

# MIR03

MONTHLY REPORT • ECONOMIC AND FINANCIAL MARKET OUTLOOK  
MARCH 2022



## ECONOMIC & FINANCIAL ENVIRONMENT

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### INTERNATIONAL ECONOMY

*Inflation inequality*

*China's real estate sector (part II): emergency landing or low-altitude flight?*

### PORTUGUESE ECONOMY

*Agrifood sector in Portugal (part II): the challenges of the European Green Deal and the new Common Agricultural Policy*

*Productivity in Portugal: magic ingredient or main course?*

### SPANISH ECONOMY

*Tax revenues in Spain in 2021: a very vigorous recovery*

*The impact of financial conditions on Spain's public debt burden*

## ANALYSIS OF THE ECONOMIC IMPACT OF THE UKRAINE CRISIS

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*Winds of stagflation*

*The Spanish economy in the face of the war in Ukraine*

*The impact of a rise in the price of oil and gas in Spain: possible scenarios*

## MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK

March 2022

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

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## Winds of stagflation

The invasion of Ukraine by Russian troops marks a turning point in the international geopolitical context since the fall of the Berlin Wall. The consequences of an event of such magnitude (a black swan in financial terminology) are still difficult to anticipate, but some of the underlying trends that have defined the behaviour of the global economy in recent decades could change. The search for greater strategic autonomy (especially in Europe) will entail a rethink both of foreign actions and in terms of energy, defence and competition policies, and this will be transmitted to the economic framework. It is clear that a return to spheres of geopolitical influence would have a negative impact on international trade, at a time when doubts over the fragility of value chains are already beginning to trigger attempts to seek vertical integration in sectors that are being particularly affected by the supply chain disruptions. In other words, after decades marked by a rapid globalisation process that has continued almost unobstructed, like a car on a motorway, it is now being diverted to a secondary road, subject to various imponderable factors (COVID, geopolitics, etc.). The paradox, therefore, is that globalisation – the apex which up until the pandemic appeared to be the strongest in Rodrik's trilemma (it is not possible to pursue globalisation, national sovereignty and democracy all at once, but rather only two of these elements) – may now also begin to reflect some signs of wear and tear.

However, as the underlying trends that will determine what the productive structure of the economy will look like in the medium term take shape (digitalisation, the energy transition, and a new geopolitical environment), the reality is that we are facing a new event with significant disruptive potential, just as we were apparently leaving the worst of the COVID-19 pandemic behind us. There are several channels through which this disruption could materialise. Firstly, Russia's importance as a producer (and exporter) of oil, natural gas, nickel, etc., is being reflected in the biggest rise in commodity prices in decades. This will pose a new disruption to supply, which in turn will have a detrimental impact for both growth and inflation in the coming quarters. This raises the risk that the upward inertia shown by consumer prices in much of the OECD, as a reflection of the significant mismatches between supply and demand caused by the pandemic, could become consolidated.

The second channel of contagion will be the growing uncertainty that is already being triggered by the first war to be retransmitted in real time on social media. Inevitably, these events will cause many economic agents to put their investment and consumption decisions on hold in the coming weeks, whether it be a household's decision to buy a car or how businesses choose to manage their stocks. Finally, the financial channel could amplify the above effects. This is because, although the international banking system's exposure to Russia is low, investors' incipient flight to quality may at some point cause liquidity tensions in certain market segments. In addition to all this, we must consider the distorting effect of the largest package of economic sanctions in recent decades. This package will plunge the Russian economy into recession (and, almost certainly, lead to defaults on its foreign-currency obligations), but it may also have an impact on the rest of the world as it will not favour the unclogging of the bottlenecks. In short, although the impact will be uneven, the increase in geopolitical risk will have economic, financial and social repercussions, in addition to the diplomatic and military ones. What is more, they will all interact in ways that are difficult to predict.

What we do already know is that all of this will entail a thorough revision of the growth and inflation forecasts (downwards and upwards, respectively) and it will affect all our pockets, as we are already seeing each time we fill up at the petrol station. In addition to their cost in human lives, wars always come with an economic cost, and the key is to distribute the sacrifices equitably among the various economic agents. The effects will evidently be asymmetric, with a greater impact on the European economy and on emerging countries that are dependent on commodities and that have liquidity problems. The first sensitivity analyses based on different energy price scenarios anticipate a negative impact on European growth of between 1 and 2.5 pps in 2022, while average inflation could increase by between 1 and 1.5 pps. With a very different economic structure and greater flexibility in production factors compared to the 1970s, the risk of stagflation seems moderate. Above all, the risks will be lower if the economic policy response gets it right, accommodating the supply shock to soften the blow to households and businesses while also trying to avoid second-round effects on prices. All this will have a fiscal cost that will most likely entail another suspension of the Stability and Growth Pact in 2023, while the ECB will be in no rush to embark on its path towards monetary normalisation until it has better visibility through the fog that a war always provokes.

For the time being, the good news is that Europe has once again been unanimous and decisive in its response to what is an enormous challenge for the second time in just over two years, despite the fragility posed by the almost complete dependence on imports of Russian natural gas in countries such as Hungary, Latvia, the Czech Republic and Slovakia (40% of Europe's total consumption). If the process of European construction is progressing in fits and starts from crisis to crisis, the succession of three significant periods of instability since 2008 (the financial crisis, COVID and Ukraine) has raised the scale of the challenge. A response that is fit for the circumstances, like that we have witnessed so far, could prove to be the ultimate catalyst for European integration. This, at least, offers us a reason for hope when faced with the pain of seeing images in Europe that take us back to the worst of the 20<sup>th</sup> century.

## Chronology

### FEBRUARY 2022

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

### DECEMBER 2021

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

### OCTOBER 2021

- 3** The International Consortium of Investigative Journalists publishes its investigation into accounts in tax havens: the Pandora Papers.
- 15** The delta plus variant of COVID-19 begins to spread.
- 30** G-20 summit at which the global minimum corporate tax is endorsed.

### JANUARY 2022

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

### NOVEMBER 2021

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

### SEPTEMBER 2021

- 1** The crisis affecting Chinese real estate firm Evergrande intensifies.
- 17** Moody's upgrades Portugal's rating (from Baa3 to Baa2).
- 26** Elections in Germany, bringing an end to the 16-year Merkel era.

## Agenda

### MARCH 2022

- 2** Spain: registration with Social Security and registered unemployment (February).  
Portugal: industrial production (January).
- 3** Portugal: new lending (January).
- 10** Governing Council of the European Central Bank meeting.
- 11** Portugal: S&P rating.
- 15-16** Federal Open Market Committee meeting.
- 17** Spain: quarterly labour cost survey (Q4).
- 18** Spain: S&P rating.
- 23** Spain: loans, deposits and NPL ratio (Q4).  
Portugal: home prices (Q4).
- 24-25** European Council meeting.
- 25** Spain: 4Q GDP (second estimate).  
Spain: balance of payments and NIIP (Q4).  
Portugal: savings rate (Q4).  
Portugal: general government budget execution (2021).
- 30** Spain: CPI flash estimate (March).  
Euro area: economic sentiment index (March).
- 31** Spain: household savings rate (Q4).  
Spain: state budget execution (February).

### APRIL 2022

- 4** Spain: registration with Social Security and registered unemployment (March).
- 8** Portugal: turnover in industry (February).  
Portugal: international trade (February).
- 12** Spain: financial accounts (Q4).
- 14** Governing Council of the European Central Bank meeting.
- 18** China: GDP (Q1).
- 28** Spain: CPI flash estimate (April).  
Spain: labour force survey (Q1).  
Euro area: economic sentiment index (April).  
US: GDP (Q1).
- 29** Spain: GDP flash estimate (Q1).  
Spain: state budget execution (March).  
Portugal: GDP flash estimate (Q1).  
Portugal: CPI flash estimate (April).  
Portugal: turnover in trade (March).  
Euro area: GDP (Q1).



## The Spanish economy in the face of the war in Ukraine

The outbreak of war in Ukraine has occurred at a time when things were looking favourable for the Spanish economy. Economic activity gained traction during the course of the past year and in Q4 it grew by a significant 5.2% in year-on-year terms. In addition, the impact of the new wave of infections caused by the Omicron variant was lower than feared. The high proportion of the population that had been vaccinated allowed the pressure on hospitals to remain contained, and that finally allowed us to look to the future with some optimism. It seemed as though we would enter a new phase of the pandemic in the coming months, in which we could recover a more normal life and in which the economic recovery would be consolidated.

In addition to these encouraging prospects was the deployment of NGEU funds, which is set to gather pace in the coming months, providing a boost to growth of well over 1 pp this year. The savings accumulated at the height of the pandemic were expected to continue to drive consumption. International tourism, which held up much better than expected during the months of December and January, was already showing signs of recovery. Internet searches for holidays to Spain were showing significant growth and suggested a very good summer season was ahead. And the bottlenecks, which were limiting the recovery of international trade flows, were expected to gradually moderate. Given these prospects, few doubted that growth this year could well exceed 5%.

However, the war that has broken out in Ukraine makes it now very difficult to predict the course of economic activity, but with every day that passes it seems increasingly unlikely that growth will reach 5%. Given the high uncertainty, it is still premature to sketch out a new macroeconomic scenario. The severity of the conflict's impact will depend on its duration, its geographical scope, and the sanctions and counter-sanctions that are imposed. What we can do is identify the main channels through which it will affect the Spanish economy and offer some metrics that will allow us to assess its sensitivity.

The main impact will undoubtedly come from the sharp rise in energy prices. Net imports of gas and oil amounted to almost 25 billion euros last year. Although the bulk of these imports does not come from Russia, given that prices are set internationally the sharp rise that has occurred will have a direct impact, which could prove significant if this price rise persists over time. As a benchmark, if the price of oil and gas close the year with

an average price similar to that which the futures markets have been suggesting in late February and early March (with oil at around 105 dollars per barrel and gas at around 120 euros/MWh), then GDP growth would likely end up just over 1 point below what we were anticipating before the outbreak of the conflict. The impact may be significant, but fortunately the starting point for the growth rate was relatively high.

Also of concern is the rise in inflation that could occur as a result of the rising energy prices. In recent months, we have witnessed how the upward pressures resulting, above all, from the rise in the price of oil, gas and electricity were being translated to the rest of the basket of consumer goods. In January, more than 60% of the goods that make up the consumer price index were already registering price increases in excess of 2% year-on-year. If energy prices end up remaining around the high levels indicated by the futures markets, then inflation could reach around 7% this year on average.

Beyond the aggregate impact on growth and inflation, there are some sub-sectors that will be hit particularly hard by the current circumstances. On the one hand are those which consume significant amounts of energy in their production processes and which, therefore, will be significantly affected by the increase in its price. Examples in the manufacturing sector include the auxiliary construction, metallurgy and timber industries. The agrifood sector will also suffer. It will suffer directly, due to the high imports from Russia and Ukraine of cereals (especially corn), sunflower oil (used, for instance, in tinned food and in all kinds of processed foods, with Russia and Ukraine accounting for 80% of the world's exports) and mineral fertilisers. In addition, the war in Ukraine is triggering a sharp rise in the price of agricultural commodities, and this will also have a major impact on the agrifood sector.

Faced with this situation, a coordinated fiscal response at the European level must once again play a key role. It is important to support those sectors most affected by the high energy and other commodity prices. In addition to trying to minimise the impact on employment, this will also help to prevent the rise in their inputs from being translated to final prices, thus moderating inflationary pressures. Faced with a shock of such a nature and magnitude, it is also imperative to act decisively in order to protect the most vulnerable households. Finally, the urgent transition of the energy model towards one that is more sustainable, from both an environmental and a geopolitical point of view, must be accelerated.

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

## Financial markets

	Average 2000-2007	Average 2008-2018	2019	2020	2021	2022	2023
<b>INTEREST RATES</b>							
<b>Dollar</b>							
Fed funds (upper limit)	3.43	0.68	1.75	0.25	0.25	1.50	2.25
3-month Libor	3.62	0.90	1.91	0.23	0.21	1.80	2.55
12-month Libor	3.86	1.40	1.97	0.34	0.52	2.00	3.00
2-year government bonds	3.70	0.96	1.63	0.13	0.62	1.85	2.00
10-year government bonds	4.70	2.61	1.86	0.93	1.45	2.35	2.50
<b>Euro</b>							
ECB depo	2.05	0.26	-0.50	-0.50	-0.50	-0.25	0.25
ECB refi	3.05	0.82	0.00	0.00	0.00	0.25	0.75
Eonia	3.12	0.47	-0.46	-0.47	-0.49	-0.20	0.40
1-month Euribor	3.18	0.58	-0.45	-0.56	-0.60	-0.22	0.42
3-month Euribor	3.24	0.74	-0.40	-0.54	-0.58	-0.15	0.52
6-month Euribor	3.29	0.88	-0.34	-0.52	-0.55	-0.01	0.68
12-month Euribor	3.40	1.07	-0.26	-0.50	-0.50	0.13	0.85
<b>Germany</b>							
2-year government bonds	3.41	0.45	-0.63	-0.73	-0.69	-0.10	0.50
10-year government bonds	4.30	1.69	-0.27	-0.57	-0.31	0.30	0.80
<b>Spain</b>							
3-year government bonds	3.62	1.87	-0.36	-0.57	-0.45	0.60	1.08
5-year government bonds	3.91	2.39	-0.09	-0.41	-0.25	0.76	1.21
10-year government bonds	4.42	3.40	0.44	0.05	0.42	1.35	1.70
Risk premium	11	171	71	62	73	105	90
<b>Portugal</b>							
3-year government bonds	3.68	3.66	-0.34	-0.61	-0.64	0.63	1.17
5-year government bonds	3.96	4.30	-0.12	-0.45	-0.35	0.86	1.34
10-year government bonds	4.49	5.03	0.40	0.02	0.34	1.35	1.75
Risk premium	19	334	67	60	65	105	95
<b>EXCHANGE RATES</b>							
EUR/USD (dollars per euro)	1.13	1.28	1.11	1.22	1.13	1.15	1.20
EUR/GBP (pounds per euro)	0.66	0.84	0.85	0.90	0.85	0.83	0.84
<b>OIL PRICE</b>							
Brent (\$/barrel)	42.3	81.5	65.2	50.2	74.8	85.0	77.0
Brent (euros/barrel)	36.4	62.9	58.6	41.3	66.2	73.9	64.2

Forecasts

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

### International economy

	Average 2000-2007	Average 2008-2018	2019	2020	2021	2022	2023
<b>GDP GROWTH</b>							
<b>Global</b>	4.5	3.4	2.8	-3.1	6.1	4.1	3.8
<b>Developed countries</b>	2.7	1.4	1.7	-4.5	5.2	3.6	2.6
United States	2.7	1.6	2.3	-3.4	5.7	3.5	2.4
Euro area	2.2	0.8	1.6	-6.5	5.2	4.0	2.8
Germany	1.6	1.3	1.1	-4.9	2.8	3.3	2.9
France	2.2	0.9	1.8	-8.0	7.0	3.8	2.1
Italy	1.5	-0.4	0.4	-9.0	6.5	4.1	2.3
Portugal	1.5	0.3	2.7	-8.4	4.9	4.9	2.6
Spain	3.7	0.5	2.1	-10.8	5.0	5.5	3.6
Japan	1.4	0.5	-0.2	-4.5	1.7	2.4	1.5
United Kingdom	2.6	1.3	1.7	-9.4	7.4	3.5	1.4
<b>Emerging and developing countries</b>	6.5	5.0	3.7	-2.0	6.7	4.5	4.7
China	10.6	8.2	6.0	2.2	8.1	4.7	4.9
India	7.2	6.9	4.8	-7.0	9.2	7.3	7.5
Brazil	3.6	1.7	1.4	-4.1	5.3	0.8	2.1
Mexico	2.4	2.1	-0.2	-8.2	4.8	2.5	2.3
Russia	7.2	1.1	1.3	-3.1	4.7	2.5	2.0
Turkey	5.4	4.9	0.9	1.6	9.1	3.3	3.9
Poland	4.2	3.5	4.8	-2.5	5.7	4.3	3.2
<b>INFLATION</b>							
<b>Global</b>	4.1	3.7	3.5	3.2	4.5	5.4	3.2
<b>Developed countries</b>	2.1	1.6	1.4	0.7	3.4	4.7	2.0
United States	2.8	1.8	1.8	1.2	4.7	5.9	2.2
Euro area	2.2	1.4	1.2	0.3	2.6	4.4	1.6
Germany	1.7	1.4	1.4	0.4	3.2	4.5	1.7
France	1.9	1.3	1.3	0.5	2.1	3.1	1.3
Italy	2.4	1.5	0.6	-0.1	1.9	4.3	1.6
Portugal	3.0	1.2	0.3	0.0	1.3	2.2	1.7
Spain	3.2	1.4	0.7	-0.3	3.1	4.5	1.2
Japan	-0.3	0.4	0.5	0.0	-0.2	0.7	0.7
United Kingdom	1.6	2.4	1.8	0.9	2.6	4.6	1.8
<b>Emerging countries</b>	6.7	5.6	5.1	5.1	5.8	6.2	4.5
China	1.7	2.6	2.9	2.5	0.9	1.2	1.4
India	4.5	7.7	3.7	6.6	5.0	5.5	4.5
Brazil	7.3	5.9	3.7	3.2	8.3	7.5	3.5
Mexico	5.2	4.2	3.6	3.4	5.7	5.7	3.5
Russia	14.2	8.2	4.5	4.9	6.7	7.0	4.1
Turkey	27.2	9.1	15.5	14.6	19.4	19.6	11.0
Poland	3.5	1.9	2.1	3.7	5.2	6.9	4.3

