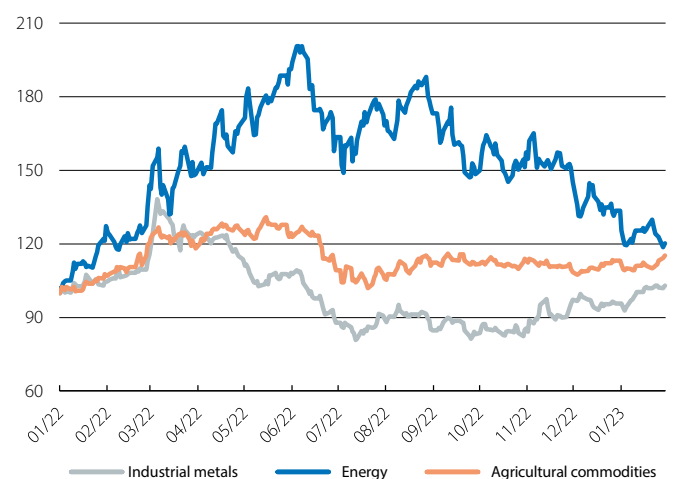
### Change in the main stock market indices (%)



Source: CaixaBank Research, based on data from Bloomberg.

### Commodity prices

Index (100 = January 2022)



Source: CaixaBank Research, based on data from Bloomberg.

## Energy: with 2022 behind us, will 2023 be as turbulent?

In 2022, energy commodity prices fluctuated significantly. The war between Russia and Ukraine – key players in the supply of these commodities – triggered a sharp rise in crude oil and natural gas prices, especially in Europe. However, in recent months there has been a significant moderation in energy prices compared to the peaks observed last August. There are several factors that have contributed to this improvement. On the one hand, the high level of gas reserves reached in Europe, together with the effort of governments, industries and households to reduce consumption, as well as a milder winter than usual, have helped European gas prices (the Dutch TTF) to fall by more than 80% since the summer. On the other hand, the oil price has stabilised in the face of a moderate growth outlook in China.

With all this, both the futures prices and the forecasts of most analysts in the sector reflect expectations that energy prices in the next 12 months are likely to be more favourable for economic growth. With this in mind, and together with the relative improvement in investor sentiment regarding these commodities, we have revised our forecasts for European oil and gas prices for the coming quarters.

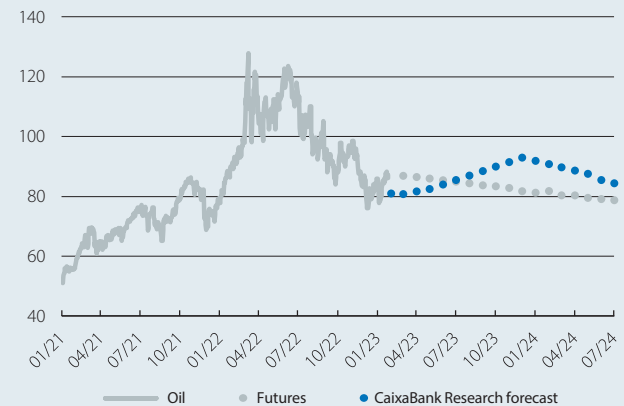
### China's reopening will be key for oil

The moderation in industrial activity worldwide and a milder than usual winter in Europe contributed to a decline of one million barrels a day (b/d) in the demand for crude oil in Q4 2022.<sup>1</sup> During this period, and despite the reduction in supply from OPEC and its allies,<sup>2</sup> there was a surplus in crude oil stocks of around 80,000 b/d, which helped to drive down the Brent barrel price at the end of 2022 to its lowest level in 12 months (76 dollars).

For 2023, in a context in which the global economy is expected to expand, we believe that the global demand for oil will recover, with the rebound in the second half of the year being particularly pronounced. China's economic reopening, despite uncertainty over how fast it will occur and what shape it will take, will play a key role in that increase. The IEA and OPEC agree that global oil demand will reach an all-time high in 2023 (101.7 million b/d), 2% higher than the previous year, and that around half of this increase will be due to China's reopening. While supply and demand are likely to remain balanced during the first two quarters of the year, the

### Brent oil price

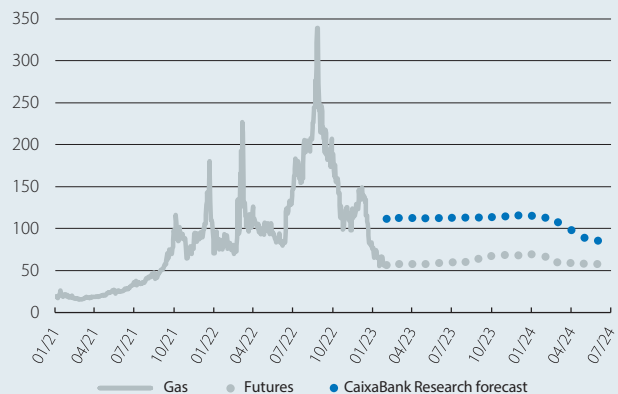
(\$/barrel)



Source: CaixaBank Research, based on data from Bloomberg.

### Natural gas price \*

(€/MWh)



Note: \* TTF, the benchmark natural gas price in Europe.

Source: CaixaBank Research, based on data from Bloomberg.

anticipated buoyancy of consumption during the second half of the year could push prices upwards if the supply does not react sufficiently. OPEC's limited flexibility to agree on production increases and the reduction in oil exports from Russia<sup>3</sup> (the third biggest producer in the world behind the US and Saudi Arabia) are likely to be the main obstacles in this regard. In addition to these factors, the gradual recovery in the economic scenario ought to be accompanied by a moderation of the strength of the US dollar and a greater risk appetite among investors, both of which tend to add upward pressure on prices.

1. According to data from the International Energy Agency (IEA), in Q4 2022 the demand for crude oil fell by 910,000 b/d in year-on-year terms in OECD countries and by 130,000 b/d in China.

2. OPEC and its allies agreed to cut the net supply by 2 million b/d from the target production of 33 million b/d, beginning in November 2022.

3. The main international organizations stress that, despite the high degree of uncertainty regarding the outlook, with the EU embargo on Russian oil exports coming into force and the 60-dollar price cap imposed on the Urals barrel by the G7 on 5 December, Russian oil exports to the rest of the world could be reduced by 20%.

On the basis of these aspects, we estimate that the Brent oil price could rise over the course of the year, potentially exceeding 90 dollars by December (with a 2023 average of 86 dollars).

### Gas prices moderate, but uncertainty persists

Last summer, the cut-off of Russian gas supplies to Europe via Nord Stream 1 caused the price of the Dutch TTF (the main benchmark in Europe) to surge to record levels (339 euros/MWh), as well as setting off alarm bells about the risk of a winter marked by blackouts and energy restrictions across the continent.

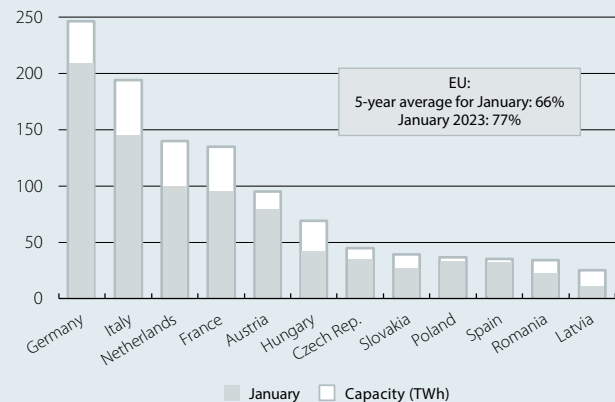
Fortunately, the worst omens have not materialised and prices have dropped by 80% since the August peak. Among the main factors that have favoured this sharp reduction we find, on the one hand, the increase in imports of liquefied natural gas (LNG), which facilitated the rapid growth of natural gas reserves in much of Europe, reaching a peak of 95% at the beginning of November. In addition, the demand for European gas (for both industrial and household use) fell by 12% in December compared to the average of the last five years as a result of the optimisation of energy use, the commissioning of renewable and nuclear energy sources and the milder weather.

All this means that the first few weeks of 2023 are proving clearly more favourable than expected and that the most extreme scenarios have been diluted. However, despite the improved confidence among investors and European governments, 2023 will still be a demanding year. The challenge of replenishing reserves ahead of next winter with the reduced contribution from Russia<sup>4</sup> will be key in determining European gas prices. The lower imports from Russia will no doubt have to be offset by more purchases from the US, Qatar, Nigeria or Algeria (Norway does not expect to materially increase its exports). In the second half of the year, China is also expected to increase its demand for liquefied natural gas, which will push up prices. However, the containment of European demand, the increase in the regasification capacity in some northern European countries<sup>5</sup> and the progress in reducing natural gas in the energy mix will continue to have a cushioning effect on prices. Similarly, experts in the sector point out that if this winter ends with gas reserves at above 50% of capacity, then the supply outlook for the winter of 2023 will be relatively secure.

4. In 2022, European imports of natural gas from Russia, through the four main gas pipelines (Turkstream, Ukraine, NordStream and Yamal Europe) amounted to 43.7 billion cubic meters. In 2023, only the first two are expected to be operational, so imports could halve.

5. JP Morgan estimates that between 2023 and the beginning of 2024, the countries of north-western Europe will be able to increase their regasification capacity by some 37 billion cubic metres a year.

### Natural gas: level of gas reserves in Europe Capacity (TWh)



Source: CaixaBank Research, based on data from AGSI.

Given these considerations, we have significantly revised down our gas price forecasts, but we maintain a more conservative forecast (average price in 2023 of 113 euros/MWh for the Dutch TTF) than that anticipated by the markets at this early stage of the year. In addition to the challenges already mentioned, it should be noted that factors such as a quicker than expected recovery in economic activity in China or an increase in the restrictions on the flows of energy supplies from Russia, besides introducing new doses of volatility, could fuel upward pressure on the already stressed markets.

Beatriz Villafranca

*Interest rates (%)*

	31-January	31-December	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
<b>Euro area</b>					
ECB Refi	2.50	2.50	0	0.0	250.0
3-month Euribor	2.51	2.13	38	38.0	305.9
1-year Euribor	3.41	3.29	12	12.2	384.4
1-year government bonds (Germany)	2.78	2.60	18	17.9	345.1
2-year government bonds (Germany)	2.65	2.76	-11	-11.3	312.1
10-year government bonds (Germany)	2.29	2.57	-29	-28.5	224.9
10-year government bonds (Spain)	3.28	3.66	-38	-38.1	250.5
10-year government bonds (Portugal)	3.19	3.59	-40	-39.6	249.7
<b>US</b>					
Fed funds (upper limit)	4.50	4.50	0	0.0	425.0
3-month Libor	4.81	4.77	5	4.6	451.1
12-month Libor	5.33	5.48	-16	-15.6	439.1
1-year government bonds	4.65	4.69	-3	-3.3	388.9
2-year government bonds	4.20	4.43	-22	-22.5	303.6
10-year government bonds	3.51	3.87	-37	-36.8	171.9

*Spreads corporate bonds (bps)*

	31-January	31-December	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
Itraxx Corporate	79	91	-11	-11.2	21.3
Itraxx Financials Senior	88	99	-11	-10.8	22.8
Itraxx Subordinated Financials	156	172	-16	-16.2	33.2

*Exchange rates*

	31-January	31-December	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
EUR/USD (dollars per euro)	1.086	1.071	1.5	1.5	-3.6
EUR/JPY (yen per euro)	141.320	140.410	0.6	0.6	9.3
EUR/GBP (pounds per euro)	0.882	0.885	-0.4	-0.4	5.8
USD/JPY (yen per dollar)	130.090	131.120	-0.8	-0.8	13.4

*Commodities*

	31-January	31-December	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	557.0	554.8	0.4	0.4	-4.9
Brent (\$/barrel)	84.5	85.9	-1.7	-1.7	-5.2
Gold (\$/ounce)	1,928.4	1,824.0	5.7	5.7	7.1

*Equity*

	31-January	31-December	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (USA)	4,076.6	3,839.5	6.2	6.2	-10.3
Eurostoxx 50 (euro area)	4,163.5	3,793.6	9.7	9.7	-1.4
Ibex 35 (Spain)	9,034.0	8,229.1	9.8	9.8	3.5
PSI 20 (Portugal)	5,886.3	5,726.1	2.8	2.8	4.6
Nikkei 225 (Japan)	27,327.1	26,094.5	4.7	4.7	0.9
MSCI Emerging	1,031.5	956.4	7.9	7.9	-15.0

## 2023, a year of digestion for the global economy

### The outlook improves within an environment of weakness.

The world economy is facing a slowdown in 2023 marked by the need to digest the consequences of the war in Ukraine, high inflation and the consequent monetary tightening. Within this context, the latest data provide some positive news: economic activity has held up better than expected over the winter and inflation continues to slow down. The savings buffer, the strength of the labour market and the fiscal aid to help confront the energy crisis have supported demand, while the supply constraints have been alleviated by the normalisation of the bottlenecks and a moderation in energy prices. All this leads us to expect a less marked economic slowdown than was feared a few months ago, although this improvement still does not allow us to escape the environment of high economic and geopolitical uncertainty. In addition, the monetary tightening is beginning to be felt and its consequences will be more tangible in 2023.

**Inflation: moderation in energy but inertia in the core components.** One of the major uncertainties for which we should get some clarity in 2023 is the speed of the correction in inflation. From last year's highs, headline inflation has been slowing while the underlying pressures have shown more inertia: the latest data show headline inflation of 6.5% year-on-year in the US (corresponding to December; -2.6 pps versus the peak) and of 8.5% in the euro area (January; -2.1 pps). The main force behind this decline is the gradual correction in energy prices, which will intensify in 2023, both due to the base effects themselves and because of the better outlook in the energy sphere (especially in the European gas market, with a decrease in the futures for 2023 in January of around 50% compared to the Q4 2022 average). Inflation will also decline on the back of the normalisation of the bottlenecks that had been hampering global supply and which had already improved markedly by the end of 2022. The inertia for inflation will most likely come from the components most sensitive to the labour market, where the dynamics in the US and Europe could be quite different: US wages appear to be slowing from their recent highs (from 6.7% in summer to 6.1% in December, according to the Atlanta Fed's benchmark indicator), while in Europe they began low but are gradually increasing.

**Europe held up better than expected in 2022; the US and China disappointed.** The figures published for Q4 2022 GDP have reflected a somewhat surprising disparity between the world's major economies. So far, economic activity in the euro area has withstood the war in Ukraine better than expected, thanks to a mild winter, high gas reserves (at the end of January they were still at 70% of capacity) and savings in gas consumption. Specifically, growth for the year as a whole (3.5%) was close to what had been expected at the beginning of 2022, and a contraction in Q4 was avoided (+0.1% quarter-on-quarter). Moreover, although GDP would have remained stagnant without the abnormal contribution of Ireland (GDP growth of +3.5% quarter-on-quarter), the two major economies most dependent on Russian gas – Germany and Italy – managed to retreat less than feared in Q4 (-0.2% and -0.1%, respectively). In contrast, the world's two biggest economies grew much less than expected in

### IMF: GDP

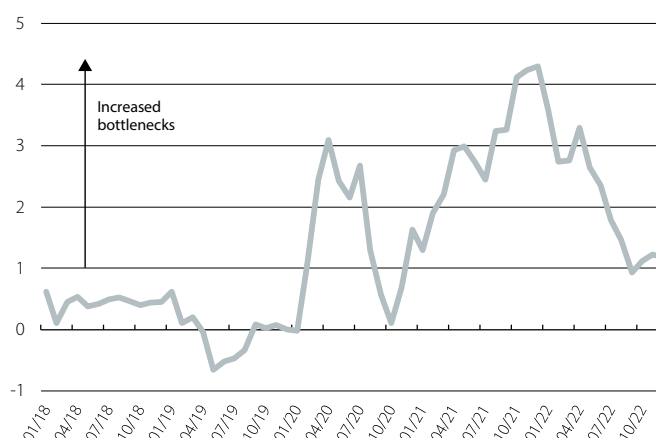
Annual change (%)

	Forecast		Change versus the WEO of October 2022	
	2023	2024	2023	2024
<b>Global economy</b>	2.9	3.1	0.2	-0.1
<b>Advanced economies</b>	1.2	1.4	0.1	-0.2
US	1.4	1.0	0.4	-0.2
Euro area	0.7	1.6	0.2	-0.2
Germany	0.1	1.4	0.4	-0.1
France	0.7	1.6	0.0	0.0
Italy	0.6	0.9	0.8	-0.4
Spain	1.1	2.4	-0.1	-0.2
<b>Emerging and developing economies</b>	4.0	4.2	0.3	-0.1
China	5.2	4.5	0.8	0.0
India	6.1	6.8	0.0	0.0
Russia	0.3	2.1	2.6	0.6
Brazil	1.2	1.5	0.2	-0.4
South Africa	1.2	1.3	0.1	0.0

Source: CaixaBank Research, based on data from the IMF (WEO, January 2023 update).

### Global: supply chain pressure index

(Standard deviations from the average)

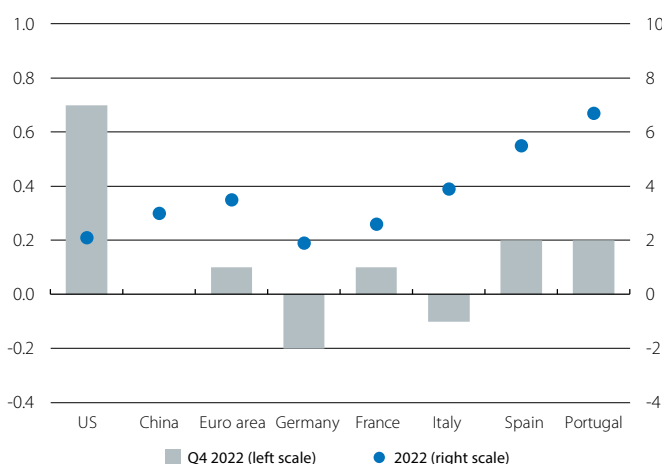


Source: CaixaBank Research, based on data from the New York Fed.

### Global: GDP

Quarter-on-quarter change (%)

Annual change (%)



Source: CaixaBank Research, based on data from the BEA, the National Statistics Institute of China and Eurostat.

