Global Economic Outlook

February 2022

Czech National Bank ——— Global Economic Outlook ——— February 2022

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11 February 2022

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Notes to charts

ECB, Fed, BoE and BoJ: midpoint of the range of forecasts.
The arrows in the GDP and inflation outlooks indicate the direction of revisions compared to the last GEO. If no arrow is shown, no new forecast is available. Asterisks indicate first published forecasts for given year. Historical data are taken from CF, with exception of MT and LU, for which they come from EIU.
Leading indicators are taken from Bloomberg and Refinitiv Datastream.
Forecasts for EURIBOR and LIBOR rates are based on implied rates from interbank market yield curve (FRA rates are used from 4M to 15M and adjusted IRS rates for longer horizons). Forecasts for German and US government bond yields (10Y Bund and 10Y Treasury) are taken from CF.

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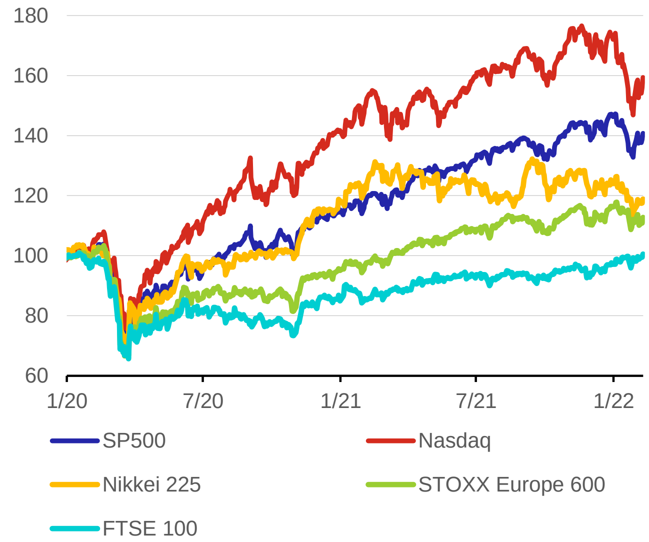
I. Introduction

Covid-19: two years on, there may be a light at the end of the tunnel. The Omicron variant is gradually receding and a consensus is forming among experts that it will soon be like a seasonal flu. The lifting of Covid-19 measures is a reality, due mainly to solid vaccination coverage in advanced countries.

Central banks are increasingly concerned about inflation, which has hit unprecedented levels. In the USA, it is now at a 40-year high. The Fed presidents do not agree on how fast rates should be raised, but the FOMC members generally support a gradual rise to the neutral level. It is thus clear that the Fed's response to US inflation will be more aggressive than it may have appeared at the end of 2021. The situation in the euro area is still quite different. President Lagarde has expressed strong concerns about a hasty tightening of monetary policy, which could significantly weaken the recovery and also negatively affect the labour market. Underlying this position are unspoken concerns about the potential consequences of a rate hike for overindebted euro area countries. The current unprecedentedly high inflation in some countries (such as Germany) has already been reflected in the clear rhetoric of some central bankers to move faster than planned on raising rates. The views of Bundesbank President Joachim Nagel, who is in favour of raising euro area rates this year, have received most media coverage.

Many central banks have already started to tighten monetary policy. However, real interest rates remain negative in the vast majority of countries. The general rise in inflation is being fostered by persisting problems in global supply chains, continued strong consumer demand and growth in commodity prices, especially energy prices. Oil prices are now above USD 90/bbl, and their outlook is only slightly falling.

Global stock markets, index 100 = January 2020



Source: Refinitiv.

The chart in the current issue shows the course of global stock markets over the past two years. Stock indices reacted to the onset of the pandemic in spring 2020 by slumping. They then rose as the first wave of the pandemic subsided and fiscal support measures were introduced. In late 2021 and early 2022, they dived again, mainly in response to soaring inflation, rising inflation expectations and the current or planned hawkish policies of central banks, especially the Fed.

The current issue contains an analysis: "Container shipping in the time of Covid". The article focuses on the issues facing this important worldwide logistics sector, which are delaying the recovery of the global economy after the pandemic and simultaneously strengthening the current inflation pressures.

Barometr of Global Economic Outlook for selected countries

		EA	DE	US	UK	JP	CN	RU
GDP	**2022**	3.9	3.5	3.7	4.3	2.8	5.0	2.6
(%)	**2023**	2.5	2.7	2.5	2.0	1.8	5.2	2.2
Inflation								
(%)	**2022**	3.9	3.4	5.2	5.4	1.0	2.2	4.9
	2023	1.7	1.9	2.6	2.7	0.7	2.3	4.2
Unemployment								
(%)	**2022**	7.1	5.2	3.7	4.3	2.6	5.1	4.8
	2023	6.9	5.0	3.5	4.3	2.5	5.0	4.7
Exchange rate								
(against USD)	**2022**	1.14	1.14		1.36	114.8	6.43	72.4
	2023	1.16	1.16		1.38	112.5	6.39	72.8

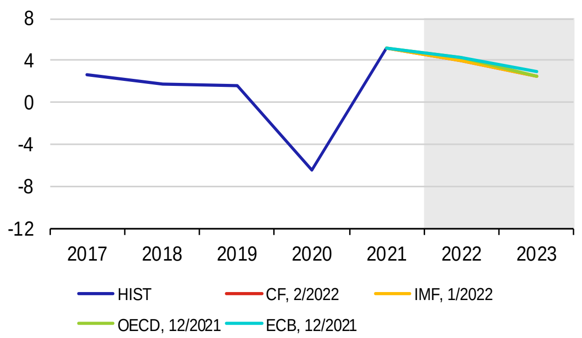
Source: Consensus Forecasts (CF)
Note: The arrows indicate the direction of the revisions compared with the last GEO.

II.1 Euro area

According to a flash estimate, quarterly economic growth in the euro area slowed to 0.3% at the end of 2021. The autumn wave of the pandemic, which again saw the introduction of restrictive government measures, had a negative effect. Austria's GDP actually fell by 2.2% quarter on quarter. By contrast, Spain's economy performed well. The situation in industry remains difficult, due to shortages of components and materials. Although the data indicates that the more transmissible Omicron variant leads to far fewer hospitalisations than its predecessors, increased sickness rates and mandatory quarantine may complicate the functioning of economies in 2022 Q1. Household sentiment has also been adversely affected, amid rising inflation (especially high energy prices) and perceived increased tensions at the Russia–Ukraine border. Household consumption is thus likely to be restrained, while firms' exports will be dampened by supply chain issues (the thematic article in this issue looks at the problems in shipping). According to a flash estimate, inflation in the euro area reached a record high of 5.1% in January. This rise was driven mainly by energy prices, while core inflation slowed to 2.3%. The highest inflation was recorded in the Baltic States and the lowest in France, Portugal and Finland.

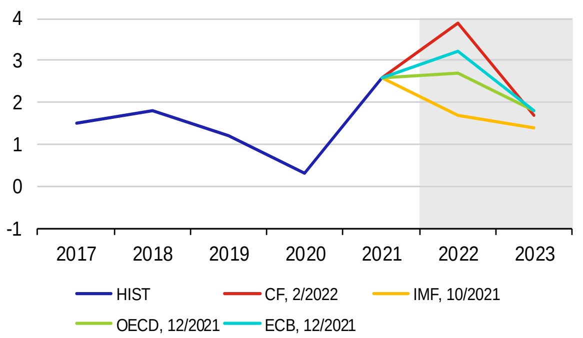
The new CF outlook expects slightly lower economic growth and higher inflation this year. A slowdown in both economic growth and inflation is seen for 2023. According to CF analysts, inflation will gradually decline during 2022 and anchor below the ECB's target again in 2023. Financial markets have meanwhile incorporated a modest rise in both short-term and long-term interest rates into their outlooks. The ECB is expected to increase key interest rates at the end of this year at the earliest. At its February meeting, the Governing Council decided to maintain the current interest rate levels, but the voices of the hawks were louder than at the December meeting.

GDP growth, %



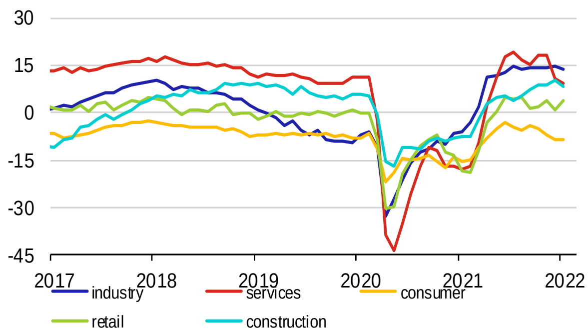
	CF	IMF	OECD	ECB
2022	3.9	3.9	4.3	4.2
2023	2.5	2.5	2.5	2.9

Inflation, %



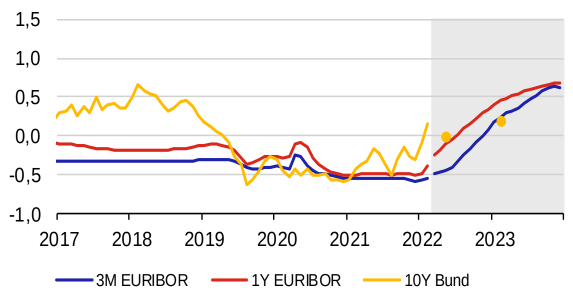
	CF	IMF	OECD	ECB
2022	3.9	1.7	2.7	3.2
2023	1.7	1.4	1.8	1.8

ESI leading indicators



	industry	services	consum.	retail	constr.
11/21	14.3	18.2	-6.8	3.7	9.0
12/21	14.6	10.9	-8.4	1.1	10.1
1/22	13.9	9.1	-8.5	3.8	8.1

Interest Rates, %



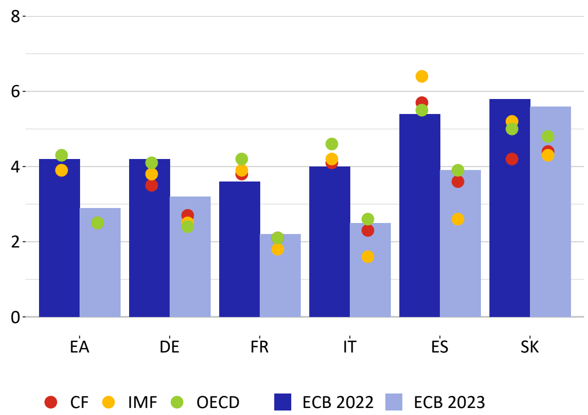
	1/22	2/22	5/22	2/23
3M EURIBOR	-0.56	-0.54	-0.44	0.24
1Y EURIBOR	-0.48	-0.39	-0.11	0.45
10Y Bund	-0.09	0.16	0.00	0.20

II.2 Germany

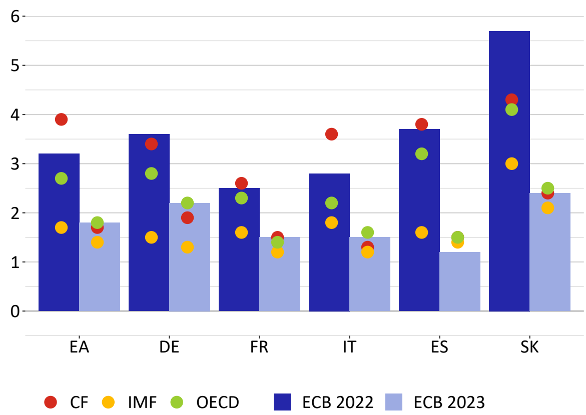
The German economy declined by 0.7% quarter on quarter in 2021 Q4. Year-on-year growth in the biggest euro area economy reached 1.4% and was 2.7% for 2021 as a whole. The growth of the German economy lagged well behind other euro area countries, and the economy is still below its pre-pandemic level. The lag is evident in manufacturing and certain services, while construction, IT and communications have now surpassed their pre-crisis output levels. The quarterly economic contraction at the end of 2021 was largely due to the reintroduction of restrictive government measures to curb the rapid spread of the Omicron wave of the pandemic. Retail sales fell by 5.5% month on month in December. Fortunately, the new variant led only to a moderate increase in deaths, and the number of mortalities was already falling at the end of 2021 despite a big surge in new cases. The complications associated with quarantine measures in both Germany and its trading partners may further aggravate the situation for German firms, which, like their counterparts in other industrialised countries, are struggling with global supply chain problems. Following weak growth in November, industrial production picked up slightly month on month to 1.1% in December. Inflation slowed to 5.1% in January, as did core inflation, which reached 2.9%.

The uncertain outlook for household consumption, along with the supply chain problems, could cause a second consecutive quarter-on-quarter decrease in GDP in Q1. However, the situation should improve markedly in the second half of the year and this will be reflected in an acceleration of the economy. According to the CF analysts, the outlook for GDP growth in 2022 has been revised downwards, while inflation will be higher this year, the same as for the euro area as a whole. In 2023, economic growth will slow and inflation will fall back below the “magic” level of 2%.

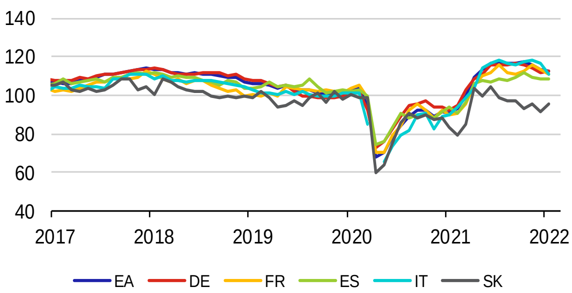
GDP growth in selected euro area countries in 2022 and 2023, %



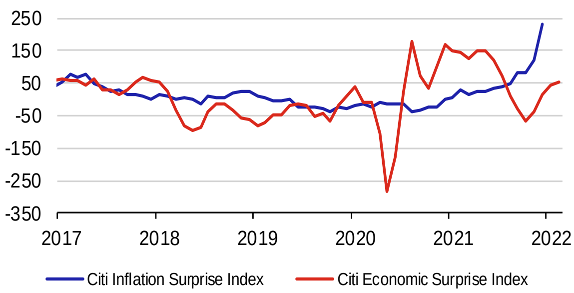
Inflation in selected euro area countries in 2022 and 2023, %



ESI leading indicators



Economic and inflation surprises in the euro area, %



	EA	DE	FR	ES	IT	SK
11/21	116.2	114.3	116.2	109.1	118.2	96.0
12/21	113.8	111.5	113.7	108.3	116.7	91.5
1/22	112.7	112.3	110.9	108.9	110.6	95.4

Inflation expectations based on 5year inflation swap and SPF

	5y5y	SPF
12/21	1.90	1.90
1/22	1.88	1.97
2/22	1.78	1.97

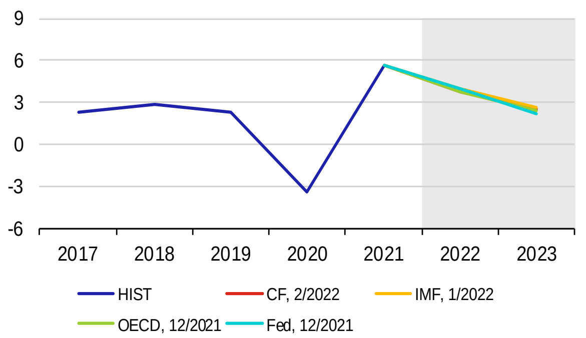
II.3 United States

The growth outlooks for the US economy have been lowered, even though the current wave of the Covid-19 pandemic is subsiding and the labour market is continuing to recover. The pandemic (predominantly the Omicron variant) has had a large impact on economic activity, mainly due to people travelling less and staying at home. According to high-frequency data on restaurant reservations, however, the situation is now improving. The unemployment rate went up by 0.1 pp to 4% in January, but non-farm payrolls also rose by almost 470,000, exceeding expectations. Wages rose by 9.2% year on year. The new IMF outlook for economic activity expects GDP to grow by 4% in 2022 and 2.6% in 2023. The IMF outlook is thus more optimistic than that of the CF analysts for both years.