Forecasts

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

### Portuguese economy

	Average 2000-2007	Average 2008-2018	2019	2020	2021	2022	2023
<b>Macroeconomic aggregates</b>							
Household consumption	1.7	0.3	3.3	-7.1	5.0	4.8	2.4
Government consumption	2.3	-0.5	2.1	0.4	4.6	0.8	0.2
Gross fixed capital formation	-0.3	-1.2	5.4	-2.7	4.4	6.2	8.0
Capital goods	3.2	2.7	1.6	-6.2	9.2	5.7	8.1
Construction	-1.5	-3.5	7.7	1.6	1.5	4.5	4.3
Domestic demand (vs. GDP Δ)	1.3	-0.2	3.0	-5.6	5.5	4.5	3.1
Exports of goods and services	5.2	4.0	4.1	-18.7	9.9	13.7	5.9
Imports of goods and services	3.6	2.5	5.0	-12.2	11.0	11.4	6.7
<b>Gross domestic product</b>	<b>1.5</b>	<b>0.3</b>	<b>2.7</b>	<b>-8.4</b>	<b>4.9</b>	<b>4.9</b>	<b>2.6</b>
<b>Other variables</b>							
Employment	0.4	-0.6	1.2	-1.9	2.7	1.5	0.6
Unemployment rate (% of labour force)	6.1	11.8	6.6	7.0	6.6	6.1	5.9
Consumer price index	3.0	1.2	0.3	0.0	1.3	2.2	1.7
Current account balance (% GDP)	-9.2	-3.2	0.4	-1.2	-1.1	-1.0	-0.4
External funding capacity/needs (% GDP)	-7.7	-1.9	1.2	0.1	0.5	1.3	1.9
Fiscal balance (% GDP)	-4.6	-5.5	0.1	-5.8	-4.3	-2.9	-1.5

Forecasts

### Spanish economy

	Average 2000-2007	Average 2008-2018	2019	2020	2021	2022	2023
<b>Macroeconomic aggregates</b>							
Household consumption	3.6	-0.1	0.9	-12.2	4.7	3.9	4.2
Government consumption	5.0	1.0	2.0	3.3	3.0	0.3	-0.3
Gross fixed capital formation	5.6	-1.9	4.5	-9.5	4.1	7.2	5.6
Capital goods	4.9	0.0	3.2	-12.9	15.5	8.0	5.0
Construction	5.7	-3.8	7.1	-9.6	-3.0	5.1	5.9
Domestic demand (vs. GDP Δ)	4.2	-0.3	1.3	-8.9	5.0	4.7	3.3
Exports of goods and services	4.7	2.9	2.5	-20.1	13.4	11.5	4.6
Imports of goods and services	7.0	0.1	1.2	-15.2	12.8	8.1	4.3
<b>Gross domestic product</b>	<b>3.7</b>	<b>0.5</b>	<b>2.1</b>	<b>-10.8</b>	<b>5.0</b>	<b>5.5</b>	<b>3.6</b>
<b>Other variables</b>							
Employment	3.2	-0.7	2.6	-7.6	6.7	4.5	2.2
Unemployment rate (% of labour force)	10.5	20.0	14.1	15.5	14.8	13.0	11.8
Consumer price index	3.2	1.4	0.7	-0.3	3.1	4.5	1.2
Unit labour costs	3.0	0.3	3.1	5.0	1.1	1.1	1.1
Current account balance (% GDP)	-5.9	-0.5	2.1	0.8	0.7	1.3	1.7
External funding capacity/needs (% GDP)	-5.2	-0.1	2.6	1.1	1.7	1.8	1.9
Fiscal balance (% GDP) <sup>1</sup>	0.4	-6.3	-2.9	-11.0	-7.1	-5.2	-3.9

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

Forecasts



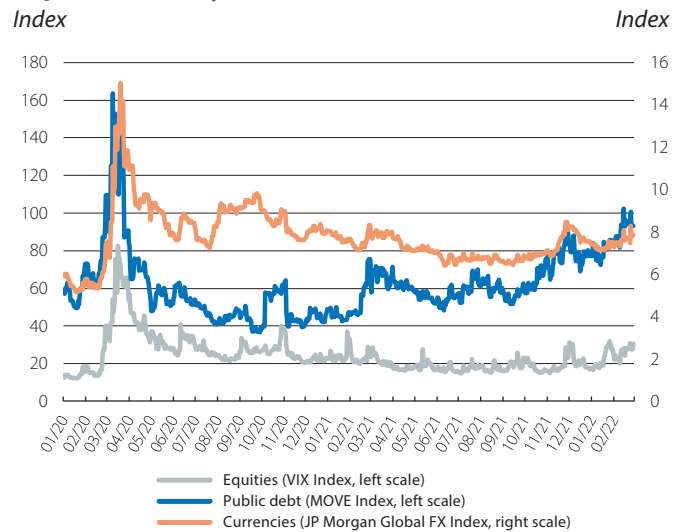
## Russia unleashes a sell-off in the financial markets

**Trading in the financial markets reflects a highly uncertain outlook.** Throughout February, the escalation of geopolitical tensions between Russia and the West leaked into the global financial markets through increased risk aversion and volatility, which intensified with the onset of the conflict. The invasion of Ukraine by the Russian army, an event which analysts and investors had considered unlikely, pushed aspects such as inflation and the speed of the Fed's interest rate hikes, which had previously been the focus of attention, to the background. The reaction from the financial markets was as expected: a flight to quality, significant stock market corrections, heightened volatility and, in this case, rises in commodity prices. All of this shows that investors had begun to reassess their forecasts for how the conflict could affect value chains, inflation and the pace of economic growth.

**Oil and gas lead the surge in commodity prices.** In the face of the conflict, the commodity markets reacted with sharp price increases, especially in energy goods. Investors' fears of mismatches in Russian supplies to Europe (Europe imports around 30% of its crude oil from Russia and more than 40% of its gas) fuelled tensions in both markets. On the one hand, the price of a barrel of Brent, which had already risen since 2021 due to strong growth in demand following the pandemic, surged and ended the month of February above 100 dollars a barrel, the highest level since 2014. On the other hand, the price of natural gas in Europe (for which the Dutch TTF is the benchmark index) also registered a sharp increase amounting to 40% between the beginning of the year and the end of February, in a context of the complex European gas market (see the Dossier «Energy prices: present and future» in the MR01/2022). In addition to the boom in energy prices, there were also significant increases in the prices of several basic metals, such as nickel, aluminium and palladium, of which Russia is one of the largest producers. The price rally also occurred in some cereals such as wheat, with Russia and Ukraine accounting for some 25% of total global production.

**Investors test the responses of the central banks in the new scenario.** Before the start of the conflict, both the Fed and the ECB had expressed concern about the persistence of high inflation and had stated their intention to control it by withdrawing the monetary stimulus deployed during the pandemic and by raising their reference interest rates. The Fed even went much further, clarifying the immediacy of its roadmap at its January meeting. Alongside the strong recovery in the US labour market, this stance led investors

### Implicit volatility in the financial markets



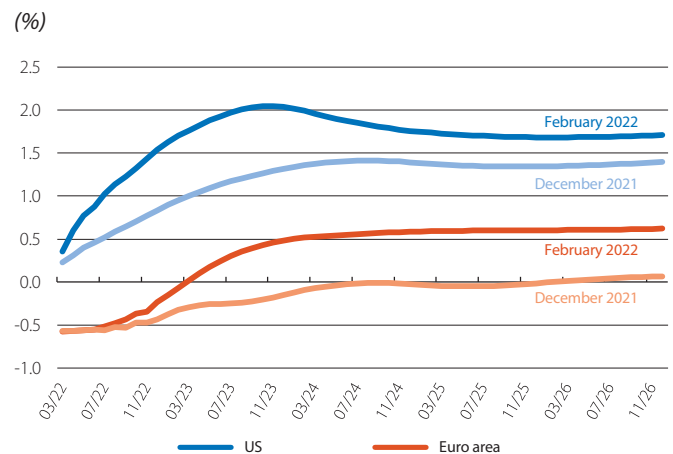
Source: BPI Research, based on data from Bloomberg.

### Oil: price of a barrel of Brent (Dollars per barrel)



Source: BPI Research, based on data from Bloomberg.

### Expectations for the Fed and ECB reference interest rates



Note: Forwards on the EFR and the OIS of the euro area derived using the NSS model based on market yield curves.

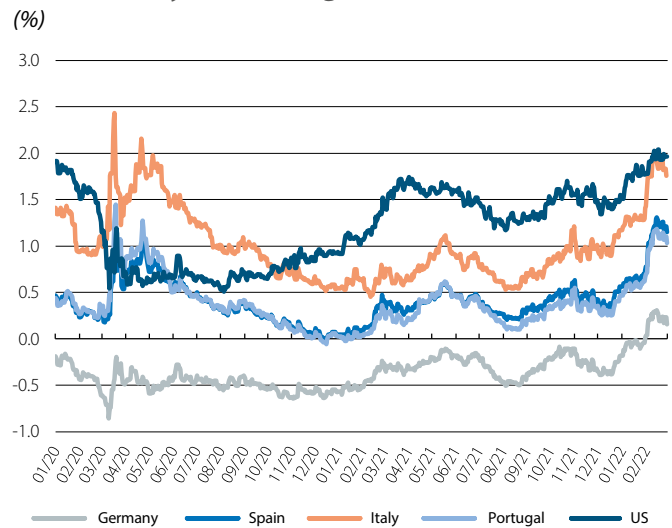
Source: BPI Research, based on data from Bloomberg.

to anticipate up to five interest-rate hikes during 2022. In the case of the ECB, the institution maintained a more dovish message, marked by the gradual reduction and eventual ending of asset purchases, which will be followed by the normalisation of interest rates. This led some investors to expect interest rate changes by December this year. However, the outbreak of the conflict and its potential implications for inflation and economic growth in the two regions have led to some changes in investors' expectations. With regard to the Fed, investors still expect the monetary institution to maintain its roadmap, albeit with a potentially less aggressive rate hike plan (in March, it could raise rates by 25 bps instead of 50 bps as previously anticipated). In the case of the ECB, meanwhile, investors point to a more cautious stance on the part of the monetary institution, with rate hikes potentially being delayed until the end of Q1 2023. This change in investors' expectations in the face of an uncertain outlook also had an impact on both economies' sovereign yield curves, which registered a marked drop in yields across all maturities (despite an improvement in the month on aggregate) and a flattening of their slopes.

**The rouble depreciates to an all-time low.** In the currency markets, as is common during episodes of risk aversion, the dollar emerged as a safe haven and appreciated against other global currencies. The strength of its economy and investors' expectations of a rate hike by the Fed also supported the currency's strength. On the opposite end of the spectrum was the Russian rouble. The economic and financial sanctions which the West imposed on Russia weakened the currency against the dollar, pushing it to all-time lows. In a failed attempt to curb further depreciation of its currency, the Bank of Russia decided to raise the benchmark interest rate from 9.50% to 20%, and imposed numerous restrictions on the sale of Russian financial assets by foreign investors.

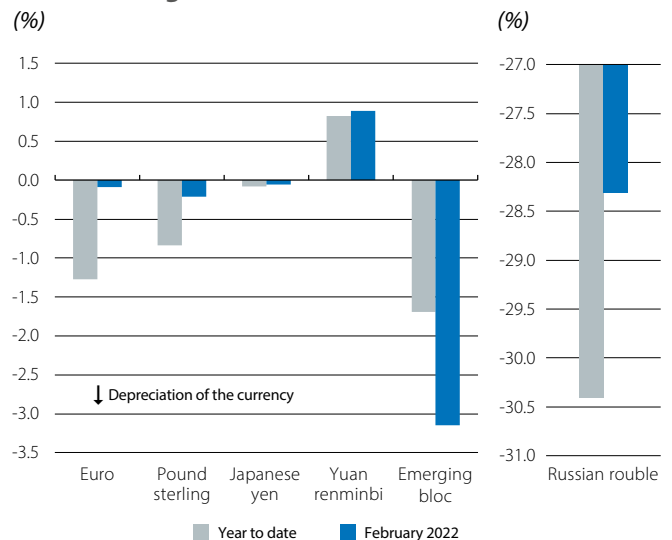
**New episode of stock market corrections.** Another consequence of the change of scenario was the fall registered in global stock markets. The volatility shown by the major stock indices during the first few weeks of February intensified in the closing days of the month with Russia's incursion into Ukraine. Thus, the benchmark indices in both the US and the euro area amassed losses of more than 8% between the beginning of the year and the end of February, and this weakness spread to most sectors, with the exception of energy and technology. In addition, emerging countries registered declines in their main indices, particularly in the economies of Eastern Europe. However, it was the Russian stock market that experienced the biggest declines in February (–30%), in the face of the stock sell-off triggered by the sanctions imposed on the country's economy.

### Yields on 10-year sovereign debt



Source: BPI Research, based on data from Bloomberg.

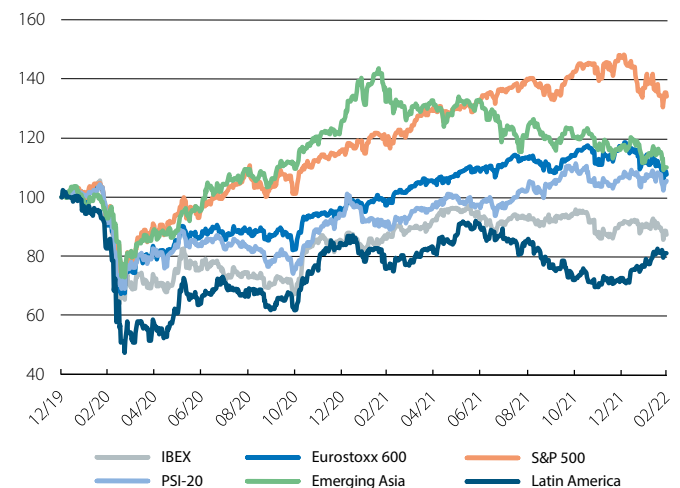
### Currencies against the US dollar



Source: BPI Research, based on data from Bloomberg.

### International stock markets

Index (100 = December 2019)



Source: BPI Research, based on data from Bloomberg.

*Interest rates (%)*

	28-February	31-January	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
<b>Euro area</b>					
ECB Refi	0.00	0.00	0	0.0	0.0
3-month Euribor	-0.53	-0.55	2	3.9	0.0
1-year Euribor	-0.35	-0.45	10	15.2	12.9
1-year government bonds (Germany)	-0.66	-0.67	0	-2.3	-5.3
2-year government bonds (Germany)	-0.53	-0.53	0	8.9	15.6
10-year government bonds (Germany)	0.14	0.01	12	31.2	46.9
10-year government bonds (Spain)	1.12	0.75	37	55.0	79.1
10-year government bonds (Portugal)	1.00	0.67	33	53.3	77.5
<b>US</b>					
Fed funds (upper limit)	0.25	0.25	0	0.0	0.0
3-month Libor	0.50	0.31	20	29.5	32.0
12-month Libor	1.29	0.96	33	70.5	100.4
1-year government bonds	0.98	0.77	20	59.9	90.9
2-year government bonds	1.43	1.18	25	70.0	131.3
10-year government bonds	1.83	1.78	5	31.5	40.8

*Spreads corporate bonds (bps)*

	28-February	31-January	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
Itraxx Corporate	71	59	12	23.3	22.6
Itraxx Financials Senior	81	67	14	26.6	22.5
Itraxx Subordinated Financials	152	126	25	43.8	42.4

*Exchange rates*

	28-February	31-January	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
EUR/USD (dollars per euro)	1.122	1.124	-0.1	-1.3	-6.9
EUR/JPY (yen per euro)	129.010	129.330	-0.2	-1.4	0.3
EUR/GBP (pounds per euro)	0.836	0.835	0.1	-0.6	-3.4
USD/JPY (yen per dollar)	115.000	115.110	-0.1	-0.1	7.7

*Commodities*

	28-February	31-January	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	609.5	582.9	4.6	5.4	25.5
Brent (\$/barrel)	101.0	91.2	10.7	29.8	58.6
Gold (\$/ounce)	1,909.0	1,797.2	6.2	4.4	10.7

*Equity*

	28-February	31-January	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (USA)	4,373.9	4,515.6	-3.1	-8.2	12.1
Eurostoxx 50 (euro area)	3,924.2	4,174.6	-6.0	-8.7	5.9
Ibex 35 (Spain)	8,479.2	8,612.8	-1.6	-2.7	1.2
PSI 20 (Portugal)	5,563.1	5,564.4	0.0	-0.1	16.0
Nikkei 225 (Japan)	26,526.8	27,002.0	-1.8	-7.9	-10.6
MSCI Emerging	1,171.3	1,208.2	-3.1	-4.9	-14.0

## The Russia-Ukraine conflict, the new «black swan» of 2022

The invasion of Ukraine by the Russian army will have significant ramifications for the economic and financial outlooks. Things were looking up for the global economy, as COVID-19 looked set to take on a weaker, more flu-like form in the coming months. This was reflected in the substantial improvement in the main business and household confidence indicators in January and February, suggesting that we would see solid growth rates by mid-year and a slow but steady normalisation in the distortions of global supply chains. Economic agents were more concerned about the evolution of inflation and how it could affect the roadmap of the major central banks.

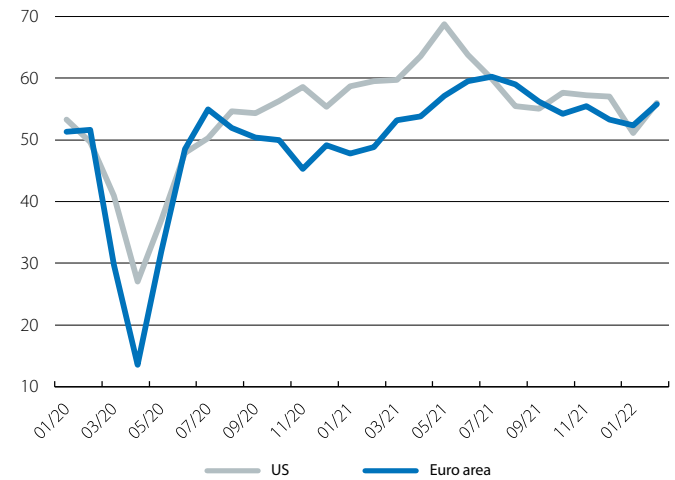
However, Putin's decision on 22 February to recognise the independence of the separatist regions in eastern Ukraine (Donetsk and Luhansk) proved a turning point for the outlook. Events moved quickly in the last week of February, and the worst case scenario has finally materialised: war between Russia and Ukraine. The big questions now are, on the one hand, how long the conflict itself and its effects on confidence and energy prices will last and, on the other hand, what the impact of the sanctions on Russia will be.

