

Global Economic Outlook

November 2021

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Cut-off date for data

12 November 2021

CF survey date

8 November 2021

GEO publication date

19 November 2021

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

Another wave of the Covid-19 epidemic has turned into a sad reality. Inflation is breaking records and economic performance is weaker than it seemed a few months ago. Global inflation pressures are gaining momentum in both the producer and consumer price sectors. The causes remain the same: supply chain disruptions, massive fiscal stimuli, savings stemming from deferred household consumption (especially in advanced countries) and surging energy and commodity prices on global markets. Annual consumer price inflation in the USA has jumped above 6% to a 30-year high. Inflation in the euro area is not as high as on the other side of the pond but is nonetheless moving to the fore of the economic debate. An example is Germany, where minimal tolerance of high inflation – along with thrift and debt prudence – is part of the German DNA.

The Fed and the ECB differ in their view on raising interest rates. The Fed is expected to respond to the rising inflation sooner rather than later, probably right after it ends its tapering in early summer 2022. The ECB keeps emphasising the temporary nature of the current inflation pressures. Its rates are almost certain not to rise straight after the pandemic programme ends in March 2022, but probably in 2023 at the earliest. The ECB's notional reaction function thus clearly combines the standard monetary policy response with the financial stability impacts of higher rates on overindebted euro area countries.

November GDP growth and inflation outlooks for monitored countries, in %

GDP	EA	DE	US	UK	JP	CN	RU
2021	5.0 ↘	2.7 ↘	5.5 ↘	6.9 →	2.2 ↘	8.0 ↘	4.2 ↘
2022	4.3 ↘	4.3 ↘	4.0 ↘	4.7 ↘	3.0 →	5.2 ↘	2.5 ↘
Inflation	EA	DE	US	UK	JP	CN	RU
2021	2.4 ↗	3.0 →	4.4 →	2.4 ↗	-0.2 →	1.0 ↘	6.7 ↗
2022	2.3 ↗	2.5 ↗	3.7 ↗	3.7 ↗	0.7 ↗	2.1 →	4.5 ↗

Source: Consensus Forecasts (CF)

Note: The arrows indicate the direction of the revisions compared with the last GEO.

The temporary nature of the current inflation pressures. Its rates are almost certain not to rise straight after the pandemic programme ends in March 2022, but probably in 2023 at the earliest. The ECB's notional reaction function thus clearly combines the standard monetary policy response with the financial stability impacts of higher rates on overindebted euro area countries.

The November GDP growth outlooks suggest that the original estimates for

the countries under review were too optimistic and that the new Covid wave, coupled with longer-lasting supply chain problems, is dampening growth potential.

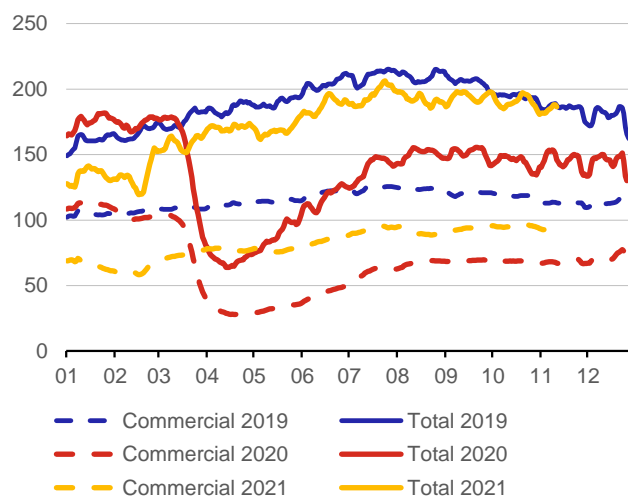
The consumer price inflation outlooks for both this year and the next were generally revised upwards again compared to October. Inflation pressures are not easing, and gas prices are now adding fuel to the fire, especially in Europe. The sharp rise in gas prices ahead of the winter has also been reflected in the price of electricity and hence key production input prices, and in the energy bills expected by households. The exception from the trend of rising consumer price inflation in the period ahead is China, where the outlook for 2021 was revised downwards again. However, the situation is not black-and-white in China either, as annual industrial producer price inflation has reached a sizeable 13.5% there.

According to the November CF, **the US dollar** will weaken against the currencies of the advanced countries monitored (the euro, sterling and the yen) at both the one- and two-year horizons. It will firm against the rouble and fluctuate against the renminbi. The CF forecast for **the Brent crude oil price** one year ahead is again slightly higher than a month earlier, at almost USD 73/bbl (range: USD 55–85/bbl). **The outlook for market rates** is rising for both the 3M USD LIBOR and the 3M EURIBOR, but the 3M EURIBOR remains negative.

The chart in the current issue follows up on the supply chain problems (see [GEO 10/2021](#)) and also captures restricted travel. The total number of flights has reached the pre-pandemic level, but the number of commercial flights is around 20% lower. Freight transport is thus partly shifting from overloaded sea routes and ports to much costlier but faster air transport. On the other hand, many economies are suffering from a drop in commercial flights and low tourist numbers. According to Bloomberg data, however, commercial flights will increase by around 25% in the next two quarters, which would mean a return to the pre-pandemic level.

The current issue also contains a thematic article: “EU foreign trade during the pandemic crisis”. The article focuses on international trade, using EU data to analyse this pandemic shock and discussing its implications for monetary policy. The authors conclude that the original supply nature of the crisis in 2020 turned to a demand problem in 2021, to which many central banks were forced to react by raising monetary policy rates in order to contain inflation and keep it on target.

Flight numbers in last three years in individual months of year, in thousands



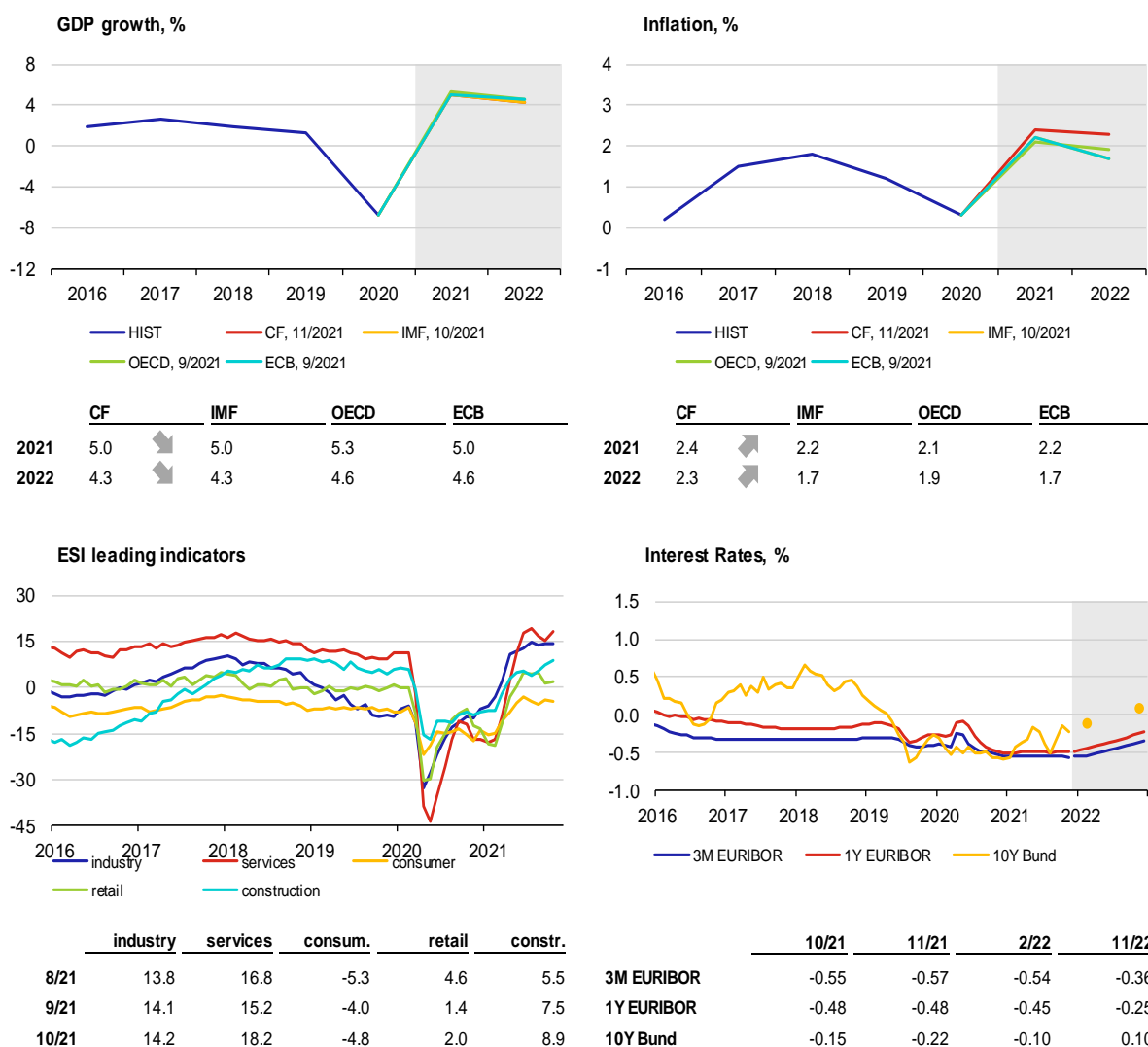
Source: Flightradar24.com

Note: Not seasonally adjusted; numbers per day; seven-day moving average.

II.1 Euro area

According to Eurostat's flash estimate, euro area GDP growth surprised on the upside in Q3, maintaining roughly the same quarterly pace as in Q2. The economy continued to recover despite persisting problems with material and component supplies, which were reflected in a month-on-month drop in industrial production in August. The composite PMI fell to a six-month low in October due to the supply restrictions and growth in energy prices. Economic performance can thus be expected to slow in Q4 amid persisting strong inflation pressures. The current stress in supply chains may drag on well into 2022 in some sectors. As a result, services will be the main driver of economic growth in the period ahead. The autumn wave of the coronavirus epidemic remains under control for now, due to relatively high vaccination coverage and infection-induced immunity among the population. New cases are particularly low in Spain, Italy and France. The situation is different in Slovakia, where the number of new infections is much higher than during the previous waves. At euro area level, however, we do not expect the growth in the epidemic to have such strong economic impacts as during the previous waves. The unemployment rate fell slightly further in September amid broadly flat month-on-month retail sales growth. The European Commission's overall economic sentiment indicator improved in October. Inflation meanwhile rose further both in its core component and especially as regards energy prices, which were thus the main driver of inflation.

Expected GDP growth in the euro area has decreased slightly for both this year and the next, while the inflation outlook is higher. However, the situation varies across countries. German GDP growth for 2021 was revised down again, to as low as 2.7% this year. The growth forecast for the Spanish economy this year also shifted significantly lower. By contrast, France and Italy will enjoy growth of more than 6% this year. The said economies are expected to grow by about 4% in 2022. GDP growth in Spain will even approach 6%. According to the CF panellists, euro area inflation will peak in November 2021 and slow next year.

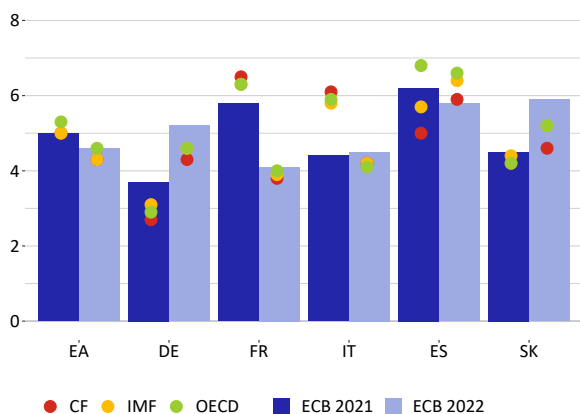


II.2 The euro area in the spotlight – Slovakia

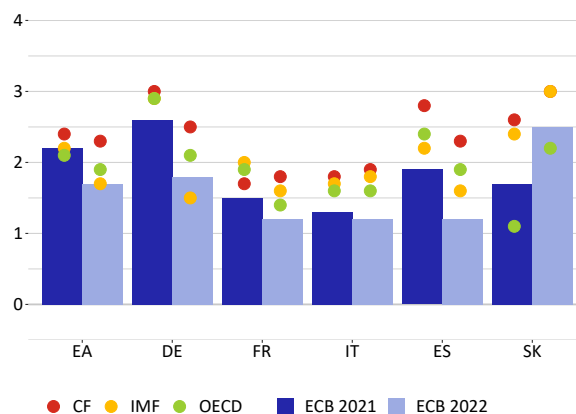
Slovakia recorded a brisk economic recovery in Q2 after relaxing its anti-pandemic restrictions early this year. The growth was driven mainly by household consumption. The good performance of the euro area economy in Q3 gives grounds for positive expectations about the Slovak economy. However, industrial production gradually lost momentum in Q3, recording a month-on-month decline in both August and September. As in other euro area countries, it was affected by delays in material and component supplies, which are hitting Slovakia’s industry-oriented economy relatively hard. The impact on car production was particularly negative. The unemployment rate fell slightly further in September. This was reflected in buoyant year-on-year retail sales growth in both August and September. Consumer price inflation rose further in October. According to the European Commission, economic sentiment declined in October and, unlike in most other euro area countries, is below its long-term average. The number of new coronavirus cases surged in October. Despite the high numbers of deaths and hospitalisations, there has so far been no tightening of anti-epidemic measures (as measured by the Stringency Index).