Annual inflation in the USA reached a historical high of 7.5% in January. Consumer price inflation is expected to slow in the coming months, however. Year-on-year growth in prices of energy (27%), food (7%) and services (4.1%) are having a large impact on consumer price inflation. The high inflation is reducing households' purchasing power and real wage growth. The CF outlook for this year was revised upwards again compared with January (by 0.4 pp to 5.2%). The outlook for next year remained unchanged at 2.6%.

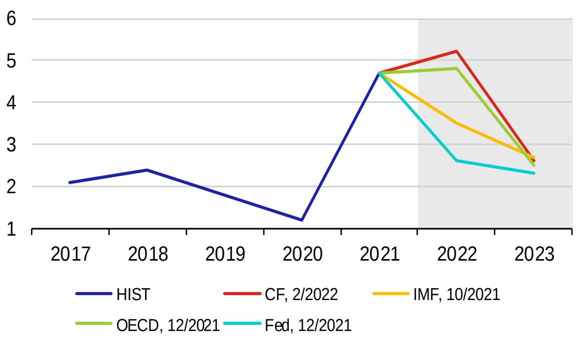
The persisting high inflation is forcing the Fed to respond more quickly. Financial markets were impacted by the Fed's meeting in January and in particular by the press conference that followed. The Fed set a hawkish tone at the end of last year but has now surprised the markets again. It stands ready to start dissolving its purchased assets and thus tighten monetary policy. Markets are expecting the first rate hike to come at the March meeting, and the Fed could raise rates as many as five times this year. The tighter monetary policy and expectations of an increase in rates are inducing a fall in equity prices, especially for technology stocks.

GDP growth, %



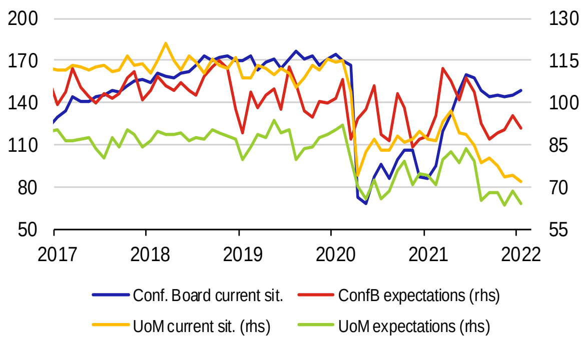
	CF	IMF	OECD	Fed
2022	3.7	4.0	3.7	4.0
2023	2.5	2.6	2.4	2.2

Inflation, %



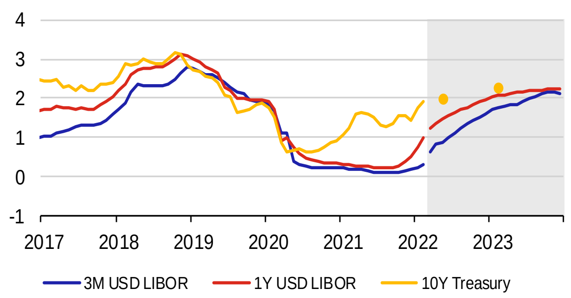
	CF	IMF	OECD	Fed
2022	5.2	3.5	4.8	2.6
2023	2.6	2.7	2.5	2.3

Leading indicators



	ConfB curr.	ConfB exp.	UoM curr.	UoM exp.
11/21	144.4	90.2	73.6	63.5
12/21	144.8	95.4	74.2	68.3
1/22	148.2	90.8	72.0	64.1

Interest Rates, %



	1/22	2/22	5/22	2/23
USD LIBOR 3M	0.25	0.33	0.89	1.76
USD LIBOR 1R	0.75	0.75	1.46	2.07
Treasury 10R	1.76	1.91	2.00	2.30

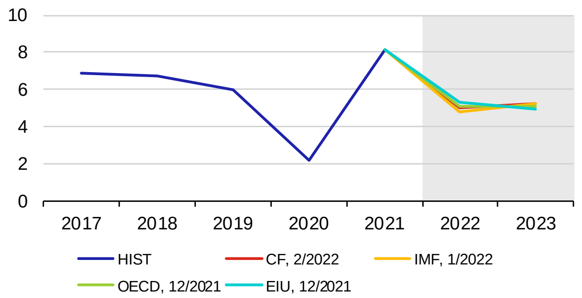
II.4 China

The Chinese economy continued to lose momentum in 2021 Q4, growing by only 4% year on year. Despite this, it recorded total growth of 8.1% last year, mainly on the back of a substantial recovery at the start of the year. As in 2021 Q4, consumption was the biggest contributor to growth in 2021. However, consumer confidence is still below the pre-pandemic level, due to persisting concerns about the rapid spread of new coronavirus variants, to which the Chinese government is responding with strict quarantine measures. Retail sales grew by only 1.7% year on year in December, the worst result since August 2020. Government investment contributed to GDP growth to a lesser extent, having a positive effect in industry among other sectors. Industry was negatively affected by the global shortage of semiconductors and other components and by the sharp rise in energy commodity prices. This is reflected in the manufacturing PMI, which is still only around the 50 point level. Net exports also contributed to the growth in economic activity, benefiting from recovering external demand. The CF analysts expect the Chinese economy to grow by around 5% both this year and the next.

Consumer price inflation rose further to 1.8% in 2021 Q4. The inflation pressures reflect rising consumer demand and higher costs associated with the sharp increase in commodity prices. According to the February CF, consumer price inflation will be just above 2% in the next two years. In 2021 Q4, the higher cost pressures were also reflected in growth in producer prices, which rose by an average of 12.2% year on year.

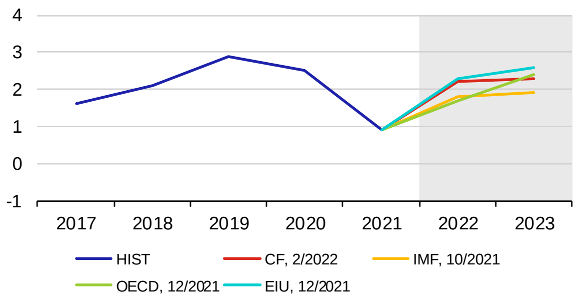
The record-high foreign trade surpluses are reflected in a stronger exchange rate of the renminbi against the dollar, despite the Chinese central bank's easier monetary policy. In contrast to most central banks around the world, it further reduced a number of its interest rates. The Chinese government's fiscal policy will also be more relaxed. It plans to increase spending on large infrastructure projects and thus boost the slowing economy.

GDP growth, %



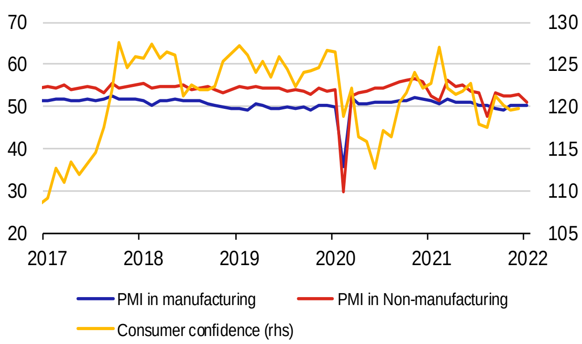
	CF	IMF	OECD	EIU
2022	5.0	4.8	5.1	5.3
2023	5.2	5.2	5.1	4.9

Inflation, %



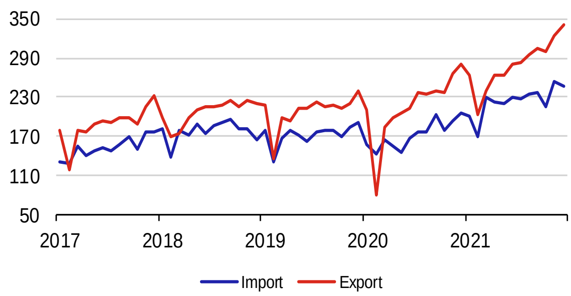
	CF	IMF	OECD	EIU
2022	2.2	1.8	1.7	2.3
2023	2.3	1.9	2.4	2.6

Leading indicators



	PMI manuf.	-manufacturing	Cons. conf (rhs)
11/21	50.1	52.3	119.5
12/21	50.3	52.7	119.8
1/22	50.1	51.1	

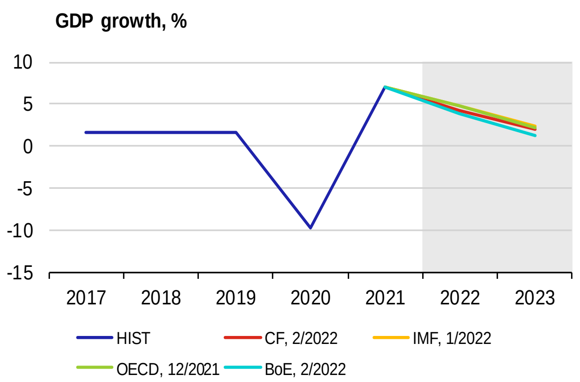
Development of China foreign trade, bil. USD



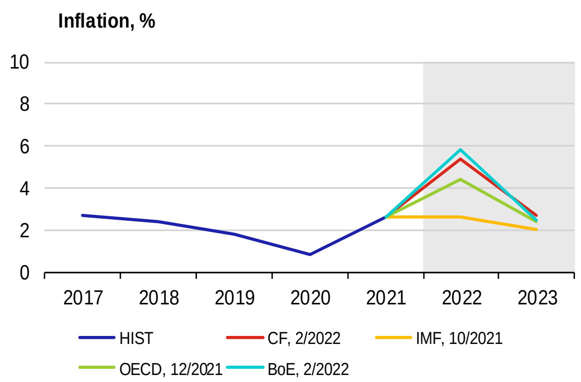
Source: Bloomberg

II.5 United Kingdom

British Prime Minister Boris Johnson is under strong political pressure as a result of the "partygate" scandal but has no intention of resigning. However, his tenure as prime minister has become highly uncertain. In February, the BoE raised its key interest rate again in an effort to curb inflation, this time by 25 bp, bringing the rate to 0.5%. The BoE has also started a process of quantitative tightening. Rising energy and goods prices are behind the leap in inflation. According to the new BoE forecast, inflation will peak at around 7.25% (more than 5 pp above the target) in April and then fall back. Although the Omicron variant will slow the recovery of UK economic activity, its impact is expected to be limited and somewhat short-term. Almost 4% GDP growth is predicted for this year and subdued growth of just above 1% for 2023. The composite PMI rose to 54.2 in January due to the gradual lifting of the remaining Omicron-related restrictions. Growth in manufacturing sector outpaced growth in services sector.



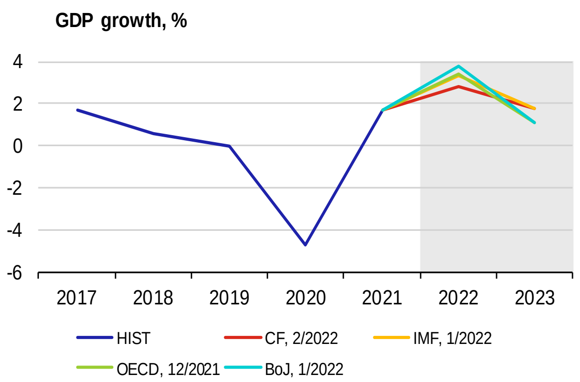
	CF	IMF	OECD	BoE
2022	4.3	4.7	4.7	3.8
2023	2.0	2.3	2.1	1.3



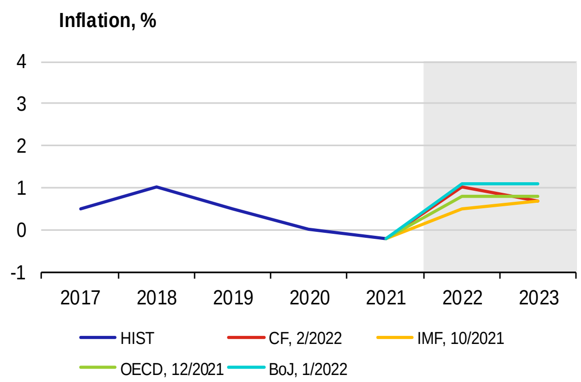
	CF	IMF	OECD	BoE
2022	5.4	2.6	4.4	5.8
2023	2.7	2.0	2.4	2.5

II.6 Japan

The situation in Japanese industry seems more optimistic than that in services. Japan's nominal foreign trade turnover rose at a solid pace in 2021. Exports grew by 22.1% and imports by 25.1%, fully offsetting the significant decline recorded by both variables in 2020. This also represents an increase on 2019, with exports up by 8.6% and imports by 6.5%. Industrial production also went up last year, but the 5.9% growth rate in 2021 was insufficient to cover the previous year's losses (-10.4%). The Ministry of Economy, Trade and Industry's survey-based estimate is for a month-on-month increase in industrial production of 5.2% in January and 2.2% in February. The manufacturing PMI, which rose to 55.4 in January, also suggests a favourable trend. Services have been hit more severely by the tough anti-epidemic measures. The services PMI dropped from 52.1 in December to 47.6 in January, below the flash estimate of 48.8.



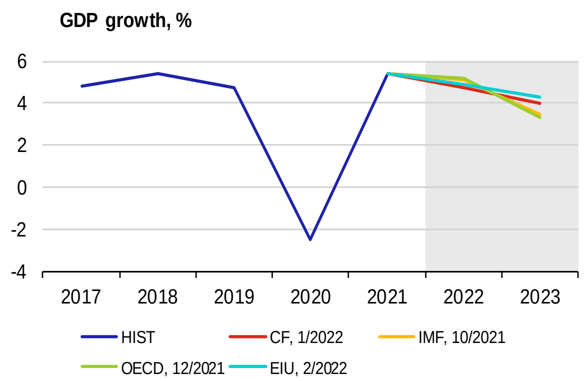
	CF	IMF	OECD	BoJ
2022	2.8	3.3	3.4	3.8
2023	1.8	1.8	1.1	1.1

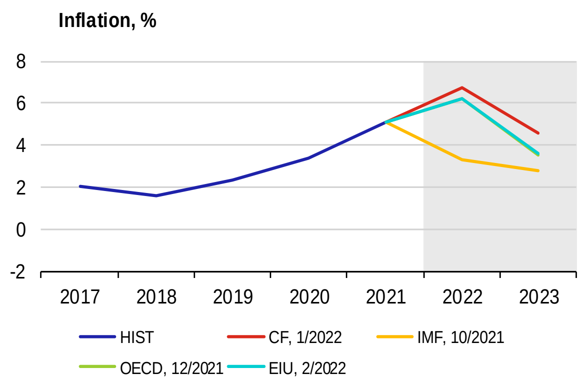


	CF	IMF	OECD	BoJ
2022	1.0	0.5	0.8	1.1
2023	0.7	0.7	0.8	1.1

II.7 Russia

Short-term indicators suggest a gradual economic recovery amid still rising inflation. After dropping by 2.5% in 2020, industrial production went up by 5.3% last year, exceeding the pre-pandemic level. Growth in the extractive industries was 4.8% (natural gas output rose by 10.6%). Manufacturing grew at a rate of 5%. Year-on-year growth in industrial production slowed slightly from 7.6% in November to 6.1% in December, due mainly to a slowdown in manufacturing. Annual inflation rose to 8.7% in January. The fastest growth in prices in January was recorded by fruit and vegetables (16.0%) and construction materials (23.2%). At its February meeting, the Russian central bank raised its key interest rate by another 1 pp to 9.5%.