2022: the US did so by 2.1% (vs. 3.5% projected a year ago) and China, by 3.0% (vs. 4.7%). The disappointment of the former reflects weak GDP data in the first half of the year, while in Q4 economic activity grew by 0.7% quarter-on-quarter. China, meanwhile, was heavily constrained by the COVID-related restrictions, to the point that GDP stagnated in Q4.

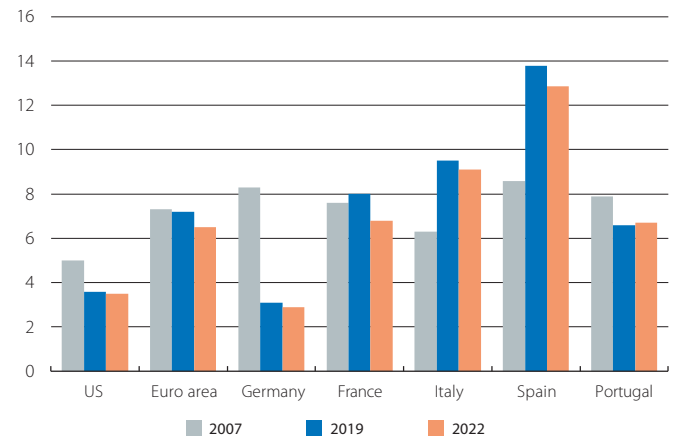
#### Cautious optimism in the first European indicators of 2023.

Against a backdrop of economic activity holding up, a slowdown in inflation and a moderation in energy prices, the first economic indicators of the year in Europe signal an improvement. Specifically, the euro area PMI (50.3 points in January) emerged from recessive territory for the first time in six months and the sentiment index produced by the European Commission (ESI) improved for the third consecutive month, reaching 98 points (very close to the 100-point level which marks the historical average). These indicators are in addition to a solid labour market, with a very low unemployment rate (6.6% in December) and an activity rate at its peak (75%). Taken together, the data are still showing stagnant economic activity, but they also suggest that the weakness is not as pronounced as feared. Therefore, we have improved our 2023 GDP forecasts for the euro area and its major economies.

**Mixed signals in the US.** US GDP managed to grow by +0.7% in Q4, but its composition reveals some indications of a slowdown in 2023. Specifically, investment, and residential investment in particular (−1.7% and −7.5% quarter-on-quarter, respectively, in Q4), has been feeling the effect of the Fed's rate hikes for several quarters now. In fact, data for the real estate market show a sector in retreat, in terms of both prices (the Case-Shiller index went from growing by over 20% year-on-year in early 2022 to just under 8% in November) and sales transactions (home sales fell again in December for the eleventh consecutive month, according to data from the National Association of Realtors). Moreover, the confidence indices, which had remained high until autumn, have deteriorated in the manufacturing sector (January ISM at 47.4 points) and show significant volatility in services (ISM at 49.6 points in December and 55.2 in January). The signs of slowdown are less visible in the labour market, which remains very robust with historically low unemployment (3.5% in December) and a strong job creation rate (+291,000 on average in Q4 2022 and an exceptional +517,000 in January) and is providing a significant tailwind for the economy.

**China seeks a return to normality.** After an initially disorderly withdrawal of the zero-COVID policy, with a major wave of infections and declines in mobility, the latest data are beginning to suggest a revival of economic activity. Beyond the GDP data already mentioned, the latest figures for industrial production and retail sales were somewhat better than expected (+1.3% and −1.8% year-on-year in December, respectively), while real-time indicators point to a rebound in mobility in January. Also, the Caixin PMI for the services sector climbed to 52.9 points in January, while the manufacturing PMI remained at 49.2 points. However, the economic reopening faces an uncertain context, dominated by doubts over the population's degree of immunisation (according to some estimates by the University of Beijing, by mid-January just over 60% of the population had been infected since the beginning of the pandemic, although these figures are shrouded in high uncertainty). The coming weeks will be key: with the Lunar New Year in China, there was a significant movement of people to rural areas, with older populations and comparatively low vaccination levels.

#### Unemployment rate (% of the labour force)

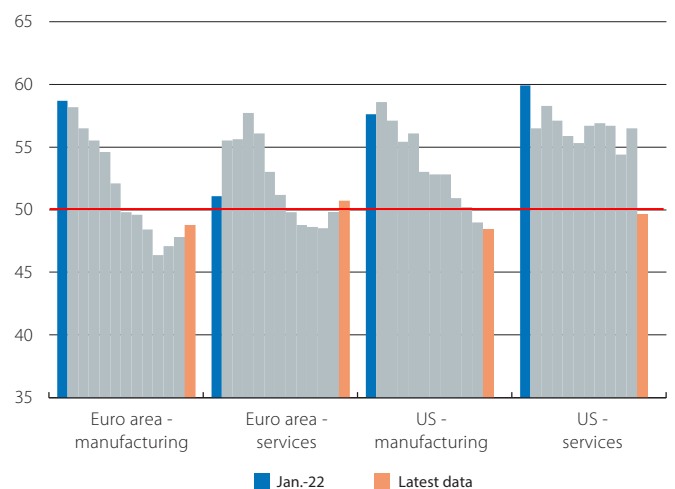


Note: Data at the end of the period.

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

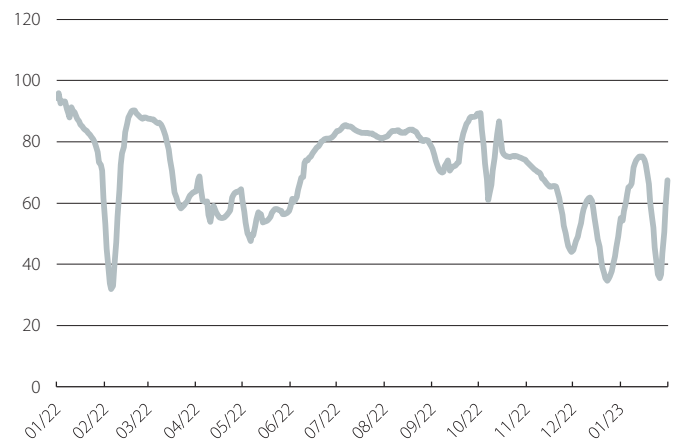
#### Economic activity indicators: PMI (euro area) and ISM (US)

Level



Source: CaixaBank Research, based on data from Bloomberg.

#### China: passengers in the metro Index (100 = Q4 2019)



Note: Aggregate of Beijing, Shenzhen, Shanghai, Hangzhou, Chengdu, Nanjing, Suzhou, Zhengzhou, Chongming, Wuhan and Xi'an.

Source: CaixaBank Research, based on data from Bloomberg.

## Europe benefits from a relatively mild winter

For the first time in many months, the outlook for the European economy has begun to improve. This shift in sentiment partly offsets the certain negative overreaction we witnessed last summer, when it was feared that the increased demand for gas for heating in winter could lead to some form of energy rationing for industry in order to prevent a depletion of reserves before the spring. However, on this occasion the weather has played in our favour: the winter is proving milder than usual and is keeping gas consumption contained (in 2022, it was 15% lower than the average consumption of the previous two years, according to Bruegel), and this is easing the pressure on prices and allowing gas reserves to remain close to the highs for this time of year (around 80%). This factor, together with the measures taken to combat the energy crisis (focused, above all, on promoting energy savings), have substantially modified our energy outlook and we now consider it feasible for oil and, above all, gas prices to remain well below the levels we feared a few months ago (see the Focus «[Energy: with 2022 behind us, will 2023 be as turbulent?](#)» in this same report).

What seems clear is that, even if there were a cold snap in the coming weeks, it is now unlikely that we will have to endure energy rationing in the short term, and this dilutes the more pessimistic scenarios we were considering a few months ago. In addition, many of the indicators for both economic activity and demand have shown a more favourable performance than expected in recent months. This improvement in the outlook for the euro area is not incompatible with the behaviour shown by GDP in Q4 2022. The region grew by 0.1% quarter-on-quarter, although this was largely thanks to the surprising growth of Ireland (3.5% quarter-on-quarter), since neither Germany (–0.2%) nor Italy (–0.1%) managed to avoid contraction and France practically stagnated (0.1%).

In fact, the decline suffered by Germany dampens the optimism shown by various official institutions at the start of the year when they declared that the country will have avoided a contraction in Q4. However, the decline in Q4 has been less pronounced than had been expected a few months ago and we should also bear in mind that the figure is preliminary, meaning that it could still be subject to revisions. Moreover, the recovery in the main business confidence indicators suggests that the beginning of 2023 may not be as gloomy as had been anticipated at the end of last summer. Indeed, this is a hypothesis backed up by the Bundesbank's weekly economic activity indicator, which is showing timid signs of improvement in the early stages of this year, albeit within a context of clear weakness. In this regard, the German government's own estimates place growth for 2023 as high as 0.2%, in contrast to the 0.4% recession

### Economic Surprise Index \*

Level

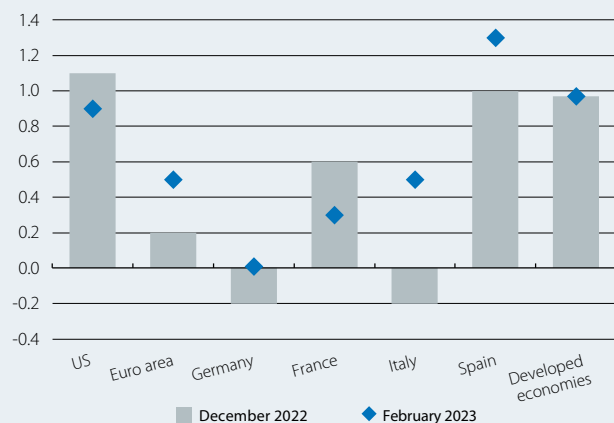


**Notes:** \* Defined as the historical weighted deviations from the differences between the actual published data and analysts' expectations. A positive value means that the published data has been better than expected; if it is negative, this indicates that the actual data was disappointing relative to expectations.

**Source:** CaixaBank Research, based on data from Citigroup and Refinitiv.

### Global: 2023 GDP forecasts

Annual change (%)



**Source:** CaixaBank Research, based on data from internal forecasts.

estimated last autumn. As a result, it seems that the deterioration in economic activity in Q1 2023 will be less pronounced than we had feared last summer. This explains the upward revision of our forecasts for GDP growth in 2023, up to 0.0%, compared to a recession of 0.2% estimated a few months ago.

Italy has also performed much better than expected despite the setback at the end of the year, achieving the best economic performance in the region during 2022, and this trend could well continue according to the main industrial climate indicators. Indeed, the ESI recorded a substantial improvement during the course of Q4 and in December reached values of 100.3, compared to 95.8 in the euro area, 94.6 in Germany and 93.3 in France. In the case of France, *a priori* one of the economies least

exposed to Russian gas, its growth has fallen somewhat short of our expectations, largely because it has had to deal with electricity generation issues in a network that is highly dependent on nuclear power plants with maintenance problems. So much so that almost 40% of its nuclear reactors have suffered service interruptions, which has led to electricity generation in France falling to its lowest in seven years and has forced the country to be a net importer of energy.

In short, we have applied upward revisions to growth in 2023 across most of the major countries:<sup>1</sup> +0.2 pps in Germany, up to 0.0%; +0.7 pps in Italy, up to 0.5%; offsetting the -0.3 pps in France, down to 0.3%; hence we revise upwards our growth forecast for the euro area by 0.3 pps, to 0.5%. For 2024, we keep the current scenario virtually unchanged.

On the other hand, parallel to this improved performance in recent months and the outlook with which economic activity has begun 2023, the headwinds for the second half of the year have also gained some strength. The last month has seen a significant heightening of expectations regarding a potential tightening of monetary policy on the part of the ECB, due to the greater persistence in inflation which the central bank is anticipating. In fact, our interest rate forecast scenario has been revised upwards and we now think the ECB's benchmark rate could reach 3.5% by mid-year.

In this context of improved economic outlook, inflation has begun to show timid signs of moderation, although it is still very high (9.2% in December). During the course of 2023, the decline in headline inflation will intensify thanks to the stabilisation of energy prices, the normalisation of the bottlenecks and the economic slowdown (see the [Dossier in this same report](#)). As such, it could fall to slightly below 4% by the end of 2023, although second-round effects and the withdrawal of the various fiscal measures implemented to offset the rising energy prices are likely to continue to have considerable inertia, resulting in the 2% target rate not being reached until late 2024.

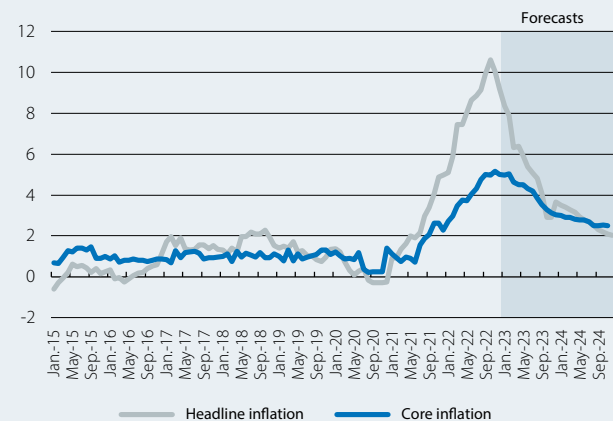
This better performance of the European economy contrasts with the evidence of a greater cooling than expected in the US economy at the end of 2022 and in early 2023, which has led to a downward revision of the growth forecast for the US, although we remain confident that it will avoid a recession (see the Focus [«US: land as best you can»](#) in this *Monthly Report*).

However, it must be borne in mind that, although expectations for the European economy have improved, our forecast scenario is still one of almost stagnation

1. For Spain, we revised growth for 2023 up by 0.3 pps, to 1.3% (see the Focus [«The outlook for the Spanish economy improves»](#) in this same report).

### Euro area: headline and core inflation

Year-on-year change (%)



Source: CaixaBank Research, based on data from Eurostat and internal forecasts.

and uncertainty remains very high. The war in Ukraine is showing no sign of ending in the short term and the end of China's zero-COVID policy will affect the global economy. Indeed, the reopening of the Chinese economy is a double-edged sword for developed economies. On the one hand, it is quite likely that there will be a notable rebound in economic activity in the spring (once the first waves of contagion after the reopening process have been overcome) and that global supply chains will be stimulated. On the other hand, however, this revival will exert clear pressure on the demand for many industrial commodities, including oil and gas, and this will push up their prices. Moreover, our scenario contemplates a clear acceleration in China's economy in the second half of 2023, coinciding with the period in which Europe will once again need to replenish its gas reserves ahead of the 2023-2024 winter in a scenario in which, *a priori*, the supply of Russian gas to Europe will remain almost nil. When the time comes, the «winter» variable will once again be key for elaborating forecast scenarios. In short, although the worst scenarios have dissipated in the short term, it is still too early to declare victory in a year that will continue to be marked by high uncertainty and complexity.

Rita Sánchez Soliva

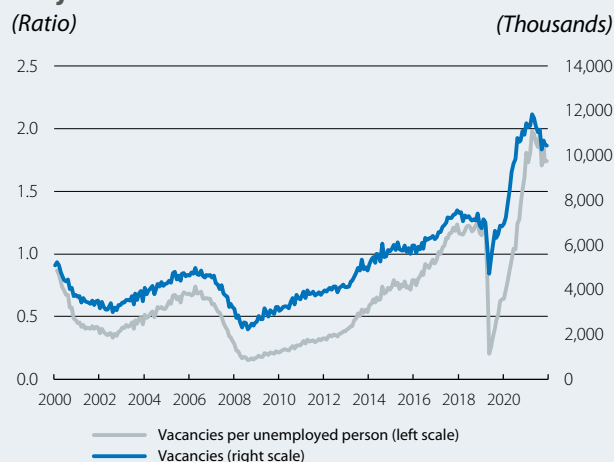
## US: land as best you can

Despite the positive growth data for Q4 2022, more than half of the analysts on the Bloomberg consensus panel believe that in 2023 we will see a fall in US GDP for two consecutive quarters. Also, the probability they assign to a recession in the US in the next 12 months is around 70% and the sovereign yield curve has been inverted in the section spanning from three months to 10 years since October 2022 – an almost infallible predictor of recession. What arguments support this pessimistic view of a hard landing for US economic activity? Are there any reasons to think it is possible to avoid a recession and make a soft landing?

### The US is not yet in recession

The most recent economic data do not show an economy in recession, although all the indicators, especially those most closely associated with the perceptions of economic agents, reflect a widespread downward trend. For instance, the PMI and ISM indices lie below the 50-point threshold which separates levels compatible with economic expansion from those associated with a contraction in activity. Similarly, consumer confidence indicators are at very low levels (for example, the University of Michigan Consumer Sentiment Index is below the levels recorded during the pandemic and, in June 2022, recorded the lowest level since 1978). The indicators for industrial production and retail sales, meanwhile, paint a less pessimistic picture with year-on-year changes slightly above the historical average, albeit with a downward trend. On the other hand, the labour market is not only showing no signs of weakness, but it is at saturation levels – for some indicators at levels not seen before. For instance, for every unemployed person there are currently 1.7 job vacancies, and this ratio reached close to 2 in April last year, well above the historical average of 0.64. The unemployment rate,

### US: job vacancies



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

meanwhile, stands at an all-time low of 3.5% and the rate of job creation is somewhat higher than the average for 2015-2019, although it has moderated. Thus, taking into account this combination of indicators, can we say that the US is in recession? Recently,<sup>1</sup> we explained that a recession is understood as a significant reduction in economic activity that is widespread across various areas of the economy and is relatively prolonged in time. Another common (although incomplete) definition is that a technical recession occurs when there are two consecutive quarters of contractions in GDP. If we follow the second definition, we could conclude that the US was already in a recession in 2022, and we would not rule out that it could do so again in 2023. However, with the first definition, which is the one used by the NBER, we cannot state that the US entered a recession in 2022 nor that it is at risk of approaching such a situation in the short term.