As with many other countries, the November CF revised expected GDP growth in Slovakia downwards for both this year and the next and conversely revised expected inflation markedly upwards. The Slovak economy is expected to grow by 4.2% in 2021 and 4.6% in 2022. Inflation will reach 2.6% this year and, unlike in the euro area as a whole, go up further to 3% next year. However, it is expected to return to 2% in the longer term. Like some CF analysts, the National Bank of Slovakia forecasts even higher inflation for 2022.

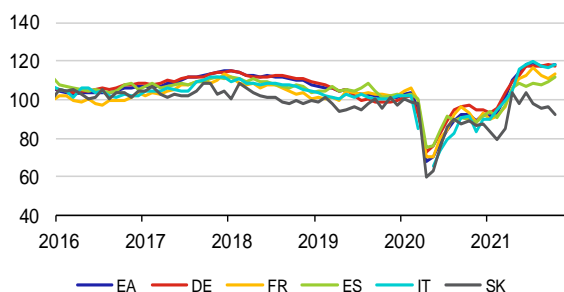
GDP growth in selected euro area countries in 2021 and 2022, %



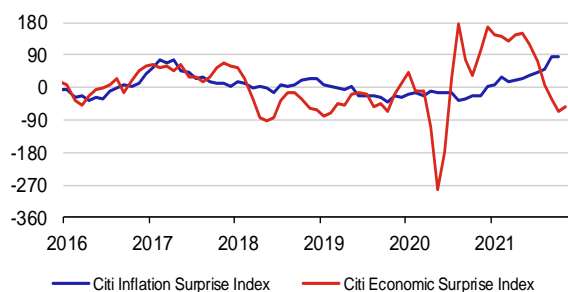
Inflation in selected euro area countries in 2021 and 2022, %



ESI leading indicators



Economic and inflation surprises in the euro area, %



Note: Inflation expectations based on 5year inflation swap and SPF

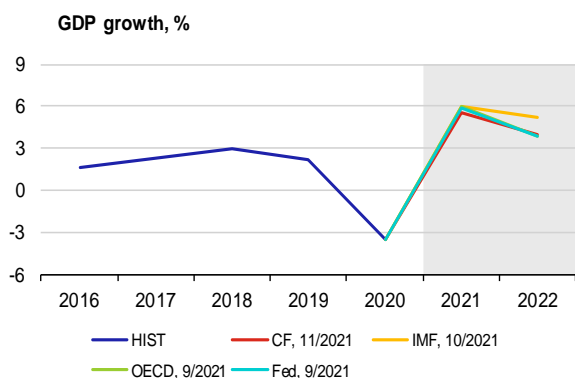
	EA	DE	FR	ES	IT	SK	5y5y	SPF	
8/21	117.6	117.2	112.4	107.7	117.7	95.8	9/21	1.75	1.82
9/21	117.8	118.0	111.2	109.4	116.8	96.2	10/21	1.90	1.90
10/21	118.6	117.5	113.3	111.9	118.6	92.0	11/21	1.93	1.90

II.3 United States

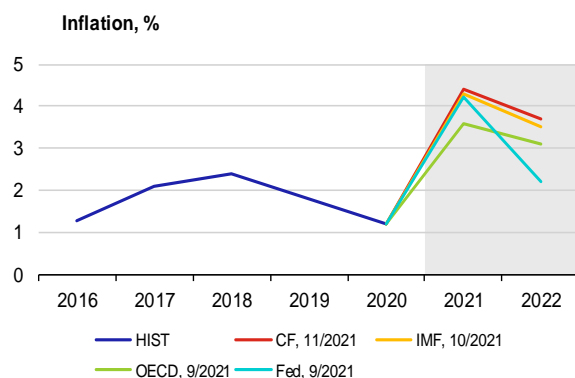
President Joe Biden managed to push through only the first part of his support programme for the economy during his first year in office. The US President has so far had little success in implementing his very ambitious recovery plan, involving planned investments of several trillion dollars. The US Congress passed an Infrastructure Investment and Jobs Act totalling USD 1.2 trillion on 5 November. With this Act, the White House wants to support the economic recovery and create around 1.5 million jobs a year. This will involve the construction of not only roads, bridges and railways, but also energy infrastructure and broadband data networks. However, the CF analysts' new outlooks for the US economy are lower for both this year and the next than they were a month ago.

The Fed's monetary policy meeting in November brought no surprises, as financial markets had expected tapering to start. The US central bank has finally started to reduce the pace of its asset purchases and limit the use of unconventional monetary policy tools. The original pace of purchases of USD 120 billion a month will be reduced by USD 30 billion in November and December. If the pace of reduction is maintained, the purchases will end in mid-2022. This would allow the Fed to continue to normalise monetary policy by raising rates, a move not only expected by financial markets but also implied by the voting of Fed officials. Fed Chair Jerome Powell has said that the pace of asset purchases could change depending on the situation and that it would be premature to raise rates now.

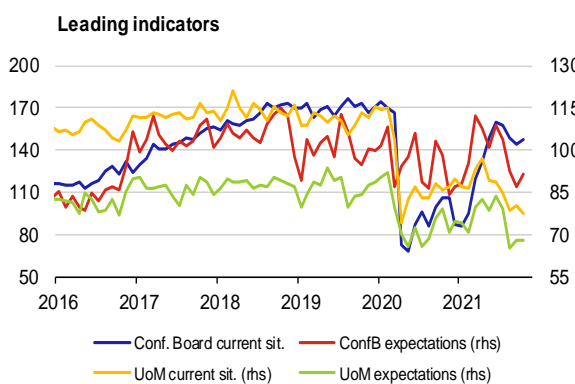
Consumer price inflation in the US economy is not slowing, and both short-term and long-term inflation expectations are now rising. Consumer prices grew by 6.2% year on year in October, driven by growth in prices of food (5.3%), services (3.2%) and especially energy (30.0%). Rapid growth was also recorded for industrial producer prices (8.6%), particularly prices of finished products (12.5%). The CF outlook for consumer price inflation was kept at 4.4% for 2021 and revised upwards to 3.7% for 2022.



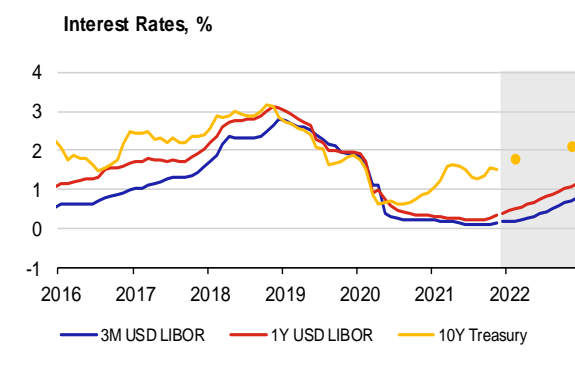
	CF	IMF	OECD	Fed
2021	5.5	6.0	6.0	5.9
2022	4.0	5.2	3.9	3.8



	CF	IMF	OECD	Fed
2021	4.4	4.3	3.6	4.2
2022	3.7	3.5	3.1	2.2



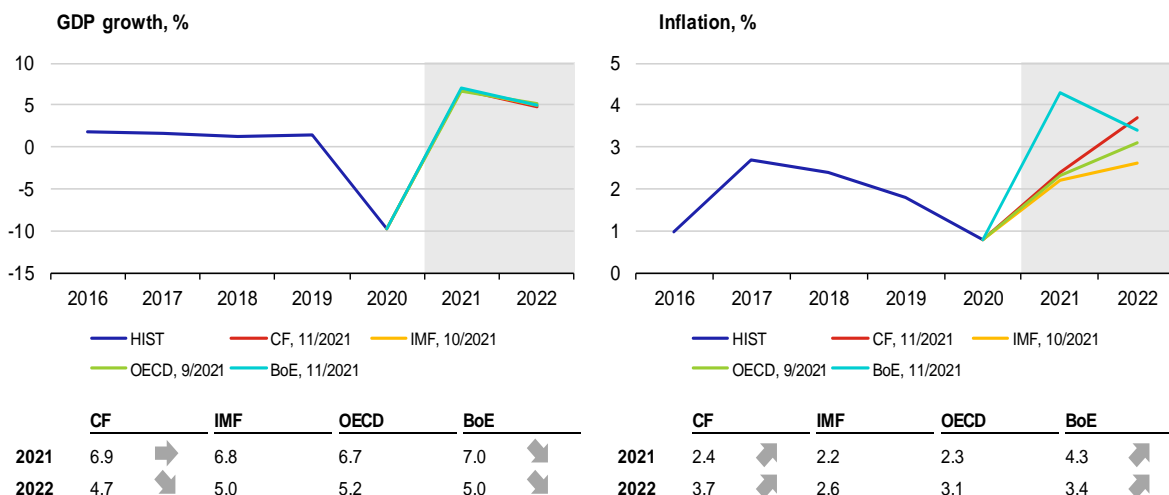
	ConfB curr.	ConfB exp.	UoM curr.	UoM exp.
8/21	148.9	92.8	78.5	65.1
9/21	144.3	86.7	80.1	68.1
10/21	147.4	91.3	77.7	67.9



	10/21	11/21	2/22	11/22
USD LIBOR 3M	0.13	0.14	0.20	0.73
USD LIBOR 1R	0.29	0.29	0.51	1.09
Treasury 10R	1.58	1.53	1.80	2.10

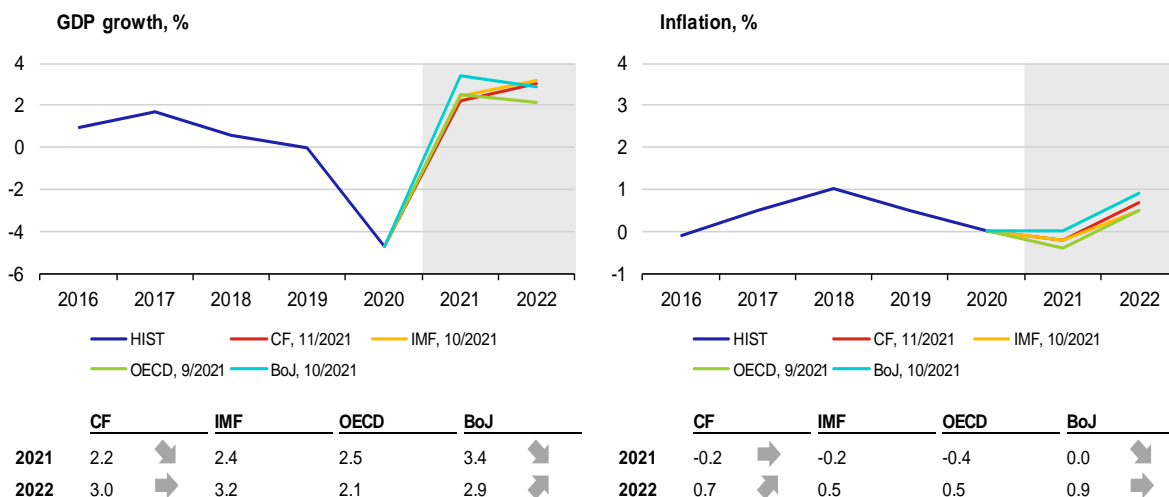
II.4 United Kingdom

The BoE surprised observers by keeping its key rate at an all-time low of 0.1%, despite releasing its highest inflation forecast in ten years. The new forecast expects inflation to peak at around 5% in spring next year, mainly on the back of a sharp rise in gas and goods prices. Inflation is expected to return to the 2% target in around two years' time. According to the BoE, it will be necessary to raise interest rates slightly in the coming months. GDP is forecasted to return to the pre-pandemic level in 2022 Q1. Another major event for the UK economy was the unveiling of a new government budget, which plans to bolster public finances and raise spending on public services. The draft budget also contains an increase in the minimum wage to £9.50 an hour. The composite PMI rose significantly to 57.8 in October. Growth in UK private sector business activity went up. Activity in services is outpacing that in manufacturing, which continues to suffer from supply shortages.