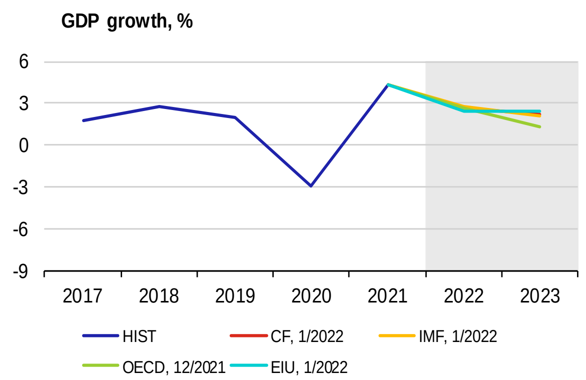


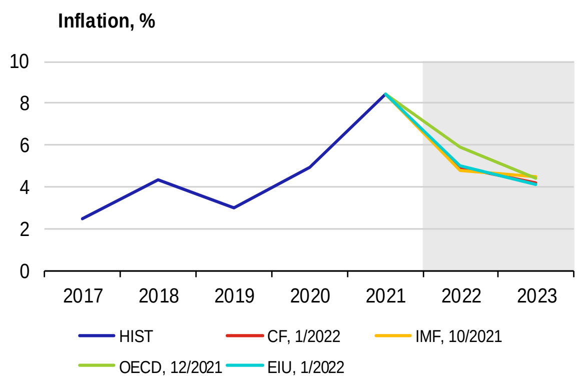
	CF	IMF	OECD	EIU
2022	4.7	5.1	5.2	4.9
2023	4.0	3.5	3.3	4.3

	CF	IMF	OECD	EIU
2022	6.7	3.3	6.2	6.2
2023	4.6	2.8	3.5	3.6

II.8 Poland

At its meeting on 8 February, the Monetary Policy Council of the Polish central bank decided to raise interest rates from 2.25% to 2.75%. Annual consumer price inflation again rose significantly to a record 8.6% in December and is expected to remain high this year. The persistence of inflation pressures is also evident in nominal wage growth in the business sector, where wages have been rising steadily (by 9.8% in November and 11.2% in December) and wage growth is approaching its highest level since July 2008. GDP grew by 5.7% in 2021 as a whole. Industrial output accelerated again year on year, from 14.8% in November to 16.7% in December, especially in manufacturing and electricity and gas production, exceeding market expectations. Only the business confidence survey for the Polish economy, which has long been falling, is pessimistic. In January, it recorded its worst result since December 2020.



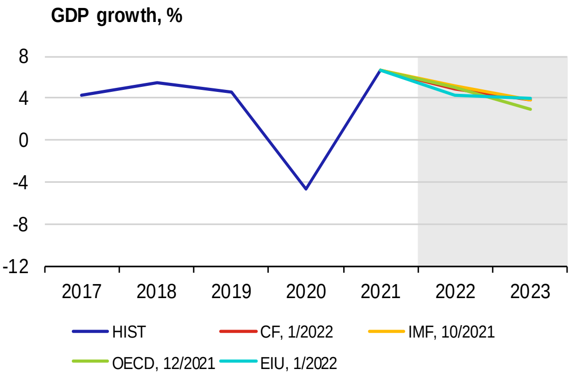


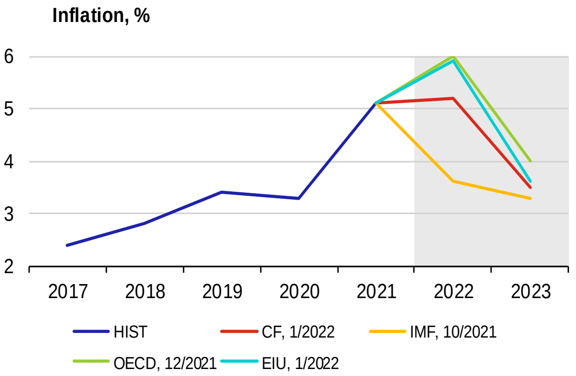
	CF	IMF	OECD	EIU
2022	2.6	2.8	2.7	2.4
2023	2.2	2.1	1.3	2.4

	CF	IMF	OECD	EIU
2022	4.9	4.8	5.9	5.0
2023	4.2	4.5	4.4	4.1

II.9 Hungary

At its meeting on 25 January, the Monetary Council of the Hungarian central bank (MNB) decided to raise the policy rate again (from 2.4% to 2.9%). The MNB also announced it was ready to continue tightening monetary policy until the inflation forecast is clearly on course for the 3% inflation target. Annual consumer price inflation rose from 7.4% in December to 7.9% in January. Core inflation went up significantly from 6.4% to 7.4%. Nominal wage growth increased from 8.7% in October to 10.2% in November 2021. According to GKI Economic Research, business confidence in the Hungarian economy rose again, from 4.4 in December to 6.4 in January. Retail sales grew by 6.2% year on year in December (as against 3.8% in November). Industrial output accelerated from 2.7% in November to 5.8% in December, the highest growth in the last five months.





	CF	IMF	OECD	EIU
2022	4.9	5.1	5.0	4.3
2023	3.8	3.8	3.0	3.9

	CF	IMF	OECD	EIU
2022	5.2	3.6	6.0	5.9
2023	3.5	3.3	4.0	3.6

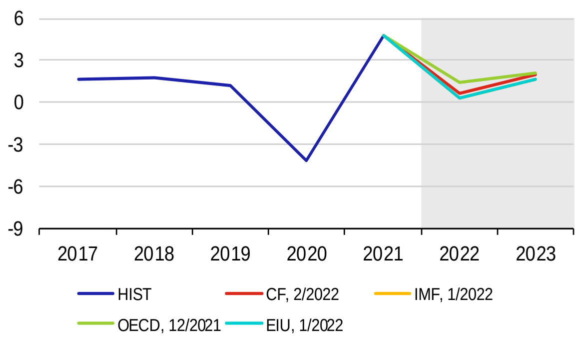
II.10 Countries in the spotlight – Brazil

GDP growth in the largest Latin American economy declined by 0.4% and 0.1% in 2021 Q2 and Q3 respectively. The Brazilian central bank started to increase its rates in March 2021 and has now reached 10.75% from a starting point of 2%. The most recent increase was in February (1.5 pp). The hikes are due to high inflation, which is well above the target (3.5%) and the tolerance band (± 1.5 pp). Consumer price inflation stood at 10.4% year on year in January, having peaked at 10.7% in November 2021. The unemployment rate fell again in November (to 11.6%). It is thus returning to the pre-pandemic level but is still high. The Brazilian real has strengthened from BRL 5.6/USD to BRL 5.2/USD since the start of the year, mainly on the back of rising iron ore prices.

A further wave of the pandemic, combined with high debt levels, is limiting the output of the Brazilian economy. As in other countries, Omicron is now the dominant variant in Brazil. The daily number of new cases peaked at over 250,000 in late January and early February, and the seven-day average was just under 140,000 in mid-February. Some 81.8% of the population has now had at least one dose of vaccine, with 71.4% fully vaccinated. The number of people with a third, booster shot is also rising very quickly (25.8%).

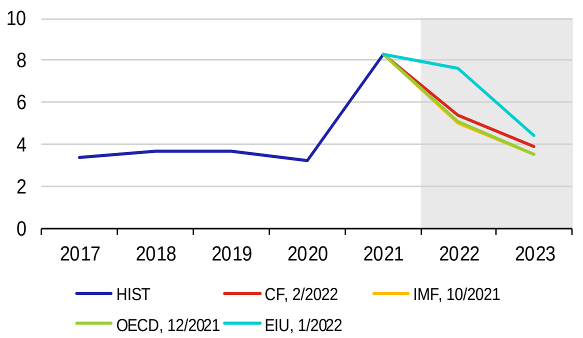
GDP will be less than 1% this year according to most institutions. The OECD is most optimistic in this regard, estimating growth at 1.4%. Growth of 1.6%–2.1% is projected for 2023. There is great uncertainty regarding consumer price inflation this year, but most institutions expect inflation to remain above the BCB's target, between 5% and 7.6%. In 2023, inflation is projected to return to the target and consumer prices to rise by around 3.5%. According to the CF analysts, the exchange rate will depreciate to BRL 5.6/USD this year and start to appreciate modestly again in 2023 (to BRL 5.4/USD). CF estimates that rates will rise to 11.4% in 2022 and stay high in 2023 (10.8%).

GDP growth, %



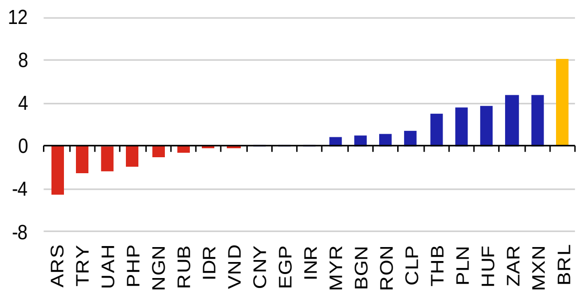
	CF	IMF	OECD	EIU
2022	0.6	0.3	1.4	0.3
2023	2.0	1.6	2.1	1.6

Inflation, %



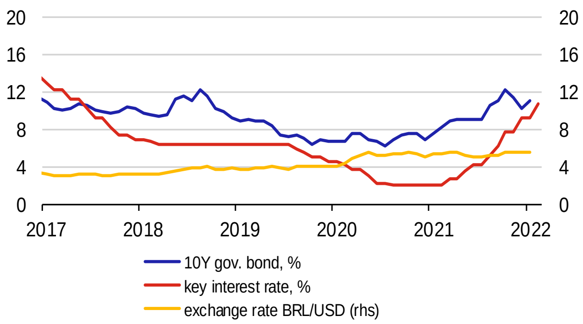
	CF	IMF	OECD	EIU
2022	5.4	5.0	5.1	7.6
2023	3.9	3.5	3.5	4.4

Currency performance vis-à-vis USD



% change over 2021-12-01 to 2022-02-09 period

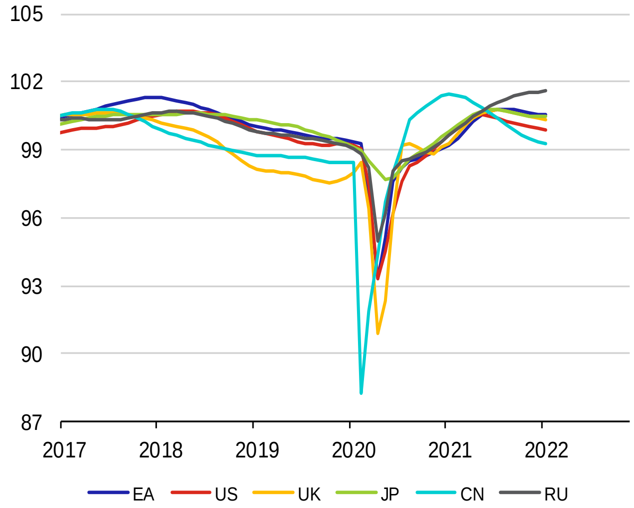
Selected indicators



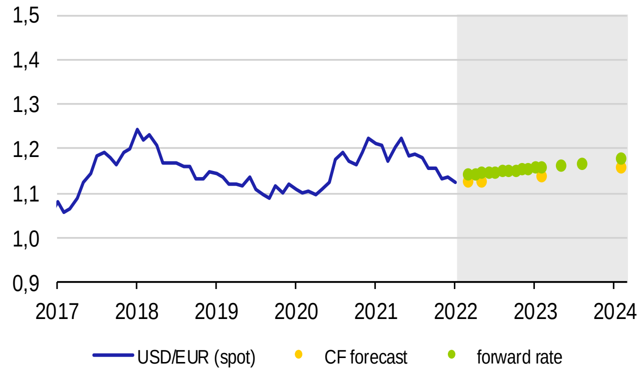
	10Y gov. bond, %	interest rate, %	INR/USD
11/2021	11.41	7.75	5.56
12/2021	10.31	9.25	5.65
1/2022	11.08	9.25	5.53

III. Leading indicators and outlook of exchange rates

OECD Composite Leading Indicator

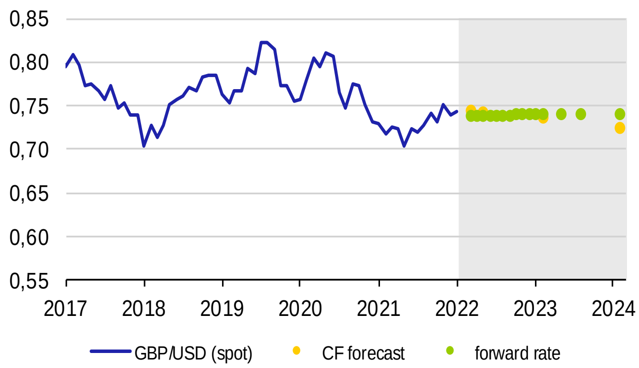


The US dollar (USD/EUR)



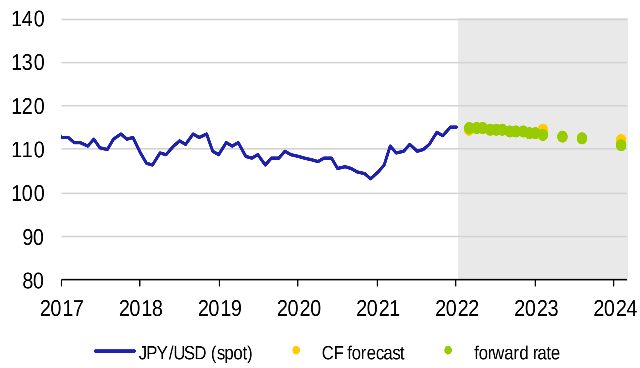
	7/2/22	3/22	5/22	2/23	2/24
spot rate	1.145				
CF forecast		1.130	1.129	1.139	1.162
forward rate		1.145	1.147	1.161	1.179

The British pound (GBP/USD)



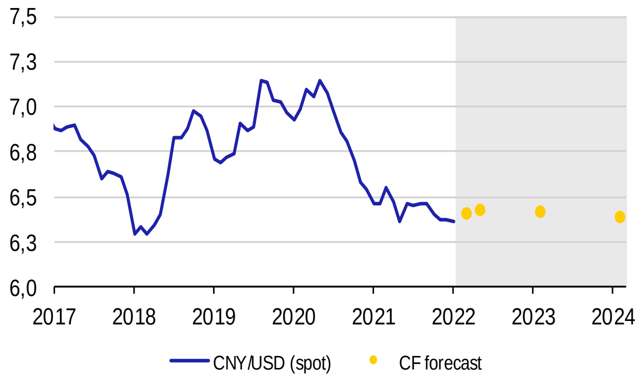
	7/2/22	3/22	5/22	2/23	2/24
spot rate	0.739				
CF forecast		0.745	0.743	0.737	0.725
forward rate		0.739	0.739	0.741	0.741

The Japanese yen (JPY/USD)



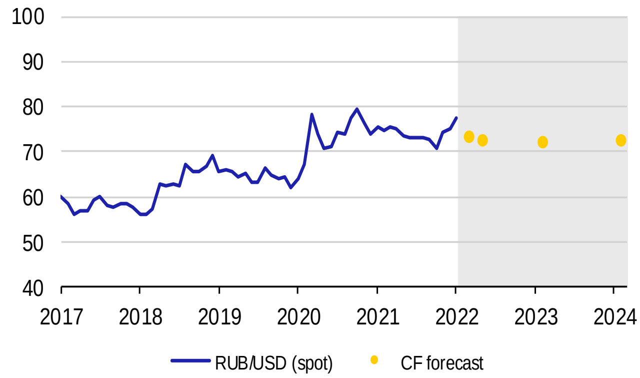
	7/2/22	3/22	5/22	2/23	2/24
spot rate	115.1				
CF forecast		114.8	115.1	114.8	112.5
forward rate		115.1	114.9	113.7	111.3

The Chinese renminbi (CNY/USD)



	7/2/22	3/22	5/22	2/23	2/24
spot rate	6.358				
CF forecast		6.410	6.433	6.427	6.394

The Russian rouble (RUB/USD)



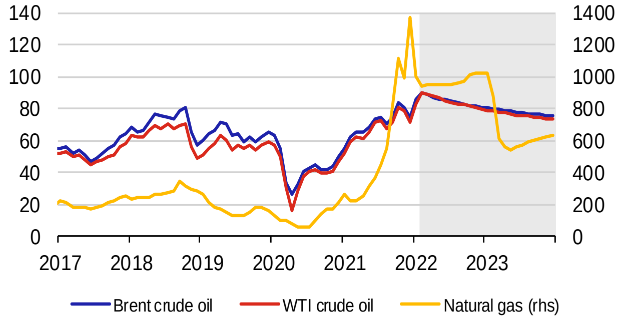
	7/2/22	3/22	5/22	2/23	2/24
spot rate	75.58				
CF forecast		73.65	72.76	72.35	72.75

Note: Exchange rates as of last day of month. Forward rate does not represent outlook; it is based on covered interest parity, i.e. currency of country with higher interest rate is depreciating. Forward rate represents current (as of cut-off date) possibility of hedging future exchange rate.