One of the main channels of the impact will be through the rise in commodity prices. Russia's ability to affect the global economy lies not in its size – its economy is only slightly bigger than Italy's, and it is also fairly closed – but rather in its role as the main producer of a number of key commodities. Furthermore, this new shock comes at a time when global supply chains have not yet normalised following the outbreak of the COVID-19 pandemic, which will aggravate the supply problems that a significant portion of the industrial fabric is already experiencing. The impact will be asymmetric and especially significant for Europe, as Russia is the region's fifth largest trading partner: Germany is one of the countries most exposed to the trade channel, with 2.0% of its exports going to Russia, representing around 0.6% of its gross value added (GVA).

Europe, one of the regions that will suffer the most due to its high dependence on Russian energy. The region is highly dependent on fossil fuels in general and on those from Russia in particular. According to the ECB, around 80% of the energy consumed in the euro area corresponds to gas and oil. Moreover, Russia accounts for almost 46% of the gas imported into the region, and inventory levels are some 30% below the February average of the last 10 years. This leaves the continent quite vulnerable if Russia decides to cut the supply. According to ECB estimates, a 10% reduction in the supply of gas would result in a 0.7-pp reduction in the euro area's GVA. By country, Germany would be the hardest hit, given that almost 65% of

### Business sentiment index (PMI)

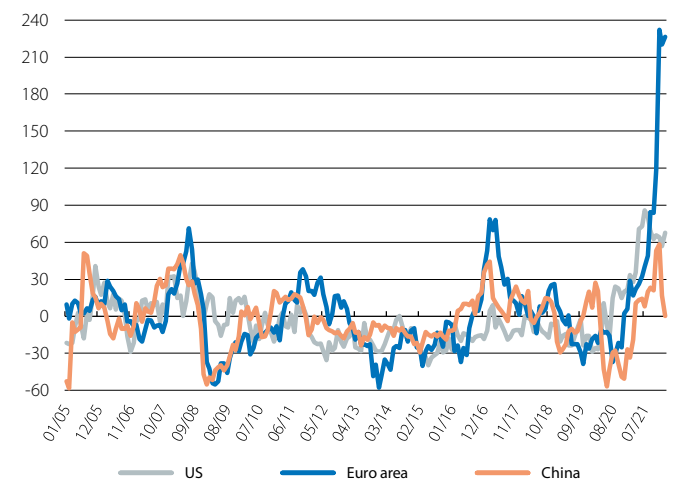
Level



Source: BPI Research, based on PMI Markit data, via Refinitiv.

### Inflation surprise index

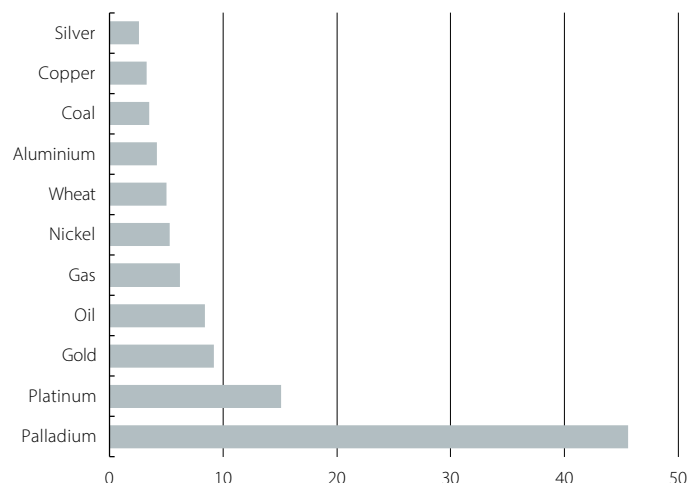
(Deviation from the expectation)



Source: BPI Research, based on data from Refinitiv.

### Russia: commodity production

(% of global production)



Source: BPI Research, based on various sources.

its gas imports come from Russia. Considering that Q1 2022 was already looking very weak before the outbreak of the war, with another fall in economic activity being a real possibility, the outlook is looking particularly difficult for Germany. As a result, the risks to the euro area are largely skewed to the downside for growth and to the upside for inflation. Although it is still too early to quantify the magnitude of these revisions, in an initial sensitivity analysis we estimate an impact exceeding 1 pp in the case of euro area growth in 2022.

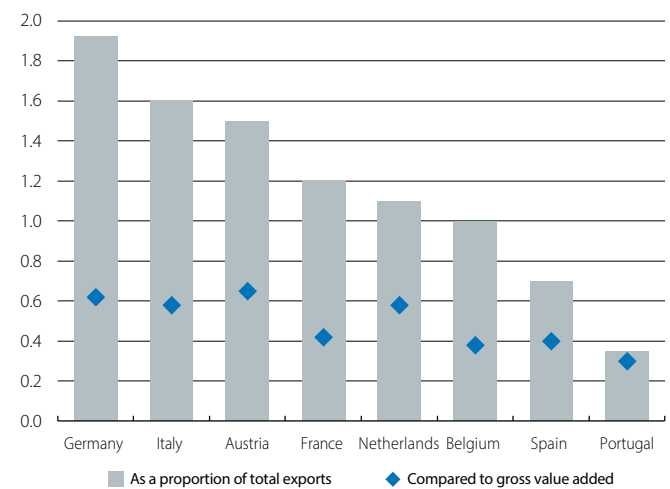
**Russia faces severe sanctions for the attack on Ukraine,** although the policy of sanctions is not new to Russia, as it is still facing some of those imposed after the annexation of Crimea in 2014. The IMF estimated that those measures subtracted 0.2 pps from Russia's annual growth during the period 2014-2018, a decline that was exacerbated by the sharp drop in the price of crude oil in the same period (which may have subtracted an additional 0.6 pps per year). Today, Russia's war against Ukraine has led the major Western powers to impose a new round of heavy sanctions which, according to some estimates, could cut Russia's GDP by 5.0%. Broadly speaking, the sanctions adopted, in addition to directly affecting the assets and wealth of Putin and other Russian oligarchs, cut Russia's access to international financing markets, they limit the use of the reserves amassed by the central bank and they affect the activity of around 70% of the country's financial sector.

**Among the sanctions imposed on Russia, the strategy being adopted against its central bank is particularly significant.**

Since the invasion of Crimea in 2014, Russia has accumulated reserves in excess of 600 billion dollars (almost 40% of its GDP). The EU, the US, the UK and Canada have decided to «freeze the assets of the central bank» in order to limit its ability to defend the rouble, as well as to prevent those funds from being used to offset the impact of the sanctions. The potential effectiveness of this measure becomes evident when analysing the composition of these reserves. Around 160 billion dollars corresponds to gold (stored within the country) and some 90 billion is held in yuan. However, the reserves denominated in currencies of the countries that have joined the sanctions represent almost 60% of the total.

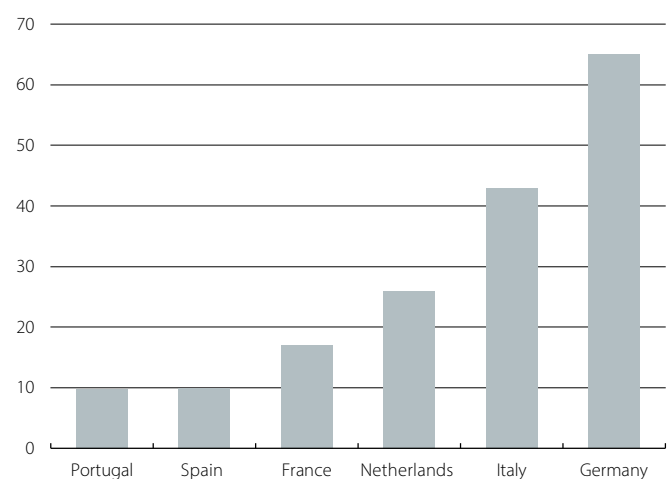
**Much of Russia's financial system will be disconnected from Swift.** After intense debate, it was decided to exclude a number of Russian banks from the Swift international payments system (which connects over 11,000 financial institutions around the world). It is true that Russia has been working on its own payment system since 2014 (the SPFS), but it covers only around 400 institutions, most of them Russian, so the volume of orders it transmits is small. Therefore, the entities excluded from Swift will not be able to process flows of funds from outside the country, posing a severe blow to Russia's export sector.

### Relative weight of exports to Russia (%)



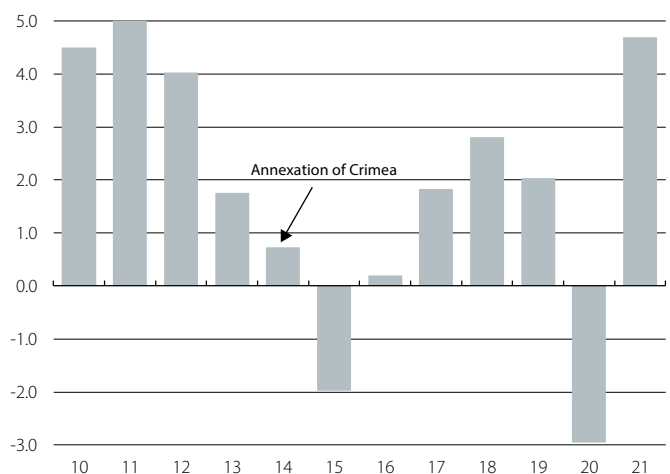
Source: BPI Research, based on data from Capital Economics.

### Dependence on Russian gas (Imports of Russian gas as a % of total gas imports)



Source: BPI Research, based on data from Capital Economics.

### Russia: GDP Year-on-year change (%)



Source: BPI Research, based on data from the IMF.



Thus, the extent and severity of the measures imposed against Russia will limit its trade with the rest of the world, significantly restrict the operations of the financial channel, drain much of the liquidity and could even end up causing a price spiral and a sharp depreciation of the rouble. Ultimately, this will lead to capital controls being imposed, and a recession. There are no precedents for such significant sanctions in recent years, with the exception of Iran and North Korea.

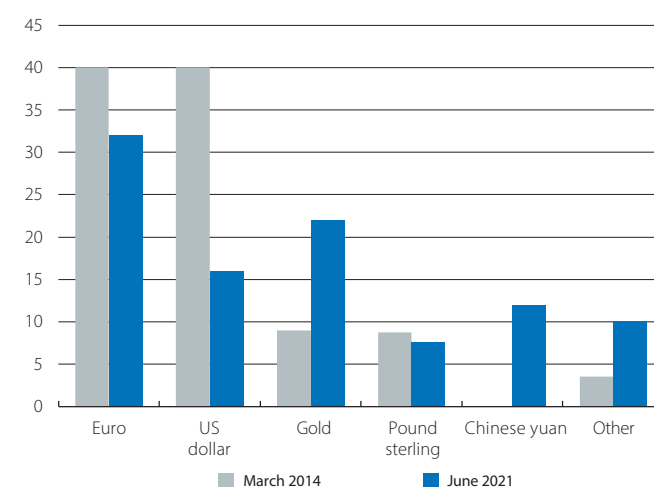
**Uneven impact of this new scenario on emerging economies.** Most emerging economies raised interest rates to a greater or lesser extent during 2021 in an attempt to slow the advance of inflation. In this way, they extended the freedoms of economic policy to respond to potential surprises in the economic scenario. However, we must bear in mind that in the current context of heightened uncertainty and rising commodity prices, the impact will be somewhat uneven across economies.

**Firstly, emerging countries' geographical location will be decisive.** The economies of Eastern Europe will be the hardest hit. One example of evidence that that contagion is already spreading to the region is the ECB's statement that the European subsidiary of the Russian bank Sberbank and its two subsidiaries in Croatia and Slovenia are either bankrupt or are likely to fail soon due to the deterioration in their liquidity.

**Secondly, emerging countries' economic structure will also be important in determining the extent of the impact.** Commodity-exporting economies, with a surplus in their current account balance, will benefit the most from the price rises that have already accumulated in the main commodities. On the other hand, commodity-importing economies, which traditionally run deficits in their current account balances, will be the most vulnerable and will find it the hardest for their economic policy to respond to the new scenario. Also, the region in conflict is known as the «breadbasket of Europe»: wheat from Russia and Ukraine supplies northern Africa, sub-Saharan Africa, the Middle East, and Southeast Asia. These regions encompass economies with very low incomes, so the inevitable sharp rise in the price of this commodity (already up almost 80% so far this year) could fuel social tensions. Finally, in the current context of high uncertainty, we could see an outflow of capital from emerging economies towards «safer» destinations, and this could destabilise the most vulnerable economies.

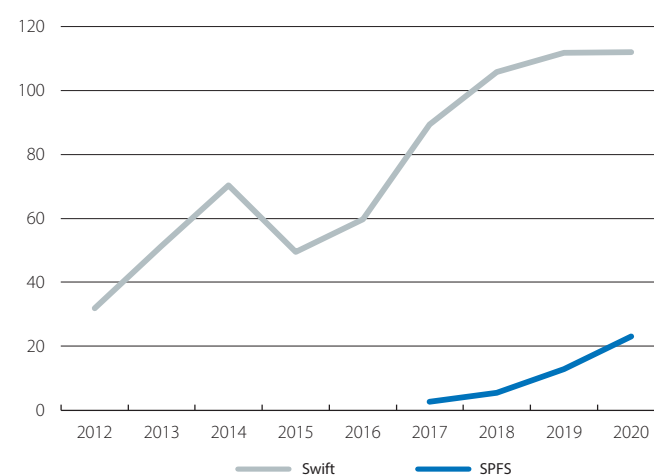
**In short, the heightened geopolitical risk will pose a new shock for the international economy,** just when we were beginning to see the light at the end of the tunnel in the pandemic. It is too early to estimate the effects on the main economic and financial variables. However, the heightened uncertainty and the volatility we will see in energy prices will force economic policy to respond in an attempt to minimise the effects of this umpteenth disruption to the international cycle in recent years.

### Composition of reserves of the Russian central bank (% of the total)



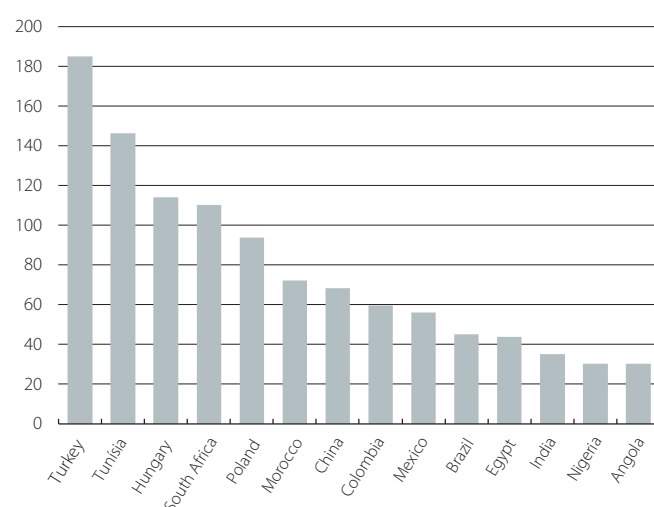
Source: BPI Research, based on data from the IIF.

### Payment orders in the Russian market (Millions)



Source: BPI Research, based on data from the IIF.

### External vulnerability index\* (%)



Note: \* Short-term currency requirements relative to the currency level.  
Source: BPI Research, based on data from Moody's.

## Inflation inequality

Inflation is back in the limelight and dominating the headlines. The revival of demand, in a context of persistent bottlenecks in production chains and rising energy prices, has been driving up prices since March 2021. As a result, euro area inflation has reached record highs above 5.0%, with no let-up in sight for the coming months, especially following the surge in energy prices due to the conflict in Ukraine. Beyond the figure itself, it is often overlooked that the impact of a rise in prices does not affect all households alike, and that this largely depends on which items are responsible for the price rally.

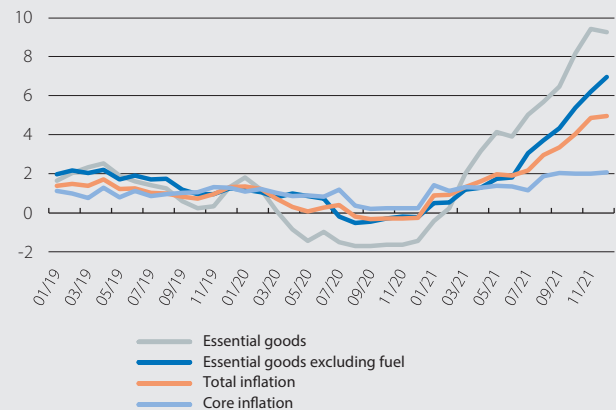
In this episode of rising inflation, it is interesting to note that prices have risen across the board: whereas at the beginning of 2021 only 17% of the components of the CPI basket registered inflation above 2.0%, by December this percentage had risen to 75% and, moreover, around 25% of the components had inflation exceeding 5.0%. Not only that: inflation in the components encompassing essential goods and services (food, electricity and heating, for example) went from just 0.5% in January to almost 7.0% in December, a figure which rises to 9.2% when including petrol (see first chart).