### US: main economic activity indicators

	December 2022	November 2022	October 2022	September 2022	Average for 2015-2019	Average during financial crisis (2008-2009)	Average during COVID (March-December 2020)
Retail sales (% YoY)	6.0	6.0	8.0	8.4	3.5	-4.2	-0.3
Industrial production (% YoY)	1.7	2.2	3.4	5.0	0.1	-7.3	-8.1
Conference Board - Consumer confidence (index)	108.3	101.4	102.2	107.8	115.3	51.6	94.9
University of Michigan - Consumer sentiment (index) *	64.6	59.7	56.8	59.9	95.2	65.0	77.8
University of Michigan - Consumer expectations (index) *	62.0	59.9	55.6	56.2	85.6	60.7	72.2
ISM manufacturing (index)	48.4	49.0	50.2	50.9	54.0	46.8	52.8
ISM services (index)	49.6	56.5	54.4	56.7	56.7	46.8	53.9
Unemployment rate (%)	3.5	3.6	3.7	3.5	4.4	7.5	9.0
Job creation (thousands of workers)	223.0	256.0	263.0	269.0	190.2	-358.5	-1,000.7

Note: \* Data corresponding to the month after the one indicated.

Source: CaixaBank Research, based on data from Bloomberg.

1. See the Focus «[US: in recession?](#)» in the MR09/2022.

### The headwinds for 2023

What supports the pessimistic view held by the consensus of analysts? Firstly, the cycle of monetary tightening carried out by the Federal Reserve in 2022 has been of an intensity not seen since the 1980s. The rise in interest rates, together with the process of reducing the size of its balance sheet, will have a major impact on economic activity. Specifically, it is estimated that for every 100-bp increase in official interest rates, GDP after four quarters is reduced by almost 0.5 pps.<sup>2</sup> Thus, the increase in rates observed to date, and which will continue in Q1 2023, could deduct more than 2 pps from US GDP in 2023. This effect is already visible in the component of GDP that is most sensitive to interest rates, namely residential investment.<sup>3</sup>

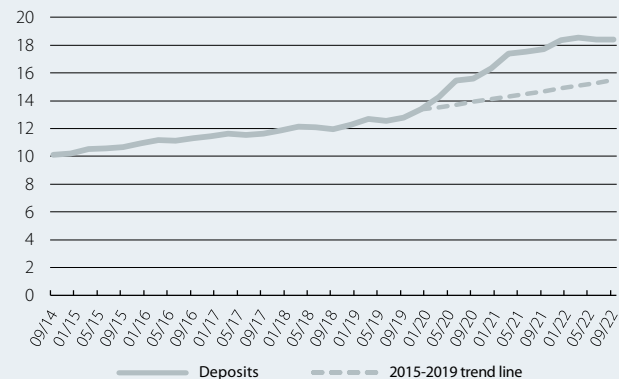
Another headwind for the US is the fall in confidence indicators which we mentioned earlier and the scenario of permanent uncertainty into which the global economy, including the US, has settled. Although the drop in these confidence and expectations indicators does not directly imply a contraction in economic activity, it does give us an indication that households and firms may be more cautious in their actions and, for example, postpone investment and consumption decisions. Finally, the US is not immune to global dynamics. Indeed, these headwinds are not only limited to the other side of the Atlantic. The economic slowdown is global in nature, so US foreign demand may lack the strength to offset the burdens that are weighing down domestic demand.

### Will the tailwinds be strong enough?

In this context, the reasons to be optimistic about the US economy may be fewer, but they are still present. The main one is private consumption, which we expect will be able to make a positive contribution to GDP during 2023. This is especially important in the case of the US, as private consumption is the main driver of the economy, accounting for some 70% of GDP (in the euro area it represents around 50%, while in China it is less than 40%). This resilience which we forecast is based on two assumptions: the strength of the labour market and the savings accumulated during the pandemic. The first factor is the key assumption and it is shared by various members of the Federal Reserve. According to their estimates published in the latest macroeconomic table, which coincide with ours in many respects, the rebound in the unemployment rate ought to be limited. This is because of the significant mismatch which currently exists between the supply and demand for employment; there are still many job vacancies,<sup>4</sup> so it is reasonable to assume that some of the workers who would potentially

### US: household deposits

(USD trillions)



**Note:** The dashed line shows the trend in deposits which would have occurred assuming that the average growth observed between 2015 and 2019 had continued from Q1 2020 onwards.

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

lose their jobs in an environment marked by a slowdown and rising interest rates could find other jobs.

The other factor – the pent-up savings – could act as a buffer for the reduction in households' purchasing power. As we saw in a recent article,<sup>5</sup> households accumulated savings up to 12% of GDP and, according to the latest estimates, they have not yet consumed 60% of that amount. While these savings are certainly not likely to be evenly distributed among the various income percentiles, whose propensity to consume differs, and that a portion of the savings are held in assets that are not highly liquid or which may have even suffered losses due to the fluctuations in the financial markets, some support can still be offered to private consumption. In particular, we estimate that US household deposits are 18% higher than they would have been were it not for the pandemic (they were 23% higher at one point, but the lower savings rate recorded in the closing weeks of 2022 has begun to drain deposits).

The current scenario is challenging, and this will continue to be the case during 2023. There are many uncertainties which we await to see how they will unfold this year, including the inflationary pressures and financial conditions. If, as we believe, inflation continues to decline but remains still at high levels, its influence as a headwind could fade compared to 2022. Also, the easing of financial conditions (for example, the sovereign 10-year interest rate and the interest rate on a standard 30-year mortgage have fallen by around 70 bps and 90 bps, respectively, since their peaks in Q4 2022) also indicates that this headwind could blow less strongly in 2023. We will see whether these elements, together with the strength of the labour market and the significant pent-up savings, help to cushion a potential hard landing.

Ricard Murillo Gili

2. See J. Rush (2021). «Bloomberg Economics Forecast Models for the U.S., U.K. and Euro Area». Bloomberg.

3. The residential investment component, which mainly reflects trends in the real estate market, has accentuated its fall in 2022, although investment as a whole continued to grow in 2022 thanks to the rest of the subcomponents (investment in capital goods, structures and intellectual property).

4. More than 10 million, in fact, while the average since 2000 is slightly less than half this figure.

5. See the Focus «US: how can the accumulated savings support the economy?» in the MR07/2022.

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

## UNITED STATES

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
<b>Activity</b>									
Real GDP	5.9	2.1	3.7	1.8	1.9	1.0	1.0	–	–
Retail sales (excluding cars and petrol)	17.5	8.6	11.2	7.8	8.5	7.1	6.4	7.2	...
Consumer confidence (value)	112.7	104.5	108.1	103.4	102.2	104.2	101.4	109.0	107.1
Industrial production	4.9	3.9	4.8	4.5	4.1	2.4	2.2	1.6	...
Manufacturing activity index (ISM) (value)	60.7	53.5	57.7	55.0	52.2	49.1	49.0	48.4	47.4
Housing starts (thousands)	1,605	1,555	1,720	1,647	1,450	1,403	1,401	1,382	...
Case-Shiller home price index (value)	267	...	299	314	310	...	303	...	...
Unemployment rate (% lab. force)	5.4	3.6	3.8	3.6	3.6	3.6	3.6	3.5	...
Employment-population ratio (% pop. > 16 years)	58.4	60.0	59.9	59.9	60.0	60.0	59.9	60.1	...
Trade balance <sup>1</sup> (% GDP)	–3.6	...	–3.9	–4.0	–3.9	...	–3.8	...	...
<b>Prices</b>									
Headline inflation	4.7	8.0	8.0	8.6	8.3	7.1	7.1	6.5	...
Core inflation	3.6	6.2	6.3	6.0	6.3	6.0	6.0	5.7	...

## JAPAN

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
<b>Activity</b>									
Real GDP	2.1	...	1.2	1.6	1.5	...	–	–	–
Consumer confidence (value)	36.3	32.2	34.8	33.1	31.2	29.6	28.6	30.3	31.0
Industrial production	5.6	0.1	–0.6	–3.6	4.0	0.5	–0.9	–1.2	...
Business activity index (Tankan) (value)	13.8	9.5	14.0	9.0	8.0	7.0	–	–	–
Unemployment rate (% lab. force)	2.8	2.6	2.7	2.6	2.6	2.5	2.5	2.5	...
Trade balance <sup>1</sup> (% GDP)	–0.3	–4.9	–1.0	–1.9	–3.0	–5.1	–4.6	–4.9	...
<b>Prices</b>									
Headline inflation	–0.2	2.5	0.9	2.4	2.9	3.9	3.8	4.0	...
Core inflation	–0.5	1.1	–0.9	0.8	1.5	2.8	2.8	3.0	...

## CHINA

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
<b>Activity</b>									
Real GDP	8.4	3.0	4.8	0.4	3.9	2.9	–	–	–
Retail sales	12.4	–0.8	1.6	–4.9	3.5	–2.7	–0.5	–5.9	–1.8
Industrial production	9.3	3.4	6.3	0.6	4.8	2.8	5.0	2.2	1.3
PMI manufacturing (value)	50.5	49.1	49.9	49.1	49.5	48.1	49.2	48.0	47.0
<b>Foreign sector</b>									
Trade balance <sup>1,2</sup>	681	889	728	824	908	889	907.7	905.1	889.1
Exports	30.0	7.1	15.7	12.9	10.0	–6.8	–0.6	–9.0	–10.1
Imports	30.0	1.1	10.6	1.2	0.6	–6.5	–0.7	–10.6	–7.5
<b>Prices</b>									
Headline inflation	0.9	2.0	1.1	2.2	2.7	1.8	2.1	1.6	1.8
Official interest rate <sup>3</sup>	3.80	3.65	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Renminbi per dollar	6.5	6.7	6.3	6.6	6.9	7.1	7.2	7.2	7.0

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

Source: CaixaBank Research, based on data from the Department of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, Standard &amp; 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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
Retail sales (year-on-year change)	5.5	...	6.1	1.1	-0.7	...	-2.8	...	...
Industrial production (year-on-year change)	9.0	...	-0.2	0.4	1.8	...	2.0	...	...
Consumer confidence	-7.5	...	-13.6	-22.6	-26.9	-26.9	-23.8	-22.1	-20.9
Economic sentiment	110.7	...	111.2	103.9	96.5	96.5	95.1	97.1	99.9
Manufacturing PMI	60.2	...	57.8	54.1	49.3	49.3	47.1	47.8	48.8
Services PMI	53.6	...	54.1	55.6	49.9	49.9	48.5	49.8	50.7
<b>Labour market</b>									
Employment (people) (year-on-year change)	1.4	...	3.0	2.6	1.7	...	-	-	-
<b>Unemployment rate (% labour force)</b>	7.7	6.7	6.8	6.7	6.7	6.6	6.6	6.6	...
Germany (% labour force)	3.6	3.0	3.1	3.0	3.0	3.0	3.0	2.9	...
France (% labour force)	7.9	7.3	7.3	7.6	7.2	7.1	7.0	7.1	...
Italy (% labour force)	9.5	8.1	8.5	8.1	7.9	7.8	7.8	7.8	...
<b>Real GDP (year-on-year change)</b>	5.5	3.5	5.5	4.3	2.3	1.9	1.9	-	-
Germany (year-on-year change)	2.6	1.9	3.5	1.7	1.4	1.1	1.1	-	-
France (year-on-year change)	6.8	2.6	4.8	4.2	1.0	0.5	0.5	-	-
Italy (year-on-year change)	6.7	3.9	6.4	5.0	2.7	1.7	1.7	-	-

## Prices

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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
General	2.6	8.4	6.1	8.0	9.3	10.0	10.1	9.2	8.5
Core	1.5	3.9	2.7	3.7	4.4	5.1	5.0	5.2	5.2

## Foreign sector

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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
<b>Current balance</b>	2.6	...	1.8	0.7	-0.8	...	-0.9	...	...
Germany	7.4	...	6.6	5.4	4.2	...	3.8	...	...
France	0.4	...	0.1	-0.4	-1.3	...	-1.8	...	...
Italy	3.1	...	2.1	1.0	-0.6	...	-0.8	...	...
<b>Nominal effective exchange rate<sup>1</sup> (value)</b>	94.2	...	92.5	90.1	88.9	...	92.2	...	...

## Credit and deposits of non-financial sectors

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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
<b>Private sector financing</b>									
Credit to non-financial firms <sup>2</sup>	3.5	6.7	4.4	6.1	8.4	7.8	8.3	6.3	...
Credit to households <sup>2,3</sup>	3.8	4.4	4.4	4.6	4.5	4.0	4.1	3.8	...
Interest rate on loans to non-financial firms <sup>4</sup> (%)	1.2	1.8	1.2	1.4	1.8	2.9	3.0	3.4	...
Interest rate on loans to households for house purchases <sup>5</sup> (%)	1.3	2.0	1.4	1.5	2.1	2.9	2.9	3.1	...
<b>Deposits</b>									
On demand deposits	12.6	6.2	9.1	7.7	6.3	1.8	1.9	0.0	...
Other short-term deposits	-0.8	4.5	-0.3	0.9	5.3	11.9	11.9	14.0	...
Marketable instruments	11.6	3.6	0.7	2.0	4.3	7.6	8.5	11.3	...
Interest rate on deposits up to 1 year from households (%)	0.2	0.5	0.2	0.2	0.4	1.1	1.1	1.3	...

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

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

## The outlook for Spain improves slightly, but remains highly challenging

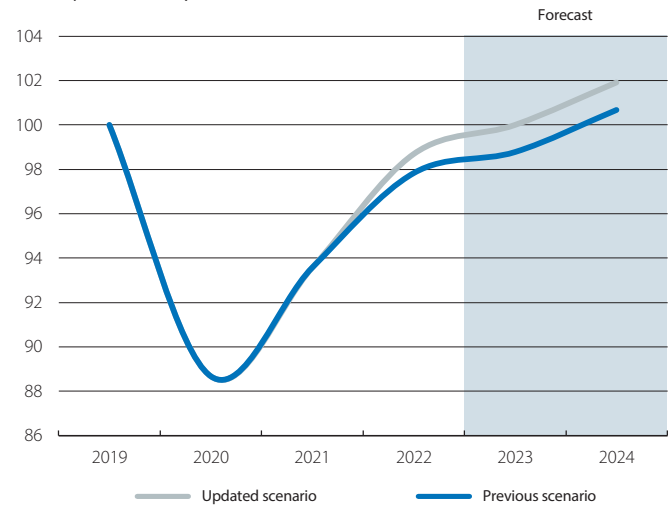
**The Spanish economy is proving more resilient than expected, almost a year into the energy crisis.** Whereas in December 2021 our GDP growth forecast for 2022 was 5.9%, in March, after the outbreak of the war between Russia and Ukraine, we lowered this forecast to 4.2%. In the end, the economy has managed to grow by a significant 5.5%, in spite of the geopolitical conflict, rising inflation and tightening macroeconomic conditions. In the coming quarters, the Spanish economy will continue to face an adverse context, marked by geopolitical uncertainty and rising interest rates. However, there are also some elements that will support economic growth, such as the acceleration of the disbursement of the NGEU funds and the recovery of the sectors hardest hit by the pandemic, such as tourism. Inflation, while remaining high, is likely to moderate somewhat faster than expected thanks to the fall in energy prices. All this, together with the better-than-expected performance of the economy in the final stages of 2022, has led us to revise our forecast for GDP growth in 2023 slightly upwards, from 1.0% to 1.3%.

**GDP closed the year with positive growth, but domestic demand was very weak in the final weeks.** Following the sharp rise in energy prices in August, the forecasts according to the consensus of analysts in September suggested that GDP would register a decline in Q4 2022. This has not been the case, and GDP grew by 0.2% quarter-on-quarter (2.7% year-on-year). However, the composition of growth, according to preliminary data from the National Statistics Institute, shows a weakening of domestic demand. It fell by 0.9% quarter-on-quarter, as a result of the contraction of private consumption (-1.8% quarter-on-quarter) and investment (-3.8% quarter-on-quarter). Thus, GDP growth came from the contribution of external demand due to the fall in imports (-4.2% quarter-on-quarter), which were dragged down by weak domestic demand and far exceeded the decline in exports (-1.1%).

**Job growth slowed in the last quarter of 2022.** Employment according to the labour force survey (LFS) remained flat, in seasonally adjusted terms, in the closing stages of 2022. In non-seasonally adjusted terms, employment fell by 81,900 people, marking the first decline in a Q4 since 2017. On the upside, the temporary employment rate fell to 17.9%, which is the lowest in the historical series and 7.5 pps less than the figure recorded in Q4 2021. Finally, the unemployment rate crept up to 12.9% from 12.7% in Q3, 0.4 percentage points below the level at the end of 2021. The annual average for the unemployment rate in 2022 stood at 12.9%, compared to 14.8% in 2021.

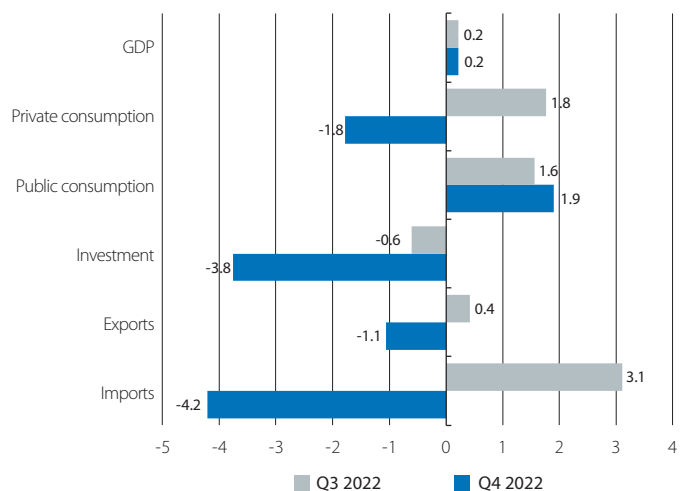
**The signals from the first available economic activity indicators of 2023 look hopeful.** In January, the PMI for the

**Spain: GDP**  
Index (100 = 2019)



Source: CaixaBank Research, based on data from CaixaBank.