IV.1 Oil

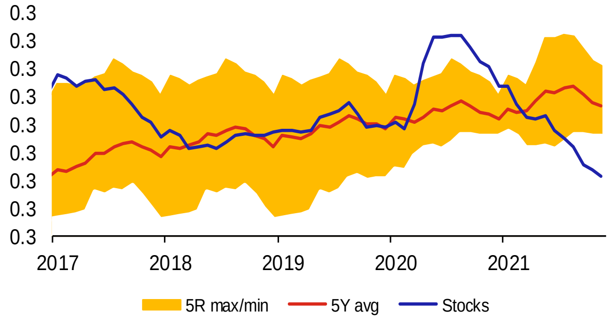
The Brent crude oil price, which began to rise strongly in the second half of December 2021, neared USD 95/bbl in mid-February. The factors supporting the surge in oil prices include growing physical demand due to growth in global economic activity and renewed tourism, increased risk premia owing to tensions at the Russia–Ukraine border and the fact that some OPEC+ countries are struggling to increase output in line with their rising quotas. Oil is also becoming more attractive to investors, who are buying it to try to hedge against high inflation. Hedge funds are increasing their net long positions in oil, and the negative slope of the futures price curve has increased sharply. Progress in the latest talks between global powers and Iran over its nuclear programme could reduce the tightness in the oil market. According to Bank of America, if the sanctions on Iranian oil exports are lifted, the oil market could see a surplus of up to 1 million b/d in the second half of the year, leading to a drop in prices of USD 10–15/bbl. Also in play is a further release of oil from strategic reserves in the US and other countries. The EIA expects the average Brent price to remain close to USD 90/bbl in the first quarter due to continuing draws in global inventories. However, downward price pressures are expected to emerge in the middle of the year as growth in oil production from OPEC+, the USA and other countries outpaces slowing growth in global oil consumption. According to the EIA, the price of Brent crude oil will reach USD 73/bbl and USD 66/bbl at the end of this year and the next respectively. This is a significantly faster decline than signalled by the market futures curve for those periods (USD 81/bbl and USD 76/bbl respectively). The February CF is about USD 3/bbl lower than the market curve and expects a Brent price of around USD 77/bbl at the one-year horizon.

Outlook for prices of oil (USD/barrel) and natural gas (USD / 1000 m³)

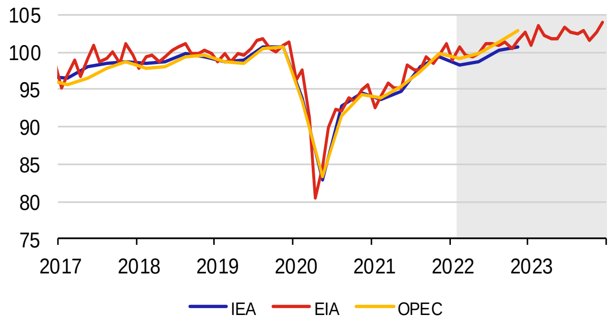


	Brent	WTI	Natural gas
2022	85.08	84.65	974.64
2023	77.96	76.17	653.24

Industrial stocks of oil and oil products in OECD (bil. barrel)

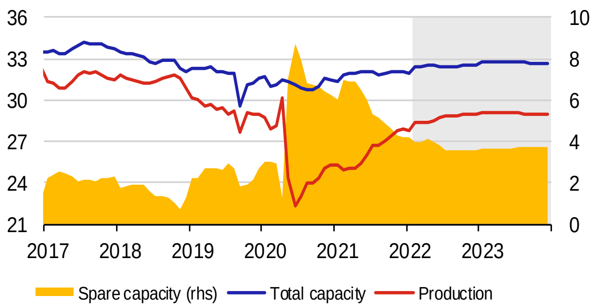


Global consumption of oil and oil products (mil. barrel / day)



	IEA	EIA	OPEC
2022	99.45	100.61	100.78
2023		102.49	

Production, total and spare capacity in OPEC countries (mil. barrel / day)



	Production	Total capacity	Spare capacity
2022	28.64	32.42	3.78
2023	29.04	32.72	3.68

Source: Bloomberg, IEA, EIA, OPEC, CNB calculation
Note: Oil price at ICE, average gas price in Europe – World Bank data, smoothed by the HP filter. Future oil prices (grey area) are derived from futures and future gas prices are derived from oil prices using model. Total oil stocks (commercial and strategic) in OECD countries – IEA estimate. Production and extraction capacity of OPEC – EIA estimate.

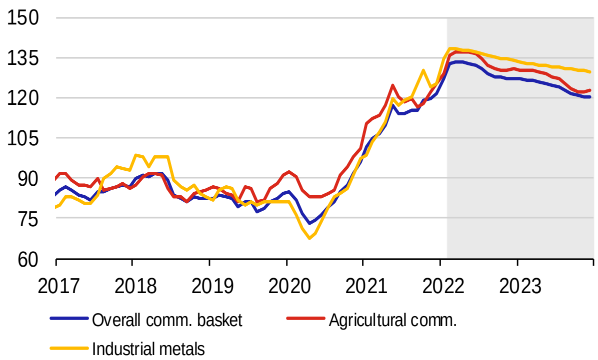
IV.2 Other commodities

The spot price of natural gas in Europe has been fluctuating in the range of EUR 75–90/MWh since the start of the year. Its outlook remains at the current high level until 2023 Q1. A decline in demand and thus also in LNG prices in Asia have led to record LNG supplies to Europe since the start of the year. Along with milder weather so far this winter, this has calmed the situation on the European gas market, which, however, remains tight, as inventories for the period remain below their 2015–2020 lows. The price is also being driven up by the growing tensions between Russia and Ukraine. Current and projected electricity prices in Europe are mirroring natural gas prices. Emission allowance prices, which are close to EUR 100/t, have reached a historical high, and further growth is expected next winter. Coal prices have been rising sharply again since mid-January. The lifting of the ban on Indonesian coal exports in February has yet to be reflected in the price.

The average monthly industrial metal price index soared in January and hit another all-time high in the first half of February, but its outlook is falling. The same is true for the price of aluminium, stocks of which on the LME fell sharply in January and whose price is also being pushed up by rising coal prices and geopolitical tensions, as Russia is one of its biggest producers. The decline in inventories on the LME is also keeping the price of copper close to a historical high, with no major decline expected. Nickel and tin prices also kept rising. The zinc price stabilised following previous strong growth, while the price of lead fell slightly. The iron ore price has been surging again since December, but its outlook is downward.

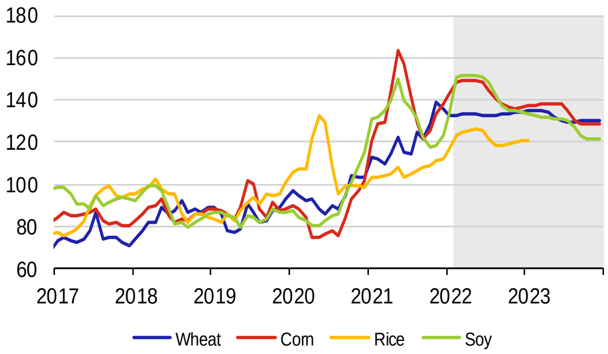
The average monthly food commodity price index kept rising in January and accelerated even further in the first half of February. The index was thus close to the record high recorded in September 2012, but it too has a gradual downward outlook. The growth was driven by rice, soy, corn, pork and beef prices, while sugar prices fell slightly.

Non-energy commodities price indicies



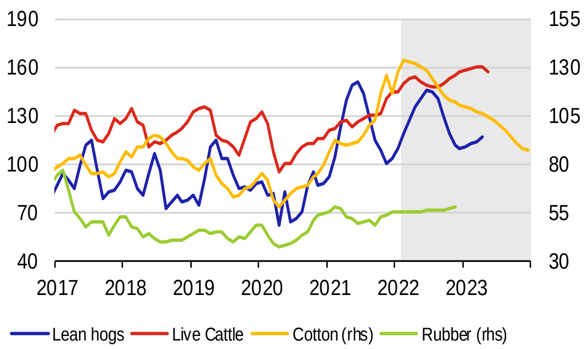
	Overall	Agricultural	Industrial
2022	130.1	133.4	136.1
2023	123.7	126.6	131.4

Food commodities



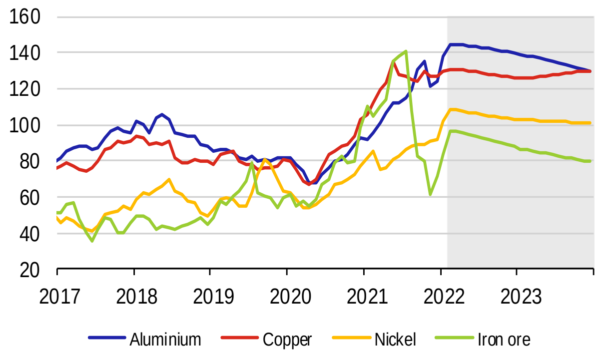
	Wheat	Corn	Rice	Soy
2022	133.2	143.2	121.7	143.4
2023	131.7	133.9	120.8	128.1

Meat, non-food agricultural commodities



	Lean hogs	Live Cattle	Cotton	Rubber
2022	127.5	150.8	123.2	55.8
2023	113.4	159.0	99.5	

Basic metals and iron ore



	Aluminium	Copper	Nickel	Iron ore
2022	142.0	128.7	105.4	91.6
2023	134.7	127.8	101.9	83.0

Source: Bloomberg, CNB calculations.
Note: Structure of non-energy commodity price indices corresponds to composition of The Economist commodity indices. Prices of individual commodities are expressed as indices 2010 = 100.

Container shipping in the time of Covid[1]

Searches for "supply chains" on US Google roughly doubled between June and October 2021, briefly exceeding those for "interest rates". During this period, the price of containers shipped between China and the USA almost tripled, while waiting times for offloading in ports on the west coast of the USA reached record highs. Shipping and transport in general have been the focus of attention in the past year and will most likely remain so for some time to come. The overloading of the global shipping system will subside only gradually, depending mainly on demand for goods and, to a lesser extent, on the future course of the pandemic and related restrictions.

How does container shipping work?

Maritime transport might seem simple, but in reality it involves a sophisticated, well-planned and optimised network. Shipping containers are 20-45 feet (6.1–12.2 m) long. Ship capacity is measured in TEUs (twenty-foot equivalent units, i.e. 20-foot containers with a volume of 38.51 m^3, see Figure 1). Most shipping processes are semi- or fully automated and thus highly standardised. Like many other sectors, the industry uses economies of scale, a key factor in today's globalisation. Not surprisingly, the ten largest shipping companies held an 85% market share last year. This compares with only 51% in 2000.

Shipping is where it is today because of two fundamental 21st century innovations. The first is the growing cargo volumes that ships can carry. While in 2006 the largest ship carried 9,600 TEUs, today it carries almost 24,000 TEUs. The second innovation came after the global financial and economic crisis. At that time, demand slumped, fuel was expensive and firms were struggling to survive. Maersk, the world's largest shipping company, came up with a surprisingly simple solution: slow down. Until then, ships had been sailing at 22 knots, as it was generally held that moving below this speed for long periods would damage the engine. This proved to be wrong and ships began to sail at speeds of 14–18 knots, which translated into fuel savings of between 10% and 25%.

Containers have to be stowed properly to ensure smooth sailing. This is an extremely complicated task and computer programmes are used to optimise it. One of the reasons is self-evident: containers that are to be unloaded in Yokohama (the first stop) should not be stowed below those to be unloaded in Xiamen (the second stop). Refrigerated containers have to be located somewhere with an electricity supply, while goods that may leak must be easily accessible to the crew. Table 1 gives an idea of just how difficult it is to stow containers. It shows, for example, that items that are dangerous when wet must be stored at least 6 metres away from radioactive materials. Last but not least, the ship must be approximately balanced.

Let's now take a look at a typical voyage between the west coast of the USA and Asia. Ships depart from the port of Los Angeles to Yokohama in Japan, a journey which takes about ten days. This is followed by an eight-hour stopover, during which the cargo from the USA is unloaded and goods are loaded for onward travel to other countries in Asia and the USA. After five days, there is another roughly 36 hour stop in the Chinese port of Xiamen. From China, ships

Figure 1 – A 20-foot container

Source: Wikipedia

Table 1 – Container stowage rules

WORKBOAT - WEATHER DECK STOWAGE
Table 7.2.4 IMDG Code

IMDG CODE CLASS		1.1 1.2 1.5	1.3 1.6	1.4	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8	9
EXPLOSIVE	1.1, 1.2, 1.5	*	*	*	C	B	B	C	C	C	C	C	C	B	C	B	C	X
EXPLOSIVES	1.3, 1.6	*	*	*	C	B	B	C	C	C	C	C	C	B	C	B	B	X
EXPLOSIVES	1.4	*	*	*	B	A	A	B	B	B	B	B	B	X	C	B	B	X
FLAMMABLE GASES	2.1	C	C	B	X	X	X	B	A	B	X	B	B	X	C	B	A	X
NON TOXIC FLAMMABLE GASES	2.2	B	B	A	X	X	X	A	X	A	X	X	A	X	B	A	X	X
TOXIC GASES	2.3	B	B	A	X	X	X	B	X	B	X	X	B	X	B	A	X	X
FLAMMABLE LIQUIDS	3	C	C	B	B	A	B	X	X	B	A	B	B	X	C	B	X	X
FLAMMABLE SOLIDS	4.1	C	C	B	A	X	X	X	X	A	X	A	B	X	C	B	A	X
SPONTANEOUSLY COMBUSTIBLE	4.2	C	C	B	B	A	B	B	A	X	A	B	B	A	C	B	A	X
DANGEROUS WHEN WET	4.3	C	C	B	X	X	X	A	X	A	X	B	B	X	B	B	A	X
OXIDIZING SUBSTANCES	5.1	C	C	B	B	X	X	B	A	B	B	X	B	A	C	A	B	X
ORGANIC PEROXIDES	5.2	C	C	B	B	A	B	B	B	B	B	B	X	A	C	B	B	X
TOXIC SUBSTANCES	6.1	B	B	X	X	X	X	X	X	A	X	A	A	X	A	X	X	X
INFECTIOUS SUBSTANCES	6.2	C	C	C	C	B	B	C	C	C	B	C	C	A	X	C	C	X
RADIOACTIVE MATERIALS	7	B	B	B	B	A	A	B	B	B	B	A	B	X	C	X	B	X
CORROSIVES	8	C	B	B	A	X	X	X	A	A	A	B	B	X	C	B	X	X
MISCELLANEOUS	9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

X	NO SEGREGATION REQUIRED	
A	AWAY FROM:	3 Metres
B	SEPARATED FROM:	6 Metres
C	SEPARATED BY COMPLETE COMPARTMENT / SEPARATED LONGITUDINALLY BY COMPLETE COMPARTMENT	
*	SEE INTRODUCTION OF CLASS 1 FOR SEGREGATIONS WITHIN GROUP 7.2.7 OF THE IMDG CODE	
CLASS 1 EXPOSIVES	GOODS OF CLASS 1 WITH THE EXCEPTION OF DIVISION 1.4 SHALL BE STOWED NOT LESS THAN A HORIZONTAL DISTANCE OF 12 M FROM LIVING QUARTERS, LIFE-SAVING APPLIANCES AND AREAS WITH PUBLIC ACCESS AND SHALL NOT BE POSITIONED CLOSER TO THE SHIP'S SIDE THAN A DISTANCE EQUAL TO ONE EIGHTH OF THE BEAM OR 2.4 M, WHICHEVER IS THE LESSER.	