These products have a very rigid demand which makes finding substitutes difficult (one can stop going on holiday if it becomes too expensive, but using less heating in the winter is not so easy), so the rise in inflation is having an uneven impact on different income tranches. In fact, according to data from Eurostat, lower-income households (corresponding to the 1<sup>st</sup> and 2<sup>nd</sup> quintiles) allocate 13% of their expenditure to food and around 20% to housing,<sup>1</sup> gas, electricity and heating. In comparison, higher-income households (the top quintile) allocate less than 10% and 5%, respectively.<sup>2</sup>

As a result, the sharp rise in the price of essential products has a greater impact on the lower income tranches: according to our estimates, the gap in inflation of essential goods between lower and higher incomes (known as inflation inequality) rose from 0.1 pp in January to 0.8 pps in December, the widest it has been in at least a decade.<sup>3</sup> In other words, although inflation in essential goods as of December stood at around 7.0% (excluding petrol), its was different depending on

### Euro area: total inflation and inflation in essential goods \*

Year-on-year change (%)



Note: \* Food, rent, water, electricity, gas, petrol and transportation.

Source: BPI Research, based on data from Eurostat, via Refinitiv.

### Euro area: inflation inequality between lower and higher incomes

(pps)



Source: BPI Research, based on data from Eurostat.

people's income level. For those on lower incomes, we have estimated that inflation in this category was 7.3%, while among higher incomes it was 6.5% (see second chart).

This difference would be more pronounced in the case of Germany, where the proportion of spending allocated to essential goods among the lower income tranches (1<sup>st</sup> and 2<sup>nd</sup> quintiles) is significantly higher than the euro area average and than in its major European counterparts (see third chart).<sup>4</sup> In fact, we estimate that the gap in inflation of essential goods between the lowest and highest income tranches rose from 0.4 pps in January to over 1.0 pp in December.

4. Eurostat does not publish data disaggregated by quintiles in Italy.

1. Understood as rental expense or equivalent.

2. The data on the distribution of consumption by income quintile published by Eurostat are derived from the 2015 Household Budget Survey (HBS). However, consumption patterns since the outbreak of the pandemic have changed significantly, and the current level of spending on essential goods among those on lower incomes may be even higher than in the 2015 HBS.

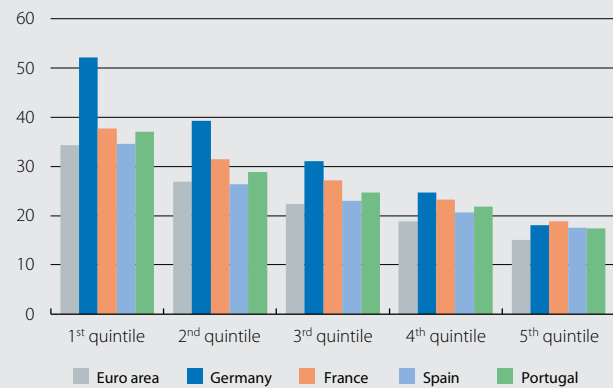
3. This exercise is based on the following document:

G. Claeys and L. Guetta-Jeanrenaud (2022). «Who is suffering most from rising inflation?». Bruegel Blog, 1 February.

In addition, this price rally is occurring at a time when households' disposable income in some countries has not yet recovered from the blow of the COVID crisis, and even where it has recovered, it hardly offsets the increase in the cost of living (see fourth chart).

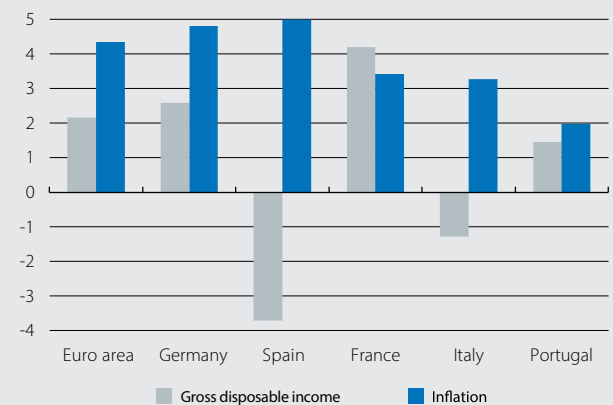
In short, despite the limited data, the above exercise appears to suggest that the current pattern of price increases is having a particularly acute affect on the lower income tranches. In an attempt to alleviate this impact, the various economies of the region have launched a number of initiatives, based on a series of recommendations issued by the European Commission.<sup>5</sup> These initiatives are particularly aimed at offsetting the rise in electricity bills, which have continued to reach new heights throughout the winter due to the sharp increase in gas prices. The measures adopted include transfers to the most vulnerable households, VAT cuts on energy and price regulation in the retail and wholesale markets, among others. Another measure being considered is a possible change in the system used to calculate electricity prices, in a bid to soften the impact of the marginal price calculation method. However, in reality these are palliative measures that can, momentarily, offset the impact of the rise in the prices of essential goods on lower-income groups of the population.

### Consumption of essential goods, by income quintile (% of total consumption)



Source: BPI Research, based on data from Eurostat.

### Gross disposable income and inflation \* (% change versus Q4 2019)



Note: \* Gross disposable income in Q3 2021 and inflation in Q4 2021.  
Source: BPI Research, based on data from Eurostat.

5. See European Commission (October 2021). «Tackling rising energy prices: a toolbox for action and support».

## China's real estate sector (part II): emergency landing or low-altitude flight?

The total debt of the Chinese economy stood at 274% of GDP at the end of 2021.<sup>1</sup> Conscious of the risks of an excessive accumulation of debt and the need to rebalance the country's economic growth model, in recent years the Chinese authorities have endeavoured to contain corporate debt (which peaked in 2016 at 123% of GDP, see first chart). In this regard, in mid-2020 the government announced a series of strict rules on access to credit in the real estate sector, which had historically followed a growth model based on high leverage.

In particular, in order to access bank credit, developers must comply with the so-called «three red lines».<sup>2</sup> However, these measures not only managed to limit debt in the sector, but also exposed its vulnerabilities. In this context, some of the biggest developers are facing severe liquidity problems. The biggest risk of this strategy of deleveraging the real estate sector is that of contagion between developers, as well as contagion to other parts of the economy that are exposed to the real estate sector.

### Risk of contagion within the real estate sector

A series of «controlled implosions» of some of the developers that are in a weaker financial position could lead to contagion from the insolvent developers to other more solvent ones. That is, there is a risk that the conditions of the supply and demand of credit in the real estate market could deteriorate in such a way – owing to the loss of consumer and creditor confidence – that even the more solvent developers (e.g. those that would comply with the red lines under normal conditions) could lose access to the credit market while facing a sharp drop in housing demand.

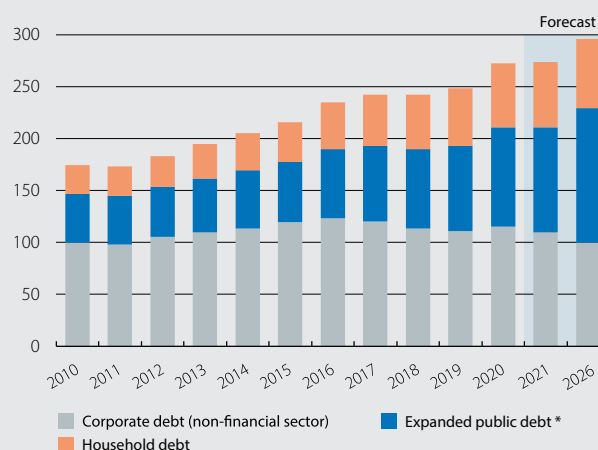
In this regard, there is evidence that some developers with better debt and liquidity ratios, which until a few months ago had higher credit ratings, are now facing liquidity problems, and these are being further exacerbated by declining home sales.

Looking at the financial situation of some of the biggest firms in the sector (see table), with total liabilities amounting to around 2 trillion dollars, we see that the vast majority have a leverage ratio well above the industry average, even reaching almost five times the average in some cases. Moreover, among the top five developers (whose liabilities amount to 1 trillion dollars), three would not meet the first red line in the next two years, and all five have at least two ratios (leverage, liquidity or profitability) that are among the worst in the sector. If we add to these companies those with a credit

1. According to IMF estimates.

2. The first red line includes a 70% limit on the liability-to-asset ratio, excluding advance proceeds from housing sales. The second and third red lines correspond to a limit of 100% in the net leverage ratio and a minimum coefficient of 1 in the liquidity ratio (relative to short-term debt).

**China: total debt by sector**  
(% of GDP)



**Note:** \* The expanded public balance or debt broadens the perimeter of the traditional measure of the public balance or debt to include government-administered funds and the activity of local government financing vehicles (LGFVs).

**Source:** BPI Research, based on data from the International Monetary Fund.

rating already below BB+ (the threshold for a company to be considered investment grade) then the total liabilities of all these companies at risk of facing short-term liquidity problems, or even imminent default (the case of Evergrande), would exceed 1.5 trillion dollars. This equates to 80% of the market, in terms of total assets, being at risk of facing liquidity problems in the short term.<sup>3</sup> On the other hand, it is estimated that the biggest developers will need an additional 200 billion dollars of liquidity to comply with the three red lines laid down by the Chinese government. Focusing on the top five developers, these additional funding needs would represent 20% of their assets.<sup>4</sup>

### Risk of contagion to other sectors

On the other hand, a series of uncontrolled defaults in the sector could lead to a large number of unfinished homes (usually with a high percentage paid in advance), a cascade of defaults in sectors closely linked to real estate (the most exposed sectors) and sharp declines in house prices. This scenario could generate tremors in the most exposed upstream sectors, both in the

3. These figures refer to assets and liabilities recorded on the developers' balance sheets. However, since the Chinese authorities began to take measures to reduce corporate debt, many developers have become more dependent on advance proceeds from sales of unfinished homes and have resorted to off-balance-sheet vehicles to obtain liquidity, thus avoiding regulatory scrutiny.

4. Estimate by Goldman Sachs, assuming that, although they will lose access to the offshore debt issue market, the developers will be able to refinance their bank loans and the restrictions on the use of advance proceeds will remain in place (approximately 20% not available to cover debt). This estimate does not include off-balance sheet debt or financing activities.

### China's real estate sector: financial situation, credit rating and debt structure of the major developers

Property developers	Leverage ratio	Liquidity ratio	Profitability ratio	Total liabilities (1S 2023 [e])	Total assets (1S 2023 [e])	First red line (1S 2023 [e])	Credit rating **	Outstanding debt in bonds (% offshore)
Country Garden Holdings Co	2.27	0.55	0.18	255	312	75.5%	BBB-	17.9 (90%)
China Evergrande Group	5.05	0.45	0.23	248	313	78.4%	CC	32 (69%)
China Vanke Co *	1.42	0.45	0.20	223	300	66.0%	BBB+	10.5 (82%)
Poly Developments and Holdings Group *	2.28	0.58	0.19	164	226	58.1%	BBB	9.3 (17%)
Sunac China Holdings	3.56	0.49	0.23	140	180	71.6%	BB	13.5 (67%)
China Resources CR Land *	0.81	0.45	0.38	110	158	58.9%	BBB+	8.3 (53%)
Longfor Group Holdings	1.37	0.46	0.29	94	134	64.3%	BBB	10.8 (31%)
China Overseas Land and Investment COLI *	0.73	0.69	0.38	76	139	50.3%	BBB+	14.4 (63%)
Seazen Group	3.51	0.48	0.23	70	90	70.9%	BB+	6.6 (61%)
Shimao Group Holdings	1.53	0.53	0.25	68	99	63.3%	BB-	11.8 (62%)
Greentown China holdings *	1.87	0.61	0.17	60	74	68.6%	BB-	7.7 (18%)
Gemdale Corp *	1.99	0.74	0.27	56	77	67.6%	BB	9.1 (11%)
China Jinmao Holdings Group *	2.12	0.68	0.31	52	71	66.7%	BBB-	7.4 (65%)
Guangzhou R&F Properties Co	2.41	0.55	0.30	52	69	74.9%	CC	9.4 (62%)
CIFI Holdings Group Co	2.44	0.93	0.22	52	70	67.3%	BB	8.4 (71%)
Agile Group Holdings	1.51	0.71	0.29	35	52	67.3%	BB-	6.9 (88%)
Logan Group Co	1.88	0.71	0.36	33	48	66.3%	BB	7.9 (54%)
KWG Ground Holdings	2.19	0.66	0.41	28	39	67.6%	B+	8.6 (76%)
Powerlong Real Estate Holdings	1.56	0.65	0.38	25	36	65.4%	BB-	5.2 (65%)
China Overseas Grand Oceans COGO Group *	2.07	0.56	0.21	23	30	65.8%	BBB	0.6 (100%)
Yuzhou Group Holdings	2.27	0.76	0.24	20	27	71.5%	B	8.3 (84%)
Real estate sector average ***	1.15	0.55	0.20					

Notes: \* State-owned company. \*\* Average S&P/Moody's/Fitch rating as of the end of 2021. \*\*\* Average of the sample of real estate firms available in Refinitiv. [e] estimate by Goldman Sachs. Leverage ratio: debt/capital, liquidity ratio: liquid assets/debt, profitability ratio: operating margin. Total liabilities, total assets and outstanding debt in bonds in USD billions.

Source: BPI Research, based on data from Refinitiv, Goldman Sachs and the Financial Times.

manufacturing sector, among producers of basic metals or machinery and equipment, and in the services sector, in commercial and financial activities.<sup>5</sup>

With regard to the financial sector, and despite the high degree of uncertainty over each bank's degree of exposure to developers at risk of default, loans to the real estate sector account for 7% of total bank loans, while mortgages represent 21% of the total. Even considering that a portion of other bank loans are secured with real estate collateral, the banking sector's direct exposure to the real estate sector is not excessive. In any case, a scenario of successive uncontrolled defaults, with potentially systemic implications for the financial sector, seems somewhat unlikely given the Chinese authorities' ability to intervene in the economy and the willingness they have already demonstrated to isolate small investors in default processes as much as possible and to minimise the economic impact of a slowdown in the sector.

#### The greatest short-term risk: (lack of) confidence

Even when the short-term liquidity risks dissipate, the recovery of the real estate sector will be slow, given the

degree to which developers are currently leveraged and the underlying demographic trends. Before the turbulence ends, the immediate future (and even the survival) of many companies in the sector, as well as in other highly exposed sectors, will depend on the restoration of investor confidence. In order to avoid a «self-fulfilling prophecy» – that is, a situation in which the current weakness of the real estate market leads to a collapse in prices, which in turn would reinforce the loss of confidence and the contagion to the banking sector – the deployment of monetary and fiscal policy measures aimed at specific parts of the sector will be key in order to facilitate business restructuring, guarantee access to credit for small investors and curb the risks posed by advance housing sales. With passenger confidence guaranteed, even if at a lower altitude, the aircraft could remain airborne.

5. For further details, see the Focus «China's real estate sector: size does matter» in the MR01/2022.



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

## UNITED STATES

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	11/21	12/21	01/22
<b>Activity</b>									
Real GDP	-3.4	5.7	0.5	12.2	4.9	5.6	–	–	–
Retail sales (excluding cars and petrol)	2.1	16.8	11.9	26.2	13.7	16.1	17.1	16.4	11.4
Consumer confidence (value)	101.0	112.7	99.1	122.1	116.7	112.9	111.9	115.2	111.1
Industrial production	-7.2	5.5	-1.6	14.7	5.5	4.6	5.1	3.8	4.1
Manufacturing activity index (ISM) (value)	52.5	60.6	61.3	61.0	60.0	60.1	60.6	58.8	57.6
Housing starts (thousands)	1,396	1,601	1,599	1,588	1,562	1,654	1,703	1,708	1,638
Case-Shiller home price index (value)	228	267	249	262	274	283	283	287	...
Unemployment rate (% lab. force)	8.1	5.4	6.2	5.9	5.1	4.2	4.2	3.9	4.0
Employment-population ratio (% pop. > 16 years)	56.8	58.4	57.6	58.0	58.6	59.2	59.3	59.5	59.7
Trade balance <sup>1</sup> (% GDP)	-3.2	-3.7	-3.6	-3.6	-3.7	-3.7	-3.7	-3.7	...
<b>Prices</b>									
Headline inflation	1.2	4.7	1.9	4.8	5.3	6.7	6.8	7.0	7.5
Core inflation	1.7	3.6	1.4	3.7	4.1	5.0	4.9	5.5	6.0

## JAPAN

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	11/21	12/21	01/22
<b>Activity</b>									
Real GDP	-4.5	1.7	-1.8	7.3	1.2	0.7	–	–	–
Consumer confidence (value)	31.1	36.3	33.3	35.4	37.3	39.2	39.2	39.1	36.7
Industrial production	-10.6	5.8	-1.5	19.9	5.9	1.2	3.5	2.7	-1.8
Business activity index (Tankan) (value)	-19.8	13.8	5.0	14.0	18.0	18.0	–	–	–
Unemployment rate (% lab. force)	2.8	2.8	2.8	2.9	2.8	2.7	2.8	2.7	...
Trade balance <sup>1</sup> (% GDP)	0.1	-0.3	0.2	0.7	0.4	-0.3	-0.1	-0.3	-0.7
<b>Prices</b>									
Headline inflation	0.0	-0.2	-0.5	-0.7	-0.2	0.5	0.6	0.8	0.5
Core inflation	0.2	-0.5	0.0	-0.9	-0.5	-0.7	-0.7	-0.8	-1.2

## CHINA

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	11/21	12/21	01/22
<b>Activity</b>									
Real GDP	2.2	8.1	18.3	7.9	4.9	4.0	–	–	–
Retail sales	-2.9	12.4	34.0	14.1	5.1	3.5	3.9	1.7	...
Industrial production	3.4	9.3	24.6	9.0	4.9	3.9	3.8	4.3	...
PMI manufacturing (value)	49.9	50.5	51.3	51.0	50.0	49.9	50.1	50.3	50.1
<b>Foreign sector</b>									
Trade balance <sup>1,2</sup>	524	680	621	605	636	680	661	680	...
Exports	3.6	30.0	48.9	30.7	24.4	23.1	22.0	20.8	...
Imports	-0.6	30.1	29.4	44.0	25.6	23.7	31.4	19.5	...
<b>Prices</b>									
Headline inflation	2.5	0.9	0.0	1.1	0.8	1.8	2.3	1.5	0.9
Official interest rate <sup>3</sup>	3.9	3.8	3.9	3.9	3.9	3.8	3.9	3.8	3.7
Renminbi per dollar	6.9	6.5	6.5	6.5	6.5	6.4	6.4	6.4	6.4