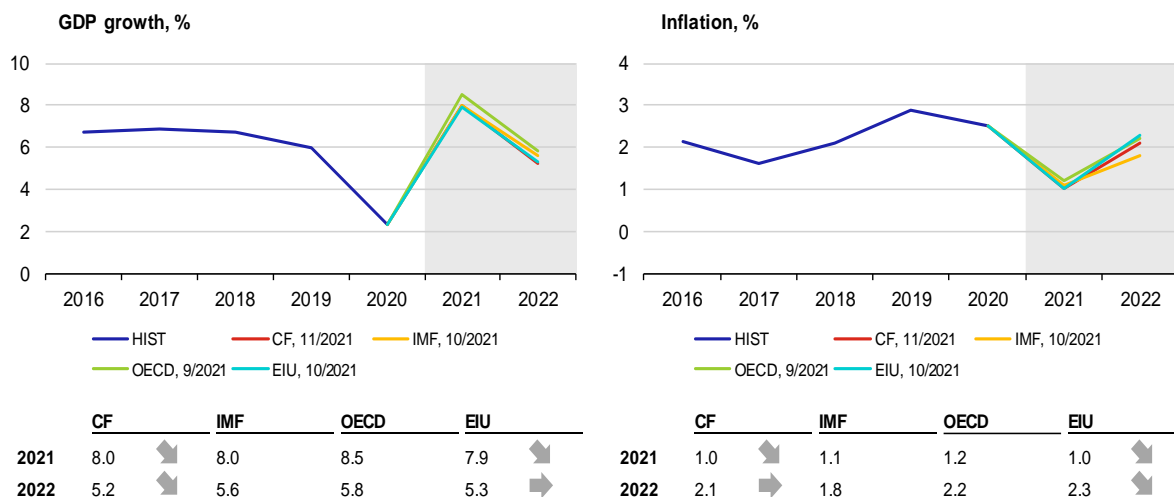
II.5 Japan

Japan remains an exception from the trend of high inflation in advanced economies. Although industrial producer price inflation is at a 40-year high (over 8%), consumer price inflation remains close to zero. In its new forecast, the BoJ has even lowered its consumer price inflation outlook for this year. At the same time, the central bank has kept its record-easy monetary policy unchanged and, in addition to purchasing assets and targeting long-term rates, is maintaining the credit support programmes for the real economy which it introduced in response to the Covid-19 pandemic. Weakening exports, paralysed mainly by a shortage of chips in the automotive industry, are one of the key risks to the Japanese economy. However, the PMI indicators show that business sentiment in industry and services is continuing to improve gradually. The planned full resumption of production at Toyota's car plants in December is good news.



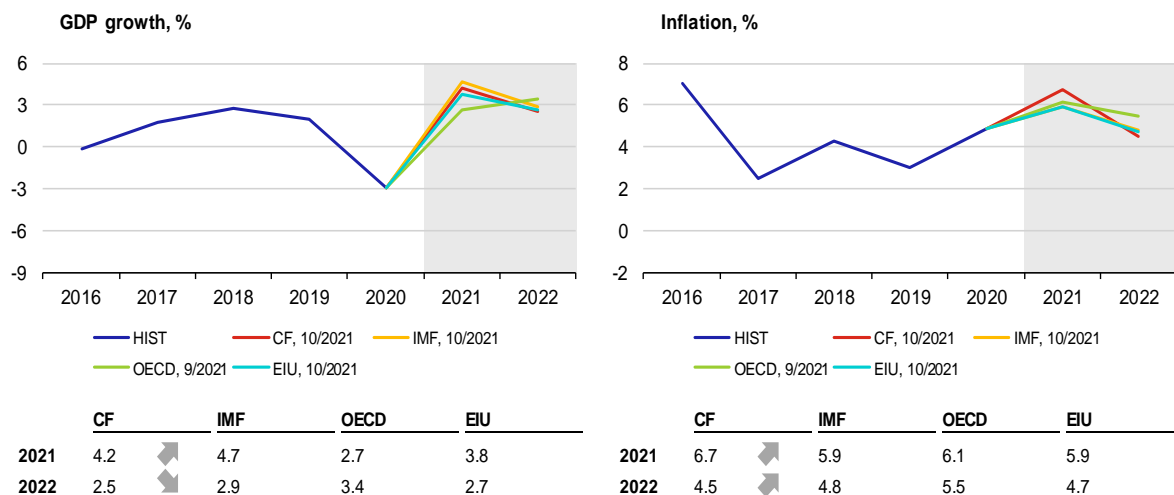
II.6 China

The Chinese economy grew by just 4.9% year on year in Q3, again driven mainly by consumption, which contributed 3.2 pp. However, consumption growth slowed markedly further, as in the previous quarter. In addition to the worse epidemic situation adversely affecting household sentiment, this reflects the energy crisis, which, coupled with a shortage of inputs, is dampening industrial production. These factors were also reflected in a decrease in the contribution of net exports to GDP growth from 1.5 pp to 0.9 pp in Q3. Investment contributed to economic growth to a similar extent (0.8 pp). Turbulence in the financial sector and a worsening ability of some developers to repay their debts due to regulation and tightening financial conditions are risks going forward. The CF analysts expect the Chinese economy to grow by 8% year on year in 2021 and 5.2% in 2022. According to the new CF outlook, consumer prices in China will rise by 1.0% this year and accelerate to 2.1% next year.



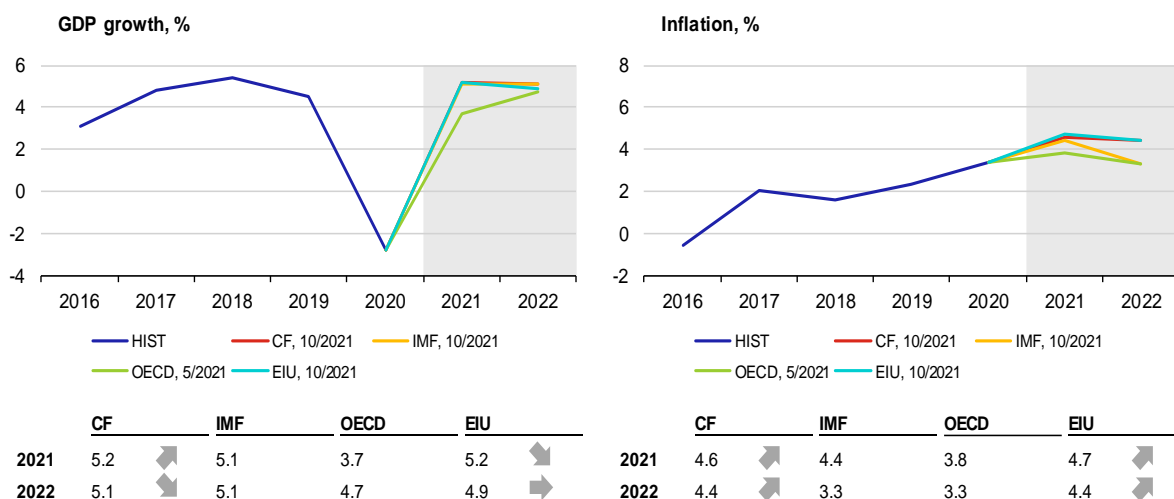
II.7 Russia

Inflation in Russia is outpacing the economic recovery. Growth in industrial production exceeded expectations in September, reaching 6.8% year on year, due mainly to mining and quarrying, which grew more than twice as fast as manufacturing (9.5% versus 4.6%). The difference in year-on-year price growth in the two sectors was also almost twofold (41.4% versus 25.4%). Overall, annual industrial producer price inflation slowed from 28.6% in August to 26.3%. By contrast, consumer price inflation rose to 8.3% in September. The Russian central bank raised its key interest rate by a further 75 bp to 7.5% at the end of October. However, its October forecast was not expecting inflation to approach the 8% target until the end of this year. Consumer price inflation is expected to peak in 2022 Q1 and then slow gradually. The inflation target will be hit around the turn of 2022 and 2023. GDP growth will slow over the next three years from 4.0%–4.5% expected this year to 2.0%–3.0%.



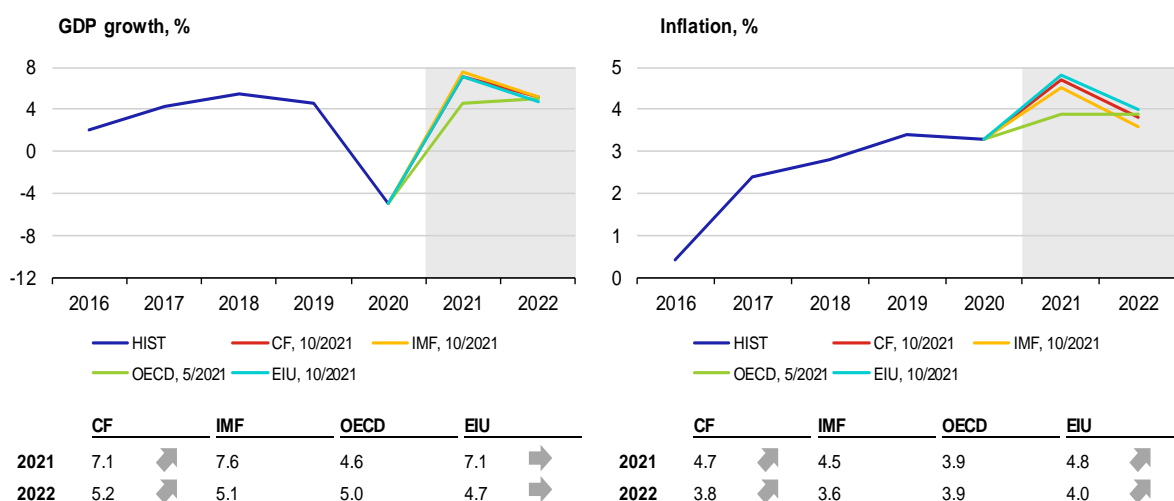
II.8 Poland

At its meeting on 3 November, the Monetary Policy Council of the Polish central bank decided to raise interest rates from 0.5% to 1.25%. According to a preliminary estimate, annual consumer price inflation accelerated markedly from 5.9% in September to a record 6.8% in October. In month-on-month terms, consumer prices rose by 1.0% in October (0.7% in September). This mainly reflected growth in energy prices, but was also due to an economic recovery in the form of growth in households' disposable income. Retail sales growth rose to 11.1% year on year in September (10.7% in August), mainly on the back of higher sales in the household equipment sector (furniture, radios, TVs and household appliances). On the other hand, industrial production slowed year on year in September (from 13.0% in August to 8.8%) due to a slowdown in manufacturing. However, electricity and gas supply, public services, and mining and quarrying all increased. Business confidence in the Polish economy was pessimistic in October, recording the worst outcome since March this year.