Source: IIMS.ORG.UK
Note: Rules define the distance between different types of materials.

Interesting fact:

The maritime sector is cosmopolitan. A ship can be built in South Korea, owned by a German entity and registered in Panama. The ship's captain can be American and the remaining crew from the Philippines, Belarus and Romania. Around 77% of junior crew members are from the Philippines. For reasons of low wage costs, education and cultural heritage, they do most of the physically demanding work.

[1] Author: Milan Frydrych. The views expressed in this article are those of the author and do not necessarily reflect the official position of the Czech National Bank.

then continue for two days to a port in Vietnam, where they dock for 44 hours. On the return journey to LA, they stop in Hong Kong and again in China. While the containers are being unloaded and loaded at the port, the crew have free time to spend as they please as long as they return to the ship on time. During Covid this was no longer possible and crews had to stay on board. The 27,000 km round trip takes 46 days. However, Covid-19 has resulted in a new kind of stop directly in front of the port, sometimes for as long as 17 days.[2] After the ship finally docks, the containers are moved by crane onto lorries and stored temporarily at the port. One such crane unloads 30–40 containers an hour. The containers then continue on their way by lorry or train.

Did you know:

Some 40% of all US imports pass through the adjacent ports of Los Angeles and Long Beach, as they have good access to labour, transport and infrastructure. These are the three most important factors for a port to function efficiently, because goods are transported **through ports** and not into them. Another factor is that it does not pay to ship goods by sea to the east coast, despite the fact that the majority of the population live there. This would mean sailing through the Panama Canal, which can only handle vessels with cargoes of up to 14,000 TEUs. Also, transit fees are high and the sailing time far longer. A further disadvantage is that the Panama Canal's capacity is affected by weather such as dense fog and low water levels.

Congestion

Why are ships now having to wait 17 days to dock? Ports are bursting at the seams – both with empty containers and with those waiting to be loaded onto ships. In 2020, several things happened which led to the current situation. When the majority of economies were shutting down, China had already come out of the first wave of Covid-19. The whole world was buying face masks, protective equipment and other goods, while industry and the economy as a whole had come to a halt. This resulted in one-way transport from China to the rest of the world. Governments responded with massive support for the economy, while central banks cut their rates to zero and in some cases deployed unconventional tools. Consumers switched to spending on goods, as they could no longer buy services. During the first wave, firms slashed their orders of components and their inventories shrank. Production came to a standstill and services were closed, while personal incomes did not fall drastically. After economies opened up partially, industry started up again, but services struggled under the weight of still restrictive measures and partly also negative consumer sentiment.

The result was a build-up of containers in ports and nearby warehouses outside Asia. However, a regional shortage of containers was not the only factor. Demand for (maritime) transport rose by tens of per cent. Many port staff were ill or furloughed under Covid safety protocols. This contributed strongly to a slowdown in production, a reduction in shipping capacity and a deterioration in punctuality, particularly in China with its zero-Covid strategy.[3] The ports themselves also lack equipment such as intermodal chassis. There are bottlenecks in both sea and land transport. Many countries have acute shortages of lorry drivers. In the USA, an additional 80,000 drivers are still needed, despite surging wages.[4] Spot prices for lorry transport thus increased by 29% last year.

The logistics system, which was already stretched before the pandemic, is now hugely overburdened. Shipping demand is "only" 25% higher than before the pandemic, but transport is an exponential problem: when the system is overloaded by 25%, it slows down by more than 25%. When demand is higher, there are more lorries waiting to pass through the terminal to load goods => picking up goods takes longer => lorries cannot return as quickly => fewer lorries are available to load cargo => containers are transported more slowly and stack up in the port => there is less space for new containers => offloading takes more time => ships face longer waiting times => transport capacity drops => ships return later to Asia to pick up cargo => operators reduce the numbers of empty containers sent back => Asia suffers from a shortage of containers => new containers need to be bought => prices go up. The delivery delays cause shippers to ship goods earlier, further exacerbating the situation.

Global maritime transport also suffered from other one-off effects last year. In March 2021, the Suez Canal was blocked by the 400 m long ship Ever Given for an entire week. Then the two key Chinese ports of Yantian in Shenzhen and Ningbo were closed due to local outbreaks of Covid-19 in May and August.

The shipping bottlenecks are causing prices to rise even for items not seeing growth in demand. One such item is bubble tea, a popular Taiwanese drink. In April 2021, American cafés serving bubble tea[5] announced that their menus would change day by day, as their suppliers were unable to deliver the required quantities of ingredients. All this happened in the absence of any significant increase in demand. At the same time, retailers hiked their prices. One of the ingredients in

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[2] According to Wabtec Port Optimizer, the average waiting time for docking at the ports of Los Angeles and Long Beach was almost 20 days in January 2022, one of the longest since records began.

[3] An interesting fact is that the "factory of the world" has only 2.7 nurses per 1,000 inhabitants. This is far lower than in advanced countries, where the average is 11.5.

[4] The lorry driver shortage is illustrated in a chart showing job offers in storage and supply services on p. 2 of GEO 10/2021.

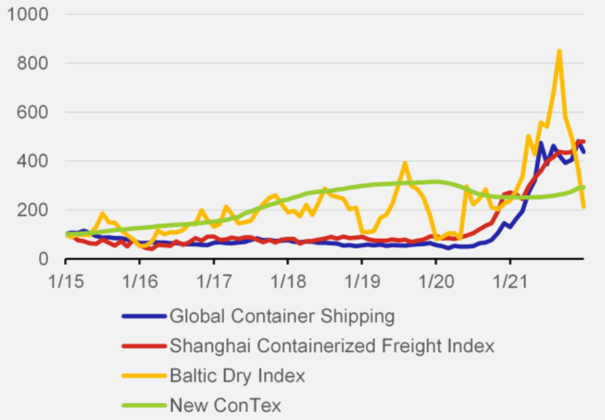
[5] For example Boba Bliss in California or MighTea Boba in New York. Source: https://www.nytimes.com/2021/04/16/business/boba-shortage.html

short supply is tapioca pearls (boba), which are made in Taiwan. It may come as a surprise that Taiwanese boba factories did not reduce their production capacity. With daily Covid-19 cases low, there was no reason to cut output. The problem was transport. There were queues at the ports of Los Angeles and Long Beach for loading and unloading cargo. Before the outbreak of the pandemic, one or two ships had to wait for a day or two before they could dock, whereas in 2021 dozens of vessels had to wait for over 10 days. Given that the journey from Taiwan to the west coast of the USA takes about 14 days, this meant almost double the usual delivery time.

The stress in maritime transport is passing through to shipping prices. The spot price of a 40-foot container from Asia to the USA rose from USD 2,000 a few years ago to USD 20,000 last year (including surcharges and premiums). Charts 1 and 2 show the growth in prices according to various indicators. Tankers, which usually transport liquid cargo such as oil, liquefied gas and water, are the only type of major transport vessel to have not increased in price during Covid. This is because demand for oil has not risen greatly. On the contrary, it collapsed at the start of the pandemic. The container congestion has conversely caused the price of air transport to soar (see Chart 3), especially on the Shanghai–North America and Hong Kong–North America routes.

Chart 1 – Maritime transport prices by composite indices

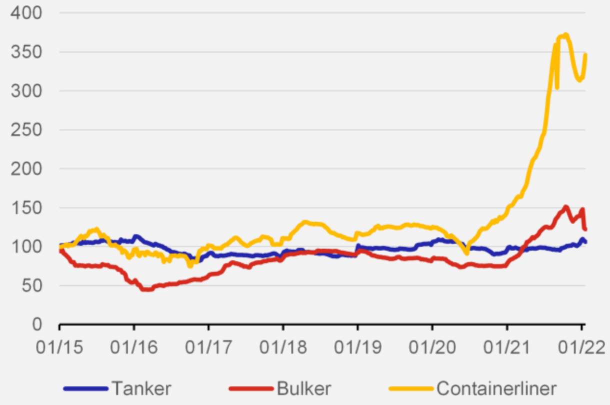
(Index; base: January 2015)



Source: Bloomberg

Chart 2 – Maritime transport prices by vessel type

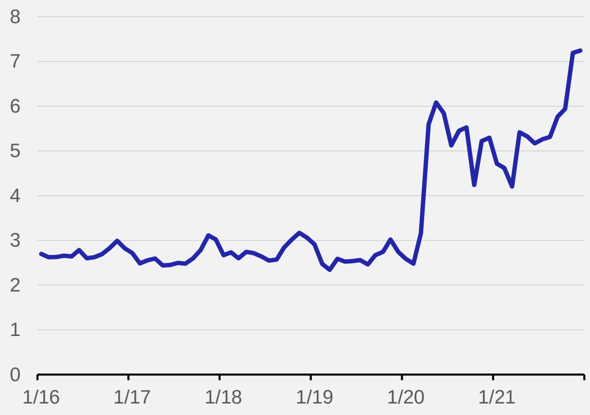
(Index; base, January 2015)



Source: Bloomberg

Graf 3 – pricesAir transport price by composite index Drewry Air Freight

(kg/USD)



Source: Bloomberg

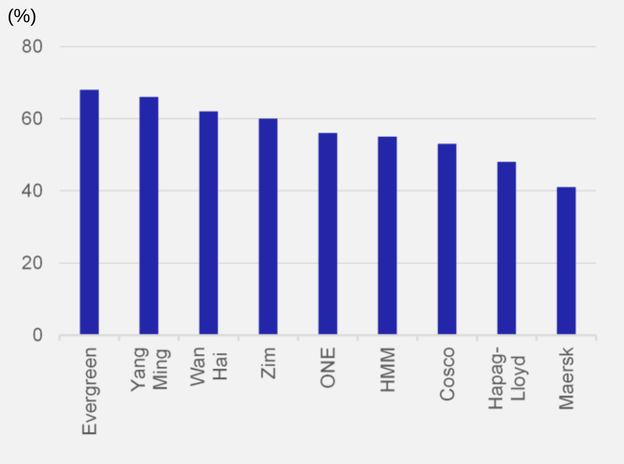
The current situation in the industry

Of course, carriers themselves are also profiting from the dramatic surge in demand for goods. Margins have risen by tens of per cent (see Chart 4). A shining example is China's Cosco Shipping Holdings Co., which reported an increase in revenue of 1,651% to USD 10.7 billion in the first three quarters of 2021. Taiwanese Yang Ming Marine Transport posted third-quarter revenue of USD 3.43 billion (a year-on-year increase of 145%) and its shares have soared by 1,600% since the start of 2020. Israeli shipping company ZIM has entered the US stock exchange; this is a rare phenomenon, as most companies are private or traded on European or Asian stock exchanges. However, ZIM's P/E ratio[6] is below 2, which is not the norm in other sectors. The industry as a whole reported a profit of about USD 190 billion for last year. The sharp growth in revenue means companies are now able to repay their debts, finance a reduction of their carbon footprint and make acquisitions, for example in logistics. To some extent, this means a respite from decades of tough competition and ship-buying, as the average margin between 2008 and 2019 was -1.5%. For example, the world's biggest shipping company, Denmark's Maersk, estimates its pre-tax earnings for last year at USD 24 billion. Employees have also benefited. Asian shipping companies have been paying record bonuses to their employees. For example, Cosco has given numerous bonuses of 30 monthly salaries.

[6] The ratio between the market price of a share and net earnings per share.

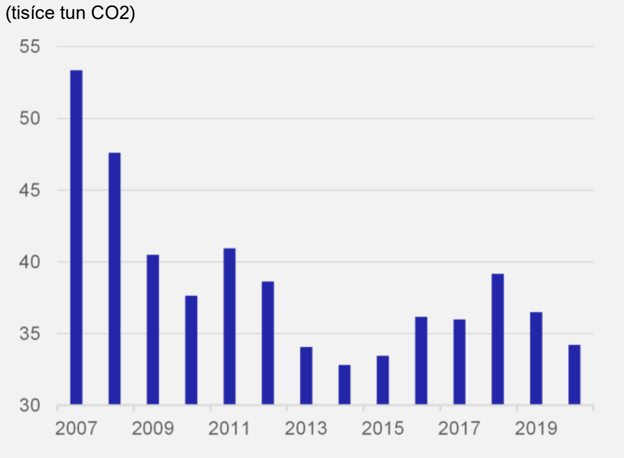
Shipping is one of the biggest polluters and will thus not be spared decarbonisation. Shipping giant Maersk emitted 34,000 tonnes of carbon dioxide in 2020 (see Chart 5) and recently announced it would become carbon neutral by 2040 instead of its original target of 2050. In addition, its target now takes indirect (Scope 2 and Scope 3[7]) emissions into account. Maersk will offer its customers a range of green products and is investing in climate solutions. One of them is the purchase of ships powered by methanol or ammonia. This change will be reflected in 10–12% higher transport costs. So far it has ordered 12 such ships.[8]

Chart 4 – Margins ofcontainer shipping companies soar



Source: Bloomberg
Note: Latest quarterly EBIT margin. Shows container shipping segment margin, where available, otherwise the group margin.

Chart 5 – Carbon footprint of sea transport



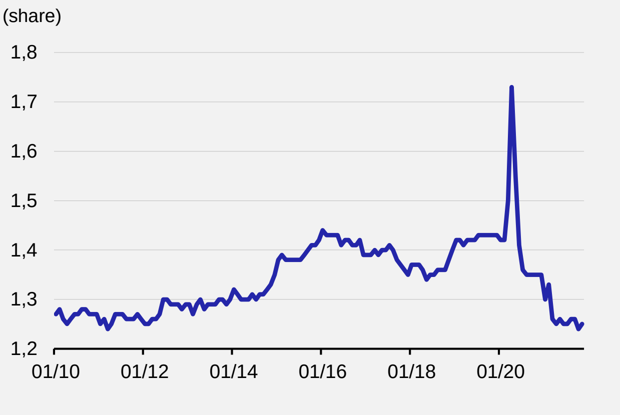
Source: Bloomberg
Note: Total CO2 emissions by Maersk company.

Is an improvement on the horizon?

The stress at ports is due mostly to demand for goods, as shipping capacity cannot easily be increased in the short term. It would help if the current Omicron wave were to subside quickly and no other variant requiring shutdowns or workplace restrictions were to appear. This would also mean a shift in consumption from goods to services and give the strained global logistics system a chance to catch its breath again.

There is a chance of this right now, between the Chinese New Year and the summer season, when demand for imports is weaker. This would give retailers an opportunity to replenish their inventories, which are at ten-year lows (see Chart 6). In the opposite case, container shipping will not free up until next year. At present, analysts are quite sceptical about 2022.