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

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	11/21	12/21	01/22
Retail sales (year-on-year change)	-0.9	5.4	2.6	12.7	2.5	4.0	8.2	2.0	...
Industrial production (year-on-year change)	-7.9	8.8	4.8	24.2	6.0	0.1	-1.4	1.6	...
Consumer confidence	-14.3	-7.6	-13.8	-5.5	-4.6	-6.7	-6.8	-8.4	-8.5
Economic sentiment	88.0	110.1	94.6	113.2	116.8	115.7	116.2	113.8	112.7
Manufacturing PMI	48.6	60.2	58.4	63.1	60.9	58.2	58.4	58.0	59.0
Services PMI	42.5	53.6	46.9	54.7	58.4	54.5	55.9	53.1	51.2
<b>Labour market</b>									
Employment (people) (year-on-year change)	-1.5	...	-1.7	2.0	2.0	...	-	-	-
<b>Unemployment rate (% labour force)</b>	8.0	...	8.2	8.0	7.5	7.1	7.1	7.0	...
Germany (% labour force)	3.9	...	3.9	3.6	3.4	3.2	3.2	3.2	...
France (% labour force)	8.0	...	8.0	8.2	7.9	7.5	7.5	7.4	...
Italy (% labour force)	9.3	...	10.1	9.8	9.1	9.1	9.1	9.0	...
<b>Real GDP (year-on-year change)</b>	-6.5	5.4	-1.1	14.4	3.9	4.6	-	-	-
Germany (year-on-year change)	-4.9	3.1	-2.8	10.4	2.9	1.8	-	-	-
France (year-on-year change)	-8.0	7.4	1.7	19.0	3.5	5.4	-	-	-
Italy (year-on-year change)	-9.0	6.8	-0.3	17.3	4.0	6.4	-	-	-

## Prices

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	11/21	12/21	01/22
General	0.3	2.6	1.1	1.8	2.8	4.6	4.9	5.0	5.1
Core	0.7	1.5	1.2	0.9	1.4	2.4	2.6	2.6	2.3

## Foreign sector

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	11/21	12/21	01/22
<b>Current balance</b>	2.1	2.8	2.8	3.1	3.1	3.1	5.7	5.6	...
Germany	7.0	7.0	7.2	7.7	7.6	7.5	7.0	7.0	...
France	-1.9	-0.9	-1.8	-1.6	-1.2	-0.9	-0.6	-0.7	...
Italy	3.8	4.4	3.8	4.3	4.2	4.1	1.7	1.6	...
<b>Nominal effective exchange rate<sup>1</sup> (value)</b>	93.8	94.2	95.3	94.9	93.9	92.6	92.5	92.3	91.7

## Credit and deposits of non-financial sectors

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	11/21	12/21	01/22
<b>Private sector financing</b>									
Credit to non-financial firms <sup>2</sup>	6.3	3.5	6.4	2.3	1.8	3.3	2.9	4.3	4.4
Credit to households <sup>2,3</sup>	3.2	3.8	3.1	3.9	4.1	4.1	4.2	4.2	4.3
Interest rate on loans to non-financial firms <sup>4</sup> (%)	1.2	1.2	1.1	1.2	1.3	1.1	1.1	1.1	...
Interest rate on loans to households for house purchases <sup>5</sup> (%)	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	...
<b>Deposits</b>									
On demand deposits	12.9	12.6	16.1	12.4	11.4	10.5	10.3	10.2	9.3
Other short-term deposits	0.6	-0.8	1.0	-0.6	-2.0	-1.5	-1.4	-1.5	-0.1
Marketable instruments	8.2	11.6	13.8	12.2	10.2	10.0	12.3	6.6	0.6
Interest rate on deposits up to 1 year from households (%)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	...

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

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

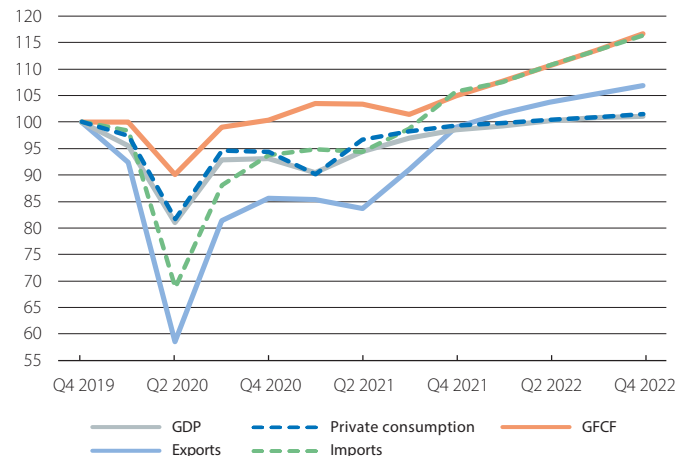
## Very positive dynamics thwarted by the east winds

**GDP grew by 4.9% in 2021, reducing the gap to 2019 to 3.9%, and the momentum for 2022 is relatively strong.** Growth benefited from a significant recovery in domestic demand, but also from the contribution of exports (5 p.p.). The indicators for 2022 are still low, but show a positive trend, suggesting that, in a context of international normality, the economy could outperform our forecasts this year (4.9% in 2022). For example, the daily activity indicator in the first half of the quarter grew by an average of 3.7% year-on-year, accelerating in February. Likewise, in January payments with electronic cards (which are representative of private consumption) exceeded January 2020 levels (before the pandemic) by 9% and sentiment indicators (results prior to the deterioration of the external environment) recorded notable improvements in February, despite the negative impact of shortages of raw materials and labour. Meanwhile, at the end of February mobility in Retail & Leisure surpassed pre-COVID levels. However, the beginning of the war in Ukraine introduced a very high degree of uncertainty, with negative risks, due to the increase in energy costs on the international market and the foreseeable slowdown in the activities of important trading partners, namely central European countries. In this context, the revision of our forecast of 4.9% growth in 2022 is now more uncertain, which is why we have chosen not to change our outlook and to wait for a more complete picture of the consequences of the current situation.

**Inflation for 2022 with higher risks on the horizon.** The February CPI flash estimate confirms the upward trend of recent months: year-on-year inflation reached 4.2% (3.3% in January) and the monthly change reached 0.4% (0.3% in January). Energy prices and transmission to other goods continue to be the main upside risk for 2022. As a result of the Russian invasion of Ukraine, Brent and gas prices have increased significantly at a time when supply chains are not yet normalised and the lack of raw materials is one of the main obstacles to industrial production. Likewise, industrial production prices show year-on-year increases (17.9% in January 2022).

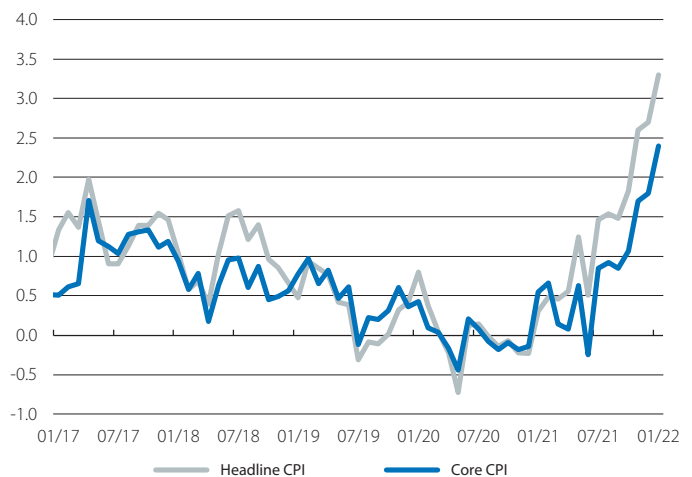
**The labour market has a very positive balance in 2021, after the deterioration of the previous year.** According to the INE, at year-end 2021, employment figures were up 148,400 on the same period last year, while unemployment figures decreased by 42,600 and the unemployment rate dropped to 6.3% compared to 7.3% at the end of 2020. This recovery surpasses pre-pandemic levels: there are 93,100 more jobs and 21,800 fewer unemployed than in Q4 2019. Employment increased in both the private and public sectors: in fact, after the decline in private employment in 2020, there was a recovery in 2021, with figures surpassing pre-pandemic levels at the end of the year (+133,700 more people employed). Meanwhile, employment in the public sector continued to exceed pre-COVID levels by approximately 14,600 employees, which can be explained in part by needs arising from the pandemic (such as healthcare professionals). Signs continue to point to a shortage of human resources in some sectors, which will limit economic recovery. However, there do not seem to be any signs of inflationary pressures caused by declining wages.

**Portugal: evolution of GDP by volume**  
Index (100 = Q4 2019)



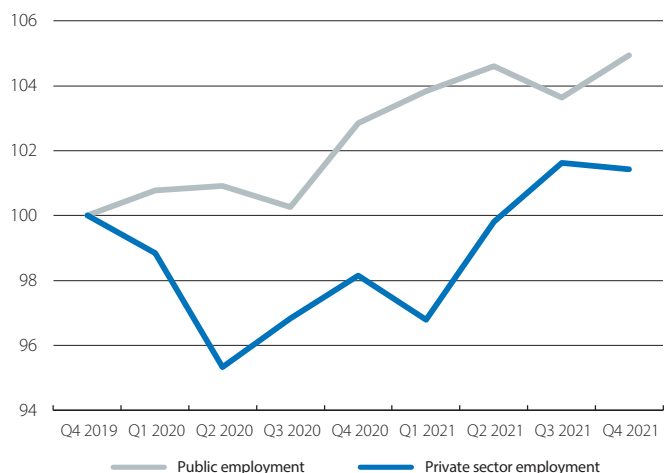
Source: BPI Research, based on data from the National Statistics Institute of Portugal.

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



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

**Portugal: public and private sector employment**  
Index (100 = Q4 2019)



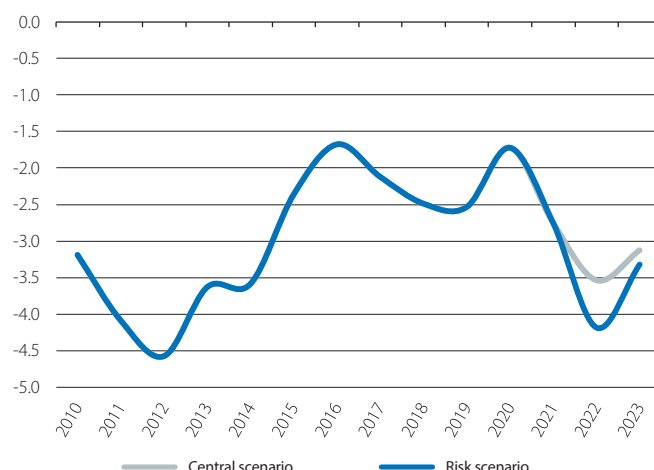
Source: BPI Research, based on data from the National Statistics Institute and the DGAEP of Portugal.

**Relatively stable current account deficit in 2021.** Last year, the current account deficit was €2,403 million (–1.1% of GDP), an increase of €265 million compared to 2020. Individually, there have been significant improvements in tourism (1,396 million more tourists visited Portugal than in 2020) and the secondary income balance (+1,245.5 million) due to the increase in European funds received. However, these improvements were not enough to offset the small decline in the non-energy goods balance, the slight shrinking of the non-tourist services surplus and the significant worsening of the energy balance deficit. The latter increased to €5,930 million (+€2,378 million more than in 2020) due to rising energy prices, particularly the price of crude oil. International trade data shows that fuel imports and exports varied by 1.9% and -0.3%, respectively, with the unit value of imports and exports increasing by around 60% and 47%, respectively. Changes in energy goods prices will continue to be a risk factor for how the current account deficit performs in 2022.

**Tourism: nuanced recovery.** Although the number of tourists visiting Portugal in 2021 clearly increased (figures grew by almost 40% compared to 2020), nationally, the tourism recovery was not uniform across regions and types of accommodation. In fact, geographically, the Lisbon Metropolitan Area (AML) was the industry's biggest loser in the context of the pandemic. The total income of tourist accommodation establishments in the Lisbon Metropolitan Area declined the most (-61%, compared to -77% in 2020), and the number of guests in 2021 was still 58% lower compared to 2019 when in the country as a whole this value was -46%. These numbers are explained by two factors: (i) This region receives more non-domestic tourists than others, with foreign tourism having the biggest decline and the slowest recovery; (ii) the fact that this region is the main source of domestic tourists who chose to travel to areas of the country with fewer people that have been less affected by the pandemic. There are also differences in types of accommodation: rural and residential tourism were the biggest winners with only 5% fewer overnight stays in 2021 compared to 2019, a figure that is well above the hotel industry as a whole (-48% overnight stays in total for the year versus 2019).

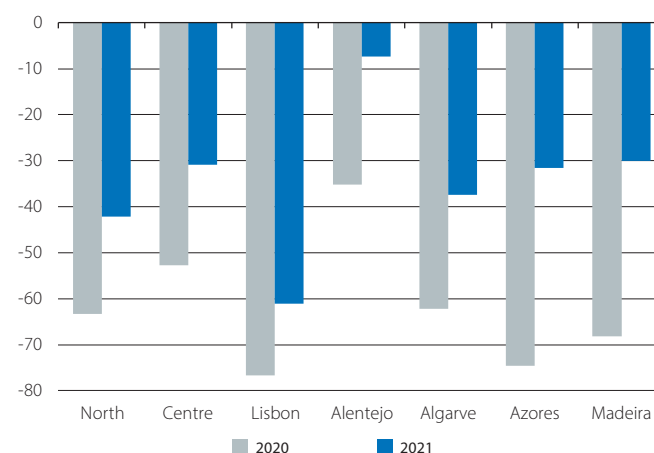
**New credit transactions in the non-financial private sector fell in 2021, while debts continued to increase.** More specifically, new transactions declined by 11.4% year-on-year as a result of the performance of new corporate credit transactions (-33.5%), which is due to the high volume of state-backed credit lines granted in 2020. As a result of this scenario, new corporate transactions fell by 9.9%. New housing credit transactions continued to be highly dynamic (+34% compared to 2020), although they are still far below the maximum recorded in 2007. At the same, the pandemic still had an adverse impact on debt levels in the non-financial sector, which reached close to €768,100 million (363% of GDP) at the end of 2021. This amount represents more than €42,745 million compared to the end of 2019, with more than 60% of this increase resulting from increased debt in the non-financial public sector due to efforts to combat the pandemic. Meanwhile, the credit portfolio of the non-financial private sector increased in January by 3.0% year-on-year.

### Portugal: energy balance and Brent (% of GDP)



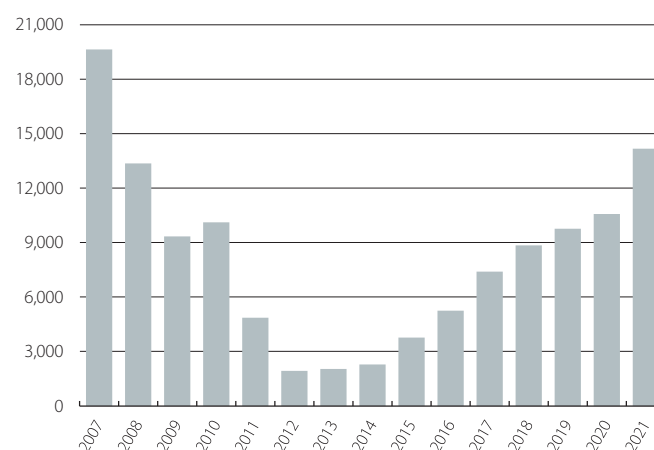
Source: BPI Research, based on data from the Bank of Portugal.

### Portugal: income of tourist accommodation establishments by region Change compared to 2019 (%)



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

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



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

## Agri-food sector (II): the challenges of the European Green Deal and the new Common Agricultural Policy

The new Common Agricultural Policy, which will enter into force in 2023, adapts agriculture to the European Green Deal, whose objective is to make the European economy more sustainable, namely by combating climate change. An important pillar of this Plan is the new «From Farm to Fork» strategy, which aims to provide populations with access to healthy and sustainable food at affordable prices, combat climate change, protect the environment and preserve biodiversity, ensure fair payment to producers, and increase the area dedicated to organic farming.

To this end, a set of goals have been established that include reducing pesticides and fertilisers by 50% and 20%, respectively, and increasing the area occupied by organic farming to 25%. In addition to these more focused goals for the agricultural sector, there is a 55% reduction in greenhouse gas emissions.

The achievement of these goals will benefit from the significant amount of European funding available for the next 6 years, especially funds allocated under the Next Generation EU. In this context, under the C05 component of the Recovery and Resilience Plan dedicated to capitalisation and business innovation, the Research and Innovation Agenda for sustainability in agriculture, food

and agribusiness was launched, whose objective is to promote the growth of the agri-food sector in a sustainable direction, with the allocation of 93 million euros, of which 80 million are destined for the climate transition and 13 million to the digital transition. Of these, two programmes have already been launched, both assigned 4 million euros: o Agriculture 4.0 to promote the digitisation and application of information and communication technologies, and o Sustainable Territories with the objective of promoting sustainable development and efficient management of natural resources.

The first objective established to mitigate the effects of climate change in Europe is a 55% reduction in greenhouse gas emissions between 1990 and 2030. The agricultural sector's contribution to climate change arises from the emission of methane (CH<sub>4</sub>) resulting from the digestive process of cattle, handling of manure and rice cultivation; nitrous oxide (N<sub>2</sub>O) resulting from soils fertilised with nitrogen and manure; and carbon dioxide (CO<sub>2</sub>) resulting from changes in land use. But the agricultural sector can also contribute to reducing these emissions by increasing the area of forest/vegetation, which contributes to the absorption of CO<sub>2</sub>.