**Spain: components of GDP**  
Quarter-on-quarter change (%)



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

**Spain: unemployment rate**  
(% of the labour force)



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

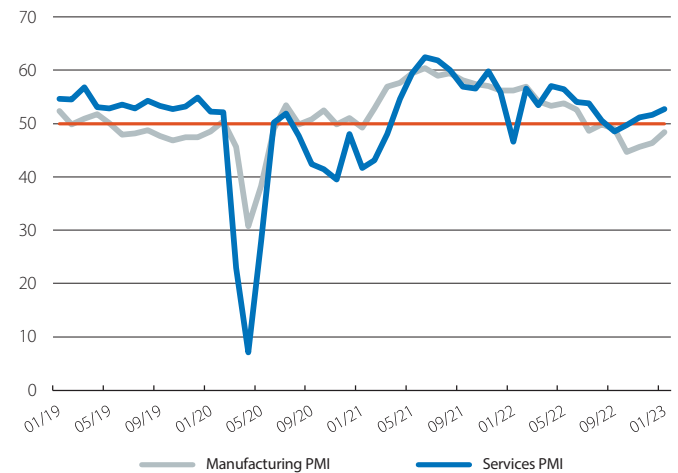
manufacturing sector rose 2 points to 48.4 points. While still below the threshold that denotes growth (50), this nevertheless suggests that the deterioration in industrial activity is moderating. Also, the counterpart indicator for the services sector climbed by 1.1 points to 52.7 points, placing it firmly in expansionary territory. The Social Security affiliation data, meanwhile, indicates that the year began better than expected. Although the number of registered workers fell, as is usual in the month of January, in seasonally adjusted terms employment grew by 57,726 people, representing an increase of 0.4% compared to the Q4 2022 average. Furthermore, on the consumer side, the CaixaBank Research consumption tracker reveals that the usage of Spanish bank cards in January continued the recovery begun in December, registering 10% year-on-year growth in January, up from 8% in December and 5% in November.

**Core inflation continues to climb, while headline inflation stabilises.** Headline inflation cut short its recent trend of moderation and stood at 5.8% in January, 1 percentage point above the figure for December. In contrast, core inflation (which excludes energy and unprocessed foods) jumped by 5 percentage points up to 7.5%, despite the VAT cut on some foods. As advanced by the National Statistics Institute, the slight rebound in headline inflation in January is explained by the rise in fuel prices, after the end of the 20-cent-per-litre discount on fuel for all users, as well as a smaller reduction in clothing and footwear prices than in the sales of January last year. However, these dynamics were practically offset by the significant fall in electricity prices. In fact, according to data from Spain's electricity grid operator Red Eléctrica Española, the regulated tariff stood at €129/MWh on average in January, which represents a sharp year-on-year drop of 55%. The National Statistics Institute also announced that, beginning this January, the electricity and natural gas components of the CPI will include free market data in their computation. With the inclusion of this data, energy price dynamics are likely to be somewhat more stable, as free market prices tend to fluctuate less.

**Marked improvement in the non-energy trade balance.** In November, the foreign trade deficit stood at 3,313 million euros, a figure below that of the same month of the previous year (4,207 million), thus truncating the deterioration seen in recent months. This improvement came from the balance of non-energy goods, which registered a surplus of 990 million euros compared to a deficit of 1,199 million in November 2021, driven by an increase in exports (4.5% year-on-year in terms of volume) and a fall in imports (-3.5% by volume). The energy deficit, meanwhile, continued to grow and reached 4,303 million, 1.4 times higher than a year ago, due to the sharp increase in imports (+38.7%) as a result of the rise in prices (+31.7%).

### Spain: PMI

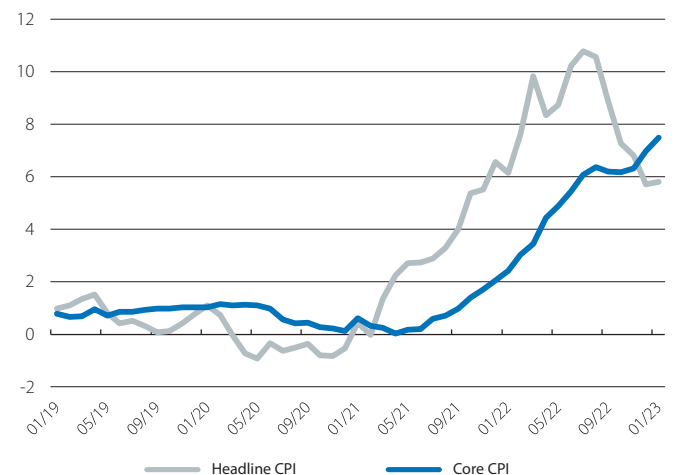
Level



Source: CaixaBank Research, based on data from Markit.

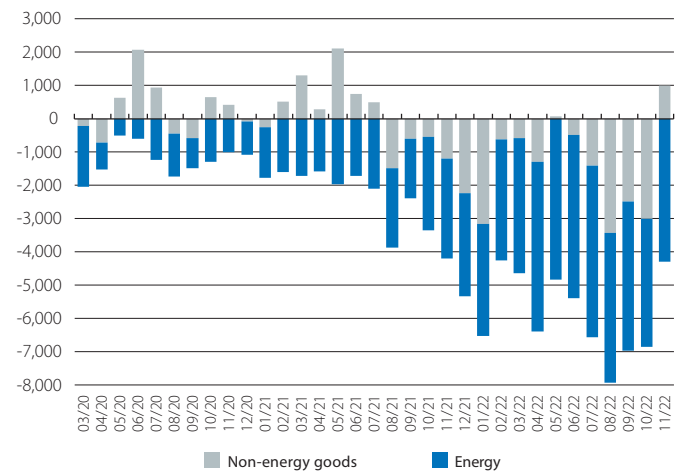
### Spain: CPI

Year-on-year change (%)



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

### Spain: balance of foreign trade in goods (EUR millions) \*



Note: \* Monthly data.

Source: CaixaBank Research, based on data from the Department of Customs.

## The outlook for the Spanish economy improves

The current economic context, marked by the EU energy crisis and the geopolitical conflict between Russia and Ukraine, magnifies the difficulties of making forecasts. The environment is uncertain and changing, and there are different factors that are pushing the Spanish economy in opposite directions. These difficulties, however, must not prevent us from outlining the main factors that we believe will dominate the economy and how it will evolve in the coming months.

All forecasts require us to first understand the starting point. The recent performance of the Spanish economy has been somewhat better than expected. Whereas in late Q3 2022 the consensus of analysts was predicting that economic activity – beset with inflation, uncertainty and rising interest rates – would experience a slight decline in the closing stages of the year, the figure published at the end of January for GDP in Q4 2022 shows that the economy actually managed to dodge this decline and grew by 0.2% quarter-on-quarter. Although modest, this figure highlights the resilience the Spanish economy has shown throughout 2022 to the impact of the energy crisis. However, it was not all good news. The weakness shown by consumption and investment (both fell in quarter-on-quarter terms) is a wake-up call and reflects the fact that the economy is not immune to the current challenging context.

Besides the somewhat better than expected starting point, in 2023 we expect growth to be driven by two major sources. First of all, during 2023 we can expect the European NGEU funds to gain traction. To date, their execution has been somewhat slower than expected (with data between January and November 2022, the aid disbursed in the period reached 29% of the total budgeted for the year). However, the data show that in the second half of 2022 the pace of execution accelerated: whereas between January and June only around 2.6 billion euros were disbursed, the figure for the period between July and November was almost 5.6 billion, more than double. In this regard, if the rate reached during the second half of 2022 is maintained, then the NGEU funds could contribute around 1 pp to GDP growth in 2023.

Secondly, the sectors that were hardest hit by the restrictions on mobility and activity during the pandemic are also likely to continue to gain traction during 2023, particularly the tourism sector. Although in 2022 the sector experienced a strong recovery, it still has some way to go. In particular, European tourism has a significant capacity to recover, as during the 2022 summer season it still remained between 10% and 15%

### Macroeconomic forecast table

Annual change (%), unless otherwise stated

	2022	2023	2024
GDP	5.5	1.3	1.9
Inflation (level, annual average)	8.4	4.2	2.6
Unemployment rate (% labour force, annual av.)	12.9	12.8	12.4
Home prices	4.9	0.2	1.5
Budget deficit (% of GDP)	4.0	4.0	3.3

*Note:* The blank figures are those already confirmed.

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

below the levels of 2019 in terms of flights, largely due to the bottlenecks at European airports which are not expected to be repeated in 2023. In addition, long-haul tourism also has a significant margin for recovery: flights from North America, or from the rest of the world excluding the American and European continents, were still some 20% below pre-pandemic levels during the summer. In this regard, the figures for the tourist season in the Canary Islands, which can be taken as a leading indicator since it is now high season there, point to a good year: in terms of hotel overnight stays, in late 2022 the Canary Islands reached the pre-pandemic figures of 2019.

However, there are other factors pushing the economy in the opposite direction, which will limit the pace of growth. These include the cycle of interest rate rises being implemented by the ECB, which is occurring faster than expected and also looks set to go further than foreseen. In September 2022 it was anticipated that the ECB would bring the benchmark rate for the deposit facility up to 2.5%, whereas today the expectation is that it could reach 3.5% by mid-2023. As a benchmark, we estimate that for every 100-bp increase in interest rates, growth tends to slow by 0.4 pps, but estimating its impact in the current context is especially difficult. For instance, the sudden and unexpected change in the pattern of interest rates could make the impact somewhat greater this time around. On the other hand, the high proportion of fixed rate mortgages that have been granted in recent years (66% in 2022) could help mitigate the impact at the aggregate level.

Finally, another element that will continue to limit the Spanish economy's capacity to recover, and that of household consumption in particular, is the increase in prices. After surpassing the 10% barrier in July and August 2022, headline inflation has gradually moderated back down to 5.8% in January 2023. This downward trend has been driven by the fall in energy prices (gas

prices, in particular), which has been sharper than anticipated and is explained by a diverse set of factors: a milder than usual winter, the EU's high levels of gas reserves and the reduced demand for gas in European economies, among other factors. The impact of this moderation in energy prices is substantial: in August, the energy component grew by around 40% year-on-year and contributed some 4 pps to headline inflation, but in December, energy fell by around 7% year-on-year, making a negative contribution of 0.7 pps to headline inflation. Looking ahead to 2023, we have incorporated this recent moderation in energy prices into our forecasts (although not entirely, to be prudent), and this should allow inflation to continue to moderate over the coming months.

However, the latest data also show that the rising inflation in the non-energy components is proving more pronounced and persistent than previously anticipated. Particularly noteworthy is the case of food, which since September has outrun the energy component and is now the component contributing the most to inflation (3.9 pps in December). Overall, the inflation rate looks set to remain high this year, with an annual average of 4.2%, and it will therefore continue to limit the growth of household consumption.

In all, the factors mentioned above suggest that growth will be moderate this year, although probably somewhat higher than was expected a few months ago. More specifically, we expect GDP to grow by 1.3% in 2023, up from the 1.0% previously anticipated.

In this context, employment can be expected to continue to grow, albeit at more modest rates than those observed in 2022. Thus, for the year as a whole, we expect employment to grow at rates close to, but slightly below, 1%. This, together with the maintenance of the growth of the labour force at a similar rate to that observed in recent quarters, should allow the unemployment rate to remain quite stable in 2023, with a slight fall of 0.1 pp compared to 2022, placing it at 12.8%.

In addition, the housing market is expected to slow during the year, driven by declining household purchasing power and rising interest rates. In this context, we expect home prices to grow by just 0.2% in 2023. However, insofar as the fundamentals of the property market are strong (no oversupply, households and businesses with debt levels below the euro area average, while credit standards have not been relaxed during the cycle's expansionary period), we do not foresee any sharp corrections in the levels of construction of new housing or prices in nominal terms.

Finally, on the public finances side, our estimates suggest that after taking into account the impact of the recently

announced action plan to tackle rising inflation (with a budget of 10 billion euros), the rise in pensions in line with the CPI and the higher costs of debt servicing, the growth rate of expenditure will be similar to that of income. As such, we expect the budget deficit to remain at around 4% of GDP, the same level as we project for 2022.

*Oriol Carreras Baquer*

## The Treasury's strategy following the ECB's retreat

With the general government deficit expected to stabilise at around 4.0% of GDP in 2023, the Treasury's funding needs will remain high. The market will also have to absorb all of the debt held by the ECB that will not be reinvested by the central bank, after it announced a shift in its strategy in December. In this context, it is useful to put into perspective the volume of debt that the market will have to absorb during 2023.

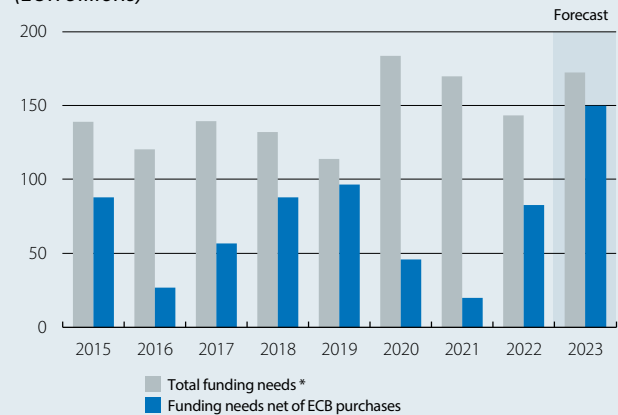
### The Treasury's strategy: major changes after the end of net purchases by the ECB

The Treasury's strategy for 2023, published in mid-January, states that the forecast for net issues this year is 70 billion euros and that this will be covered in full by medium and long-term instruments. This is a similar amount to the figure for 2022. On the other hand, gross issues of medium and long-term debt, which incorporates the expected maturities, will rise to 172.5 billion euros (20.4% more than in 2022).

This significant change in the outlook is a result of the ECB announcing a shift in its strategy. In 2022, it carried out net purchases of Spanish sovereign debt worth 30 billion euros and reinvested maturities worth 31 billion. In 2023, not only will the ECB no longer carry out net purchases, but of all its maturities (which we estimate at around 33.5 billion) it will only reinvest medium and long-term debt worth around 22.5 billion euros.<sup>1</sup> The market will therefore have to absorb a further 11 billion

### Spain: funding needs

(EUR billions)



**Note:** \* The figures for maturities do not include Treasury bills. For example, Treasury bills amounting to 94,419 million euros matured in 2022 and the Treasury Strategy anticipates that 89,325 million will mature in 2023.

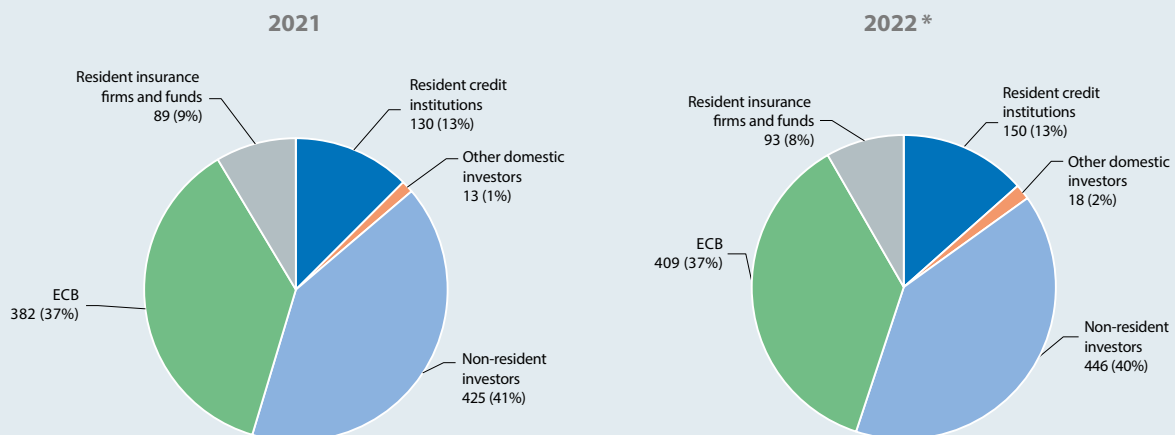
**Source:** CaixaBank Research, based on data from the General Treasury Secretariat.

euros in addition to the 70 billion in net issues. The total sum of 81 billion represents approximately 5.8% of the GDP forecast for 2023.

Despite the ECB's reduced role, the context of higher interest rates should make it easier for other agents, whether domestic or non-resident, to absorb Spain's funding needs. In this regard, it is worth noting that the investment base of holdings of Spanish debt is well diversified (see second chart). In 2022 (data up to October), foreign investors showed their confidence

### Spain: holdings of government debt (bonds and debentures)

EUR billions and structure (%)



**Note:** \* Data for October 2022.

**Source:** CaixaBank Research, based on data from the General Treasury Secretariat.

1. The figures for maturities and reinvestments in 2023 are our own estimates. Following last December's announcement of the plans to reduce the APP portfolio beginning in March, we estimate that in 2023 the ECB will allow some 11 billion euros of Spanish debt to mature in its portfolio without reinvesting it (i.e. 0.8% of GDP).

by increasing their holdings of Spanish debt (excluding Treasury bills) by 21 billion euros compared to the end of 2021. In this way, their relative weight in the total holdings of our debt has remained at around 40% and they have had an especially high level of participation in the syndicated issues of 2022. On the other hand, domestic investors, who account for 23% of all the debt, could also increase their holdings, encouraged by the higher remuneration on offer, especially in securities with short-term maturities (Treasury bills).

Looking at the total stock, we estimate that the public debt held by the ECB will represent 38% of GDP in 2023, leaving the remaining 73% of GDP in the hands of other investors. Between 2012 and 2015, the volume of debt as a percentage of GDP held by non-central bank investors far exceeded this figure (peaking at 98% in 2014).

### Other support factors

There are other key factors beyond the greater role of private investors which we must consider in order to better understand the conditions in which the Treasury will have to meet these funding needs in 2023, such as the favourable financing costs despite the recent process of monetary tightening and a long average term of the debt.

Specifically, in 2022 the average cost of financing for new issues (including Treasury bills) rose to 1.35%, after lying in negative territory (–0.04%) in 2021. Despite this shift, the average cost of the stock of debt as a whole has rebounded only very slightly, going from 1.64% in 2021 to 1.73% in 2022. This is because, in order to fix financing costs at the low rates of recent years, the Treasury chose to issue debt in the longest sections of the maturity curve. This has led to an increase in the average term of Spanish debt, which stands at 7.9 years (7.8 years in 2020 and 6.5 years in 2009-2010), and it is expected to stabilise at around 8 years in the coming years.<sup>2</sup>

In 2023, the average cost of the stock of debt as a whole is expected to increase only very slightly, due to the maturity of debt which was issued years ago at higher rates than the current ones and because of the low risk of refinancing the portfolio.<sup>3</sup> In this regard, the average cost of government debt (excluding Treasury bills) could be 2.1% in 2023, well above what we were expecting a year ago but much lower than a decade ago – in 2011, for instance, the average cost of government debt stood at 4.3%.

2. For 2023 and the following years, the average term of the portfolio is expected to stabilise at 8 years. See the yellow book of the 2023 General Government Budget.