Chart 6 – Inventories-to-sales ratio in the USA



Source: US Fed

Conclusion

The current situation is extreme and got worse at the start of this year. In January 2022, ports on the west coast of the USA were still bursting at the seams. The average time spent in port is growing and the number of ships waiting for a place to dock has reached as many as 83. There are still shortages of lorry drivers and port and warehouse staff. All this is happening despite efforts to boost storage capacity by using vacant sites, extending terminals' operating hours and incentivising carriers to clear their containers from ports as quickly as possible.

But there are no real quick fixes. The US government has ordered the largest ports to operate around the clock. However, this is not necessarily having the desired effect, due to high sickness rates and Covid safety measures.

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[7] Scope 2 comprises emissions produced by the energy sources the company buys. Scope 3 consists of emissions generated by supply chains and the use of products by customers.

[8] Maersk currently operates 708 different kinds of ships (tankers, container ships and bulkers).

The situation provides an opportunity to consider whether to invest in and upgrade the manufacturing and global shipping system. Ports and port infrastructure have very little spare capacity in normal times. This is estimated at less than 5%[9] for the ports of Los Angeles and Long Beach, which is far from enough given the huge surge in demand. Manufacturing operates on the "just in time" principle, which minimises time, labour and materials. This is achieved by producing goods only when needed and thus eliminating surplus inventories, which are expensive to hold. In practice, however, many companies have taken this principle too far by eliminating almost all their stocks. Given today's long supply chains, this has greatly reduced the manufacturing sector's resilience to shocks. There are of course exceptions, one being Toyota, the largest car manufacturer in the world. Due to past experience, Toyota was the only car manufacturer to have a large stock of chips. However, even this wasn't enough and the company slashed production in the second half of 2021. We may therefore see attitudes to surplus inventories changing and reserve shipping capacity being created.

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Keywords

price of transport, container shipping, naval transport

JEL Classification

L9, L23

[9] Source: https://www.bbc.com/news/58926842

A1. Change in predictions for 2022

GDP growth, %

	CF		IMF		OECD		CB / EIU	
EA	+1,1	2022/2 2022/1	+0,7	2022/1 2021/10	+0,6	2021/12 2021/9	+0,5	2021/12 2021/9
US	+1,7	2022/2 2022/1	+0,8	2022/1 2021/10	+1,7	2021/12 2021/9	+1,7	2021/12 2021/9
UK	+2,7	2022/2 2022/1	+1,8	2022/1 2021/10	+1,7	2021/12 2021/9	+2,0	2022/2 2021/11
JP	-1,3	2022/2 2022/1	-0,8	2022/1 2021/10	-0,3	2021/12 2021/9	+0,5	2022/1 2021/10
CN	+3,0	2022/2 2022/1	+2,4	2022/1 2021/10	+2,3	2021/12 2021/9	+2,6	2021/12 2021/11
RU	+1,6	2022/1 2022/1	+1,8	2022/1 2021/10	+0,9	2021/12 2021/9	+1,8	2022/1 2021/12

Inflation, %

	CF		IMF		OECD		CB / EIU	
EA	-0,6	2022/2 2022/1	+1,0	2021/10 2021/4	+0,5	2021/12 2021/9	+0,9	2021/12 2021/9
US	-0,2	2022/2 2022/1	+1,9	2021/10 2021/4	+1,5	2021/12 2021/9	+3,1	2021/12 2021/9
UK	-2,1	2022/2 2022/1	+0,3	2021/10 2021/4	-0,7	2021/12 2021/9	+0,8	2022/2 2021/11
JP	-1,0	2022/2 2022/1	-0,9	2021/10 2021/4	-0,7	2021/12 2021/9	-0,9	2022/1 2021/10
CN	-1,3	2022/2 2022/1	-0,8	2021/10 2021/4	-1,4	2021/12 2021/9	-1,4	2021/12 2021/11
RU	+3,4	2022/1 2022/1	+2,5	2021/10 2021/4	+0,8	2021/12 2021/9	+1,8	2022/1 2021/12

A2. Change in predictions for 2023

GDP growth, %

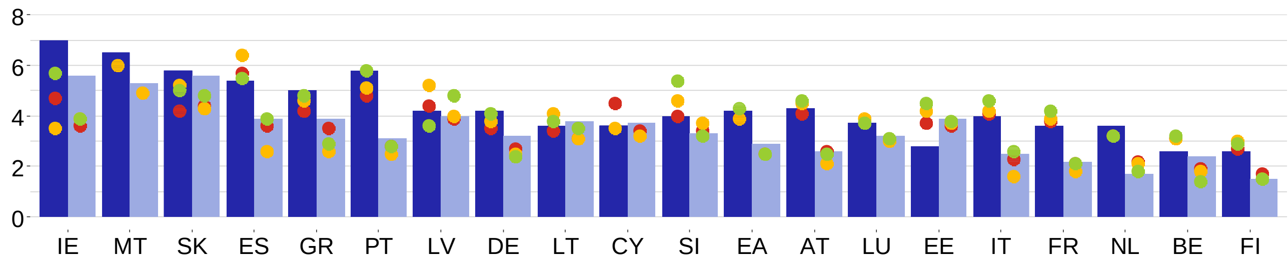
	CF		IMF		OECD		CB / EIU	
EA	+1,4	2022/2 2022/1	+1,9	2022/1 2021/10	---	2021/12 ---	+2,1	2021/12 2021/9
US	+1,1	2022/2 2022/1	+1,8	2022/1 2021/10	---	2021/12 ---	+1,5	2021/12 2021/9
UK	+2,1	2022/2 2022/1	+2,8	2022/1 2021/10	---	2021/12 ---	+2,3	2022/2 2021/11
JP	+1,3	2022/2 2022/1	+1,9	2022/1 2021/10	---	2021/12 ---	+2,5	2022/1 2021/10
CN	-0,3	2022/2 2022/1	-0,5	2022/1 2021/10	---	2021/12 ---	+0,3	2021/12 2021/11
RU	+0,3	2022/1 2022/1	+0,8	2022/1 2021/10	---	2021/12 ---	0	2022/1 2021/12

Inflation, %

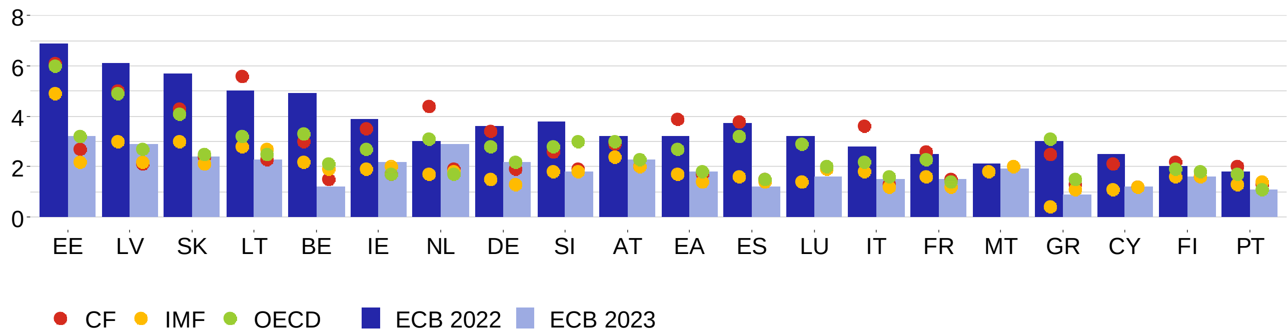
	CF		IMF		OECD		CB / EIU	
EA	+2,3	2022/2 2022/1	+0,3	2021/10 2021/4	---	2021/12 ---	+1,7	2021/12 2021/9
US	+2,6	2022/2 2022/1	+1,0	2021/10 2021/4	---	2021/12 ---	+0,4	2021/12 2021/9
UK	+2,9	2022/2 2022/1	+0,6	2021/10 2021/4	---	2021/12 ---	+3,6	2022/2 2021/11
JP	+0,3	2022/2 2022/1	-0,2	2021/10 2021/4	---	2021/12 ---	+0,1	2022/1 2021/10
CN	-0,1	2022/2 2022/1	-0,1	2021/10 2021/4	---	2021/12 ---	-0,3	2021/12 2021/11
RU	+0,6	2022/1 2022/1	+1,0	2021/10 2021/4	---	2021/12 ---	+0,9	2022/1 2021/12

A3. GDP growth and inflation outlooks in the euro area countries

GDP growth in the euro area countries in 2022 and 2023, %



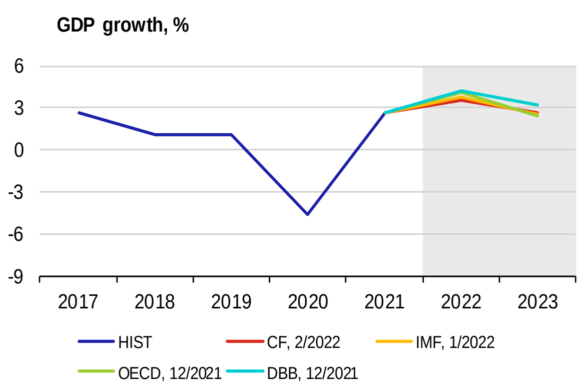
Inflation in the euro area countries in 2022 and 2023, %

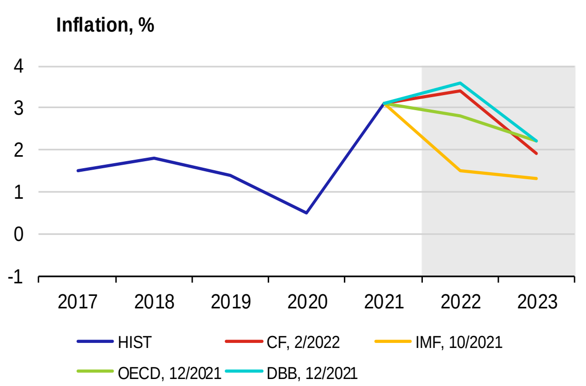


Note: Charts show institutions' latest available outlooks of for the given country.

A4. GDP growth and inflation in the individual euro area countries

Germany



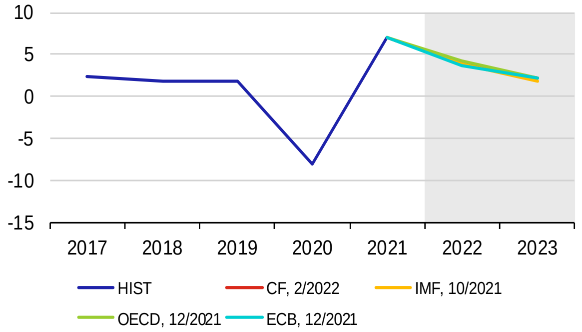


	CF	IMF	OECD	DBB
2022	3.5	3.8	4.1	4.2
2023	2.7	2.5	2.4	3.2

	CF	IMF	OECD	DBB
2022	3.4	1.5	2.8	3.6
2023	1.9	1.3	2.2	2.2

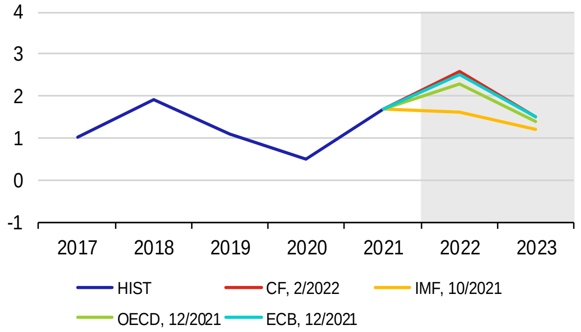
France

GDP growth, %



	CF	IMF	OECD	ECB
2022	3.8	3.9	4.2	3.6
2023	2.1	1.8	2.1	2.2

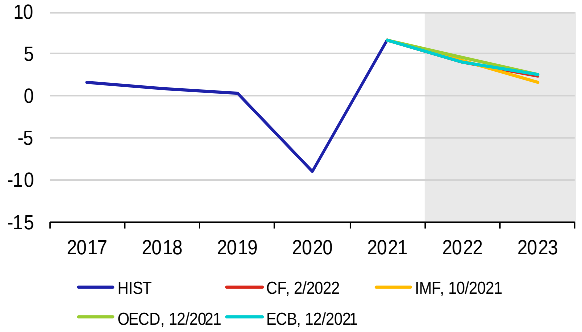
Inflation, %



	CF	IMF	OECD	ECB
2022	2.6	1.6	2.3	2.5
2023	1.5	1.2	1.4	1.5

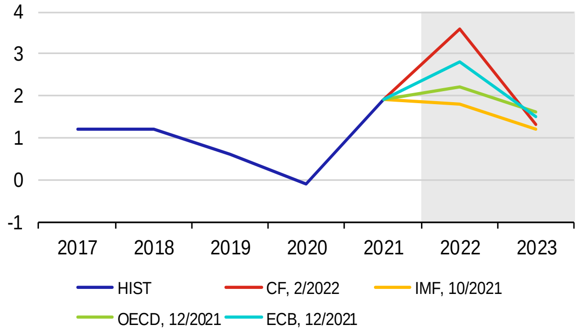
Italy

GDP growth, %



	CF	IMF	OECD	ECB
2022	4.1	4.2	4.6	4.0
2023	2.3	1.6	2.6	2.5

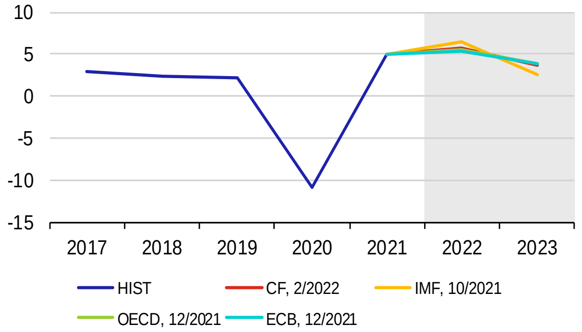
Inflation, %



	CF	IMF	OECD	ECB
2022	3.6	1.8	2.2	2.8
2023	1.3	1.2	1.6	1.5

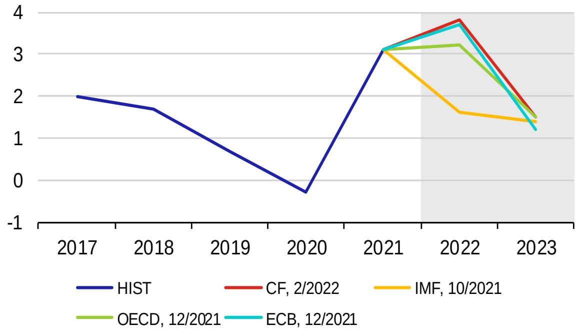
Spain

GDP growth, %



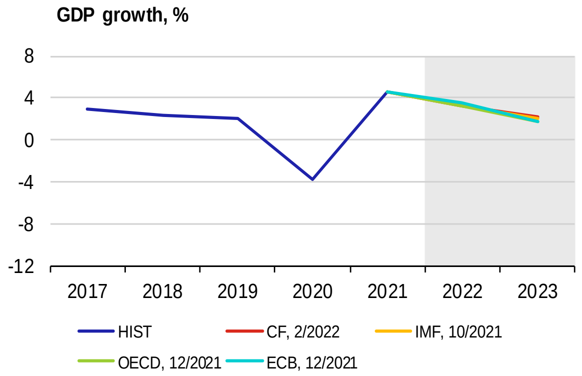
	CF	IMF	OECD	ECB
2022	5.7	6.4	5.5	5.4
2023	3.6	2.6	3.9	3.9