### Portugal: objectives of the European Green Deal for the agrifood sector

Objective	Target	Level in the year of reference	Latest figure	Year	Is the target attainable?
Reduction of greenhouse gas emissions	55% of the 1990 level by 2030	7,141 Thousand tonnes	6,870	2019	Yes, maintaining the same rate of reduction as in 2018-19 (around 3,500 tonnes/year)
Use of chemical pesticides	50% of the 2011-13 level	100 Harmonized risk indicator	75	2019	Yes. On average between 2017-19 usage was reduced by 30%
Sale of chemical pesticides	50% of the 2011 level	14,024 Tonnes	9,866	2019	Difficult. Achieving the goal involves significant effort
Reduction of soil nutrient loss - nitrogen	50% of the 2012-14 level	42.5 Gross balance of nutrients/hectare Agricultural area used (kg/ha)	45.2	2019	Meeting the goal involves reversing the current trend
Reduction of soil nutrient loss - phosphorus	50% of the 2012-14 level	3.9 Gross balance of nutrients/hectare Agricultural area used (kg/ha)	5.8	2019	Meeting the goal involves reversing the current trend
Full access of rural populations to broadband internet	100% in 2025	44 % of rural areas with access	74	2020	Yes
Agricultural area occupied by organic farming	25% of agricultural area used in 2030	— % of used agricultural area	8.2	2019	Additional conversion effort required. In 2017-19 the average annual increase was 0.6%. To meet the goal, an increase of 1.8%/year is required
Agricultural area occupied by highly diverse landscape elements	10% of agricultural area used in 2030	— % of used agricultural area	7.6	2018	—

Source: BPI Research, based on data from Eurostat.



### Portugal: number of processors in the organic food industry

	2015	2016	2017	2018	2019	2020	% of the total	Average annual growth
<b>Total</b>	<b>604</b>	<b>650</b>	<b>794</b>	<b>788</b>	<b>880</b>	<b>1,019</b>		<b>11.0</b>
Fruits and vegetables	227	278	310	337	330	387	38.0	11.3
Oil and fats	98	97	165	233	241	274	26.9	22.8
Beverages	45	54	83	125	147	171	16.8	30.6
Cereals and legumes	42	46	67	63	66	77	7.6	12.9
Flour-based products	48	47	55	65	63	67	6.6	6.9
Meat	35	34	35	36	40	47	4.6	6.1
Dairy products	17	16	21	17	24	36	3.5	16.2
Fish	13	11	17	18	17	22	2.2	11.1
Animal feed		6	7	11	13	15	1.5	25.7
Other food products	291	254	322	397	456	480	47.1	10.5

**Note:** The sum exceeds the total, probably because most processors produce more than one product.

**Source:** BPI Research, based on data from the Portuguese State of the Environment Portal.

In Portugal, the overall trend of these emissions has been favourable since 2005, and it is anticipated that the continued pace of emissions reductions will enable compliance with the goal established by the EU. However, the agricultural sector differs to the trend for the economy as a whole, as there has been an increase in these emissions since 2011. In 2019, these emissions accounted for 6.9 million tonnes, almost 4 million more than the result of applying the goal to the sector, contributing around 12% of the economy's total emissions (11% in the EU, 13% in Spain). But looking at this indicator and taking into account the used agricultural area (UAA), it is evident that the sector is paying the attention to this aspect, because between 2005 and 2019, the tonnes of greenhouse gases emitted per hectare fell from 23 tonnes to 16, signaling the improvement in investments from an environmental point of view.

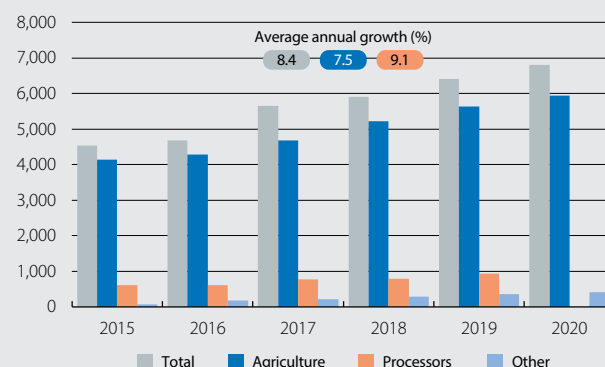
The second goal sets out to reduce the use of chemical pesticides by 50% by 2030. Based on the harmonised risk index for the use of pesticides,<sup>1</sup> Portugal shows a positive trend, having reduced the use of pesticides by 25%. However, this is a goal which requires continuous attention, because despite a significant reduction until 2016, it has since stabilised. Likewise, there has been a significant reduction (~30%) in the sale of pesticides since 2011, but in the last 3 years the trend has reversed. Meeting the goal involves an average annual reduction of 780 tonnes/year, well above the 32 tonnes/year reduction recorded in 2017-2019.

Another relevant aspect in which the agricultural sector can contribute to the meeting the European Green Deal is to reduce nutrient losses from soil by 50% by 2030, in order to mitigate the risk of soil, water and air pollution. For this, the nutrient balance is calculated,<sup>2</sup> the results of which for Portugal are unsatisfactory, especially in the

1. Harmonized risk indicators measure progress made in meeting the objectives of Directive 2009/128/EC on the sustainable use of pesticides (Eurostat).

### Portugal: number of organic production operators

Units



**Source:** BPI Research, based on data from the Portuguese State of the Environment Portal.

case of nitrogen, whose surplus in recent years has shown an increasing trend, reaching 45 kg per hectare of agricultural area used in 2019. In the case of phosphorus balance, the trend is also unfavourable, but the surplus is smaller: 5.8 kg.

Another goal established in the European Green Deal relates to reducing isolation in rural areas through, for example, enabling full access to broadband internet for rural populations. The objective is for the coverage of these areas to be 100% by 2025, and in this respect Portugal is well positioned, already covering about 70% of these areas.

2. The calculation for the nutrient balance (nitrogen and phosphorus) is based on the difference between the absorption of these nutrients in the soil and their removal by the crops. Nutrient balance is necessary for monitoring Rural Development Programmes. It is proposed as an indicator of the potential threat of surplus or deficit of two important soil and plant nutrients on agricultural land (nitrogen and phosphorus), providing an insight into the interrelationship between the sustainable use of soil nutritional resources, the use of agricultural fertilisers (inorganic and organic) and their respective losses to the environment. The Farm to Fork Strategy, launched under the European Green Deal, establishes the EU goal of reducing nutrient losses by at least 50% and fertiliser use by at least 20%, by 2030.

Finally, the goal for 25% of agricultural area be occupied by organic farming. According to Eurostat, in Portugal this percentage was 8.2% in 2019, a positive trend, but still below the goal. The same pattern emerges in the proportion of the agricultural area occupied by high diversity landscape elements, whose objective in the European Green Deal is 10% and for which Portugal is situated at 7.6%.

**The trend of cultivated land using organic farming reveals the focus on more sustainable production**

According to the state environment portal, in 2019, 293,000 hectares were used for organic production (OP), distributed between pastures (62%), and permanent (21%) and temporary (18%) crops. The increase in area dedicated to OP was accompanied by an increase in OP producers, which in 2020 numbered 6,795, of which about 90% operate in agricultural activities. The importance of OP is also evident in the food and beverage industry. In 2020, there were 1,019 processors operating in the processing of food products, with emphasis on those operating in the sectors of fruit and vegetables, oils and fats, and other food products, such as sugar, chocolate, coffee and tea, condiments and pre-cooked products.

Finally, in the field of sustainability, the agricultural sector still faces important challenges, but most of the indicators show that the sector is attentive to the main issues, which will facilitate the acceleration of the changes necessary to fulfil the objectives set out in the European Green Deal and in the new Common Agricultural Policy.

## Productivity: magic ingredient or main dish?

In the media we often see references to productivity as a «magic ingredient» for solving numerous economic problems and as a way of narrowing the wage gap between the Portuguese population and their European partners. However, productivity is not the ingredient, but a result, and we don't talk much about its nature and fundamentals. In this text we seek to clarify what is meant by productivity and we place Portugal in the international context by analysing some of the metrics on which we consider it important to reflect.

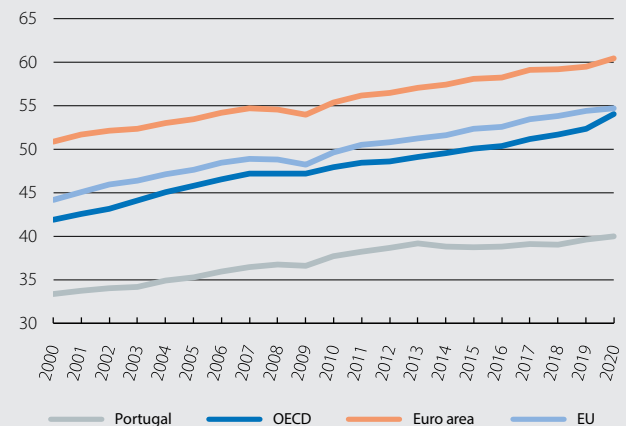
Simply put, productivity is the level of *output* generated with a given level of *inputs*. An optimal combination or management of these resources (*inputs*) results in more efficiency and will lead to an improved ratio – greater productivity – and will ultimately allow for more lasting prosperity.

Labour is one of the most important factors for productivity and the associated measures are widely used to characterise it. The OECD indicator of GDP per hours worked expresses the overall value created in an economy per unit of work expended (hours of work), and is more accurate than measures relating *output* to the number of workers. As we can see in the first figure, there is a gap between the Portuguese productivity level and the European Union and OECD levels. In 2020 (the latest year with available data), Portuguese GDP per hour worked represented 73% of the value recorded in the European Union and only 66% of the value of the Eurozone countries. More worrying than the existing gap is to note that it has been increasing, making productivity in Portugal in 2020 lower than that observed at the beginning of the century in the other economic areas analysed. In fact, the value of the indicator in Portugal since 2000 has increased by 20%, less than that seen in the OECD (29%) and the European Union (24%).

More educated and technically skilled workers are more productive,<sup>1</sup> but labour productivity only partially reflects the personal skills and effort that the workforce puts at the service of the employer. We need to look at the other classic productive factor, the capital employed, that is, the capital intensity, measured by the net stock of capital per person employed. In this section Portugal also compares poorly with other Eurozone countries, ranking 14th among 19 countries. Capital accumulation can only be done via Investment and also in this respect Portugal

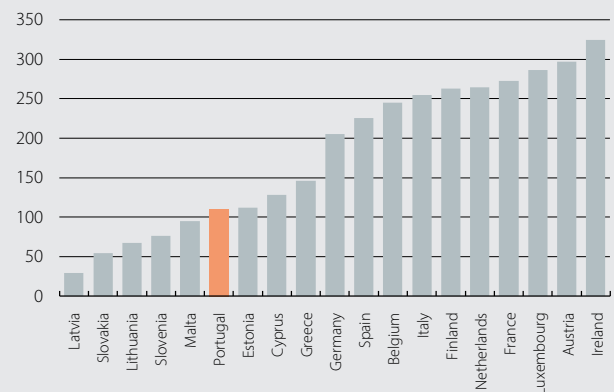
1. See Gouveia, A.; Santos, S. and Gonçalves, I. (2017). «The impact of structural reforms on productivity: the role of the distance to the technological frontier», OECD Productivity Working Papers, 2017-08, OECD Publishing, Paris. The paper presents evidence of the long-term increase in productivity resulting from investments/reforms in education.

**Portugal: GDP per hour worked**  
(In US dollars)



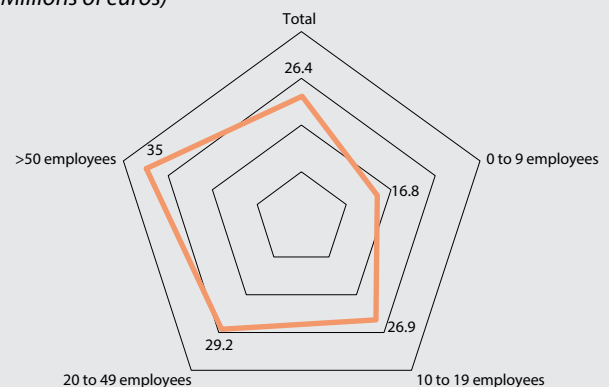
Source: BPI Research, based on data from the OECD.

**Portugal: Net stock of capital per person employed**  
(Millions of euros)



Source: BPI Research, based on data for 2021 from AMECO.

**GVA per employee by company size (Portugal)**  
(Millions of euros)



Source: BPI Research, based on data from Eurostat (2019).

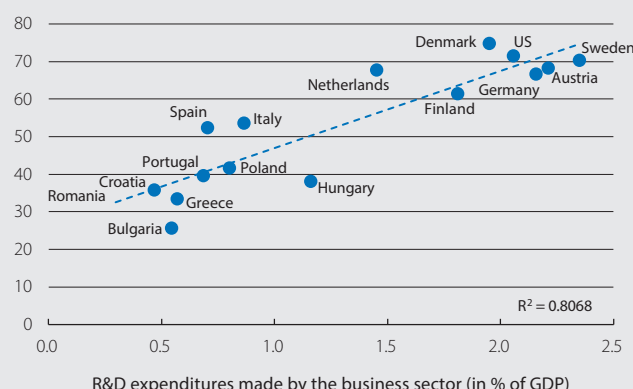
lags behind the European Union: Gross Fixed Capital Formation (excluding construction assets) represented 8.6% of GDP in 2020, against 11.2% for the EU and an exceptional 17.1% and 32.9% for countries such as Estonia and Ireland, respectively. The higher percentage of GFCF allocated to information and communication technology equipment assets compared to the EU (4.6% versus 3.3% in 2019), crucial in the context of the digital transition, should be noted.

Lower capital intensity can mean fewer «tools» at the service of the worker and less overall productivity. However, to underline the complexity and the caution we must take when approaching these issues, it is worth mentioning three points. The first is that a productive structure with inbuilt flexibility, capable of substituting the capital factor for the labour factor, if the latter is abundant and cheap, can also explain a lower capitalist intensity. The second is that the overall productivity increase of an economy can also be achieved by shifting the productive factors, namely labour, from less productive sectors to more productive ones, even without changing the capitalist intensity. Naturally, this second aspect means the more rigid the labour market is, the more difficult this becomes, by locking up human resources to less productive sectors. The third is the simple fact that in periods of greater difficulty in hiring human resources and when economies are close to full employment, companies tend to make better use of the technology they already have. That is, if it is impossible to add labour input, better use is made of the existing technological infrastructure and greater potential is exploited.

On the other hand, size matters. Economies of scale lead to productivity and in Portugal, large companies have more than twice the productivity of micro companies. At a global level, the new large technology-based and digital companies are the ones that have gained more dimension more rapidly. Data from BEI<sup>2</sup> confirm that more than 40% of high-growth startups are in the activity sectors of Information and Communication Technologies as well as Data & Analytics. Several authors point out that large companies are more likely to invest in intangibles, emphasising this investment as a catalyst for productivity.<sup>3</sup> In fact, there are other aspects (i.e., Multifactor Productivity) that contribute to greater productivity and that, because they are «intangible», often appear as intermediate costs and not as an investment: management models and organisational

### Portugal: relationship between productivity and R&D spending

GDP per hour worked (USD)



Source: BPI Research, based on the latest OECD data for both indicators.

efficiency, marketing, brand value, databases, specific training carried out in-house, *software*. In highly developed economies and close to the technological frontier, these aspects are even more decisive for marginal productivity. Therefore, when we discuss the future of productivity in Portugal, we must focus on other aspects that allow companies to be successful in this context and look at new indicators – the percentage of GDP allocated to Research & Development (mainly by the private sector), the percentage of business volume of the companies that CAPEX is allocated in intangible assets, the human resources linked to R&D per million inhabitants and the proportion of these resources working in the private sector, the registration of patents, etc.

For future debates that Portuguese society needs to have on how best to distribute gains made from greater productivity, it will be imperative to triangulate between Education (training and retaining qualified human resources in cutting-edge areas), attracting foreign investment (normally by large companies, exposing the national economy to external competitiveness and providing capital to a decapitalised economic framework) and Innovation (not only at the level of products and services but also processes and business models).

2. See European Investment Bank document «From starting to scaling – how to foster startup growth in Europe», May 2020.

3. See Corrado C., Haskel J., Jona-Lasinio C., et al. (2018). «Intangible investment in the EU and US before and since the Great Recession and its contribution to productivity growth». Journal of Infrastructure, Policy and Development.