II.9 Hungary

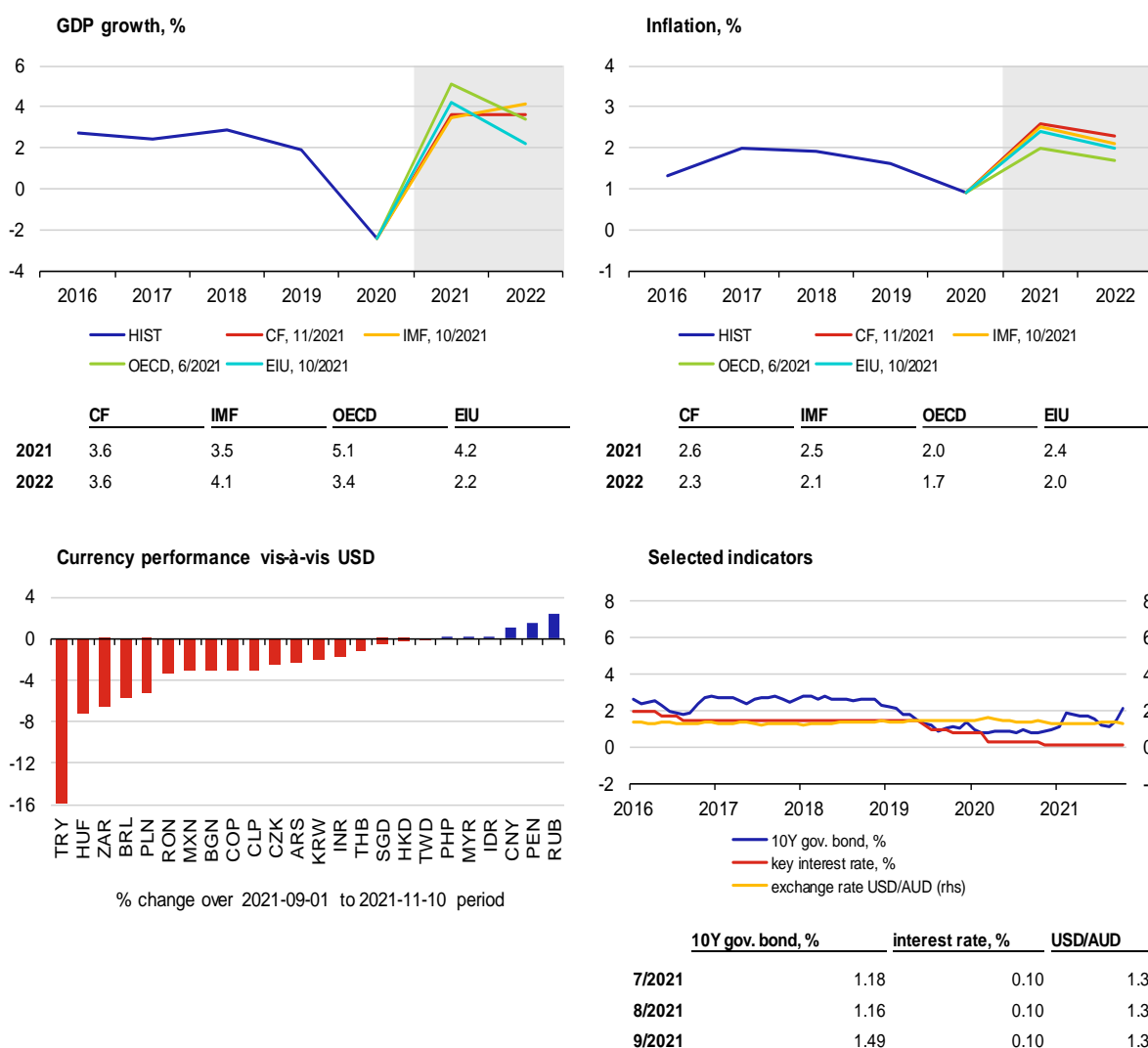
At its meeting on 19 October, the Monetary Council of the Hungarian central bank (MNB) decided to raise the policy rate again (from 1.65% to 1.80%). The MNB also announced that it was ready to continue tightening monetary policy until the inflation forecast clearly points to the 3% inflation target. Annual consumer price inflation rose substantially from 5.5% in September to 6.5% in October. Net inflation accelerated from 4.0% in September to 4.7%. According to GKI Economic Research, business confidence in the Hungarian economy has grown to its highest level since May 2019 (from 6.5 in September to 8.7). By contrast, according to a preliminary estimate, industrial production adjusted for the number of working days fell by 1.7% year on year in September (compared with a rise of 0.5% year on year in August), the worst result since January 2021. Nonetheless, production has now reached the pre-pandemic level.



II.10 Countries in the spotlight – Australia

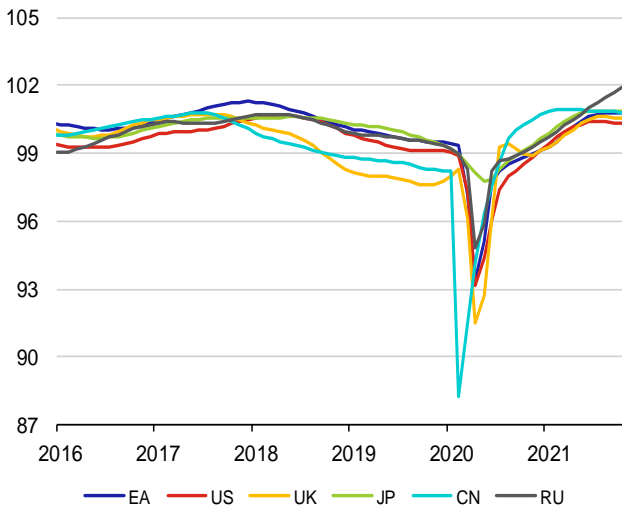
Australia is one of the world's leading commodity exporters. Exports of iron ore and other metal ores account for about 29% of its total exports. Coal represents around 15% and natural gas roughly 7% of total exports. In addition, Australia exports food (meat and cereals in particular) and live animals (14%). The largest share of Australian exports goes to China (32%), followed by Japan (16%), South Korea (7%), India (4%), New Zealand, Singapore and Taiwan (3%). Owing to the high commodity prices, Australian exports reached an all-time high of AUD 48.5 billion in August but then fell sharply due to weaker demand and a drop in iron ore prices. Besides the interest rate differential vis-à-vis the US dollar, the exchange rate of the Australian dollar is thus being affected in the short term by commodity prices and external demand for commodities. For example, the Australian dollar weakened by almost 18% against the US dollar in 2020 Q1 due to subdued demand but then firmed by almost 35% by the year-end owing to a recovery in external demand and growth in commodity prices.

The Australian economy is recovering from the coronavirus pandemic. According to the Australian central bank (RBA), GDP growth will be around 3% this year, pick up to 5.5% next year and then return to a sustainable level of around 2.5%. At its November meeting, the RBA took a significant step towards exiting its extraordinary stimulation policy. It stopped targeting low yields (0.1%) on three-year government bonds (introduced in March 2020), thereby opening the door to raising the overnight interest rate earlier than in 2024. However, the rate remains at a record low of 0.1%. The monetary policy tightening is motivated by the current rise in inflation, which returned to the target band (2%–3%) two years earlier than the bank had only recently been expecting. However, the RBA will continue to purchase government bonds at the rate of AUD 4 billion a week, as it expects inflation to grow only very slowly. The market curve is signalling growth in the overnight rate to 0.25% in May 2022 and 1% by the end of 2022. Additionally, the market expects the upcoming cycle of growth in interest rates to peak at just 1.75% due to modest wage growth. The low rates have created a property market bubble, with housing prices rising by 22% between the start of the year and October, but the RBA does not want to use interest rates to cool the property market so as to avoid harming economic growth. Instead, the regulator should tighten the lending conditions.

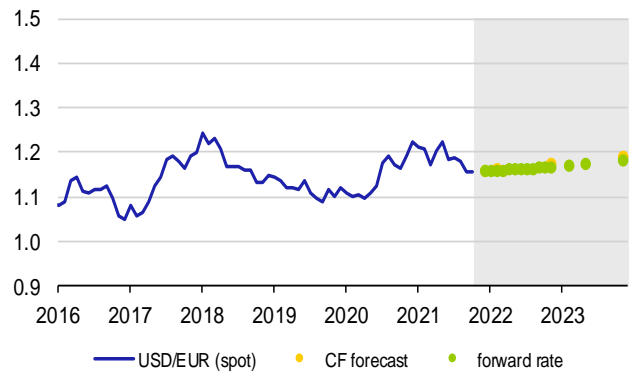


III. Leading indicators and outlook of exchange rates

OECD Composite Leading Indicator

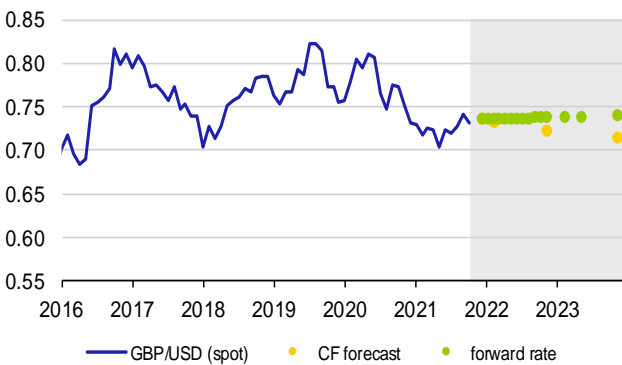


The US dollar (USD/EUR)



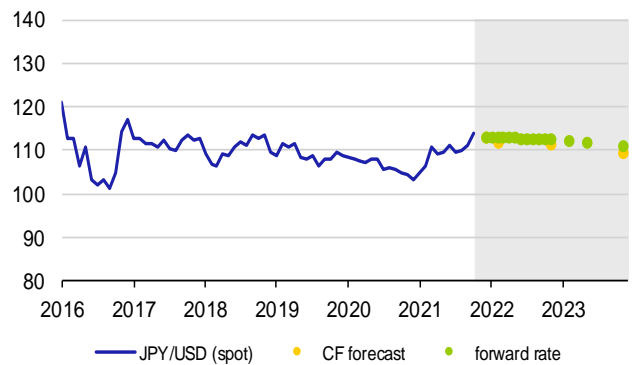
	8/11/21	12/21	2/22	11/22	11/23
spot rate	1.159				
CF forecast		1.159	1.165	1.177	1.190
forward rate		1.159	1.161	1.169	1.185

The British pound (GBP/USD)



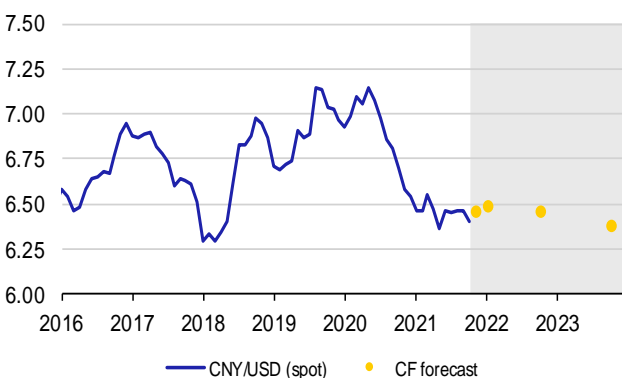
	8/11/21	12/21	2/22	11/22	11/23
spot rate	0.737				
CF forecast		0.737	0.733	0.724	0.715
forward rate		0.737	0.737	0.739	0.740

The Japanese yen (JPY/USD)



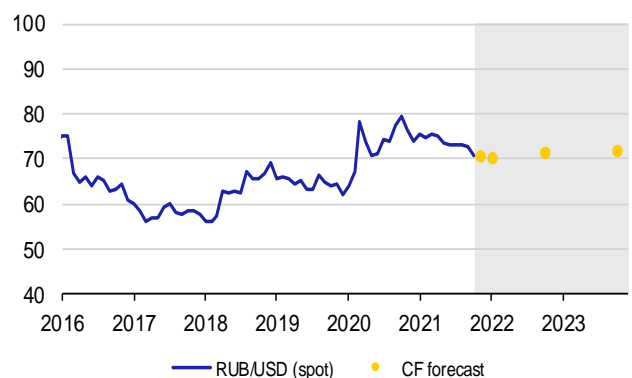
	8/11/21	12/21	2/22	11/22	11/23
spot rate	113.2				
CF forecast		113.2	111.8	111.5	109.7
forward rate		113.2	113.1	112.6	111.2

The Chinese renminbi (CNY/USD)



	8/11/21	12/21	2/22	11/22	11/23
spot rate	6.389				
CF forecast		6.461	6.494	6.467	6.380

The Russian rouble (RUB/USD)

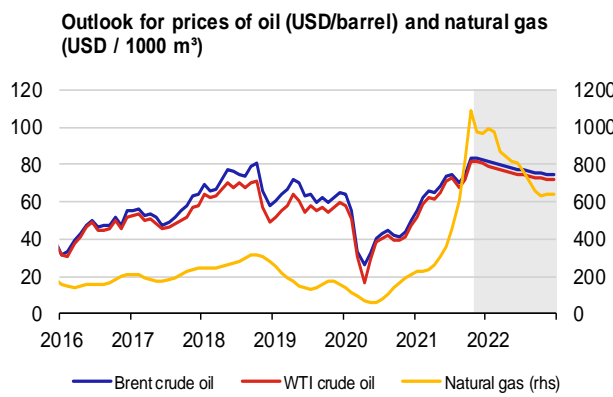


	8/11/21	12/21	2/22	11/22	11/23
spot rate	71.23				
CF forecast		70.93	70.52	71.40	71.93