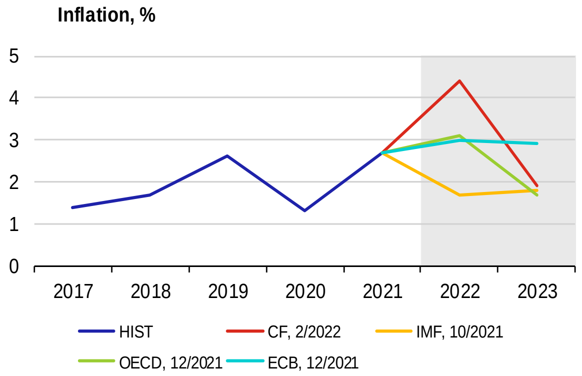
Inflation, %



	CF	IMF	OECD	ECB
2022	3.8	1.6	3.2	3.7
2023	1.5	1.4	1.5	1.2

Netherlands

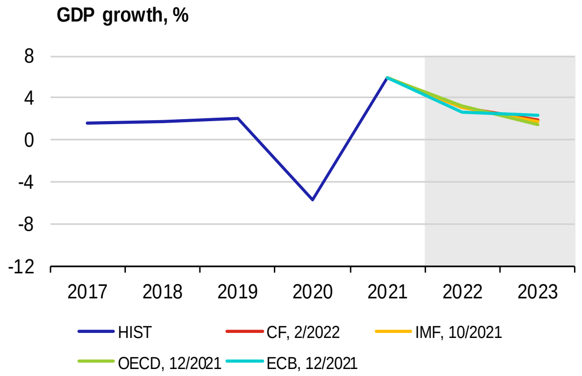


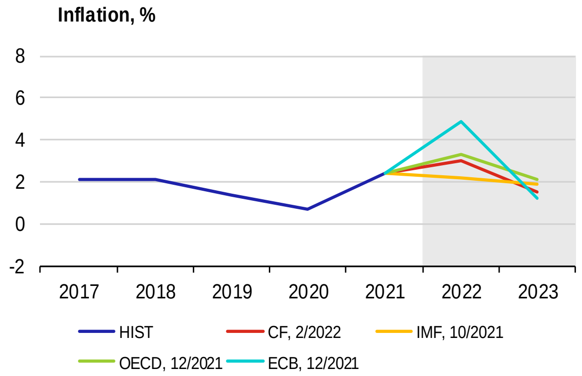


	CF	IMF	OECD	ECB
2022	3.2	3.2	3.2	3.6
2023	2.2	2.1	1.8	1.7

	CF	IMF	OECD	ECB
2022	4.4	1.7	3.1	3.0
2023	1.9	1.8	1.7	2.9

Belgium

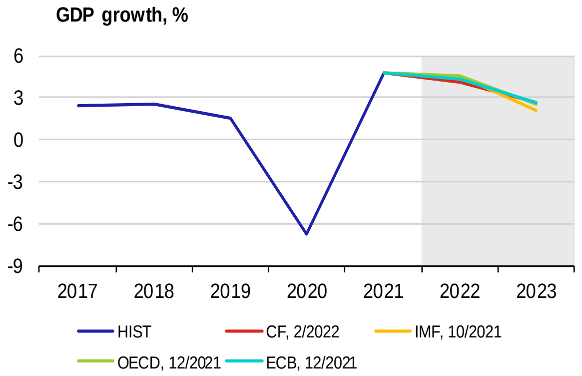


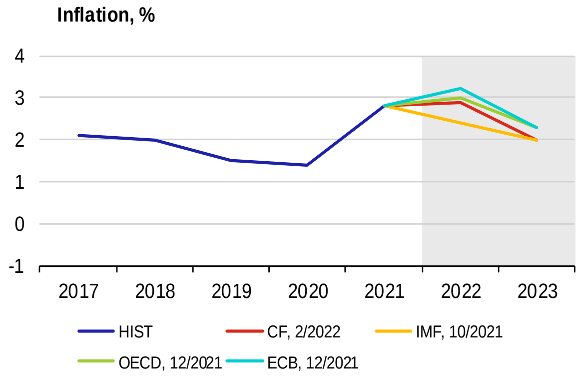


	CF	IMF	OECD	ECB
2022	3.1	3.1	3.2	2.6
2023	1.9	1.8	1.4	2.4

	CF	IMF	OECD	ECB
2022	3.0	2.2	3.3	4.9
2023	1.5	1.9	2.1	1.2

Austria



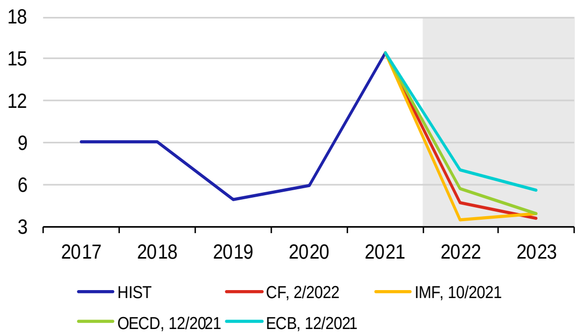


	CF	IMF	OECD	ECB
2022	4.1	4.5	4.6	4.3
2023	2.6	2.1	2.5	2.6

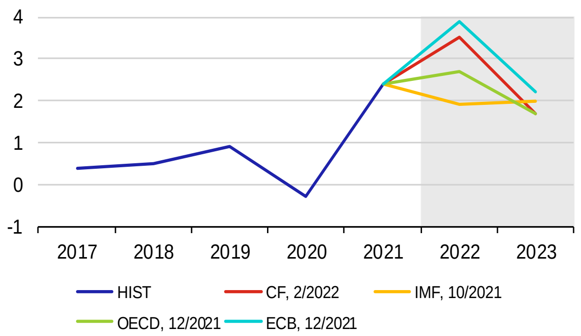
	CF	IMF	OECD	ECB
2022	2.9	2.4	3.0	3.2
2023	2.0	2.0	2.3	2.3

Ireland

GDP growth, %



Inflation, %

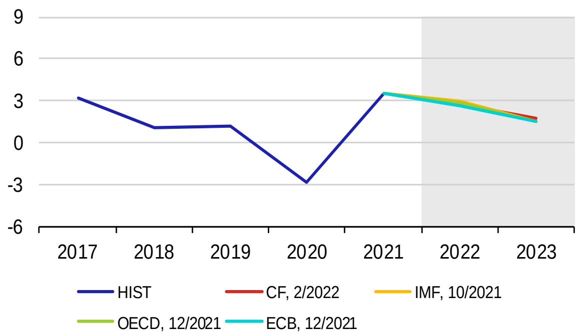


	CF	IMF	OECD	ECB
2022	4.7	3.5	5.7	7.0
2023	3.6	3.9	3.9	5.6

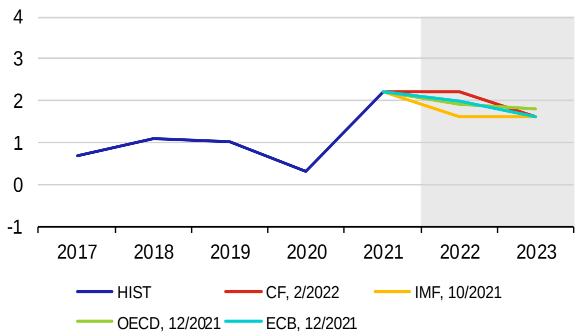
	CF	IMF	OECD	ECB
2022	3.5	1.9	2.7	3.9
2023	1.7	2.0	1.7	2.2

Finland

GDP growth, %



Inflation, %

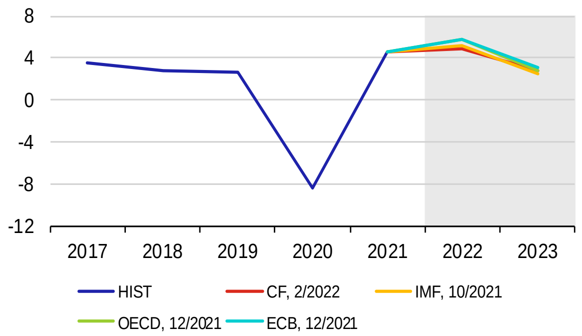


	CF	IMF	OECD	ECB
2022	2.7	3.0	2.9	2.6
2023	1.7	1.5	1.5	1.5

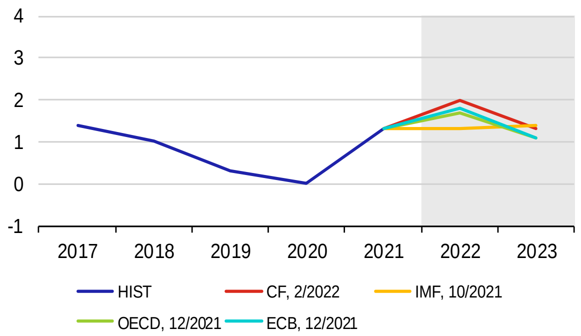
	CF	IMF	OECD	ECB
2022	2.2	1.6	1.9	2.0
2023	1.6	1.6	1.8	1.6

Portugal

GDP growth, %



Inflation, %

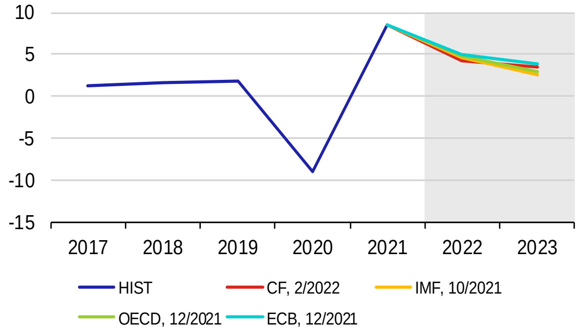


	CF	IMF	OECD	ECB
2022	4.8	5.1	5.8	5.8
2023	2.8	2.5	2.8	3.1

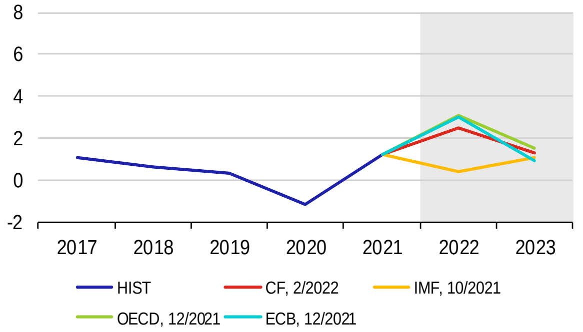
	CF	IMF	OECD	ECB
2022	2.0	1.3	1.7	1.8
2023	1.3	1.4	1.1	1.1

Greece

GDP growth, %



Inflation, %

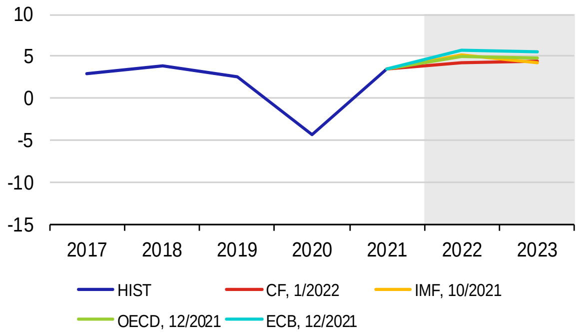


	CF	IMF	OECD	ECB
2022	4.2	4.6	4.8	5.0
2023	3.5	2.6	2.9	3.9

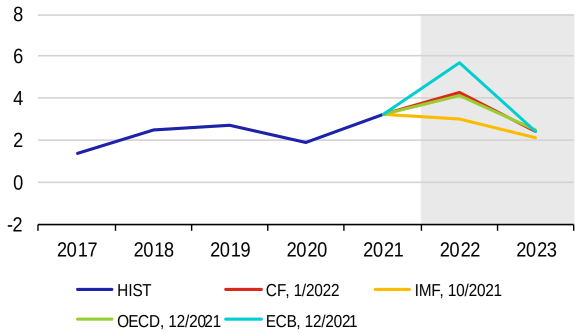
	CF	IMF	OECD	ECB
2022	2.5	0.4	3.1	3.0
2023	1.3	1.1	1.5	0.9

Slovakia

GDP growth, %



Inflation, %

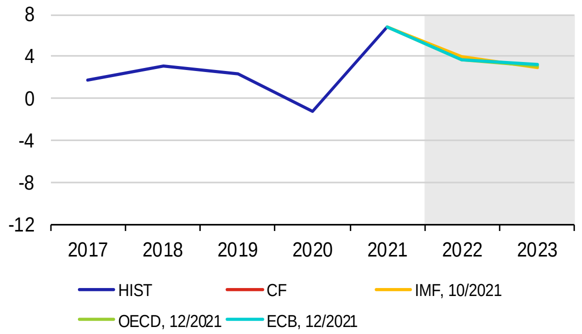


	CF	IMF	OECD	ECB
2022	4.2	5.2	5.0	5.8
2023	n.a.	4.3	4.8	5.6

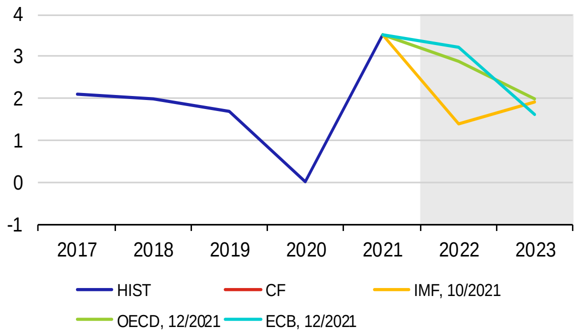
	CF	IMF	OECD	ECB
2022	4.3	3.0	4.1	5.7
2023	n.a.	2.1	2.5	2.4

Luxembourg

GDP growth, %



Inflation, %

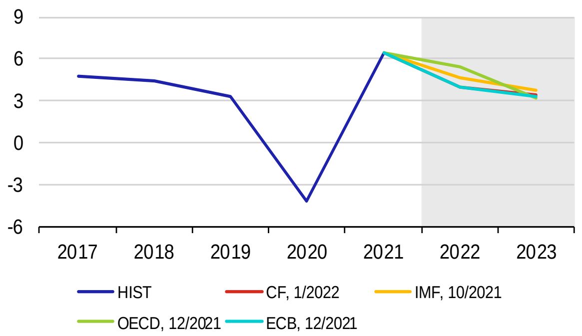


	CF	IMF	OECD	ECB
2022	n. a.	3.9	3.7	3.7
2023	n. a.	3.0	3.1	3.2

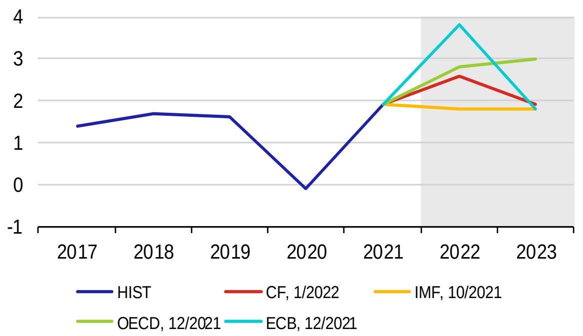
	CF	IMF	OECD	ECB
2022	n. a.	1.4	2.9	3.2
2023	n. a.	1.9	2.0	1.6

Slovenia

GDP growth, %



Inflation, %



GDP growth, %

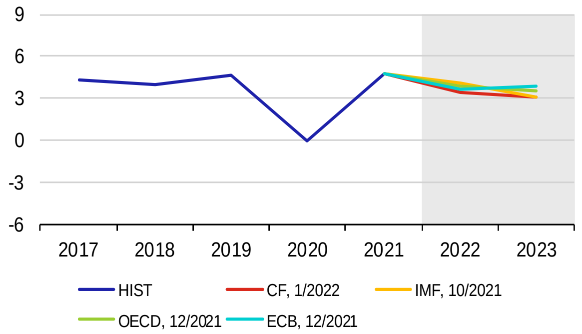
	CF	IMF	OECD	ECB
2022	4.0	4.6	5.4	4.0
2023	n.a.	3.7	3.2	3.3