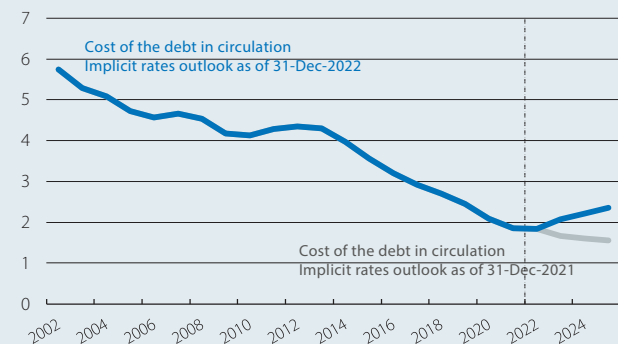
3. Only a small percentage of the debt must be refinanced (12% of the total debt including Treasury bills) in the year and this is the proportion that is exposed to higher interest rates.

### Spain: public debt (% of GDP)



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

### Spain: cost of government debt (bonds and debentures) (%)



Notes: Cost of the debt excluding Treasury bills. As the average maturity is eight years, the prediction is made based on the implicit eight-year market rate.

Source: CaixaBank Research, based on data from CaixaBank.

Looking at the medium term, in 2025 the average cost of the total general government debt as a whole could be around 2.5%, which would entail an interest bill of some 41 billion euros, compared to the 29 billion of 2022 and the 34 billion we anticipate for 2023. Thus, the process of monetary tightening will lead to a gradual increase in the cost of debt. In view of this, and given the high level of public debt, it will be key to design a fiscal consolidation strategy which is gradual but sustained over time and which is also credible from the point of view of international investors.

Javier Garcia-Arenas

## Spain's energy trade deficit in figures

The Spanish economy's trade deficit in energy products has increased considerably and it is unlikely to revert in 2023. In this article we analyse the figures behind the Spanish economy's energy deficit in 2022 in order to understand what is driving it and what we can expect for 2023.

### The evolution of the energy trade balance by component

The deterioration of the energy deficit can be largely explained by the rise in natural gas prices. According to the foreign trade data recorded by the Customs Department up to November, the price of gas supplies in Spain – i.e. the average price paid for natural gas imports – stood at €57.3/MWh, 2.7 times higher than in the same period in 2021. Moreover, in that period, the volume of natural gas purchases grew by 17.7% compared to 2021, such that nominal imports increased by 212% compared to the same period in 2021. Despite the increase in nominal exports of 93%, the natural gas trade deficit reached 22.2 billion euros in the first 11 months of the year, the peak in the historical series for a January–November period (–6.7 billion in 2021).

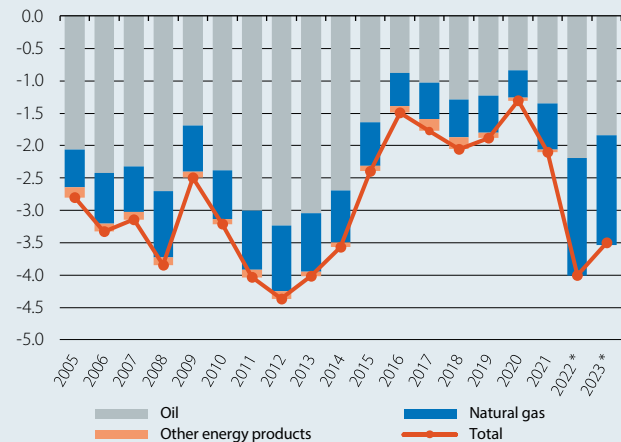
Another reason for the deterioration in the energy balance has been oil, which in the first 11 months of the year amassed a deficit of 26.8 billion euros. This is due to the supply price of oil imports standing 68% above that of the same period in 2021, in line with the Brent barrel price in euros.<sup>1</sup> Furthermore, the recovery in mobility has led to a further rebound in the volume of oil imports, with growth of 5.6% versus the same period in 2021, although they were still somewhat below 2019 levels.

As for the other two components of the energy balance, coal and electricity, the increase in the amount paid for coal imports (the price has increased by a factor of 2.2) has been offset by the rise in electricity exports, which are largely produced using imported gas (the value of exports has more than tripled).<sup>2</sup>

With all this, we estimate that the energy deficit closed 2022 at 52 billion euros, or 4% of GDP, 1.9 pps higher than in 2021. As can be seen in the first chart, from a historical perspective this is not a particularly significant deficit, as it is in line with the levels observed between 2005 and 2007, which is surprising given the energy crisis we are going through. This is because Spain's energy balance is

### Spain: energy trade balance products

Balance as a proportion of GDP (%)



**Note:** \* Estimated data for 2022 and forecast for 2023, following the Standard International Trade Classification (SITC).

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

much more sensitive to the price of oil, due to the greater relative weight of these imports in the total energy purchases.<sup>3</sup> Thus, despite the sharp rally in gas prices, we estimate that the gas trade deficit was 1.8% of GDP (1.1 pps more than in 2021), placing it below that of oil, which reached 2.2% (0.7 pps more).

For 2023, we expect the energy deficit to moderate slightly to 3.5% of GDP, mainly due to the correction in oil prices. Thus, we expect that in 2023 the oil trade deficit will go from –2.2% of GDP to –1.8%.

On the natural gas side, we are unlikely to observe an increase in the energy deficit in 2023, given the combination of the recent decline in prices quoted in the TTF market, milder temperatures than usual in the last few weeks (which means less consumption of the accumulated reserves) and the approval by the European Commission of the TTF price cap at €180/MWh. Indeed, as of the end of January the futures markets were reflecting expectations of a moderation in the average price of the TTF in 2023 to well below €100/MWh, whereas in December they were pointing to prices of around €140/MWh. On the other hand, it is likely that as gas supply contracts are renewed in 2023 at current prices, the average cost may continue to rise. In any case, we expect real gas import prices to remain high. With this, we estimate that the gas trade deficit will stand at 1.7% of GDP, just 0.1 pp less than in 2022.

1. Between January and October, the average Brent price was €96/barrel, 65% higher than in the same period in 2021.

2. Coal and electricity accounted for 2.6% and 8%, respectively, of the total value of imports and exports of energy products in 2022.

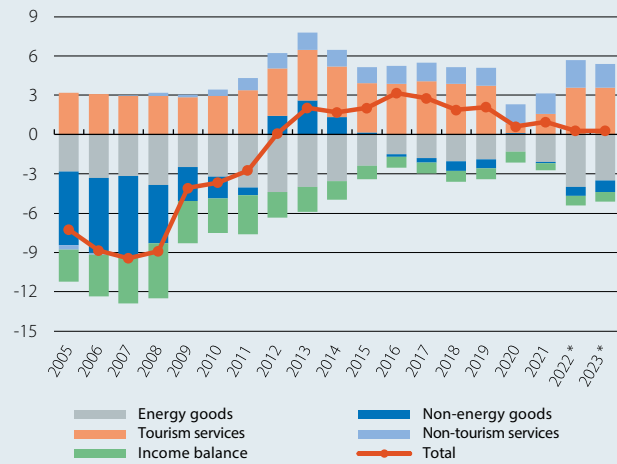
3. In 2022, net imports of natural gas accounted for 24% of the total value of net energy imports in Spain, while oil accounted for 67%.

### Implications for the current account balance

The worsening of the energy balance is having – and will continue to have – significant implications for the Spanish economy's current account balance. Despite this, there are two factors that offset the high energy deficit: (i) the improvement in the travel trade balance, which we estimate ended 2022 with a surplus of 3.6% of GDP and which we expect to maintain its resilience throughout 2023 (in 2019 it reached a surplus of 3.7%); and (ii) the good performance of the non-tourism services balance of exports, which we estimate reached a surplus of 2.1% of GDP in 2022, the largest in the historical series. Thus, as shown in the second chart, we estimate that the current account balance reached a surplus of 0.3% in 2022 of GDP. For 2023, we expect the Spanish economy to achieve a similar surplus, which is a significant milestone for an economy so dependent on energy imports.

*Jaume Servert Banegas and Javier Ibáñez de Aldecoa*

### Spain: current account balance (% of GDP)



**Note:** \* Estimated data for 2022 and forecast for 2023, following the Standard International Trade Classification (SITC).

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

## Spanish households' savings and financial wealth on the decline

### The rise in inflation caused a fall in the savings rate in Q3 2022

In Q3 2022 there was a sharp fall in the household savings rate. It should be recalled that even in the first two quarters of 2022, Spanish households had continued to save more than prior to the pandemic. Specifically, in Q1 the savings rate (as a percentage of gross disposable income, or GDI) in seasonally adjusted terms was 10.1% and in Q2, 8.4%, both figures above the 6.7% recorded on average between 2015 and 2019. However, in Q3 2022 we did see a considerable fall in the savings rate to 5.7% in seasonally adjusted terms, marking the lowest figure since Q3 2018.

Faced with rising inflation, households reduced their savings in order to sustain their consumption levels. Specifically, the increase in household consumption in real terms was 1.4% year-on-year, which represents a significant slowdown compared to the 3.4% recorded in Q2. However, in nominal terms consumption growth was 12%, a figure far higher than the increase in gross disposable income, which was 1.6%.<sup>1</sup>

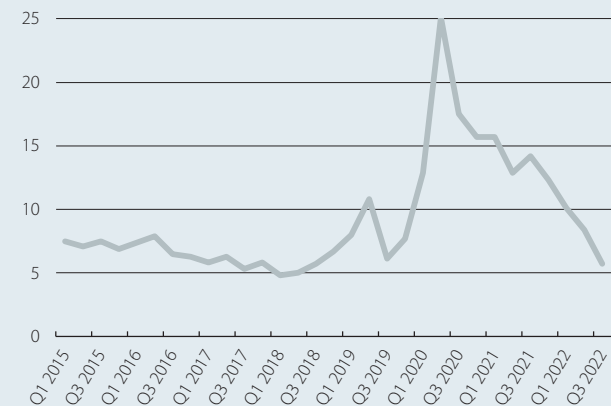
Looking at the composition of GDI, the buoyancy of the labour market was the main driver of its growth (wage earners' compensation grew by 5.8% year-on-year in Q3), but this was greatly mitigated by the negative contribution of taxes (see second chart). This explains why primary gross income (income before taxes and benefits) increased well above total gross income (5.1% year-on-year in the case of primary income versus 1.6% for total income).

The average savings rate for 2022 is expected to be slightly above 6.0%, well below the 13.7% of 2021. Looking ahead, all the indicators suggest that in 2023 the household savings rate will continue to gradually reduce due to the impact of inflation, albeit more gently than in 2022. Not surprisingly, we expect nominal consumption to grow by more than 5% in 2023. This is a difficult pace for GDI to match in a context in which the somewhat more dynamic wage growth and the 8.5% pension rise will be partially mitigated by higher interest payments following the rise in the Euribor. Thus, we expect the savings rate in 2023 to be well below the average for 2015-2019, which was the aforementioned 6.7%.

1. According to the non-financial accounts, including households and non-profit institutions.

### Spain: household savings rate

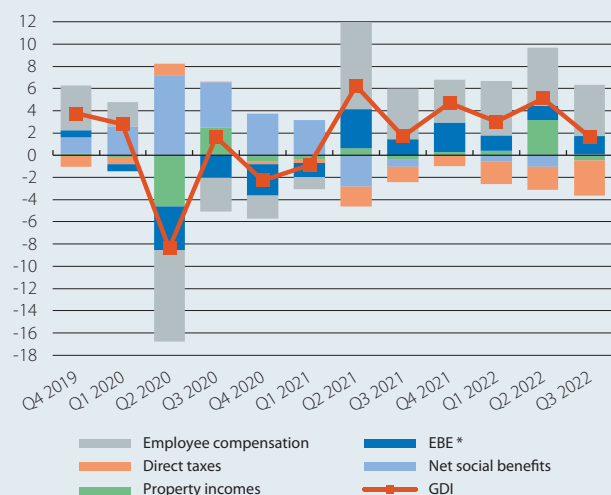
(% of gross disposable income)



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

### Spain: household gross disposable income (GDI)

Annual change (%) and contributions



Note: \* Gross operating surplus: encompasses incomes – not strictly wages – generated for households through their participation in the production process in their capacity as producers.  
Source: CaixaBank Research, based on data from the National Statistics Institute.

### Households reduced their debt, but their financial wealth also fell

Was the decline in the savings rate reflected in households' financial assets? The answer is yes. Not in vain, the net acquisition of financial assets in Q3 was –27,800 million euros; that is, there was a net sale of assets. This is a usual occurrence in any Q3, although in this case the amount exceeds the pre-pandemic figures (average of –23,546 million in 2015-2019). This «de-accumulation» affected all classes of financial assets,

2. Holdings in insurance policies and pension funds also suffered a net divestment of –2,061 million.

particularly equities and investment funds, with around 5,600 million euros sold, marking the largest volume in Q3 of any year since 2013.<sup>2</sup> In contrast, households reduced their bank deposits by 1,219 million, a limited sum compared to the average of –8,145 million in Q3 in the years 2015–2019.

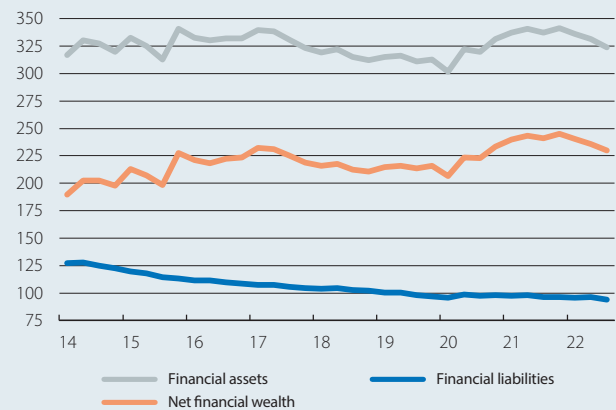
This net sale of financial assets was exacerbated by a devaluation effect amounting to 25,500 million euros<sup>3</sup> due to the fall in prices in the financial markets. As a result of these two factors, the stock of households' financial assets fell by 53,431 million euros (–2%), the biggest drop since Q1 2020, to 2.6 trillion euros; in terms of GDI, this amount represents 324%, the lowest level in two years. Thus, the stock of financial assets has continued to lose value and, as a proportion of GDI, has dropped to 17.5 pps below the peak reached in Q4 2021 and just 11 points above the pre-COVID level. In real terms, the stock of financial assets has reduced since the end of 2019, as it has increased by 7.1% in nominal terms while cumulative inflation in the same period has amounted to 11.7%.

As for the structure of households' financial wealth, the trend of recent years is accentuated: bank deposits remain the main asset class and have even increased their share to 38.5% of the total, 7 percentage points more than in the previous quarter and 3 points above the levels of Q4 2019. On the other hand, insurance policies and pension funds have lost prominence, representing 12.7% of the total, 3 points less than at the end of 2019. Equities and investment funds, meanwhile, stabilised at around 43% of the total.

As for the net liabilities incurred, households repaid debt in the quarter (bank loans) worth 9,846 million euros, although it is still too early to declare that we are witnessing a pattern of early repayments in the face of the interest rate rises, since this is a seasonal phenomenon and the amount is only slightly higher than the average for 2015–2019 (–9,311 million).<sup>4</sup> Consequently, the deleveraging of households is intensifying: in Q3 2022 the debt balance fell by 10,000 million euros to a total of 707,528 million (–1.4%), representing 87.5% of GDI (89.1% in Q2), the lowest ratio since the close of 2003.

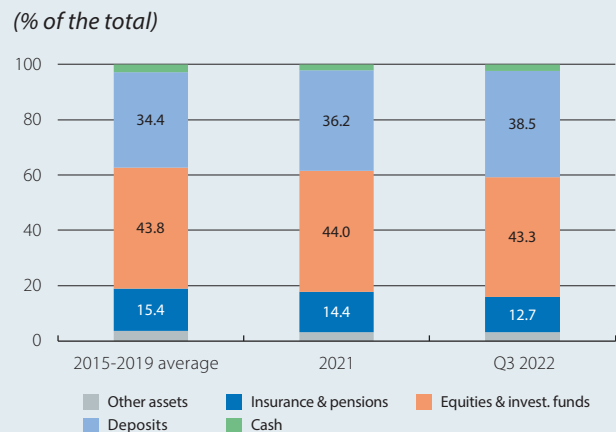
Given that the stock of households' financial assets fell more sharply than that of their liabilities, their net financial wealth continued to trend downwards and fell

### Spain: financial balance of households (% of GDI)



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

### Spain: structure of households' financial wealth (% of the total)



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

almost 6 points to 229.9% of GDI, the lowest level since Q3 2020.

In any case, in comparison with the crisis of 2008–2013, households today are in a better financial position to successfully deal with the weakening of economic activity, both in terms of their wealth and their indebtedness, which at that time (Q4 2008) stood at 252.3% and 132.5% of GDI, respectively.

Sergio Díaz and Javier Garcia-Arenas

3. The loss of value in equities and investment funds was particularly pronounced (–16,371 million), in line with the decline in stock prices, insurance policies and pension funds (–10,500 million).

4. In four-quarter cumulative terms, lending remains positive and is even accelerating (7,624 million vs. 6,870 million in 2021 as a whole).