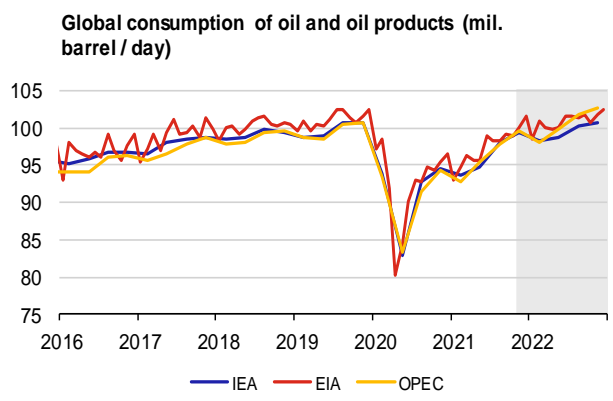
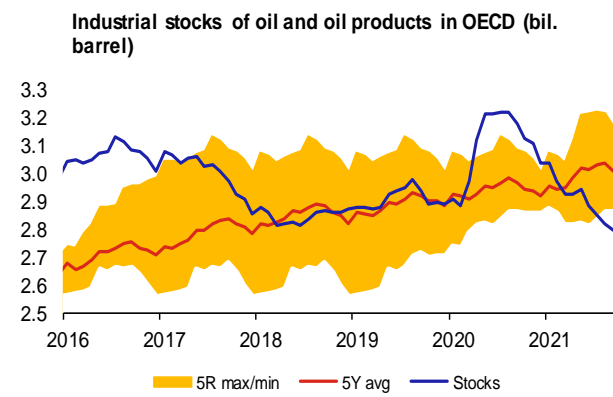
Note: Exchange rates as of last day of month. Forward rate does not represent outlook; it is based on covered interest parity, i.e. currency of country with higher interest rate is depreciating. Forward rate represents current (as of cut-off date) possibility of hedging future exchange rate.

IV.1 Oil

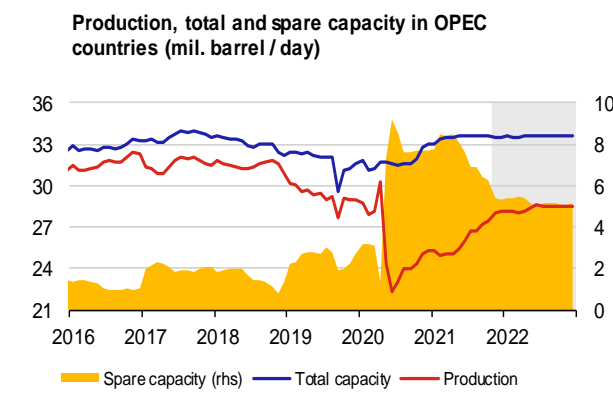
The Brent crude oil price peaked in late October at USD 86.4/bbl, its highest level since October 2014, and then started falling. Oil prices are high because of rising demand stemming from the ongoing global economic recovery, while production in OPEC+ countries and the USA is rising only gradually. The EIA estimates that draws on global oil inventories averaged 1.9 million barrels a day during the first three quarters of 2021 and will continue until the year-end. Owing to high prices of natural gas and coal, moreover, demand for oil products that could substitute for these commodities is expected to rise during the winter. Oil prices corrected sharply in early November on news that talks between global powers and Iran regarding Iran’s nuclear programme would be resumed at the end of the month. This could lead to an easing of sanctions and higher oil supplies. The USA and large oil importers are pressing for a faster pace of increase in OPEC+ supplies to the market. However, OPEC+ has rejected this owing to the still uncertain pandemic situation, and some OPEC+ countries do not even have the capacity to further increase production due to insufficient investment. Therefore, there is speculation that the USA and China (and possibly other countries) could release more oil from their strategic reserves. However, the likelihood of this step has declined in the case of the USA, as the EIA expects oil prices to fall for the rest of this year and throughout 2022, by which time there should be enough oil in the market. According to the EIA, the average price of Brent crude oil should thus be around USD 66/bbl at the end of next year. However, this view is not shared by some large oil traders, who conversely expect the oil market to stay tight in the future. The market curve at the start of November is signalling a markedly smaller drop in prices (to around USD 74/bbl at the end of next year). The November CF forecast of USD 72.9/bbl one year ahead is close to the market outlook.



	Brent		WTI		Natural gas	
2021	71.64	↗	68.89	↗	545.16	↗
2022	77.51	↗	74.95	↗	780.68	↗



	IEA		EIA		OPEC	
2021	96.43	→	97.52	↗	96.41	↘
2022	99.45	→	100.89	↘	100.57	↘



	Production		Total capacity		Spare capacity	
2021	26.33	↘	33.50	↗	7.17	↗
2022	28.37	↗	33.58	↗	5.21	↘

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.

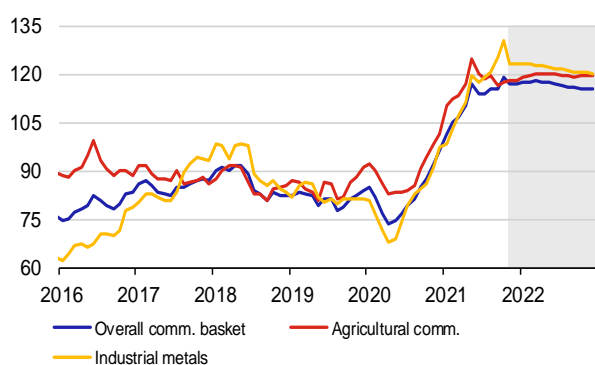
IV.2 Other commodities

Average monthly spot prices of gas and coal in Europe and Asia rose to further record highs in October on concerns of shortages in the event of a cold winter. The spot price of natural gas in Europe was highly volatile in the first half of October but has since followed a downward trend in reaction to a pledge of higher supplies from Russia. After Russia's Gazprom completed the filling of domestic reservoirs, it started filling those in Europe on 10 November. However, the situation is being complicated by tensions between the EU and Belarus. Gas inventories in Europe remain well below average and natural gas prices are therefore still extremely high. The coal price stayed near all-time highs throughout October due to floods in China and low extraction there in September. However, it fell sharply to its August levels in early November in response to a rise in Chinese extraction and growth in stocks at Chinese power stations.

In October, the average monthly industrial metals price sub-index nearly equalled its all-time high of May 2007. Almost all industrial metal prices rose sharply in the first half of October due to falling stocks on the LME and limited production in China. However, they have been declining since late October thanks to an easing of the energy crisis in China. Iron ore prices have been falling sharply since early August and were back roughly at their May 2020 levels in early November. This is due to still limited steel production in China, which was down by 13% year on year in August and even 21% in September.

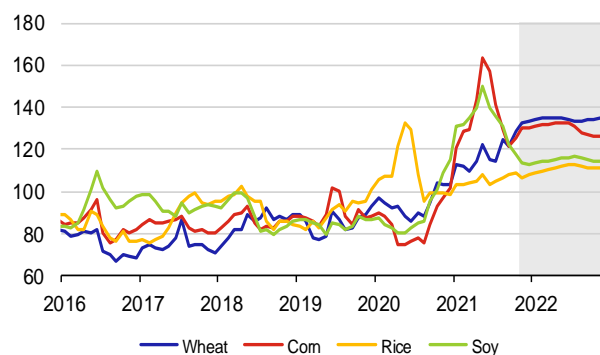
The food commodity price index was only slightly above its September levels in October and the first half of November. Wheat prices continued to rise sharply – and corn prices modestly – in October. However, this was offset by a drop in prices of rice and – to a lesser extent in November – soy. Sugar and coffee prices fluctuated around their highest levels since 2017 and 2014 respectively. By contrast, cocoa and pork prices continued to fall. Beef prices edged up further.

Non-energy commodities price indices



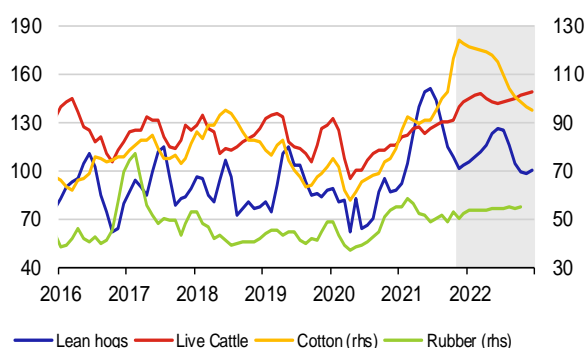
	Overall	Agricultural	Industrial
2021	112.7	117.1	116.5
2022	116.6	119.6	121.6

Food commodities



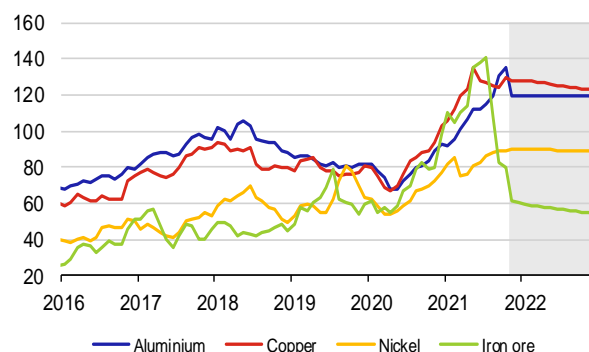
	Wheat	Corn	Rice	Soy
2021	120.1	135.0	105.8	130.0
2022	134.4	129.8	111.1	115.2

Meat, non-food agricultural commodities



	Lean hogs	Live Cattle	Cotton	Rubber
2021	121.5	128.7	100.0	52.1
2022	110.9	145.2	109.8	54.1

Basic metals and iron ore



	Aluminium	Copper	Nickel	Iron ore
2021	113.1	123.8	84.4	103.8
2022	119.4	125.3	89.3	56.8

Source: Bloomberg, CNB calculations.

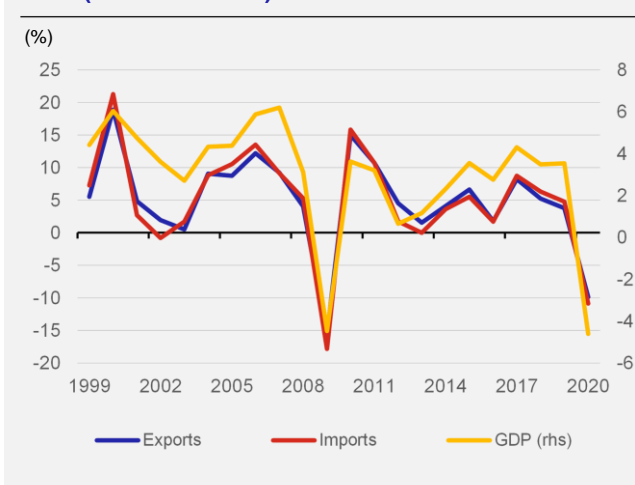
Note: Structure of non-energy commodity price indices corresponds to composition of The Economist commodity indices. Prices of individual commodities are expressed as indices 2010 = 100.

EU foreign trade during the pandemic crisis¹

International trade is one of the most important macroeconomic indicators. This article analyses its evolution during the coronavirus crisis. With the benefit of hindsight and longer time series, we assess the extent to which the hypotheses contained in our previous article² have been borne out and what the monetary policy implications are. The macroeconomic shock experienced in 2020 is confirmed as having been largely a supply shock. In 2021, however, the story has changed: the current high prices of commodities and materials reflect renewed robust demand.