## Activity and employment indicators

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	12/21	01/22	02/22
Coincident economic activity index	-5.4	2.6	-2.1	2.4	4.8	5.3	5.4	5.5	...
<b>Industry</b>									
Industrial production index	-6.9	4.4	-0.8	25.0	-4.7	-1.9	0.4	...	...
Confidence indicator in industry (value)	-15.8	-5.7	-13.6	-5.0	-1.5	-2.7	-2.1	-1.5	-0.5
<b>Construction</b>									
Building permits - new housing (number of homes)	0.7	10.9	48.4	-28.6	-1.8	-9.9	-6.3	...	...
House sales	-5.7	...	0.5	58.3	25.1	...	-	-	-
House prices (euro / m <sup>2</sup> - valuation)	8.3	8.6	6.2	8.5	8.7	11.0	11.2	...	...
<b>Services</b>									
Foreign tourists (cumulative over 12 months)	-76.2	52.0	-86.7	-74.2	-38.7	52.0	52.0	...	...
Confidence indicator in services (value)	-21.6	-2.9	-19.1	-9.9	5.5	11.9	14.0	10.7	9.1
<b>Consumption</b>									
Retail sales	-3.0	4.5	-7.5	16.0	2.8	6.7	6.6	10.9	...
Coincident indicator for private consumption	-6.1	4.5	-0.8	4.8	7.4	6.8	6.2	5.6	...
Consumer confidence index (value)	-22.4	-17.2	-24.4	-17.3	-13.6	-13.5	-16.4	-18.7	-17.1
<b>Labour market</b>									
Employment	-1.9	2.8	-1.3	4.5	4.7	3.1	3.6	...	...
Unemployment rate (% labour force)	7.0	6.6	7.1	6.7	6.1	6.3	5.9	...	...
<b>GDP</b>	-8.4	4.9	-5.3	16.5	4.4	5.8	-	-	-

## Prices

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	12/21	01/22	02/22
General	0.0	1.3	0.4	0.8	1.5	2.4	2.7	3.3	4.2
Core	0.0	0.8	0.5	0.2	0.9	1.5	1.8	2.4	3.2

## Foreign sector

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	12/21	01/22	02/22
<b>Trade of goods</b>									
Exports (year-on-year change, cumulative over 12 months)	-10.3	18.1	-8.0	9.5	13.4	18.1	18.1	...	...
Imports (year-on-year change, cumulative over 12 months)	-14.8	21.1	-15.7	1.8	10.3	21.1	21.1	...	...
<b>Current balance</b>	-2.1	-2.4	-1.6	-1.6	-1.9	-2.4	-2.4	...	...
Goods and services	-3.9	-5.6	-3.5	-4.1	-4.4	-5.6	-5.6	...	...
Primary and secondary income	1.7	3.2	1.9	2.5	2.5	3.2	3.2	...	...
<b>Net lending (+) / borrowing (-) capacity</b>	0.0	1.4	0.5	0.6	1.5	1.4	1.4	...	...

## Credit and deposits in non-financial sectors

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	12/21	01/22	02/22
<b>Deposits<sup>1</sup></b>									
Household and company deposits	10.0	9.3	10.5	8.6	8.7	9.3	9.3	9.1	...
Sight and savings	18.8	16.3	18.5	15.3	15.5	16.3	16.3	15.7	...
Term and notice	1.2	1.2	2.1	1.0	1.0	1.2	1.2	1.4	...
General government deposits	-21.0	-4.1	-23.6	-15.0	-5.2	-4.1	-4.1	-1.6	...
<b>TOTAL</b>	8.9	9.0	9.2	7.7	8.2	9.0	9.0	8.8	...
<b>Outstanding balance of credit<sup>1</sup></b>									...
Private sector	4.6	2.9	5.1	4.4	4.2	2.9	2.9	3.0	...
Non-financial firms	10.5	2.2	11.0	7.2	5.8	2.2	2.2	2.6	...
Households - housing	2.1	3.3	2.7	2.6	3.3	3.3	3.3	2.9	...
Households - other purposes	-1.1	3.1	-1.2	3.0	3.2	3.1	3.1	4.1	...
General government	-4.2	3.8	-5.1	4.5	4.1	3.8	3.8	4.5	...
<b>TOTAL</b>	4.2	2.9	4.7	4.4	4.2	2.9	2.9	3.0	...
<b>NPL ratio (%)<sup>2</sup></b>	4.9	...	4.6	4.3	4.0	...	-	-	-

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

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

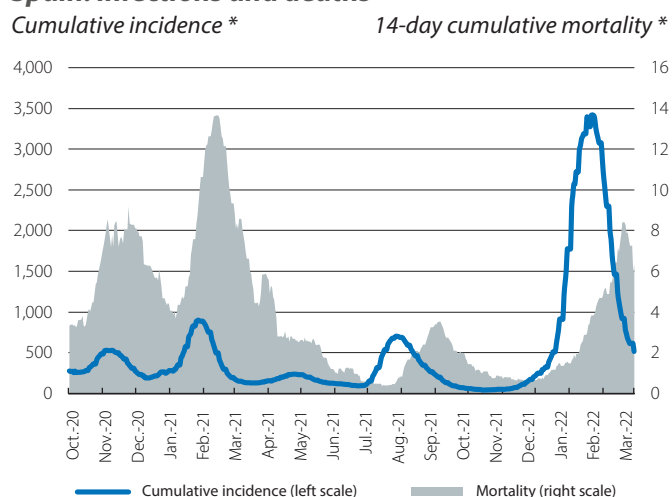


## The Spanish economy's growth outlook deteriorates

**Good economic activity figures until the outbreak of the war in Ukraine.** In the run-up to the outbreak of the war, the growth forecast for 2022 was 5.5%. Indeed, the high growth recorded in Q4 2021, which exceeded our expectations, together with the encouraging indicators for Q1 of this year, suggested that growth could end up being even higher. Nevertheless, the earlier than expected interest-rate hikes by the central banks, the persistence of bottlenecks in global supply chains and the rapid rise in inflation invited prudence. With the irruption of the war, the downside risks have risen sharply, forcing us to cut our forecasts for this year. Right now, uncertainty is very high, so it is still too early to put a figure on the impact of the current situation on the economic outlook. That said, it is possible to identify the different channels through which the conflict in Ukraine will affect the Spanish economy. The most important one is the sharp increase in the price of oil, gas and electricity. This will harm the most energy-intensive sectors, such as transportation, metallurgy, fishing, the extractive industry and paper manufacturing. Shortages of some commodities and industrial metals will also affect the manufacturing industry and the agrifood sector. The Spanish economy will also be affected by lower growth in private consumption due to the heightened uncertainty and the fall in purchasing power that will come with higher inflation, lower momentum in exports due to the lower growth of our major trading partners and increased stress in global supply chains.

**Headline inflation in Spain rose to 7.4% in February (6.1% in January) and core inflation reached 3.0% (2.4% in January).** This is its highest level in over three decades. The price of energy, the main cause of the rise in inflation during 2021, will continue to push it up throughout 2022. As early as September, the high energy prices already began to drive up inflation in other components (especially in food). In this regard, the inflation data by component for the month of January (the most recent data at this level of disaggregation) shows that inflation exceeds 2% in 63% of the components (compared to 30% in September), while it is above 5% in 26% of cases (*versus* 12% in September). As for February, we expect to see an even greater proportion of components above 2% and 5%. Faced with this situation, the tensions in the energy and commodity markets caused by Russia's invasion of Ukraine will have a considerable impact on inflation. On one hand, there will be a direct impact resulting from increases in the price of gas (and, consequently, that of electricity, which constitutes 4.1% of the CPI), oil (fuels constitute 7.8% of the CPI), commodities and food. On the other hand, the prolongation of high energy prices could

### Spain: infections and deaths



Note: \* Cumulative infections and deaths in 14 days per 100,000 inhabitants.  
Source: BPI Research, based on data from the Ministry of Health.

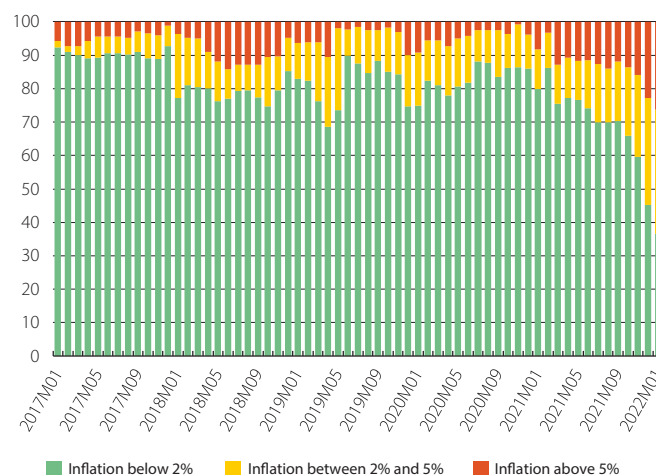
### Spain: evolution of the CPI



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

### Spain: inflation's traffic light

(% of the CPI basket)



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

exacerbate the contagion effect across the various components of the Consumer Price Index that we have witnessed in recent months.

**Tourism holds up despite the Omicron variant.** The high-frequency indicators for tourism activity tell us that, although the gap compared to 2019 levels widened in January due to the wave of COVID infections, the impact has been less intense and persistent than expected. According to the data on flights operated at Spanish airports, in January there was a decline, falling back to the level of June 2021, but in the first two weeks of February there was already a clear recovery. As for the outlook for this year, it should be noted that the direct exposure of the tourism sector to Russian visitors is low. In 2019, just 2% of foreign tourists came from Russia (less than 1% in 2021). While the environment of greater uncertainty may weigh on international mobility, Spain's perception as a safe destination compared to other Mediterranean competitors could mitigate the final impact.

#### 2021, a year of vigorous recovery for the real estate sector.

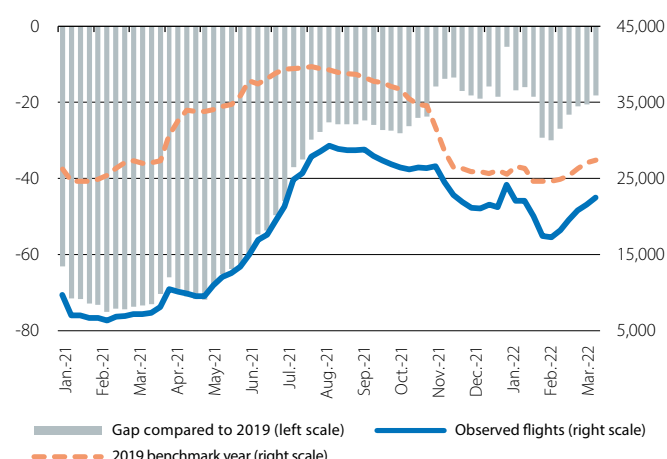
The sector's strong performance can be largely explained by the strength of its demand. In December there were 48,119 home sales, 32.9% more than in the same month of 2020. In 2021 as a whole, there were 565,523 transactions, 34.6% more than in 2020 and 11.9% more than in 2019. To a lesser extent, the supply has also joined the recovery: up to November 2021, some 106,000 new homes were approved (12-month cumulative figure), very much in line with 2019. With regard to prices, the valuation of unsubsidised housing rose by a significant 2.0% quarter-on-quarter in Q4 2021 (4.4% year-on-year). For 2021 as a whole, prices climbed by 2.1%, following the 1.1% decline in 2020. The impact of the Russia-Ukraine conflict on the real estate sector should be contained. The sector has little exposure to Russian buyers (accounting for 2.1% of all home sales to foreigners), but the high energy prices and the shortage of materials will push construction costs up.

**Deterioration in the trade balance in 2021 due to the high energy prices.** The trade deficit reached 26,178 million euros in 2021 (double that of the previous year, although lower than in 2019), equivalent to 2.2% of GDP. The deficit in the energy balance stood at 25,326 million, its worst since 2015. The tensions in energy prices following the outbreak of the conflict in Ukraine will cause the energy balance to further deteriorate. Beyond this channel, Spain's trade links with Russia and Ukraine are limited (1.8% and 0.5% of imports of Spanish goods, and 0.7% and 0.2% of exports), although we do have a high dependence on some supplies (11% of Spain's energy imports come from Russia, while 16% of cereals and 62% of sunflower comes from Ukraine).

#### Air mobility: flights operated at Spanish airports

Change versus 2019

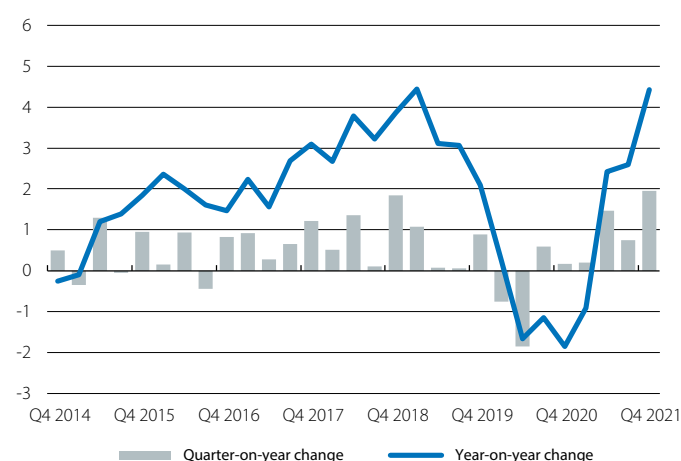
Weekly flights



Source: BPI Research, based on data from Eurocontrol.

#### Spain: home prices

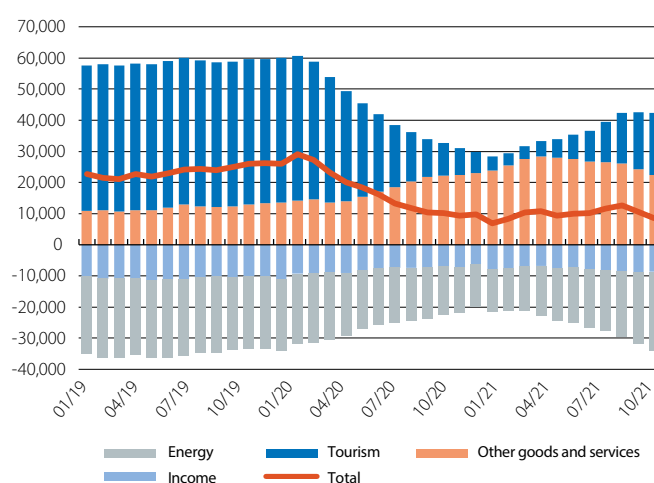
Change (%)



Source: BPI Research, based on data from the Ministry of Transport, Mobility and Urban Agenda.

#### Spain: current account balance

(EUR millions)



Note: 12-month cumulative data.

Source: BPI Research, based on data from the Bank of Spain and the Customs department.

## Tax revenues in Spain in 2021: a very vigorous recovery

According to the glimpse of the tax close published by the Ministry of Finance, tax revenues in 2021 were surprisingly strong and have exceeded the expectations set out in the 2021 General Government Budget, despite GDP growth for the year falling below the government's expectations.

### Tax revenues have been buoyant almost across the board

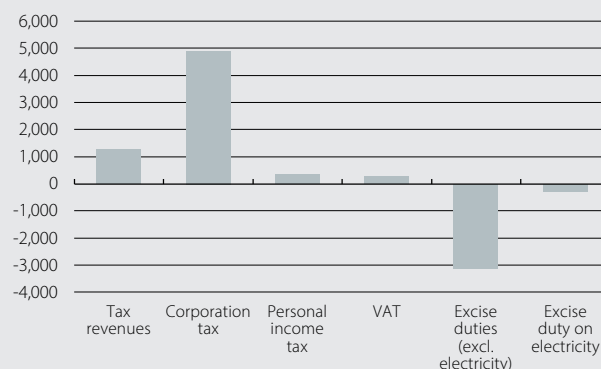
In particular, revenues grew by 15.1% year-on-year in 2021 and by 5% compared to 2019. To put these figures in context, the average year-on-year change in the period 2000-2019 was 4.8%. The total figure was 1,275 million euros more than that projected in the 2021 General Government Budget. These data suggest that the 2021 budget deficit – which we will find out at the end of March – could be below the government's forecast of 8.4% of GDP.

What does the breakdown by type of tax tell us? The big surprise has come from corporation tax revenues, which are 4,900 million above the level projected in the 2021 General Government Budget. Specifically, revenues from this tax increased by 10,770 million euros compared to 2020 (+67.9%) and by 2,900 million euros compared to 2019 (+12.2%). This strong rebound is explained by the increase in business earnings compared to 2020, a year in which companies had recognised significant provisions due to the pandemic, although it was also driven by lower refunds.<sup>1</sup> The exemptions and moratoria implemented in 2020 in response to the pandemic also help to explain the considerable rebound in corporation tax revenues in 2021. In particular, the earnings of consolidated business groups up to September 2021<sup>2</sup> were practically double those of 2020 and were similar to those of 2019. In the case of large corporations not belonging to consolidated groups, meanwhile, earnings grew by around 30% year-on-year up to September, placing them slightly above those of 2019. Finally, among SMEs which report based on their full year results, earnings have increased by more than 30% and are now more than 4% higher than those recorded in 2019.

In the case of personal income tax (IRPF), revenues increased by 6,570 million compared to 2020 and by 7,650 million *versus* 2019,<sup>3</sup> an improvement of 350 million

### Spain: difference between actual and projected tax revenues in 2021

(EUR millions)



Note: Projections according to the 2021 General Government Budget.

Source: BPI Research, based on data from the Ministry of Finance.

over the budget projections. This is largely explained by the strong performance of employment in 2021 – not in vain, pay-as-you-earn tax withheld on employment income increased by 6.1% compared to 2020, *versus* a 5.6% growth in employee wages in 2021.

VAT revenues, on the other hand, increased by 9,156 million compared to 2020 and by 955 million *versus* 2019, resulting in a slightly higher figure than that projected (+270 million euros). This category of revenues thus grew by 1.3% compared to 2019, in contrast with the fall in nominal consumption (–6.3%). This discrepancy could be explained, in part, by a possible upturn in the submerged economy. Another factor that has contributed to the strong performance of VAT revenues has been the buoyancy of new home sales, together with the increase in home prices in 2021.

In contrast, revenues from excise duties fell compared to 2019, especially the duties on hydrocarbons (–6.3%) and electricity (–21.1%). The latter's decline is the result of the electricity tax having been cut from 5.11% to 0.5% in September. Despite such a large reduction, the rise in electricity prices has led to revenues from this tax being only 290 million lower than in 2019.

Thus, income-related taxes (especially corporation tax and, to a lesser extent, personal income tax) have been the major driving force behind the strength of tax revenues, which have exceeded forecasts for the first time since 2010.

### Tax revenues grew more than GDP

At this point in the article, no one doubts the strength of the recovery in tax revenues in 2021. This conclusion is only underscored further when we compare the year-on-year growth of these revenues in 2021 (15.1%) with that

1. The reason for this is the significant refunds that were paid out in 2020 as a result of the high number of applications received during the tax return campaign for the 2018 tax year (returns filed in 2019, with refunds mostly paid out in 2020).