**Activity and employment indicators**

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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
<b>Industry</b>									
Industrial production index	8.8	–	1.6	4.5	4.6	–	–1.1	...	...
Indicator of confidence in industry (value)	0.6	–0.9	6.8	0.5	–5.2	–5.4	–7.6	–4.8	–3.9
Manufacturing PMI (value)	57.0	51.0	55.8	53.2	49.2	45.6	45.7	46.4	48.4
<b>Construction</b>									
Building permits (cumulative over 12 months)	4.7	–	31.6	18.8	8.8	–	3.5	...	...
House sales (cumulative over 12 months)	9.6	–	41.8	33.6	23.0	–	18.0	...	...
House prices	3.7	8.1	8.5	8.0	7.6	...	–	–	–
<b>Services</b>									
Foreign tourists (cumulative over 12 months)	64.7	129.5	313.4	311.7	208.4	129.5	143.7	129.5	...
Services PMI (value)	55.0	52.5	52.2	55.9	51.0	50.8	51.2	51.6	...
<b>Consumption</b>									
Retail sales	5.1	0.8	0.3	1.2	0.1	1.7	–0.5	4.0	...
Car registrations	158.0	–3.0	–7.5	–10.3	3.1	2.6	10.3	–14.1	51.4
Consumer confidence index (value)	–12.9	–26.5	–18.2	–26.8	–32.6	–28.2	–28.1	–25.3	–23.0
<b>Labour market</b>									
Employment <sup>1</sup>	3.0	3.1	4.6	4.0	2.6	1.4	–	–	–
Unemployment rate (% labour force)	14.8	12.9	13.6	12.5	12.7	12.9	–	–	–
Registered as employed with Social Security <sup>2</sup>	2.5	3.9	4.5	4.8	3.5	2.7	2.7	2.4	2.3
<b>GDP</b>	5.5	5.5	6.9	7.8	4.8	2.7	–	–	–

**Prices**

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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
General	3.1	8.4	7.9	9.1	10.1	6.6	6.8	5.7	5.8
Core	0.8	5.1	3.0	4.9	6.2	6.5	6.3	7.0	7.5

**Foreign sector**

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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
<b>Trade of goods</b>									
Exports (year-on-year change, cumulative over 12 months)	21.2	–	26.2	22.2	23.3	–	23.4	...	...
Imports (year-on-year change, cumulative over 12 months)	24.8	–	36.1	35.2	38.1	–	36.0	...	...
<b>Current balance</b>	11.5	–	8.5	8.5	7.0	–	10.2	...	...
Goods and services	17.9	–	14.2	15.3	15.7	–	19.8	...	...
Primary and secondary income	–6.4	–	–5.7	–6.8	–8.7	–	–9.6	...	...
<b>Net lending (+) / borrowing (–) capacity</b>	22.4	–	19.8	21.5	19.8	–	23.3	...	...

**Credit and deposits in non-financial sectors<sup>3</sup>**

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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
<b>Deposits</b>									
Household and company deposits	6.1	4.9	5.2	5.4	5.3	3.6	3.7	2.9	...
Sight and savings	10.3	7.9	9.3	9.2	8.2	5.0	5.2	3.6	...
Term and notice	–24.4	–19.9	–26.8	–25.4	–19.2	–8.3	–8.6	–4.8	...
General government deposits	15.5	9.3	19.3	15.6	6.6	–4.2	–6.7	–4.0	...
<b>TOTAL</b>	6.7	5.1	6.0	6.0	5.4	3.0	2.9	2.4	...
<b>Outstanding balance of credit</b>									
Private sector	0.3	0.7	0.2	0.8	1.3	0.4	0.7	–0.5	...
Non-financial firms	1.1	0.9	–0.5	0.7	2.4	0.8	1.3	–0.9	...
Households - housing	0.2	1.0	1.3	1.4	1.1	0.2	0.2	–0.2	...
Households - other purposes	–1.2	–0.7	–1.1	–0.5	–0.9	–0.2	0.2	–0.2	...
General government	15.3	0.1	3.4	1.9	–3.5	–1.1	–0.9	0.5	...
<b>TOTAL</b>	1.1	0.6	0.4	0.9	1.0	0.3	0.5	–0.4	...
<b>NPL ratio (%)<sup>4</sup></b>	4.3	–	4.3	4.1	3.8	...	3.7	...	...

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

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

## Following a brilliant 2022, shadows loom for the Portuguese economy in 2023

The economy dodged contraction in Q4 2022, with GDP growing by 0.2% quarter-on-quarter. This marks a slowdown from the previous quarter, when it grew by 0.4%. However, for 2022 as a whole GDP growth was very high, at 6.7% compared to 5.5% in the previous year, especially considering the adverse context derived from the intensification of the energy crisis.

Indicators for the new year are still very scarce, limited to the sentiment of economic agents in January, which shows a widespread improvement in confidence. This, coupled with a more benign pattern in energy prices and greater resilience shown by the euro area economy, suggests that the Portuguese economy could once again avoid contraction in Q1 2023. However, the outlook for 2023 remains shrouded by uncertainty; we expect GDP to grow by 1%, marking a significant slowdown compared to the past two years, mainly due to the impact of rising interest rates and the cumulative loss of purchasing power.

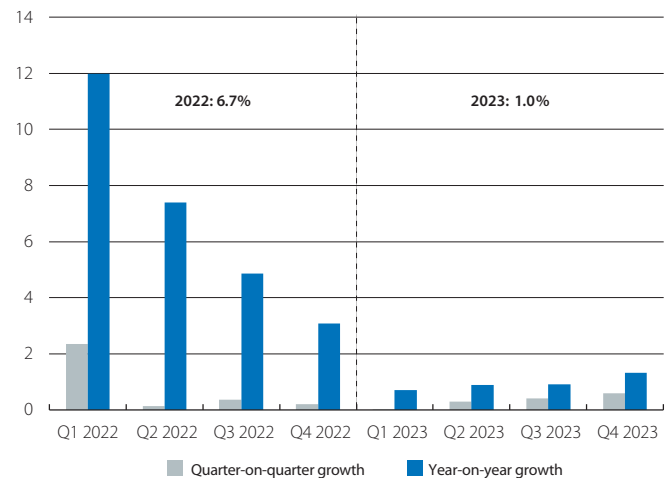
**Intense correction in inflation in January.** The preliminary figure published by the National Statistics Institute indicates an inflation rate of 8.3%, compared to 9.6% in December. This marks the third consecutive decrease, mainly due to the fall in energy prices (–9.1% monthly). Core inflation, meanwhile, fell from 7.3% down to 7.0% after 15 months of increases.

**The labour market is feeling the impact of the slowdown in economic activity.** The unemployment rate rose for the second consecutive month in December, reaching 6.7% (seasonally adjusted). This marks the highest rate since June 2021 and is very close to the levels of 2019. The employed population, meanwhile, registered a decrease (–0.5% year-on-year) for the first time since early 2021, although it still remains well above pre-pandemic levels.

**The trade balance closed 2022 with a deficit of around 13% of GDP** and reached 30 billion euros, 55% more than the previous year, mainly due to the increase in the cost of energy imports. However, the pattern in terms of volume suggests a less negative outlook: up to November, the quantities exported, excluding fuels, increased by around 6.5% year-on-year, exceeding the growth in imports (4%).

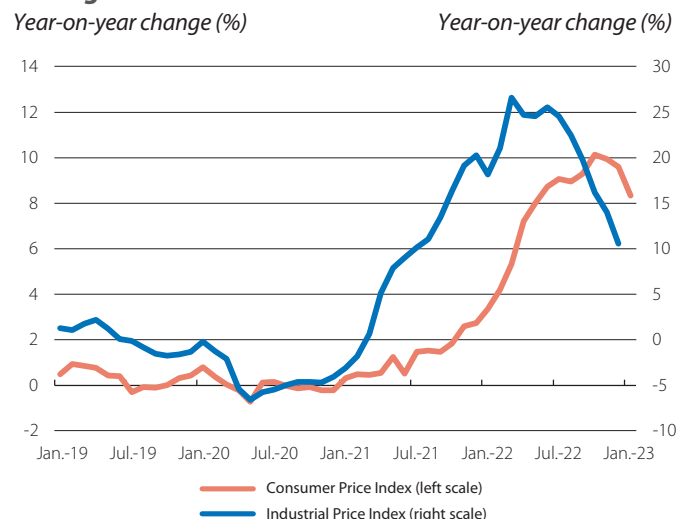
**The budget balance improved considerably in 2022.** In National Accounting terms, we estimate that the budget deficit fell from 2.9% of GDP to slightly above 1% of GDP. This improvement was due to significant revenue growth (11.1%). Expenditure, meanwhile, increased by 5.1%, due to the implementation of support measures to address the rise in inflation and energy prices. In any case, expenditure was below the level foreseen in the 2022 Government Budget, mainly due to the lower execution of public investment.

**Portugal: GDP**  
(%)



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

**Portugal: CPI and Industrial Price Index**



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

**Portugal: unemployment rate \***  
(%)



Note: \* Seasonally-adjusted data.

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

## Activity and employment indicators

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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
Coincident economic activity index	3.5	6.4	7.3	7.0	6.0	5.5	5.5	5.5	...
<b>Industry</b>									
Industrial production index	4.5	0.5	-2.1	2.0	1.8	0.1	-0.2	2.5	...
Confidence indicator in industry (value)	-5.3	-3.4	-0.1	-2.3	-4.7	-6.6	-6.6	-6.9	-6.3
<b>Construction</b>									
Building permits - new housing (number of homes)	13.5	...	46.0	-22.6	4.3	...	0.2	...	...
House sales	20.5	...	25.8	4.5	-2.8	...	-	-	-
House prices (euro / m <sup>2</sup> - valuation)	8.6	13.8	11.5	14.2	15.8	13.6	13.9	13.5	...
<b>Services</b>									
Foreign tourists (cumulative over 12 months)	51.5	158.5	259.9	298.1	244.4	158.5	169.6	158.5	...
Confidence indicator in services (value)	0.1	15.0	13.0	21.1	17.9	8.1	7.6	5.8	6.1
<b>Consumption</b>									
Retail sales	4.9	4.8	12.7	3.1	3.3	0.0	-1.7	0.5	...
Coincident indicator for private consumption	4.9	4.6	7.0	5.6	3.5	2.3	2.2	2.1	...
Consumer confidence index (value)	-17.2	-29.7	-19.3	-30.5	-31.8	-37.0	-37.7	-38.1	-37.0
<b>Labour market</b>									
Employment	2.8	...	4.7	1.9	1.1	...	0.4	-0.5	...
Unemployment rate (% labour force)	6.6	...	5.9	5.7	5.8	...	6.5	6.7	...
<b>GDP</b>	5.5	6.7	12.0	7.4	4.9	3.1	-	-	-

## Prices

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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
General	1.3	7.8	4.3	8.0	9.1	9.9	9.9	9.6	8.3
Core	0.8	5.6	3.1	5.5	6.5	7.2	7.2	7.3	7.0

## Foreign sector

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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
<b>Trade of goods</b>									
Exports (year-on-year change, cumulative over 12 months)	18.3	...	21.2	18.9	22.7	...	24.5	...	...
Imports (year-on-year change, cumulative over 12 months)	22.0	...	33.3	31.5	35.1	...	33.8	...	...
<b>Current balance</b>	-2.5	...	-4.3	-4.7	-4.3	...	-4.1	...	...
Goods and services	-5.7	...	-6.9	-6.4	-5.1	...	-5.1	...	...
Primary and secondary income	3.2	...	2.7	1.7	0.8	...	1.1	...	...
<b>Net lending (+) / borrowing (-) capacity</b>	1.2	...	-0.8	-1.3	-2.1	...	-1.7	...	...

## Credit and deposits in non-financial sectors

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

	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022	11/22	12/22	01/23
<b>Deposits<sup>1</sup></b>									
Household and company deposits	9.3	6.4	8.9	8.2	7.8	6.4	6.5	6.4	...
Sight and savings	16.3	7.3	15.3	12.9	11.2	7.3	7.3	7.3	...
Term and notice	1.2	5.2	1.1	2.3	3.3	5.2	5.4	5.2	...
General government deposits	-4.1	12.4	9.8	8.5	-0.1	12.4	10.7	12.4	...
<b>TOTAL</b>	9.0	6.5	8.9	8.2	7.5	6.5	6.6	6.5	...
<b>Outstanding balance of credit<sup>1</sup></b>									
Private sector	2.9	1.4	2.8	2.5	1.9	1.4	1.4	1.4	...
Non-financial firms	2.2	-1.0	1.2	0.7	-0.5	-1.0	-1.1	-1.0	...
Households - housing	3.3	2.7	3.0	3.8	3.3	2.7	3.0	2.7	...
Households - other purposes	3.1	2.9	6.4	3.3	3.2	2.9	2.8	2.9	...
General government	3.8	-2.7	5.3	-1.3	-1.5	-2.7	-0.2	-2.7	...
<b>TOTAL</b>	2.9	1.2	2.8	2.4	1.7	1.2	1.4	1.2	...
<b>NPL ratio (%)<sup>2</sup></b>	3.7	...	3.6	3.4	3.2	...	-	-	-

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

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

## Will inflation come down? The key trends for 2023

The saying goes that better the devil you know than the devil you don't, but perhaps inflation is a special case. An old acquaintance of economists, it did not present figures like those of 2022 since the beginning of the 1980s. In other words, up until 2021 around 45% of the European population had never lived with such high inflation, and just 30% had seen it in adulthood. In fact, in the last decade inflation gave cause for concern due to its weakness. However, following the pandemic and the invasion of Ukraine, inflation has quickly made up for the lost ground: whereas in late 2019 the euro area price index (HICP) was 7% lower than it should have been based on the target inflation of 2%,<sup>1</sup> the sharp rally in prices since then has caused the HICP to virtually close this gap entirely by the end of 2022. What will happen in 2023?

### The Big Bang of inflation

The forces that triggered inflation to rise are global, somewhat unpredictable and exogenous. Above all, the pandemic caused significant imbalances between supply and demand by generating disruptions in global supply chains, blocking the consumption of services and redirecting much of the demand towards goods. Thus, bottlenecks emerged and inflation began to pick up, driven by goods, a rise in food prices and a rebound effect in energy prices (which had initially plummeted with the outbreak of the pandemic). Later, the lifting of restrictions also led to higher prices in services, as their activity normalised.

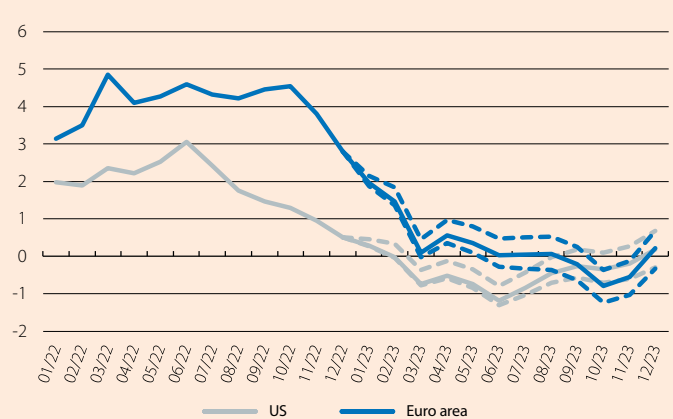
The mismatches between supply and demand that were caused by the pandemic ought to have a temporary effect on inflation and, in the absence of second-round effects, dissipate as economies normalise. In fact, the bottlenecks have been gradually clearing and, according to various indicators, since the autumn of 2022 they have been relatively limited and will help to curb inflation in 2023, although it is difficult to specify at what speed (transmission between bottlenecks and consumer prices occurred rapidly in 2021, but the historical evidence suggests that there may be lags of up to a year).<sup>2</sup>

Before this normalisation could materialise, the invasion of Ukraine added more fuel to inflation, exerting unprecedented pressure on energy prices and accentuating the rise in food prices.<sup>3</sup> The price movements have been so abrupt (energy surged by over 40% year-on-year in the major advanced economies) that, through its pressure on production costs, the rise in energy prices has passed-through to many components of the consumer index: for instance, in the euro area it is estimated that the «energy-sensitive» components have added more than 2 pps to the inflation of services and around 3 pps to that of goods (approximately 50% of the observed inflation in both cases).<sup>4</sup>

All in all, the virulence of 2022 will, almost mechanically, have a downward effect on 2023. On the one hand, it should be taken into account that in 2022 as a whole, oil and gas – two of the major determinants of energy prices – surged by 60% (Brent) and 180% (TTF). A repeat of these figures in 2023 would result in extreme prices: oil at 130 dollars and gas at €320/MWh. But the dynamics of recent months have been the opposite: prices have stabilised and the forecasts (both those of analysts and market futures) suggest they will remain below those of 2022. Thus, in the absence of extreme scenarios, the significant, direct and positive contribution from energy should be rapidly diluted (see first chart).<sup>5</sup> On the other hand, food is being affected by second-round effects (the rise in the price of food itself, energy and other inputs) and the projections do not point to a moderation until mid-to-late 2023.<sup>6</sup>

Finally, both the pandemic and the Russian invasion triggered the implementation of fiscal support measures to cushion the impact of the crises on household incomes. During the pandemic, the measures were particularly substantial in the US, and it is estimated that they contributed significantly to the rise in inflation.<sup>7</sup> In Europe, meanwhile, the support measures in response to the energy

**Energy: contribution to headline inflation**  
(pps)



**Notes:** From January 2023 onwards, the solid lines show the estimated contribution of the energy component according to our oil and gas price forecasts. The dashed lines correspond to a more severe scenario (the upper line, with gas prices similar to those of October 2022 and oil accelerating to 110 dollars) and a more favourable scenario (the lower line, with gas prices according to the futures of January 2023 and oil at around 75 dollars).

**Source:** CaixaBank Research, own estimates based on data from Eurostat, the Bureau of Labor Statistics and Bloomberg.

1. i.e. If prices had grown by 2% per year since the beginning of 2013 (which was when the sustained weakness in inflation began).

2. See O. Celasun *et al.* (2022). «Supply Bottlenecks: Where, Why, How Much, and What Next?». International Monetary Fund.

3. See the Focus «[The impact of higher agricultural commodity prices on emerging and low-income countries](#)» in the MR12/2022.

4. See P. Lane (2022). «Inflation Diagnostics». The ECB Blog.

5. The chart projects the contribution of energy inflation in 2023 based on its historical relationship with oil and gas prices. We consider three scenarios: (i) our own energy forecasts, (ii) stressed prices (gas at October 2022 levels and oil accelerating up to 110 dollars) and (iii) relaxed prices (gas according to January 2023 futures and oil at around 75 dollars).

6. ECB (2022). December 2022 macroeconomic projections.

7. See F. De Soyres, A.M. Santacreu and H. Young (2022). «Fiscal policy and excess inflation during Covid-19: a cross-country view». FEDS Notes. Washington: Board of Governors of the Federal Reserve System, 15 July 2022.