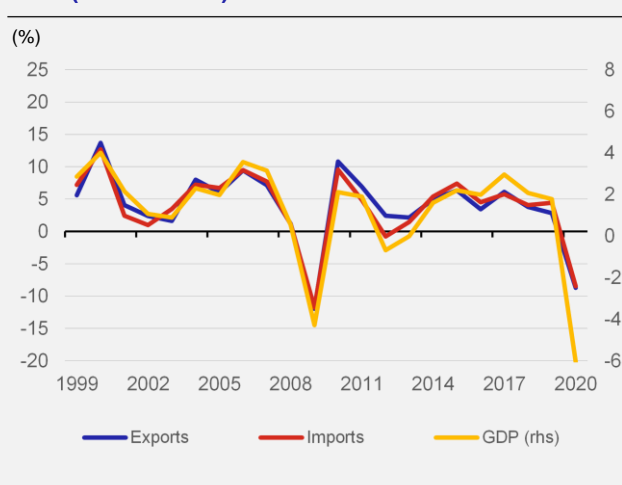
International trade is a dynamic variable: it has long been growing faster than economic activity, and it is sensitive to the business cycle. This has been demonstrated by Yi (2003), Andrle et al. (2016) and Babecká-Kucharčuková and Brůha (2018). Using the EU economies, we illustrate that total exports and imports have long been growing roughly three times faster than GDP (see Chart 1).³ In crisis years, by contrast, trade has fallen around three times more than GDP. The high sensitivity of international trade naturally makes it an important variable for explaining the sources, courses and impacts of economic crises.

Chart 1a – Annual growth rates of foreign trade and GDP (nominal values)



Source: Eurostat, author's calculations.

Chart 1b – Annual growth rates of foreign trade and GDP (in real terms)



Source: Eurostat, author's calculations.

Economic activity and international trade also fell sharply in 2020, owing to administrative measures related to the coronavirus pandemic. Examining international trade may thus yield useful information about the nature of this unprecedented crisis. The key monetary policy question was whether and how much the drop in economic activity would pass through to prices, i.e. whether the crisis was of a demand nature (with the real decline being accompanied by strong deflationary tendencies) or whether it involved a negative supply shock (with the negative price effects of the downturn being smaller). Several studies have been published on the nature of the crisis that unfolded during the pandemic.⁴ Our article helps to explain this important phenomenon by offering a partial analysis focusing on international trade.

The dynamics of prices in international trade suggest that the shocks associated with the spring 2020 shutdowns were different in nature from those linked to the global financial and economic crisis (GFC). The decline in total EU exports during the GFC was caused by a decrease in the real quantity of goods exports, accompanied by a smaller yet significant drop in prices (see Chart 2). This was also true of imports, where the effect of the price decline was slightly greater. Following the economic recovery, from 2009 Q2 onwards, real quantities and prices both increased. Entirely different developments were observed last year. Prices recorded a shallow decline during the contraction in 2020 Q2, and price indices did not rise again when real exports and imports recovered in 2020 Q3. From this perspective, the GFC was predominantly of a demand nature, whereas negative supply factors also played a substantial role in 2020.

¹ Authors are Oxana Babecká Kucharčuková and Jan Brůha. The views expressed in this article are those of the author and do not necessarily reflect the official position of the Czech National Bank.

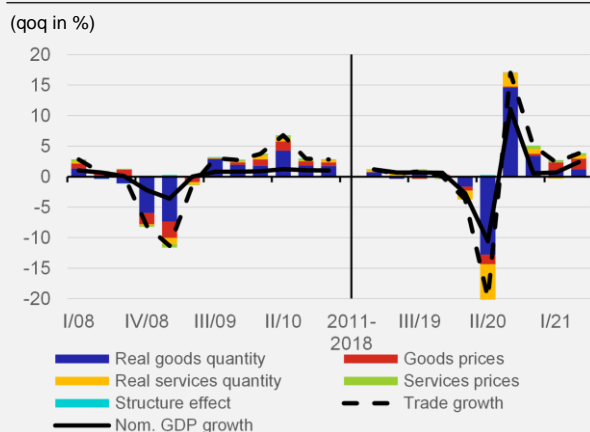
² [A tale of two crises: An early comparison of foreign trade and economic activity in EU countries](#), GEO – September 2020.

³ This is true not only of real quantities, but also of nominal variables, which means that this finding applies even after adjustment for movements in relative prices. This implies, among other things, growth in openness of the EU economy: the degree of openness (defined as the sum of exports and imports divided by two times GDP) increased from 34% in 2001 to 40% in 2010 and 47% in 2021 (figures for the first two quarters of the year). The data include both intra EU-27 trade and trade with the rest of the world.

⁴ For example, Babecká Kucharčuková and Brůha (2020), Polák and Novotný (2020), Brůha et al. (2021), Benecká et al. (2021) and Šolc et al. (2021).

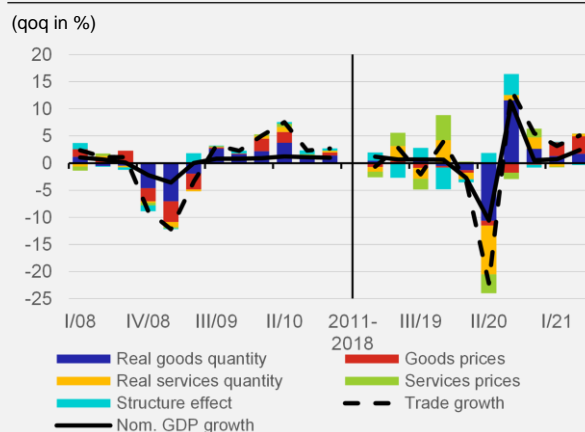
Another difference consists in what happened next. Whereas export and import prices grew after the GFC as real growth was restored, in the current episode they did not rise robustly until the start of 2021. The rise in prices in 2021 has been driven by endogenous growth in commodity prices and emerging overloading of global production chains, which are failing to satisfy the renewed global consumer appetite linked with deferred consumption. The consumer appetite of EU economies (and generally of all advanced economies) is also being fuelled by extremely low interest rates, including mortgage rates, and by strongly expansionary fiscal policy. The high prices and shortages of materials and commodities are posing a serious problem for some sectors. However, they also indicate that the macroeconomic story has changed and that the inflation from which advanced economies have been suffering in 2021 is of a global demand nature.

Chart 2a – Nominal EU export growth during the two crises



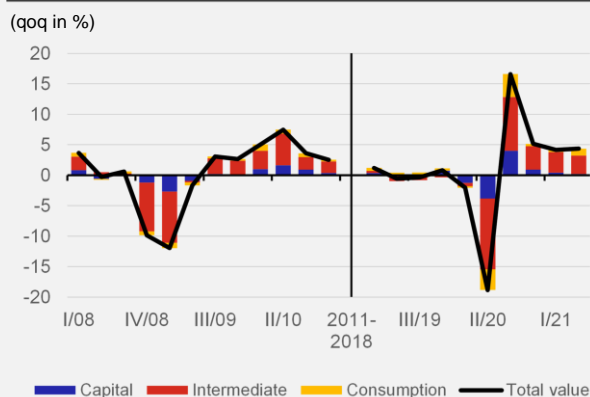
Source: Eurostat, author's calculations

Chart 2b – Nominal EU import growth during the two crises



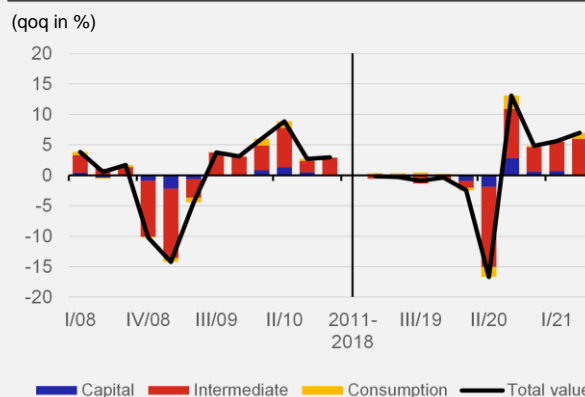
Source: Eurostat, author's calculations

Chart 3a – Decomposition of nominal goods export growth by BEC



Source: Eurostat, author's calculations

Chart 3b – Decomposition of nominal goods import growth by BEC



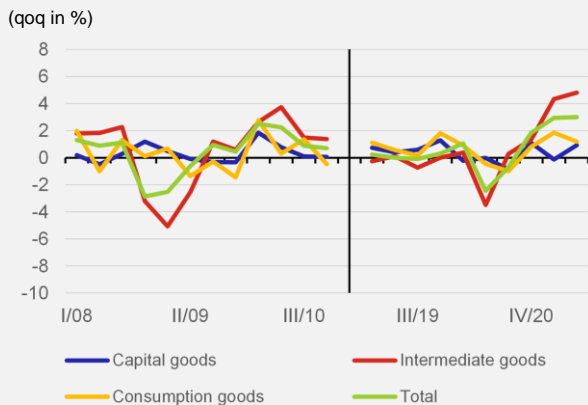
Source: Eurostat, author's calculations

Intermediate goods⁵ were the fastest growing item of both goods exports and goods imports during both crises (see Chart 3). This is because intermediate goods have the highest share (over 50%) in the total value, and trade in them is highly sensitive to cyclical swings.⁶ Trade in consumer goods, which, despite their significant weight (around 25%), are the least sensitive aggregate to swings in economic activity, has the smallest effect on the dynamics of goods trade. Chart 4 shows that intermediate goods prices recorded the biggest movements, while capital and consumer goods prices were almost flat. Although the declines in trade volumes were smaller during the GFC, the decreases in intermediate goods prices were larger during this crisis compared to the pandemic shock. This is another indication of the different mixes of shocks behind the two crises.

⁵ i.e. goods consumed in the production process.

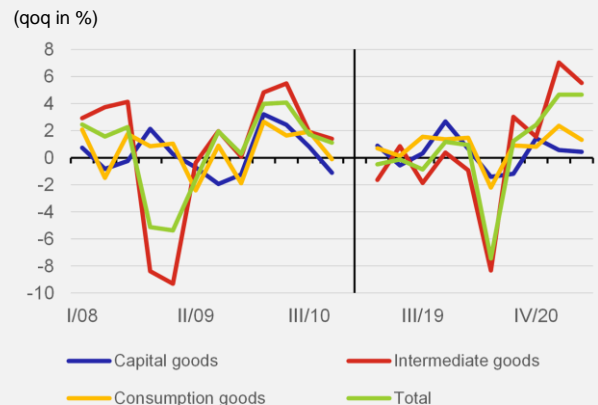
⁶ The high sensitivity of trade in intermediate goods reflects fragmentation of production along global production chains. This fragmentation also explains the high sensitivity of trade to economic activity (Levchenko et al., 2010).

Chart 4a – Price growth by goods trade category – export



Source: Eurostat, author's calculations

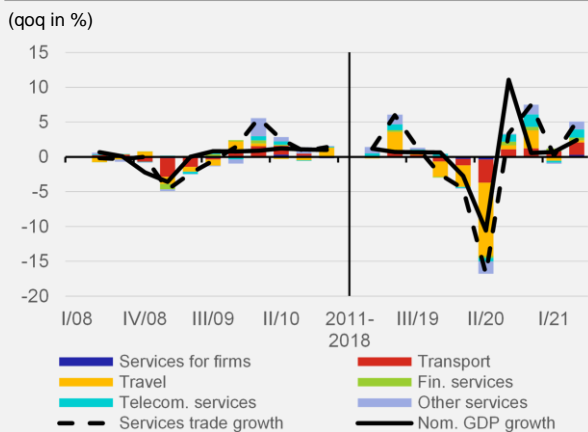
Chart 4b – Price growth by goods trade category – import



Source: Eurostat, author's calculations

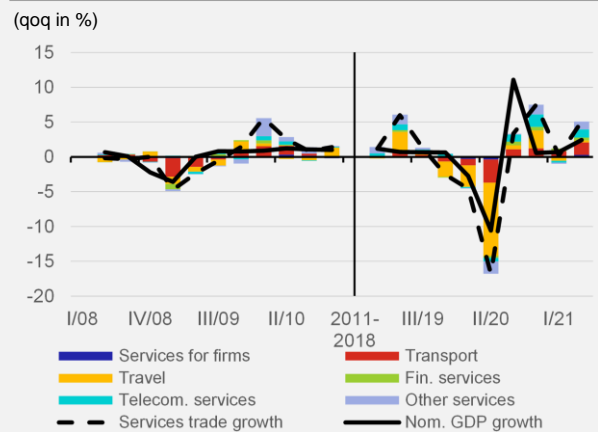
An interesting aspect of the decline in international trade in 2020 was an increased role of trade in services. The contribution of services trade to the total decline was much bigger in 2020 than during the GFC. This was due to growth in the share of services trade in total trade over the past ten years (from around 20% to almost 30% of the total trade value) and to the nature of the shutdowns. Goods trade has been recovering at a robust pace since mid-2020 and in real terms exceeded the pre-pandemic level at the end of 2020 (in nominal terms it did not do so until 2021 Q1). Services trade, by contrast, recorded a much more modest recovery and is currently still far below the pre-pandemic level, mainly because of the widely known non-recovery of tourism (see Chart 5). The other categories of services trade have either declined relatively little (services for firms and financial services) or recovered quickly (transport). The recovery in travel remains weak and is nowhere near offsetting the previous decreases. This is clearly linked with the administrative restrictions imposed on the mobility of persons. The recovery in trade in the other categories of services at the EU level has been insufficient for services trade as a whole to return to pre-pandemic levels.