2. Not counting extraordinary operations.

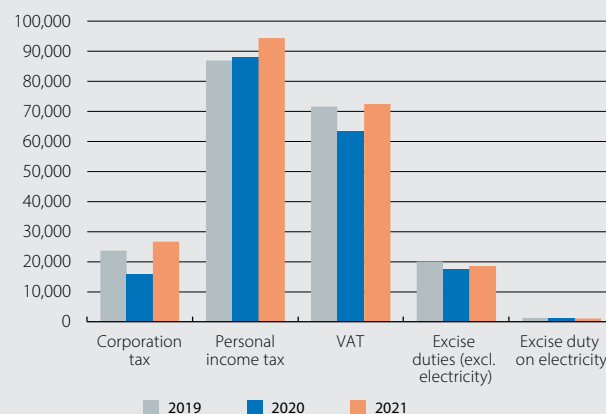
3. In 2020, the impact of the pandemic was particularly damaging for sectors with below-average wages and effective tax rates, which reduced the impact that the crisis had on personal income tax revenues.

of nominal GDP (7.2%). In other words, tax revenues grew twice as much as GDP did (the historical ratio between GDP growth and tax revenues is 1 to 1.2).

This behaviour is consistent with a study by ECB economists,<sup>4</sup> who estimated that Spain is the euro area economy in which public-sector revenues react in expansive periods, with the historical ratio between GDP growth and tax revenue growth increasing from 1.06 to 1.8.

In short, tax revenues have enjoyed a vigorous recovery in 2021. The main architects have been personal income tax and VAT, driven by the economic recovery, and corporation tax, which has grown well above expectations due to the rebound in corporate earnings following the significant provisions recognised by companies in 2020 as well as due to lower refunds.

**Spain: tax revenues**  
(EUR millions)



Source: BPI Research, based on data from the Ministry of Finance.

4. See G. Koester and C. Priesmeier (2017). «Revenue elasticities in euro area countries». ECB Working Paper Series.

## The impact of a rise in the price of oil and gas in Spain: possible scenarios

The war that broke out on 24 February between Russia and Ukraine was immediately reflected in the rise in the prices of oil and gas, two products that make up a significant portion of Spanish imports (see table). Specifically, in 2021, imports of oil and derivative products amounted to 33,696 million euros (2.8% of GDP), making it the largest category of imports into Spain. As for gas, imports in 2021 amounted to 9,602 million euros (0.8% of GDP), placing it in ninth position.<sup>1</sup>

It should also be borne in mind that the demand for these goods is often rather insensitive to price variations. Therefore, when their prices increase, households' ability to purchase other goods is reduced, as is companies' capacity to invest. Given the importance of this matter, in this article we analyse the impact that changes in the price of energy could have on Spain's GDP growth.

### The price of oil and gas

Having oscillated at around 85 dollars a barrel throughout January, the price of oil climbed to almost 100 dollars a barrel after Russia launched its attack on Ukraine in late February. The price of gas soared too, reaching over 130 euros/MWh also in late February (see chart).<sup>2</sup>

To show the impact of rising energy prices, we will use an annual average increase of 10 dollars/barrel in the price of oil and of 30 euros/MWh in the price of gas as a benchmark.<sup>3</sup> This increase would result in a rise in net imports of around 8.1 billion euros, or 0.6% of GDP (assuming that the demand for oil and gas were not able to adjust to this short-term price rise). In terms of growth, we estimate that such a rise in energy prices would subtract 0.5 pps from Spain's annual GDP growth.

The impact on growth is somewhat smaller than the direct impact on imports would suggest, for two reasons. Firstly, the lower spending that would come as a result of the rise in energy prices would, in turn, lead to a fall in imports of non-energy goods and services. Secondly, households are likely to cushion, to some extent, their reduced purchasing power by drawing from their savings. In this regard, it would be important to see to what extent fiscal policy would mitigate the impact of the rising gas prices on households' electric bills.

### Conclusions

The current environment presents a very high degree of uncertainty. This uncertainty, which greatly complicates

1. In terms of net imports, oil accounts for 16,269 million euros (1.4% of GDP) and gas, 8,526 million euros (0.7% of GDP).

2. The market movements described are with data up to 28 February.

3. The 10-dollar increase in the oil price is then translated into euros at the current exchange rate, which is around 1.13 dollars per euro.

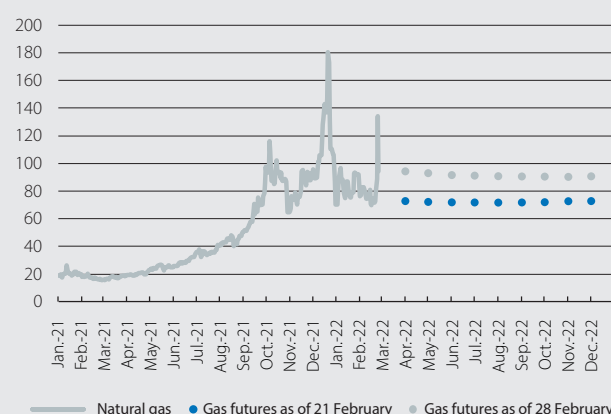
### Spain: imports of goods in 2021: top 10 categories \*

	EUR millions	% of the total
<b>Oil and derivative products</b>	<b>33,696</b>	<b>9.8</b>
Motor vehicles and tractors	32,841	9.6
Machinery and mechanical equipment	30,997	9.0
Electrical appliances and equipment	29,447	8.6
Pharmaceutical products	20,863	6.1
Plastic materials and articles thereof	13,326	3.9
Organic chemicals	12,013	3.5
Cast iron and steel	11,219	3.3
<b>Gas</b>	<b>9,602</b>	<b>2.8</b>
Optical, measuring and medical devices	8,402	2.5

**Note:** \* Grouping of goods based on Taric groups at the two-digit level, with the exception of the oil and derivative products and gas categories, which have been obtained from the four-digit Taric classification.

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

### Gas price (€/MWh)



**Note:** TTF Natural Gas, European benchmark.

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

the generation of a baseline, or «more plausible», scenario, forces the analyst to rely on the generation of hypothetical scenarios that allow him or her to capture the impacts that could occur as the uncertainty materialises through one channel or another. In this article, we have assessed the sensitivity of Spain's GDP growth to changes in the price of crude oil and gas, two of the products most affected by the current geopolitical crisis. However, it must also be said that the conflict in Ukraine could affect the economic recovery through other channels as well, such as through its harmful effect on confidence or exports, as a result of the deterioration in the international environment.



## The impact of financial conditions on Spain's public debt burden

One of the hot economic topics of today is the impact that a tightening of the financial conditions will have on the cost of Spanish public debt. Since the beginning of the year, we have witnessed a rebound in euro area sovereign yields and in risk premiums of the periphery, including that of Spain. Thus, the question arises as to how sensitive the general government's cost of financing will be to a changing and highly uncertain macro-financial environment.

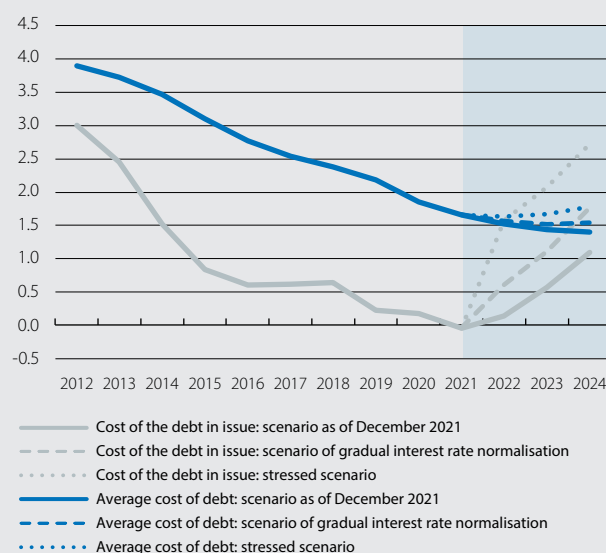
### The average cost of debt will remain contained

We have analysed the sensitivity that the cost of Spanish public debt has historically shown to changes in financial conditions and we have carried out an exercise to assess how the next few years could pan out. In particular, we analysed three scenarios. The first is based on the interest-rate forecasts that were envisaged at the end of 2021, before the ECB changed its forward guidance on its monetary policy and prior to the outbreak of the military conflict in Ukraine. This scenario was characterised by interest rates that were expected to remain very low throughout the forecast period, as the ECB was not expected to begin to raise the benchmark rate until late 2023. The second scenario provides for a gradual normalisation of financial conditions over the coming years. This is a scenario that would occur, for example, if the economic impact of the conflict in Ukraine were limited and inflation concerns became the main focus of attention during the second half of the year. As a benchmark, this would be consistent with the ECB beginning to raise interest rates at the end of 2022, followed in 2023 by two additional rate hikes. The third scenario assesses the impact of a tightening of financial conditions, which could occur if the ECB were to pursue a more rapid increase in interest rates due to inflation remaining high for longer than expected and the risk premium rising substantially.<sup>1</sup> In the first chart, we can see the evolution of the cost of debt in issue and the average cost of overall debt in these three scenarios.<sup>2</sup>

In the scenario with a gradual normalisation of financial conditions, the cost of new debt issued would increase

### Spain: cost of public debt according to the financial conditions

(% of public debt)

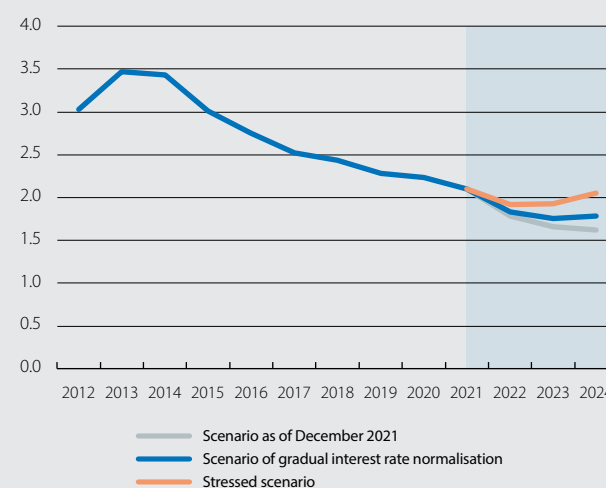


**Notes:** Each year, the Treasury issues debt to finance the new deficit (estimated using our forecasts) and everything that matures. The maturity structure with which the new debt is issued mirrors the current time structure. We have taken into account the refinancing of bills that has to be carried out each year.

**Source:** BPI Research.

### Spain: public debt interest bill

(% of GDP)



**Source:** BPI Research.

1. In particular, it would be an additional increase of 100 bps throughout the length of the yield curve.

2. The key assumptions we have used are: (i) each year the Treasury issues debt to finance the new deficit (estimated using our own forecasts) and to refinance maturities, (ii) the maturity structure with which the new debt is issued mirrors the current time structure and (iii) we have taken into account the refinancing of bills that has to be carried out each year.

sharply, reaching above 1.7% by the end of 2024. For reference, this scenario assumes that the cost of 10-year debt rises to 2.55% at the end of 2024, while at the end of December it is expected to stand at around 1.55%. In the third scenario, the cost of new debt issued would increase even more sharply, above 3.5% in 2024.

This contrasts with the evolution of the cost of outstanding debt in circulation, which remains moderate in all scenarios. The difference between the evolution of the cost of outstanding debt and issued debt is largely explained by the fact that the higher issue costs are offset by the maturity of debt that was issued years ago at higher rates. Another factor to be taken into account is the increase in debt maturities in recent years. In 2021, the average term of Spanish public debt securities was above eight years for the first time, a figure which ought to stabilise or could even increase slightly in 2022. The Treasury has taken advantage of the favourable financing conditions that have prevailed since 2014, thanks to the ECB's unconventional monetary policies, to issue debt securities in the longer sections of the yield curve at very low rates.

### **The interest bill as a percentage of GDP: an increase, but not in excess**

Similarly, it is interesting to analyse how the burden of interest charges on public debt might evolve relative to GDP in the various scenarios. We conclude, with a high probability, that the debt burden would remain low or moderate. Specifically, in the scenario with a gradual normalisation of financial conditions, the interest burden of public debt as a percentage of GDP would continue to fall until 2023, before stabilising in 2024 below 2.0%. In the stressed scenario, the interest bill as a percentage of GDP would increase moderately to around 2.0% in 2024, a level very similar to that of 2021 and well below the 3.0% registered in 2012, when public debt as a percentage of GDP was much lower. That said, it would likely lead to a steepening of the yield curve if this situation were to persist in subsequent years.

Ultimately, in the short term, there are important factors that will temper the rise in public debt financing costs. However, the trend points towards higher debt costs, and while this is unlikely to lead to a substantial increase in the public sector's interest burden in the coming years, it will be essential to design a strategy for gradual yet sustained fiscal consolidation.

### **Spain: interest on public debt (EUR millions)**



Source: BPI Research.

**Activity and employment indicators**

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	12/21	01/22	02/22
<b>Industry</b>									
Industrial production index	-9.4	8.6	3.0	27.9	1.8	1.8	1.3	...	...
Indicator of confidence in industry (value)	-14.0	0.4	-7.3	2.5	2.1	4.4	5.3	6.1	9.1
Manufacturing PMI (value)	47.5	57.0	53.0	59.2	58.9	56.9	56.2	56.2	56.9
<b>Construction</b>									
Building permits (cumulative over 12 months)	-12.8	4.7	-19.1	-1.8	15.0	24.6	26.6	...	...
House sales (cumulative over 12 months)	-12.5	9.5	-17.3	0.6	22.2	32.3	34.6	...	...
House prices	2.1	...	0.9	3.3	4.2	...	-	-	-
<b>Services</b>									
Foreign tourists (cumulative over 12 months)	-36.9	-47.5	-85.5	-81.3	-52.7	29.6	64.4	117.8	...
Services PMI (value)	40.3	55.0	44.3	58.8	59.6	57.4	55.8	46.6	56.6
<b>Consumption</b>									
Retail sales	-7.1	5.1	-0.4	20.4	-0.3	0.6	-2.3	...	...
Car registrations	-29.3	158.0	12.7	661.0	-24.5	-17.1	-18.7	1.0	6.6
Consumer confidence index (value)	-22.8	-13.3	-22.1	-11.1	-9.1	-10.8	-13.1	-12.0	-9.4
<b>Labour market</b>									
Employment <sup>1</sup>	-2.9	3.0	-2.4	5.7	4.5	4.3	-	-	-
Unemployment rate (% labour force)	15.5	14.8	16.0	15.3	14.6	13.3	-	-	-
Registered as employed with Social Security <sup>2</sup>	-2.0	2.5	-1.4	3.9	3.8	3.9	4.1	4.2	4.5
<b>GDP</b>	-10.8	5.0	-4.3	17.7	3.4	5.2	-	-	-

**Prices**

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	12/21	01/22	02/22
General	-0.3	3.1	0.6	2.6	3.4	5.8	6.6	6.1	7.4
Core	0.7	0.8	0.4	0.1	0.8	1.7	2.1	2.4	3.0

**Foreign sector**

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	12/21	01/22	02/22
<b>Trade of goods</b>									
Exports (year-on-year change, cumulative over 12 months)	-10.0	21.2	-8.1	8.7	15.2	21.2	21.2	...	...
Imports (year-on-year change, cumulative over 12 months)	-14.7	24.8	-14.0	3.3	13.5	24.8	24.8	...	...
<b>Current balance</b>	<b>9.3</b>	<b>8.4</b>	<b>8.3</b>	<b>9.4</b>	<b>11.6</b>	<b>8.4</b>	<b>8.4</b>	...	...
Goods and services	16.5	17.1	16.0	17.0	19.7	17.1	17.1	...	...
Primary and secondary income	-7.3	-8.6	-7.6	-7.7	-8.2	-8.6	-8.6	...	...
<b>Net lending (+) / borrowing (-) capacity</b>	<b>13.7</b>	<b>18.3</b>	<b>12.7</b>	<b>15.7</b>	<b>19.7</b>	<b>18.3</b>	<b>18.3</b>	...	...

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

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

	2020	2021	Q1 2021	Q2 2021	Q3 2021	Q4 2021	12/21	01/22	02/22
<b>Deposits</b>									
Household and company deposits	7.5	6.1	8.9	4.9	4.8	5.7	6.3	5.6	...
Sight and savings	12.3	10.3	14.1	9.2	8.9	9.2	9.8	8.8	...
Term and notice	-16.5	-24.4	-20.4	-23.5	-26.0	-27.6	-27.8	-27.5	...
General government deposits	1.0	15.5	11.2	16.3	15.1	19.5	20.3	20.1	...
<b>TOTAL</b>	<b>7.1</b>	<b>6.7</b>	<b>9.1</b>	<b>5.5</b>	<b>5.5</b>	<b>6.6</b>	<b>7.2</b>	<b>6.4</b>	...
<b>Outstanding balance of credit</b>									
Private sector	1.2	0.3	2.3	-0.4	-0.7	-0.1	0.5	0.2	...
Non-financial firms	4.9	1.1	7.8	-0.7	-1.9	-0.9	0.5	-0.4	...
Households - housing	-1.8	0.2	-1.0	0.0	0.6	1.0	1.2	1.2	...
Households - other purposes	0.8	-1.2	-1.8	-0.7	-1.2	-1.2	-1.5	-1.1	...
General government	3.0	15.3	9.5	17.4	22.7	11.6	5.6	3.8	...
<b>TOTAL</b>	<b>1.3</b>	<b>1.1</b>	<b>2.7</b>	<b>0.6</b>	<b>0.7</b>	<b>0.6</b>	<b>0.8</b>	<b>0.4</b>	...
<b>NPL ratio (%)<sup>4</sup></b>	<b>4.5</b>	<b>4.3</b>	<b>4.5</b>	<b>4.5</b>	<b>4.4</b>	<b>4.3</b>	<b>4.3</b>	...	...

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

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

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