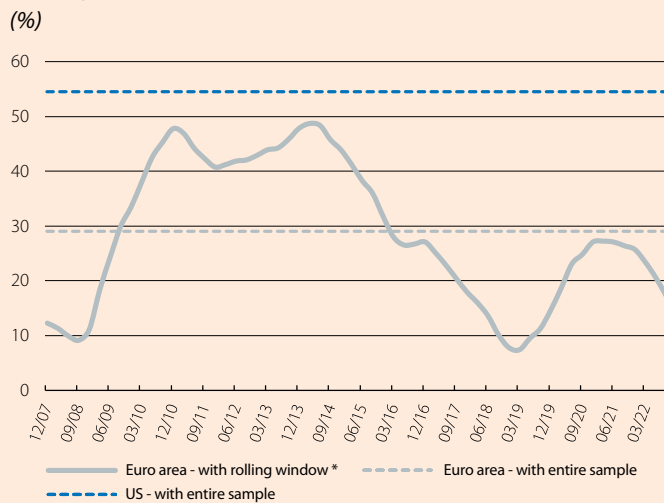
crisis stand out: it is estimated that they slowed inflation by just over 1 pp in 2022 and that they will continue to deduct 0.5 pps in 2023 (consequently, their withdrawal in 2024 will likely push up prices due to a base effect).<sup>8</sup>

### Second-round effects through wages

This year, in addition, the central banks will have their sights set on one of the main determinants of inflation in the medium term: wages. In theory, when wage rises outpace productivity growth, this generates inflation because of the higher costs that companies must bear. Rapid wage rises also stimulate the aggregate demand for goods and services, which in turn tends to put further pressure on prices. The data for 2022 have shown us that wages in the US have registered rapid growth, rising by over 5% year-on-year, while in the euro area these rates have not been much higher than the historical average (2.4%).

While it may still be too early to tell, in the US a slight slowdown in wages has already begun, so it appears that second-round effects ought not be a problem in 2023. Wage growth in the euro area had a very low starting point, but it is gradually rising. Indeed, it is plausible that pressures in the labour market to minimise workers' loss of purchasing power could lead to higher than usual wage rises in 2023. To quantify the impact that wages could have on inflation in the coming quarters, we identified the components of the core consumer basket that have historically been sensitive to wage increases: 30% in the euro area and over 50% in the US.<sup>9</sup>

### Components of the core consumer basket sensitive to wages

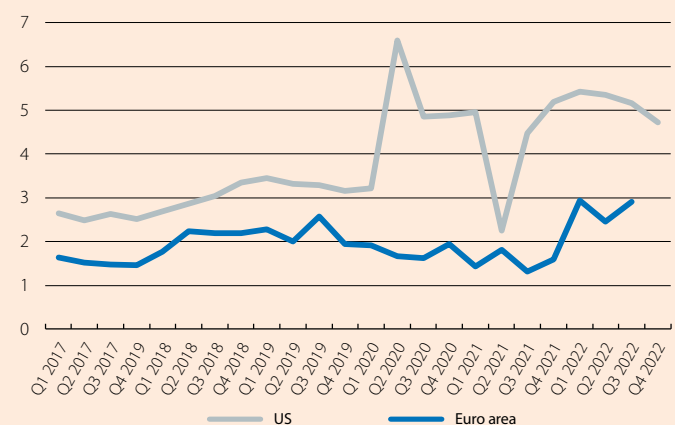


**Notes:** We consider that a component is sensitive to wages if, in the ordinary least squares regression of its price evolution versus the contemporary wages and their lag, any of the coefficients is positive and significant with a 95% confidence interval. For the euro area, we used the sample from 2001 to 2019 and for the US, from 2012 to 2019. \* Instead of using the entire sample, we performed the same regression with a five-year rolling window which we shift over time, allowing a component to be sensitive to inflation in some periods and not in others.

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

### US and euro area: wages

Year-on-year change (%)



**Note:** For the US we show the evolution of hourly wages, while for the euro area we show wages negotiated in labour agreements.

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

This figure provides a measure of the risk of second-round effects. In other words, if wage growth becomes more dynamic in the euro area, we know that 30% of the core consumer basket will tend to increase as well. However, there are several arguments that qualify this possible risk. The first is that there are still no significant wage pressures in the euro area. In fact, wages are growing well below inflation and the signs of acceleration are contained. The second is that if, in this illustrative exercise, we allow the components to switch between being sensitive and non-sensitive over time,<sup>10</sup> we see how the relative weight of the sensitive components has decreased in the euro area since the outbreak of the pandemic (see third chart). The third argument is that in the US, an economy where wages have already accelerated sharply and where the structure of the consumer basket of goods is somewhat more susceptible to second-round effects, the contribution of the components of core inflation that are sensitive to wage rises has remained at around the historical average. In fact, in the US the main component that is driving up core inflation, and which is sensitive to wages, is shelter which accounts for more than 40% of the core index and is rising at a year-on-year rate of 7%. The inflation of this component is expected to remain high in the first half of 2023 due to the inertia it usually shows, although it could begin to moderate in the second half of the year.

In short, this outlook for inflation moderating in 2023 – to below 4% at the end of the year in the euro area and the US – supports our view that the cycle of rate hikes by the central banks should end before this summer (indeed, before the spring in the case of the Fed). However, both the Fed and the ECB will want to maintain a restrictive stance for a while to ensure that it returns to the 2% target rate – a task which will not be easy due to the inertia that core inflation looks likely to show.

Ricard Murillo Gili

8. ECB, *op. cit.*

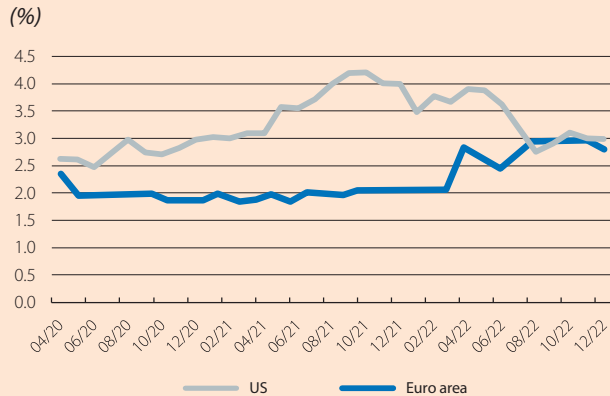
9. Specifically, we used an ordinary least squares regression for each component of core inflation (excluding energy and food) against the contemporary wages and those of the previous quarter. We consider a component to be sensitive to wages if any of the wage coefficients or their lag is positive and significant with a 95% confidence interval.

10. Instead of using the entire sample (from 2001 to 2019) we perform the same regression with a five-year rolling window which we shift over time, allowing a component to be sensitive to inflation in some periods and not in others, under the same conditions as explained in the previous note.

## What will happen to inflation in the long term? A global perspective

Beyond the inflation outlook for this year, to complete the narrative it is important to have a structural vision of where inflation will lie in the long term in advanced economies and what determining factors we will have to pay special attention to. In the end, the question is where inflation will lie when the cycle that began with COVID-19, and which has continued with the war in Ukraine, comes to an end and what will happen with inflation targets.

### US and euro area: 3-year consumer inflation expectations



**Notes:** Median of these expectations. Data for the US available up to December 2022 and for the euro area up to November 2022.

**Source:** CaixaBank Research, based on data from the New York Federal Reserve's Survey of Consumer Expectations and the ECB's Consumer Expectations Survey (CES).

In order for inflation to return to close to 2.0% in the medium term, which is the target rate of most of the central banks, it will be essential to anchor economic agents' expectations at around this level. In other words, they must be prevented from thinking we are entering a world in which inflation will be persistently above the target rate. According to the ECB's analysis, European consumers' inflation expectations for three years into the future have risen from 2.0% to almost 3.0% in just one year (see first chart). This is no small increase and we will have to wait and see if it is consolidated or ends up unwinding.<sup>1</sup> The credibility of the central bank and its policies to avoid second-round effects will be key. With a long-term perspective, which is the focus of this article, factors such as the energy transition, the evolution of globalisation and migratory flows will play a fundamental role in inflation dynamics.

In advanced economies, the impact that the energy transition will have on aggregate prices is uncertain, as there are various opposing forces operating in fossil fuel prices. On the supply side, regulatory uncertainty could reduce the supply of these fuels, which would lead to higher prices. On the other hand, the front-loading of production

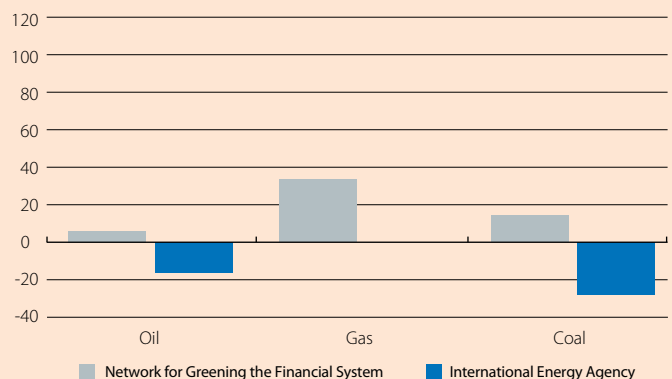
due to the worsening expectations, coupled with the emergence of technological innovations (carbon capture and improvements in carbon storage, etc.), would reduce prices. On the demand side, the factors that would lead to a reduction in fossil fuel prices seem to dominate: preferences for clean energies and increased investment in green energy would reduce the demand for fossil fuels and, consequently, their prices. However, the impact that the introduction of a carbon tax would have is uncertain, as although demand and thus the pre-tax price would be reduced, depending on the tax rate the post-tax price could potentially be higher.<sup>2</sup>

In any case, the studies conducted to date show that, even if an ambitious energy transition takes place between now and 2030 (see second chart), the increase in the price of fossil fuels would be contained (6% for oil and 30% for gas on a cumulative basis over the period 2020-2030, according to the Network for Greening the Financial System).

However, if an ambitious energy transition aimed at limiting temperature rises to 1.5 degrees above pre-industrial levels were to be successfully carried out, there is broad consensus that the impact ought to be disinflationary. Not surprisingly, in 2022 the marginal cost of producing solar energy already accounted for a quarter of the marginal cost of gas-based power plants in Europe, according to the International Energy Agency. The greater the deployment of renewables, the quicker this price reduction impact will occur and the sooner we will reach the «divine coincidence» – an expression coined by ECB Executive Board member Fabio Panetta to refer to a world with greener and cheaper energy.<sup>3</sup> On the other hand, an unambitious energy transition would entail inflationary pressures due to a greater role of fossil fuels (to which we should add the economic costs of the greater recurrence of natural disasters and extreme weather events).

### International price of fossil fuels in 2030 in an ambitious energy transition \*

Change from 2020 to 2030 (%)



**Note:** \* The temperature increase is limited to 1.5 degrees compared to pre-industrial levels and 0 emissions are achieved in 2050. Calculated on the basis of pre-tax prices in dollars.

**Source:** Panetta, F. Greener and cheaper: could the transition away from fossil fuels generate a divine coincidence? ECB speech, November 2022.

1. In November, there was already an incipient downward shift.

2. However, an IMF study based on the gradual introduction of a carbon tax aimed at cutting emissions by 25% by 2030, and with a 20-pp increase in the relative weight of renewables in the energy mix, shows a very moderate increase in inflation in 2030 in the euro area, amounting to 0.2 pps at the most. Indeed, it would be almost negligible if a portion of the proceeds from this tax were dedicated to providing green subsidies to the main productive sectors. See chapter 3 of the autumn 2022 WEO.

3. See the speech by Fabio Panetta in November 2022, *Greener and cheaper: could the transition away from fossil fuels generate a divine coincidence?*

As for globalisation, it can be said that from a theoretical point of view it has had a disinflationary impact on advanced economies in recent decades. Firstly, since advanced economies have to compete with the lower prices of emerging economies, the increased trade flows reduce both imported and domestic inflation, as domestic producers are forced to improve their efficiency because of the greater competition. Secondly, digitalisation and the greater availability of information have reinforced globalisation by creating a single global market with very low search costs, resulting in lower prices. Thirdly, the fragmentation of production in the major global production chains has led emerging economies with lower costs to specialise in the production of key intermediate goods for the production of consumer goods. The third chart of this article shows that as globalisation progressed in the late 20<sup>th</sup> century, the impact of domestic wage growth on core inflation in the US decreased.

However, when we analyse the relationship between globalisation and inflation in more detail, and taking into account cause-effect relationships, we see that there is indeed an impact, but it is small.<sup>4</sup> Globalisation has reduced inflation in goods, but not in services – this is logical, since they are less tradable. For example, the greater availability of information has made it possible to bring down the price of goods (as they are more homogeneous and comparable than services), but not the price of services.<sup>5</sup> Furthermore, it seems that other forces have been more decisive than globalisation in explaining the fall in inflation in the decades leading up to the conflict in Ukraine: globalisation accelerated between the end of the 20<sup>th</sup> century and 2010, whereas the sharp drop in global inflation occurred between 1980 and 1997. This was a period in which central banks became independent and set inflation targets, but in which globalisation was not yet at its height (China joined the WTO in 2001, marking its peak).<sup>6</sup>

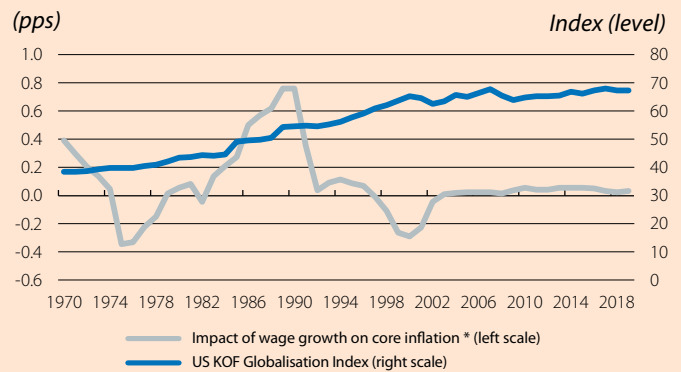
Today, we find ourselves at a fork in the road as we rethink globalisation. The health emergency revealed the importance of not relying on key inputs manufactured in third countries, and this is beginning to lead to a restructuring of global supply chains due to the need to diversify suppliers. In addition to the need for supply security, other factors at play include the reindustrialisation of advanced economies for the green and digital age, the technological competition between the US and China with the establishment of barriers to technological access, and the debate around the implementation of carbon reduction mechanisms in developed economies in order to be on an equal footing with emerging economies which are not taxed for their emissions. Even if this process were to lead to gradual deglobalisation, the inflationary pressures associated with this process should be moderate given that the impact of globalisation on prices has not been very significant in magnitude.

Finally, we cannot end this article without mentioning migratory flows. We are entering a world with renewed protectionist impulses: COVID-19 caused a reduction in migratory flows due to health reasons and it seems that a trend of tougher migratory policies may be consolidated. A prime example of this is the US. Before COVID-19, when the unemployment rate was falling, there used to be greater immigration by workers to fill low-skilled jobs, but this practice has now ceased. In fact, a recent study documents that for these jobs there is a very low degree of substitution between immigrant workers and native workers, so the former are essential in order to fill them.<sup>7</sup> Thus, if these trends of migratory restrictions are consolidated,<sup>8</sup> there would be upward wage pressures in these low-skilled occupations.

In short, in a more protectionist world with greater global fragmentation and stricter migration controls, an energy transition that is smart, well-designed and involves powerful investments in clean technologies will be key, as will be a monetary policy that has a clear objective and is well communicated in order to keep inflation at reasonable levels and in line with central bank targets.

Javier Garcia-Arenas

### US: globalisation and the impact of wages on inflation



**Note:** Regression coefficients for core inflation and wage growth delayed one month beginning in 1970 with a rolling window of the previous 10 years. This coefficient is interpreted as the average increase in core inflation over the past 10 years if there is a 1-pp increase in year-on-year wage growth in the previous month. The higher the globalisation index, the higher the level of globalisation.

**Source:** CaixaBank Research, based on data from Bloomberg and the Swiss Economic Institute.

4. See M.G. Attinasi and M. Balatti (2021). «Globalisation and its implications for inflation in advanced economies». ECB Economic Bulletin Articles, 4.

5. According to the authors of the study mentioned in note 4, more research will be needed to understand the differences in the behaviour of goods and services. The increased transparency of the internet reduces search costs and accentuates competition in the goods market, where products are more comparable and homogeneous, in contrast with the services sector. Globalisation also pushes up the price of services through another channel, namely global value chains: services are regarded as the «glue» and the catalyst for complex supply chains. It is therefore plausible that the services sector's value added and trading margins are positively correlated with a wider use of global value chains.

6. Global inflation fell by 6.9 points between 1981 and 1997 and only by 1.8 points between 1998 and 2010. In contrast, the KOF Globalisation Index increased by 16.5% between 1981 and 1997 and by 19.5% between 1998 and 2010.

7. Comparing similar companies that had access to migrant workers in low-skilled jobs in the US visa draw versus those that did not, it is found that, on average, companies which had to reduce the hiring of migrant workers by 50% experienced an 18% drop in their production and did not hire any additional native workers for those positions. See M.A. Clemens and E.G. Lewis (2022). «The Effect of Low-Skill Immigration Restrictions on US Firms and Workers: Evidence from a Randomized Lottery». NBER Working Paper 30589.

8. This remains to be seen. In fact, climate change could lead to significant migrations due to natural disasters.

## Drivers of Spain's inflation in 2023: indirect effects and food

Our forecast for 2023 headline inflation in Spain has been revised downwards, from 4.5% to 4.2%, due to the impact of the lower energy prices. However, core inflation (the sum of services and industrial products) and food inflation will remain very high. This is because, from now on, our scenario contemplates that the main sources of inflation will be fuelled by the indirect effects of high energy prices on the non-energy components of the CPI and the sharp rise in production costs that the food-producing sectors are experiencing.

### The indirect effect of energy on inflation

Although the rise in energy prices made a U-turn in December (the energy component of the CPI registered a fall of 6.9% year-on-year) and we expect to see a decline in prices of 6.0% in 2023 on average, we estimate that energy prices will continue to add to inflation in 2023, albeit indirectly in this case. In particular, energy prices – which still remain high (20% above 2019 levels, according to the CPI) – have driven up production costs for many companies, which are being forced to pass on this increase in costs to their sales prices, at least partially.