Chart 5a – Decomposition of services trade during the two crises – export growth



Source: Eurostat, author's calculations

Chart 5b – Decomposition of services trade during the two crises – import growth



Source: Eurostat, author's calculations

The differences in the nature of the shocks underlying the two crises also have different implications for monetary policy. Many central banks eased monetary policy in 2020.⁷ From the ex ante perspective, this was the right response given the unprecedented uncertainty prevailing at the time. On the other hand, the evidence has gradually started to indicate that the pandemic was largely a supply shock. Despite this, many central banks are keeping their monetary policies

⁷ The monetary policy response in the early stages of the pandemic around the world is described in [Central banks' monetary policy in response to the coronavirus epidemic](#), CNB Central Bank Monitoring II/2020.

very easy.⁸ The mix of highly accommodative monetary policy, a stagflationary shock and, in 2021, and of the materialisation of deferred consumption is leading in almost textbook fashion to growth in global inflation and prices of commodities and materials. The very easy monetary policies of the major central banks thus currently represents a negative externality for monetary policy in small open economies whose central banks have not abandoned their price stability mandates.⁹

The above analysis allows us to draw several conclusions. It confirms that foreign trade is highly sensitive to economic activity, while the role of services trade has increased over time. The price dynamics indicate that the macroeconomic shock experienced in 2020 was in large measure a supply shock. In 2021 the inflation story has changed: the current high prices of commodities and materials reflect renewed demand coupled with accommodative monetary and fiscal policy.

References

Andrie, M., Brůha, J., Solmaz, S. (2016): “Output and inflation co-movement: An update on business-cycle stylized facts”, IMF Working Papers 2016/241, International Monetary Fund.

Babecká-Kucharčuková, O., Brůha, J. (2018): “International trade developments with a focus on the EU”, Global Economic Outlook – October 2018, Czech National Bank.

Babecká-Kucharčuková, O., Brůha, J. (2020): “A tale of two crises: An early comparison of foreign trade and economic activity in EU countries”, Global Economic Outlook – September 2020, pp. 12–18, Czech National Bank.

Benecká, S., Brůha, J., Šolc, J. (2021): “What is driving the strong growth in industrial producer prices?”, Monetary Policy Report – Summer 2021 (Box 1), Czech National Bank.

Brůha, J., Motl, M., Tonner, J. (2021): “Assessment of the impacts of the pandemic on the world’s major economies: A crisis of supply or demand?”, Global Economic Outlook – May 2021, pp. 12–21, Czech National Bank.

Levchenko, A., Logan, L., Tesar, L. (2010): “The collapse of international trade during the 2008–09 crisis: In search of the smoking gun”, IMF Economic Review vol. 58(2), pp. 214–253, International Monetary Fund.

Polák, P., Novotný, P. (2020): “Consumer and industrial prices in 2020 – the year of the coronavirus”, Global Economic Outlook – December 2020, Czech National Bank.

Šolc, J., Brůha, J., Tomanová, N. (2021): “To what extent are the domestic demand environment and the labour market contributing to the current growth in consumer prices?”, Monetary Policy Report – Autumn 2021 (Box 2), Czech National Bank.

Yi, K.-M., (2003): “Can vertical specialization explain the growth of world trade?”, Journal of Political Economy, vol. 111(1), pp. 52–102.

Keywords

International trade, supply shock, demand shock, crisis

JEL Classification

F14, F41

⁸ For example, the ECB is not yet considering raising interest rates and is actively using unconventional monetary policy instruments to an increased extent. The US Fed started to taper its unconventional policy in November 2021 and is not expected to raise rates until 2022 H2.

⁹ Besides the Czech Republic, monetary policy has been tightened in Hungary, Poland, Romania, Norway, Iceland, Russia, New Zealand, Chile, and South Korea.

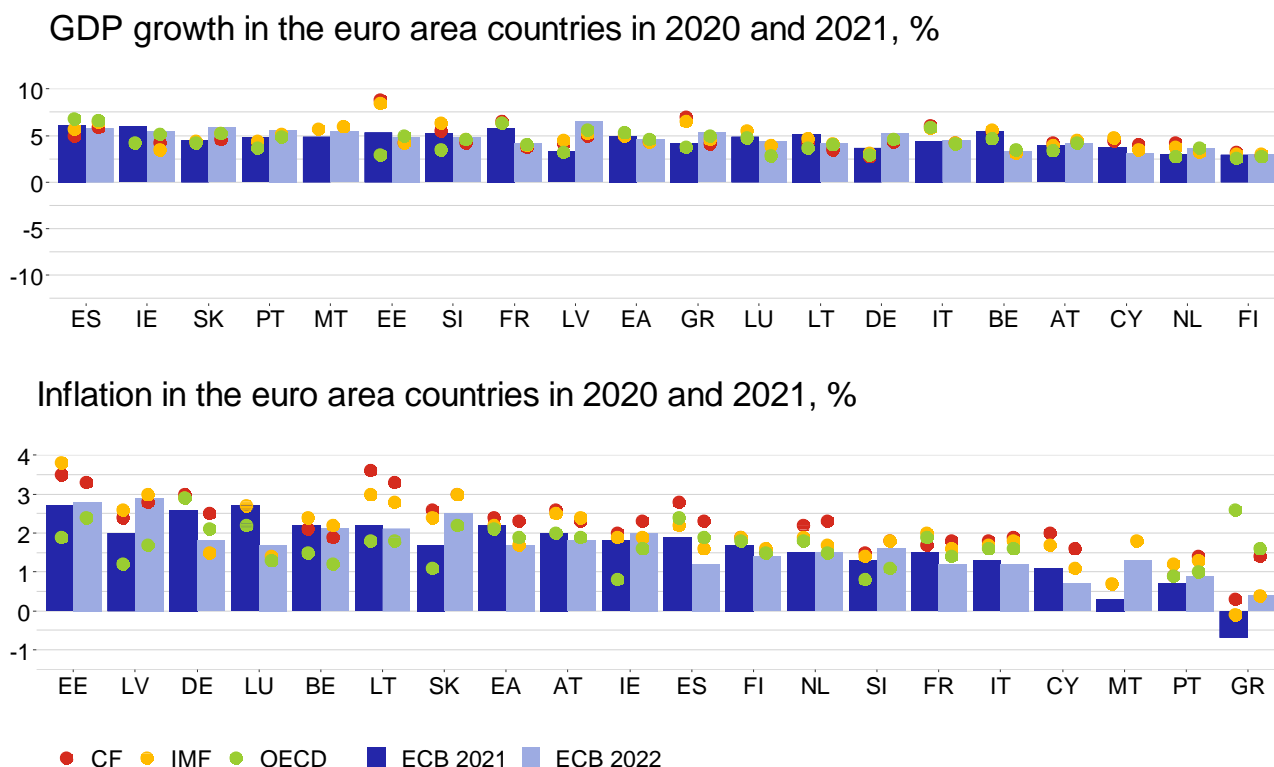
A1. Change in predictions for 2021

	GDP growth, %				Inflation, %			
	CF	IMF	OECD	CB / EIU	CF	IMF	OECD	CB / EIU
EA	-0.1	+0.4	+1.0	+0.4	+0.1	+0.8	+0.3	+0.3
US	-0.2	-1.0	-0.9	-1.1	0	+2.0	+0.2	+0.8
UK	0	-0.2	-0.5	-0.3	+0.1	+0.7	+1.0	+0.3
JP	-0.1	-0.4	-0.1	-0.4	0	-0.3	-0.5	-0.6
CN	-0.2	-0.1	0	-0.1	-0.2	-0.1	-0.3	-0.2
RU	+0.2	+0.3	-0.8	+0.3	+0.7	+1.4	+0.2	+0.1

A2. Change in predictions for 2022

	GDP growth, %				Inflation, %			
	CF	IMF	OECD	CB / EIU	CF	IMF	OECD	CB / EIU
EA	-0.1	0	+0.2	-0.1	+0.3	+0.5	+0.6	+0.2
US	-0.1	+0.3	+0.3	+0.5	+0.3	+1.1	+0.4	+0.1
UK	-0.4	+0.2	-0.3	-1.0	+0.4	+0.7	+1.4	+0.9
JP	0	+0.2	+0.1	+0.2	+0.2	-0.2	-0.1	0
CN	-0.3	-0.1	0	0	0	-0.1	-0.2	-0.4
RU	-0.3	-0.2	+0.6	+0.1	+0.4	+1.4	+1.0	-0.1

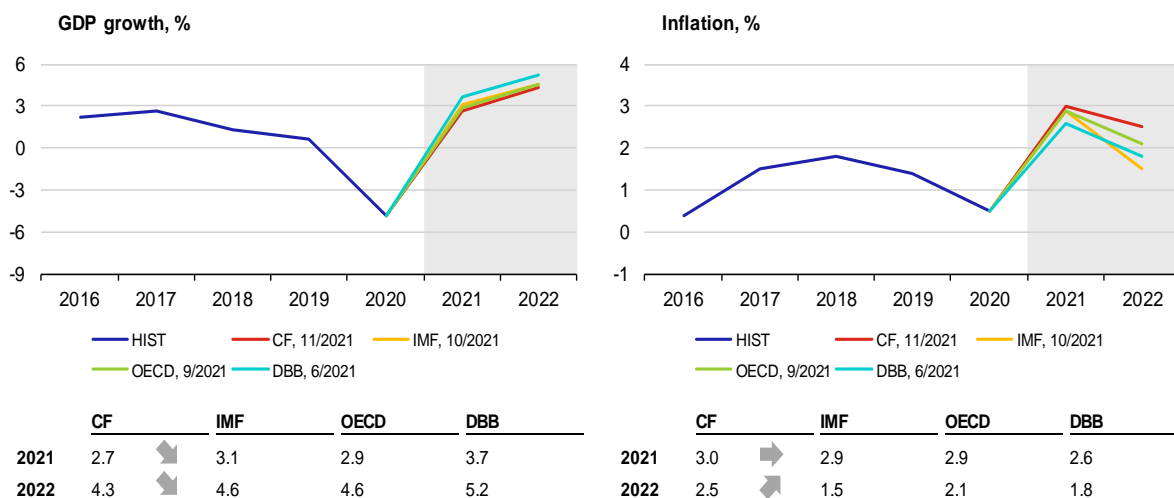
A3. GDP growth and inflation outlooks in the euro area countries



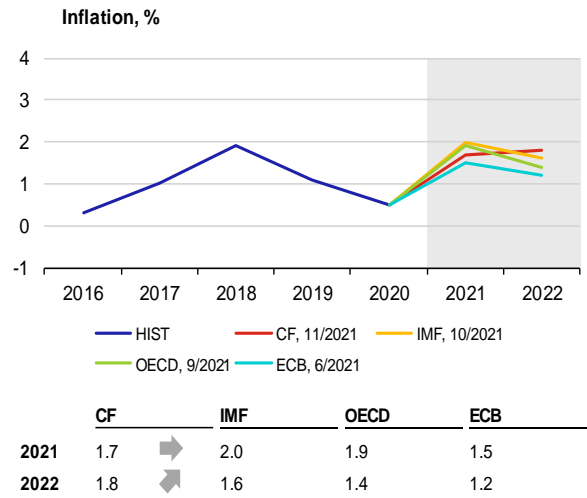
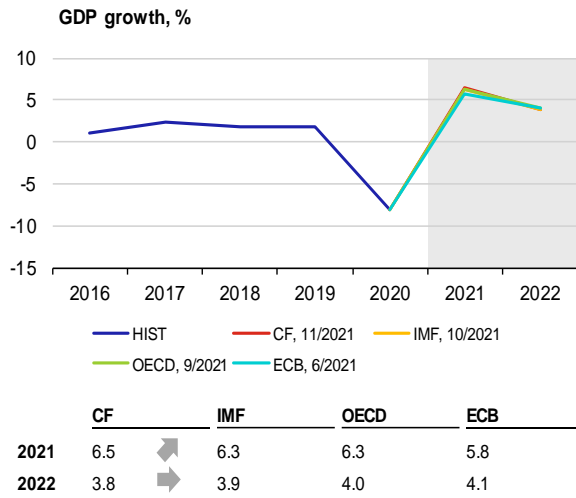
Note: Charts show institutions' latest available outlooks of for the given country.