Inflation, %

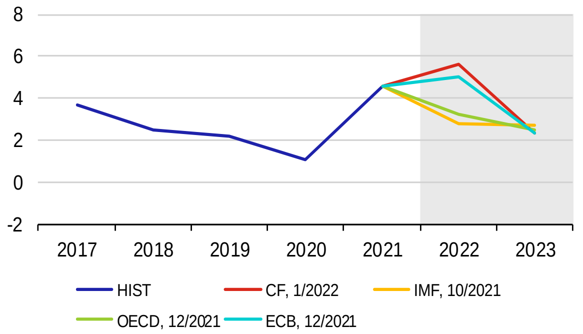
	CF	IMF	OECD	ECB
2022	2.6	1.8	2.8	3.8
2023	n.a.	1.8	3.0	1.8

Lithuania

GDP growth, %



Inflation, %



GDP growth, %

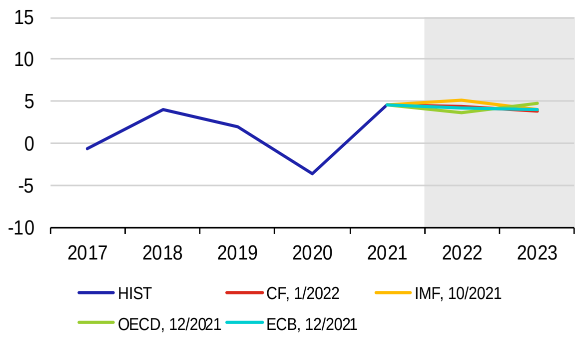
	CF	IMF	OECD	ECB
2022	3.4	4.1	3.8	3.6
2023	n.a.	3.1	3.5	3.8

Inflation, %

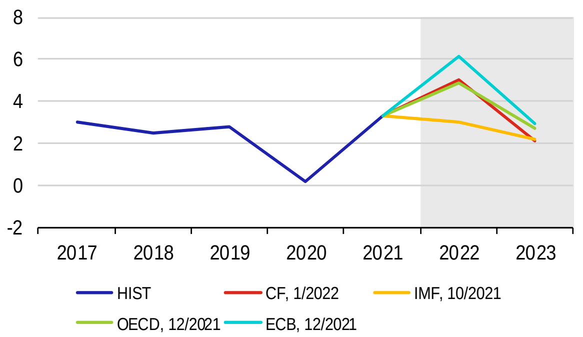
	CF	IMF	OECD	ECB
2022	5.6	2.8	3.2	5.0
2023	n.a.	2.7	2.5	2.3

Latvia

GDP growth, %



Inflation, %



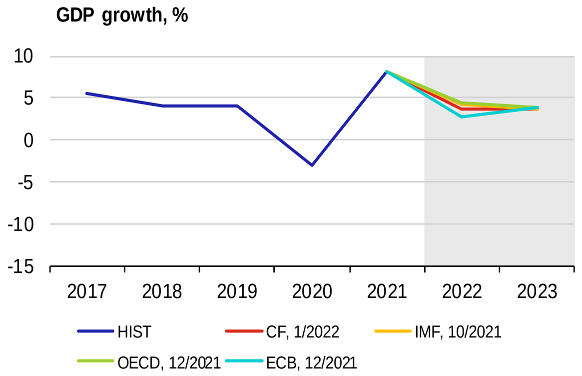
GDP growth, %

	CF	IMF	OECD	ECB
2022	4.4	5.2	3.6	4.2
2023	n.a.	4.0	4.8	4.0

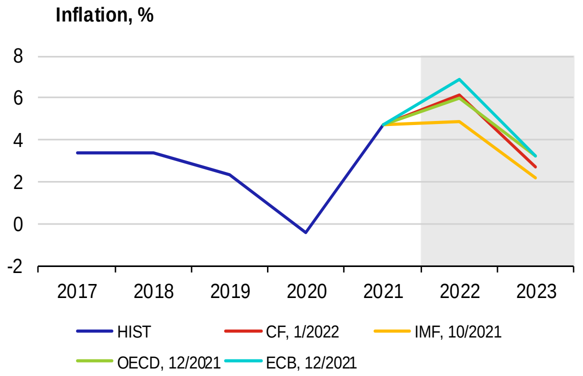
Inflation, %

	CF	IMF	OECD	ECB
2022	5.0	3.0	4.9	6.1
2023	n.a.	2.2	2.7	2.9

Estonia

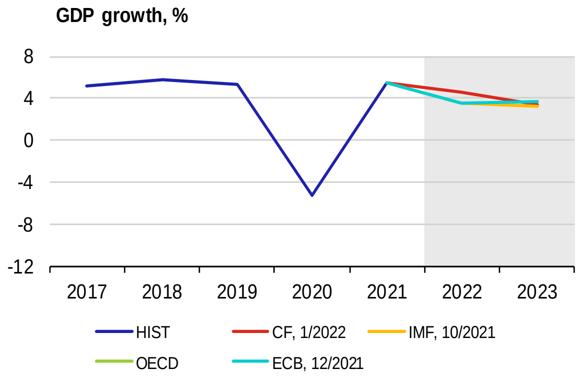


	CF	IMF	OECD	ECB
2022	3.7	4.2	4.5	2.8
2023	n.a.	3.7	3.8	3.9

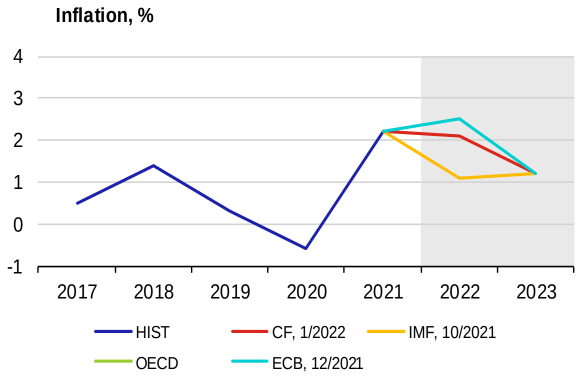


	CF	IMF	OECD	ECB
2022	6.1	4.9	6.0	6.9
2023	n.a.	2.2	3.2	3.2

Cyprus

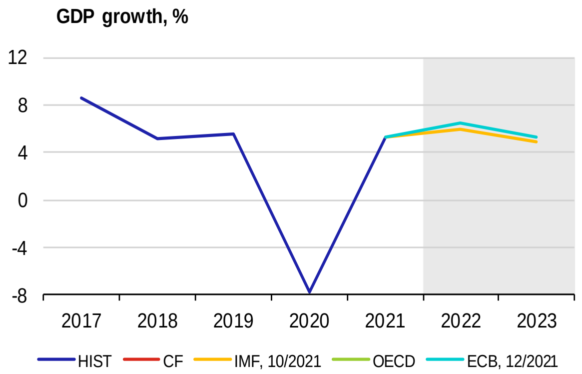


	CF	IMF	OECD	ECB
2022	4.5	3.5	n. a.	3.6
2023	n.a.	3.2	n. a.	3.7

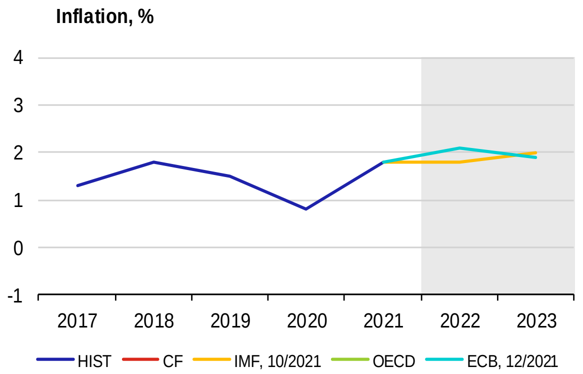


	CF	IMF	OECD	ECB
2022	2.1	1.1	n. a.	2.5
2023	n.a	1.2	n. a.	1.2

Malta



	CF	IMF	OECD	ECB
2022	n. a.	6.0	n. a.	6.5
2023	n. a.	4.9	n. a.	5.3

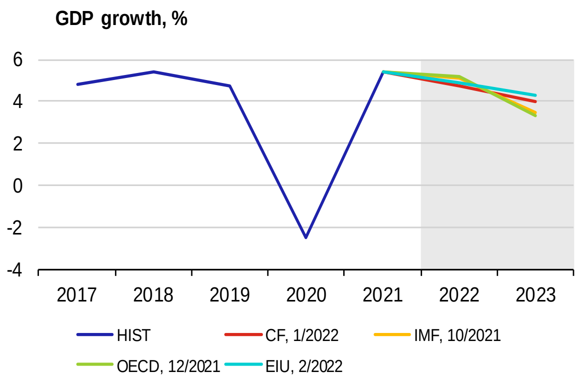


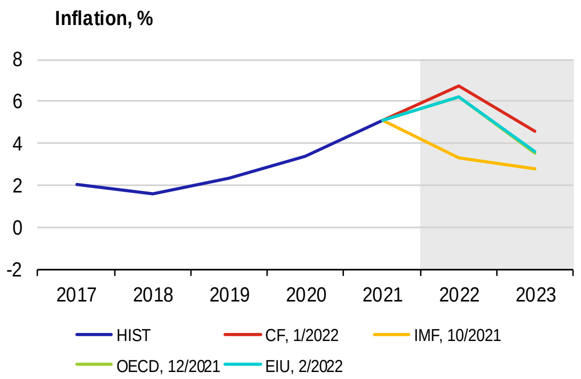
	CF	IMF	OECD	ECB
2022	n. a.	1.8	n. a.	2.1
2023	n. a.	2.0	n. a.	1.9

Ddd

A5. GDP growth and inflation in other selected countries

Poland

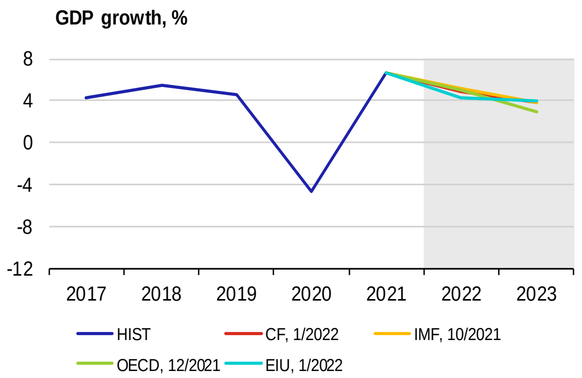


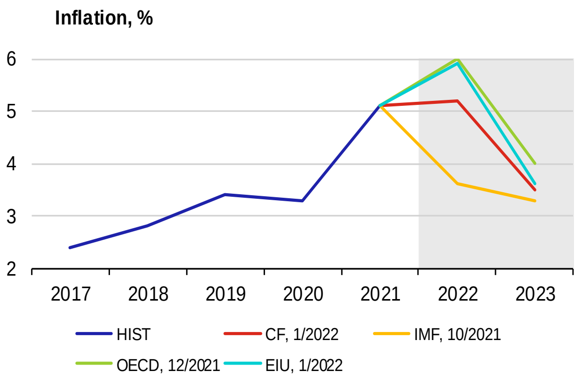


	CF	IMF	OECD	EIU
2022	4.7	5.1	5.2	4.9
2023	4.0	3.5	3.3	4.3

	CF	IMF	OECD	EIU
2022	6.7	3.3	6.2	6.2
2023	4.6	2.8	3.5	3.6

Hungary

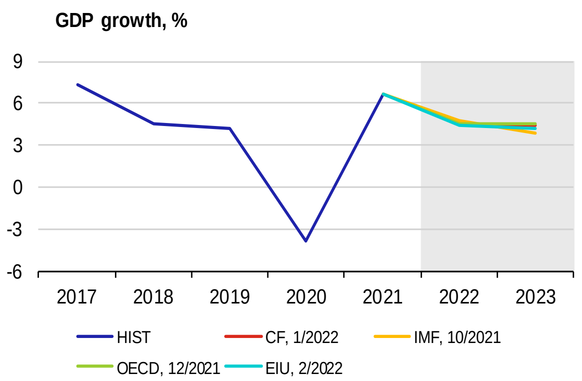


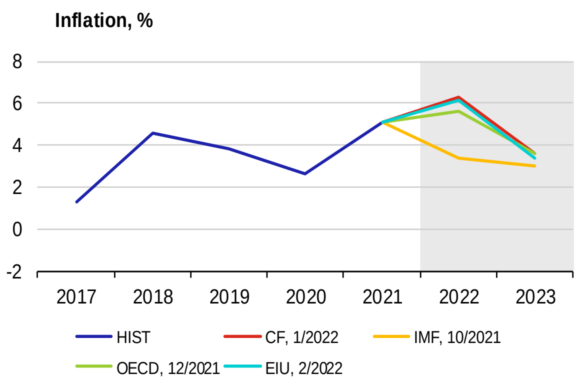


	CF	IMF	OECD	EIU
2022	4.9	5.1	5.0	4.3
2023	3.8	3.8	3.0	3.9

	CF	IMF	OECD	EIU
2022	5.2	3.6	6.0	5.9
2023	3.5	3.3	4.0	3.6

Romania





	CF	IMF	OECD	EIU
2022	4.5	4.8	4.5	4.4
2023	4.4	3.8	4.5	4.2

	CF	IMF	OECD	EIU
2022	6.3	3.4	5.6	6.1
2023	3.6	3.0	3.6	3.4

A6. List of abbreviations

AT	Austria
bbl	barrel
BE	Belgium
BoE	Bank of England (the UK central bank)
BoJ	Bank of Japan (the central bank of Japan)
bp	basis point (one hundredth of a percentage point)
CB	central bank
CBR	Central Bank of Russia
CF	Consensus Forecasts
CN	China
CNB	Czech National Bank
CNY	Chinese renminbi
ConfB	Conference Board Consumer Confidence Index
CXN	Caixin
CY	Cyprus
DBB	Deutsche Bundesbank (the central bank of Germany)
DE	Germany
EA	euro area
ECB	European Central Bank
EE	Estonia
EIA	Energy Information Administration
EIU	Economist Intelligence Unit
ES	Spain
ESI	Economic Sentiment Indicator of the European Commission
EU	European Union
EUR	euro
EURIBOR	Euro Interbank Offered Rate
Fed	Federal Reserve System (the US central bank)
FI	Finland
FOMC	Federal Open Market Committee
FR	France
FRA	forward rate agreement
FY	fiscal year
GBP	pound sterling
GDP	gross domestic product
GR	Greece
ICE	Intercontinental Exchange
IE	Ireland
IEA	International Energy Agency
IFO	Leibniz Institute for Economic Research at the University of Munich
IMF	International Monetary Fund
IRS	Interest Rate swap
ISM	Institute for Supply Management
IT	Italy
JP	Japan
JPY	Japanese yen
LIBOR	London Interbank Offered Rate
LME	London Metal Exchange
LT	Lithuania
LU	Luxembourg
LV	Latvia
MKT	Markit
MT	Malta
NIESR	National Institute of Economic and Social Research (UK)
NKI	Nikkei
NL	Netherlands
OECD	Organisation for Economic Co-operation and Development
OECD-CLI	OECD Composite Leading Indicator
OPEC+	member countries of OPEC oil cartel and 10 other oil-exporting countries (the most important of which are Russia, Mexico and Kazakhstan)
PMI	Purchasing Managers' Index
pp	percentage point
PT	Portugal
QE	quantitative easing
RU	Russia
RUB	Russian rouble
SI	Slovenia
SK	Slovakia
UK	United Kingdom
UoM	University of Michigan Consumer Sentiment Index - present situation
US	United States
USD	US dollar
USDA	United States Department of Agriculture
WEO	World Economic Outlook
WTI	West Texas Intermediate (crude oil used as a benchmark in oil pricing)
ZEW	Centre for European Economic Research

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