To analyse the indirect impact of energy prices, we used the input-output tables for the Spanish economy to estimate the exposure to energy costs of the different categories of goods and services produced. By comparing this information with that of the categories of goods and services in the CPI, we classified the 92 components of the consumer index into products with a low, medium and high exposure to energy costs. To perform our analysis, we focused on the components of the core CPI, so we excluded energy products (for which energy prices naturally have a direct effect on the CPI) and food products (indirectly affected by energy, but more substantially by other cost shocks discussed later in this article). In addition, we excluded road and rail passenger transportation services, as intervention on their prices would skew our results.<sup>1</sup>

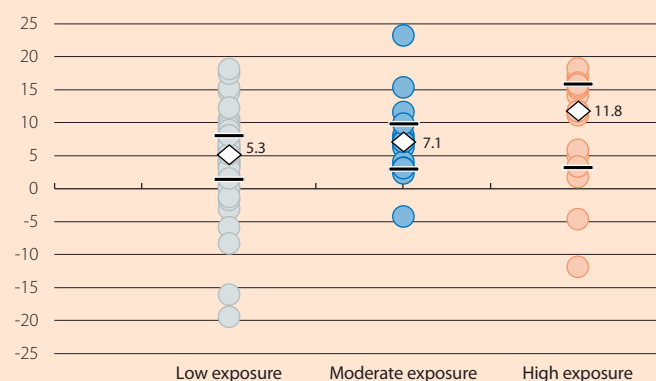
As shown in the first chart, according to our analysis, from December 2019 to December 2022 the median price increase for all products with a low exposure to energy costs was 5.3%, while in the case of products with a moderate exposure it was 7.1% and in those with a high exposure, 11.8%. If we calculate a price index for each group, using a weighted average according to the relative weight of each component in the CPI, we observe a similar dynamic. Thus, the price index of products with a low exposure registered a year-on-year increase of 2.9% in december; the moderate exposure index, an increase of 5.9%; and the high exposure index, 9.3%.

If we look at how these three clusters have contributed to core inflation (excluding public transport) in recent months, we see that it is the components most exposed to energy that are contributing the most to core inflation in proportion to their relative weight in the index. Specifically, in December 2022, the inflation of products with a high exposure contributed 0.9 pps to core inflation, which accounts for 19.5% of the observed inflation (which stood at 4.7%), double its relative weight in the index (9.8%).<sup>2</sup> On the other hand, products with a moderate exposure generated 48.7% of the core inflation (2.3 pps), while their relative weight in the index was 38.7%. The contribution of low-exposure products, which account for 51.5% of the core CPI, was just 31.7%.

These results indicate that a large part of the core inflation we are currently experiencing is determined by energy prices. Given that energy prices are now moderating, we can expect that the impact of the indirect effects on the products most exposed to energy costs will not continue to escalate. However, due to the delay in the transmission of production cost increases to sales prices, we can expect the high inflation levels currently reached in the core components to persist during 2023.

### Core CPI by component and by exposure to energy costs

Change between December 2019 and December 2022 (%)



**Notes:** The white diamond shapes show the median change, while the black bars mark the change in the 25th and 75th percentiles. For more information on the methodology, see note 1 of this article.  
**Source:** CaixaBank Research, based on data from the National Statistics Institute.

1. To calculate the CPI's exposure to energy costs, we used a correspondence between the components of the CPI (ECOICOP) and the products in the input-output table (CPA). This was used to calculate the relative weight of the intermediate energy consumption in production for the sectors which produce the 92 components that make up the CPI basket. Low exposure is defined as those components with an energy consumption to production ratio below the median (2.4%), moderate exposure is those with a ratio lying between the median and the 75<sup>th</sup> percentile (between 2.4% and 4.1%) and high exposure is those with a ratio above 4.1%. If we exclude energy and food, as well as land, rail and combined passenger transportation, then the relative weights in the consumer basket of each group are as follows: low exposure, 51.5%; moderate exposure, 38.7%; and high exposure, 9.8%.

2. Full core inflation stood at 4.4% in December. Excluding road and rail passenger transportation services, inflation stands at 4.7%.

## The stress in food prices

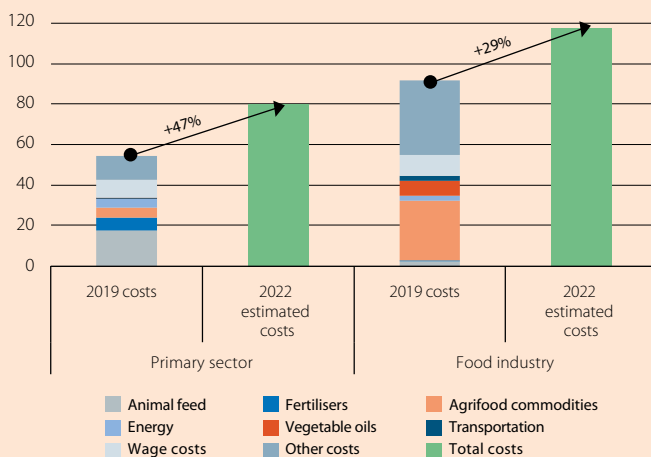
In our analysis of the indirect effects of energy, we left out food, because the rising costs that agrifood producers are currently experiencing go beyond the shock in energy costs, also reflecting other factors such as the rising cost of fertilisers (key for the primary sector) and vegetable oil (key in processed foods). This compounding of shocks has led to a situation in which, in December of last year, the prices of fresh foods registered an increase of 11.4% year-on-year, and those of processed foods, 16.4%, making them the components that contributed the most to headline inflation.

In the primary sector, we note that the significant rises in fertiliser and animal feed prices are pushing up consumer prices considerably. According to data from the input-output tables for 2019, the acquisition of these two products was the main cost of production for the primary sector, which spent 24% of its revenues on these purchases (18% on feed and 6% on fertilisers). According to data from the Ministry of Agriculture, Fisheries and Food's agricultural price observatory, in October 2022 animal feed prices had accumulated a 57% increase compared to October 2019, while fertiliser prices had more than doubled over the same period.

On the other hand, in the food industry we observe that two of the main items of intermediate consumption are agrifood commodities and vegetable oils, which are present in the vast majority of processed foods. In 2019 the industry dedicated 37% of its revenues to the purchase of these two types of products (30% to agricultural commodities and 7% to vegetable oils). The price increases of both products have also been significant. According to the aforementioned agricultural price observatory, the original selling price of vegetable oils rose by 68% between October 2019 and 2022, while the price of agrifood commodities increased by 53%.

## Intermediate and wage costs of the food-producing sectors

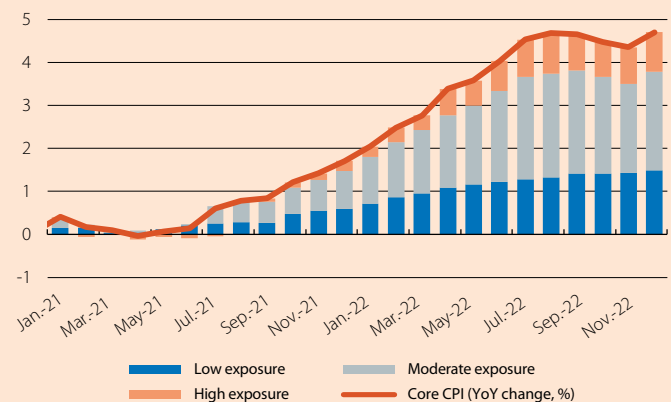
(% of production at base prices of 2019)



**Note:** The costs for 2022 are estimated based on the price increases compared to 2019 according to the Ministry of Agriculture, Fisheries and Food's agricultural price observatory: animal feed (+57%), fertilisers (+129%), agricultural commodities (+53%), energy (+91%), vegetable oils (+68%) and agricultural wages per day (+11%); the deflator of sales in the transport sector per the Spanish tax agency (+35%) and the increase in unit wage costs for the manufacturing industry per the National Statistics Institute (+5%).

**Source:** CaixaBank Research, based on data from the National Statistics Institute, the Ministry of Agriculture, Fisheries and Food and the Spanish tax agency.

## Contribution to core inflation according to degree of exposure to energy costs (pps)



**Notes:** The relative weights of each group in the core CPI are as follows: low exposure 51.5%, moderate exposure 38.7% and high exposure 9.8%. For more information on the methodology, see note 1 of this article.  
**Source:** CaixaBank Research, based on data from the National Statistics Institute.

As we show in the last chart, if we compare the information on the origin of the intermediate and wage costs of the agricultural and food sectors with the increase in prices of each product and the increase in unit labour costs in each sector, we see that, without taking into account the increase in costs of other products, the costs of both sectors would have increased substantially since 2019: by 47% in the agricultural sector and by 29% in the food industry.<sup>3</sup> Given that the aforementioned production costs have seen significant increases in recent months, we do not expect their effect on consumer prices to fade in the short term. Therefore, our forecast scenario contemplates that consumer food prices will continue to rise in 2023.

Javier Ibáñez de Aldecoa Fuster

3. The costs for 2022 are estimated based on the price increases compared to 2019 according to the Ministry of Agriculture, Fisheries and Food's agricultural price observatory: animal feed (+57%), fertilisers (+129%), agricultural commodities (+53%), energy (+91%), vegetable oils (+68%) and agricultural wages per day (+11%); the deflator of sales in the transport sector per the Spanish tax agency (+35%) and the increase in unit wage costs for the manufacturing industry per the National Statistics Institute (+5%). Increases in other costs are not taken into account, so this approach offers a result that could fall short of the reality.

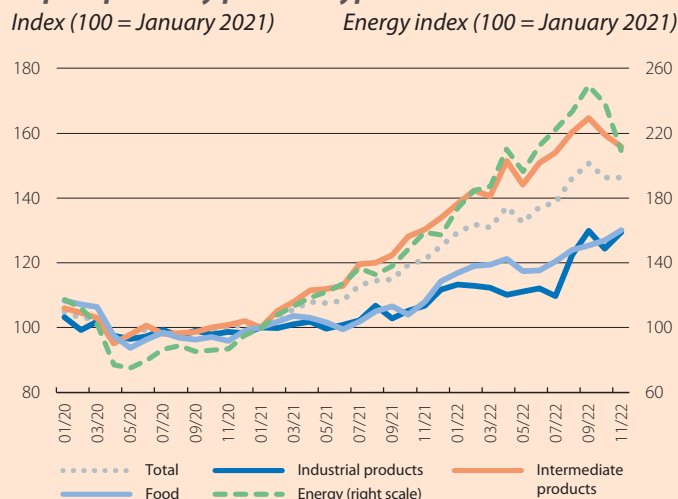
## The effect of import prices on inflation in Spain

The import prices have consequences for the consumer price index: they can be transmitted relatively directly, as is the case with imported energy, or indirectly, through an increase in the costs of intermediate goods used in the domestic production of consumer goods or services. In this article, we seek to identify the degree to which import prices are transmitted to the CPI, how much is due to energy and with what lag period this transmission is observed.

### The evolution of import prices

The prices of imported goods have increased dramatically in the last two years. According to data from the Ministry of Economy on import unit value indices, import prices rose by an average of 26% last year (based on the data available up to November) and amassed a cumulative growth of 68% between January 2021 and November 2022. By component, in 2022 as a whole the increases were concentrated in the prices of energy products, which grew by 66%, although the rest of the categories also saw significant price increases: industrial goods, 14%; intermediate goods, 31%; and food, 18%. As shown in the first chart, although the latest data show modest signs of moderation in the prices of energy and intermediate goods, import prices remain very high.

### Import prices by product type



Source: CaixaBank Research, based on data from MINETAD.

### How are import prices transmitted to domestic inflation?

To analyse the impact of the rise in import prices on inflation in Spain, we must take into account the two main channels through which this rise is transmitted. On the one hand is the direct impact of energy prices on the energy component of the CPI which, in light of the latest data, is contributing to the moderation in headline inflation. On the other hand, there is a more indirect impact through the increase in intermediate costs used in the domestic production of consumer goods and services. For 2023, this second channel will likely be the most relevant. To try to estimate its importance, we used advanced statistical techniques that allow us to quantify the impact which shocks in the import prices of both energy and non-energy goods have on the core CPI over time.<sup>1</sup>

The results indicate that the transmission of shocks in the import prices of non-energy goods to the core CPI is significant, direct – a large and persistent impact is observed in the beginning of the first quarter after the shock. According to our estimates, in the event of a 5-pp shock in the quarter-on-quarter growth of non-energy import prices (similar to that observed in Q2 2022), the rate of change in the core CPI would go up during the first four quarters following the shock, accumulating an increase of 1.7 pps.<sup>2</sup>

On the energy price side, the transmission of the shocks we observe is somewhat less intense than in the previous case. In addition, the impact occurs with a longer delay, although it does show signs of significant persistence. For instance, according to our estimates, a 20-pp increase in the quarter-on-quarter growth rate of energy import prices (similar to that observed in Q2 2022) would affect the rate of change of the core CPI two quarters later, although its effect would persist for up to five quarters after the shock, generating a cumulative increase in the core CPI in that period of 0.6 pps greater.

### Inflation imported in 2022 and what awaits us in 2023

Thanks to these estimated sensitivities, we can calculate which factors explain the trend observed in core inflation, distinguishing between the contribution of shocks in domestic prices and in import prices.<sup>3</sup> This breakdown reveals that, in 2022, 55% of the

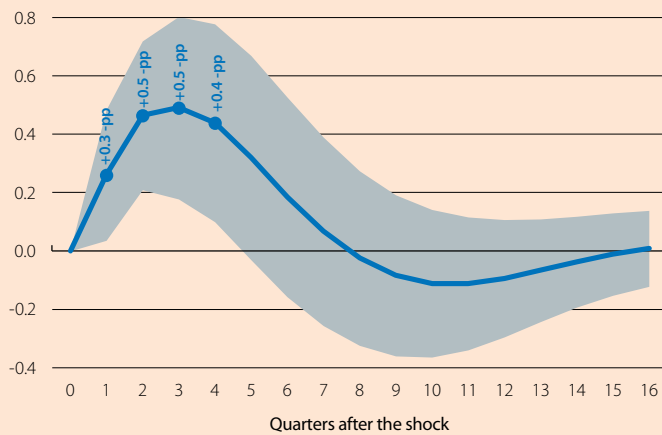
1. Specifically, we used a vector autoregression (VAR) model, with data from the core CPI, which excludes energy and fresh food, the GDP deflator as an approximation of domestic inflation pressures, and two indicators of import prices: non-energy goods (non-energy IPRIM index) and energy (energy IPRIM index).

2. This implies that a quarter-on-quarter increase in non-energy import prices that is 5 pps greater than expected (e.g. growing by 6% instead of an expected rate of 1%) would cause the core CPI to grow over the next four quarters by 1.7 pps more than it would have done in the absence of the shock (e.g. it would grow by 3.7% instead of 2%).

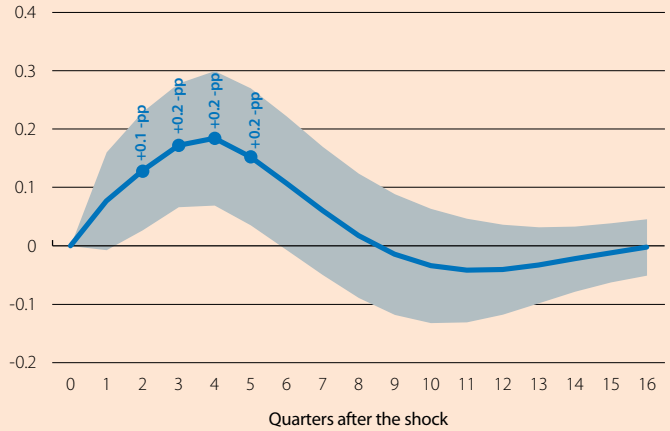
3. The historical breakdown of the VAR measures the contributions of the idiosyncratic shocks in the model's variables (core CPI, GDP deflator, non-energy IPRIM index, and energy IPRIM index) to the variability of CPI. In the absence of shocks, the model estimates that core CPI grows by 0.4% quarter-on-quarter (1.6% in annualised terms).

### Response of the core CPI to a 5-pp shock in the quarter-on-quarter change of the non-energy IPRIM index (left) and a 20-pp shock in the energy IPRIM index (right) \*

Impact on the quarter-on-quarter rate of change (pps)



Impact on the quarter-on-quarter rate of change (pps)



**Notes:** \* The charts show the response over time of the impact on the quarter-on-quarter rate of change of the core CPI to a 5-pp increase in the rate of change of non-energy import prices (left) and to a 20-pp increase in energy import prices (right). Both are similar to the shocks observed in Q2 2022, such that the exercise is illustrative of what has happened in the last year. The shaded area denotes a 95% confidence interval and the labels show the magnitude of the statistically significant impacts under that confidence level.

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

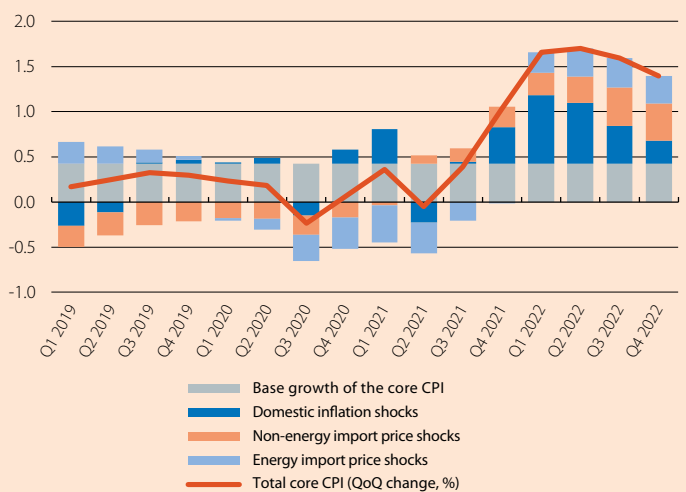
change in the core CPI was due to shocks in import prices; 30% was due to the impact of non-energy import prices; and 25%, due to energy import prices. This demonstrates the key role that the increase in import prices is playing in the inflationary episode we are currently experiencing.

Thus, we can expect that the indirect effects generated by rising import prices will continue to push inflation upwards this year. As a benchmark, if import prices were to remain stable throughout the year, then the core CPI would grow by just over 5% in 2023 – still a high figure and similar to the 5.2% observed in 2022.<sup>4</sup>

*Jaume Servert Banegas and Javier Ibáñez de Aldecoa*

### Historical breakdown of the quarter-on-quarter change in the core CPI

(pps)



**Note:** The chart shows the contribution to the quarter-on-quarter change in the core CPI of domestic inflation shocks (in the core CPI and in the GDP deflator) and shocks in non-energy and energy import prices (in the non-energy and energy IPRIM indices).

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

4. Our forecast for core inflation, taking into account other factors affecting prices, is 5.8%.

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Design and production: [www.cegeglobal.com](http://www.cegeglobal.com)  
Legal Deposit: B. 21063-1988 ISSN: 1134-1920