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

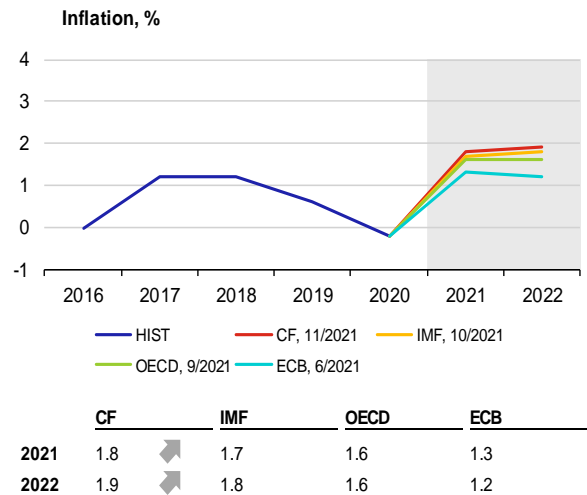
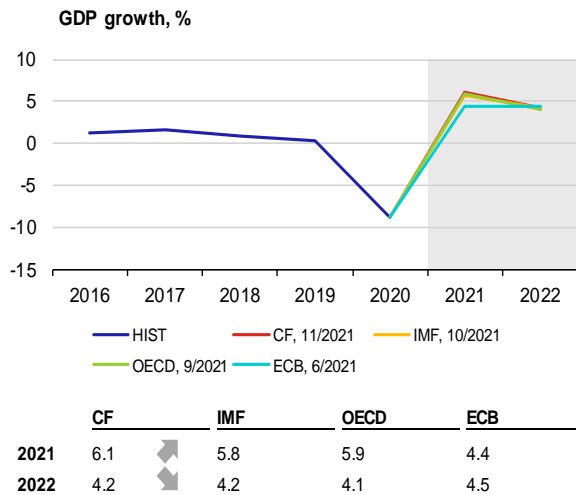
Germany



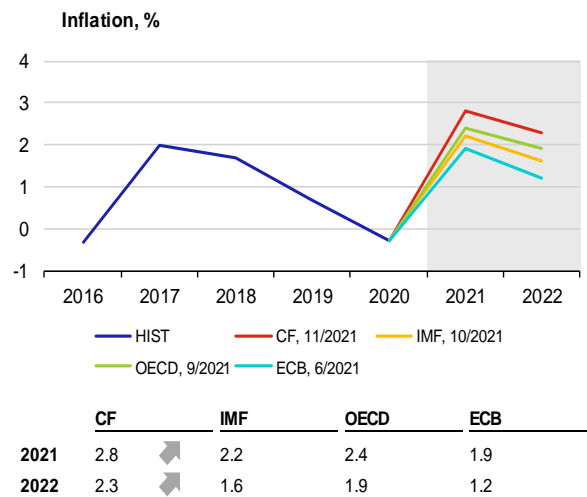
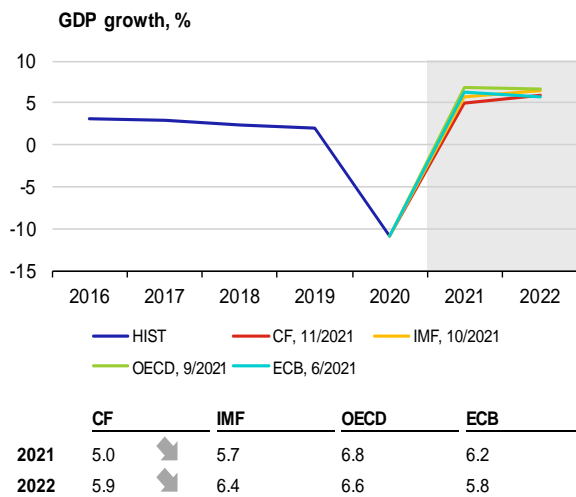
France



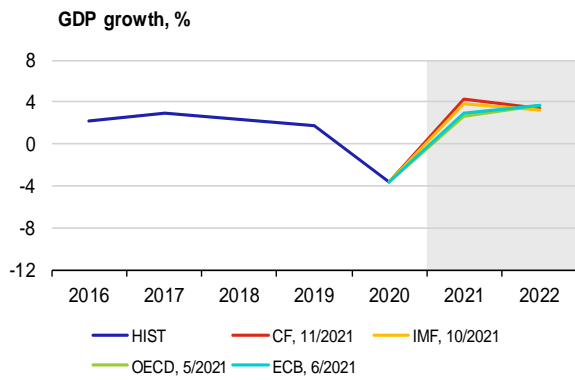
Italy



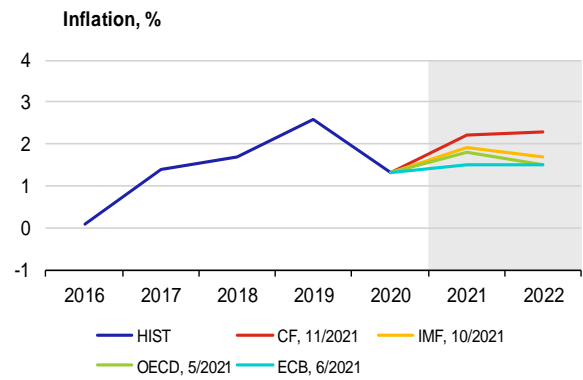
Spain



Netherlands

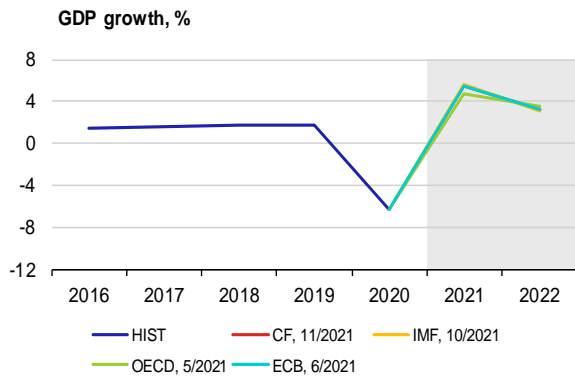


	CF	IMF	OECD	ECB
2021	4.2	3.8	2.7	3.0
2022	3.4	3.2	3.7	3.7

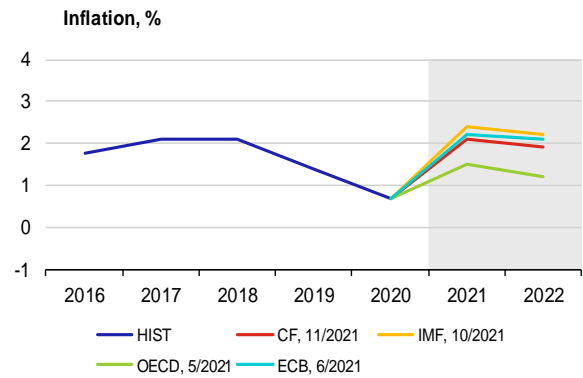


	CF	IMF	OECD	ECB
2021	2.2	1.9	1.8	1.5
2022	2.3	1.7	1.5	1.5

Belgium

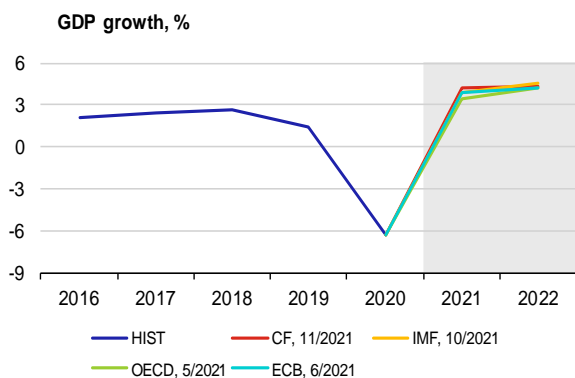


	CF	IMF	OECD	ECB
2021	5.4	5.6	4.7	5.5
2022	3.2	3.1	3.5	3.3

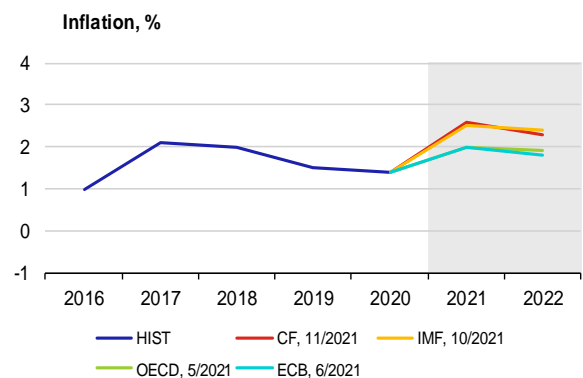


	CF	IMF	OECD	ECB
2021	2.1	2.4	1.5	2.2
2022	1.9	2.2	1.2	2.1

Austria

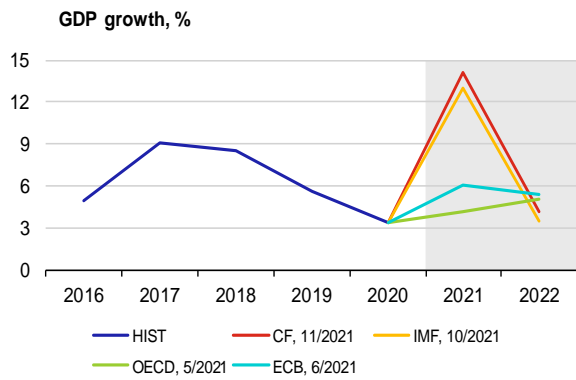


	CF	IMF	OECD	ECB
2021	4.2	3.9	3.4	3.9
2022	4.3	4.5	4.2	4.2

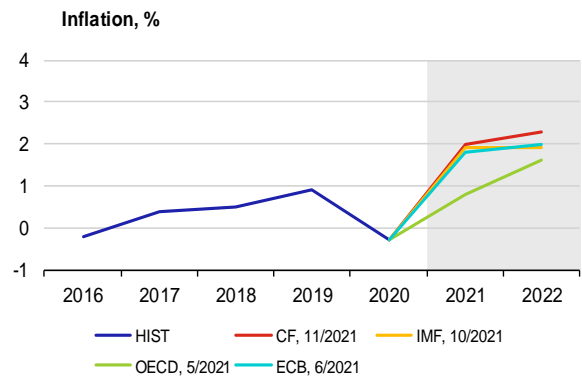


	CF	IMF	OECD	ECB
2021	2.6	2.5	2.0	2.0
2022	2.3	2.4	1.9	1.8

Ireland

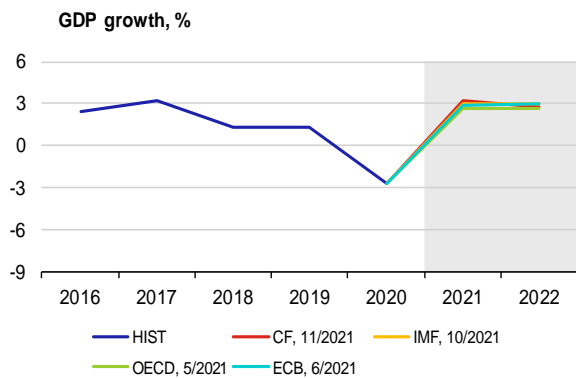


	CF	IMF	OECD	ECB
2021	14.1	13.0	4.2	6.0
2022	4.2	3.5	5.1	5.4

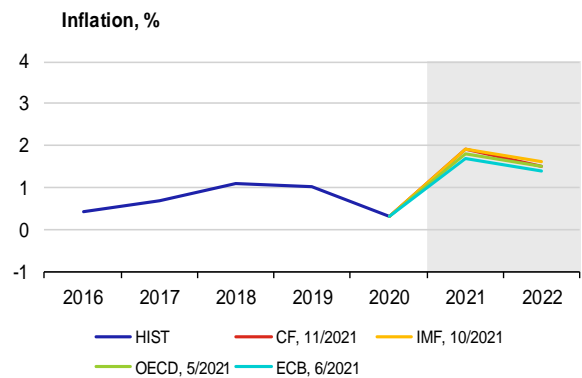


	CF	IMF	OECD	ECB
2021	2.0	1.9	0.8	1.8
2022	2.3	1.9	1.6	2.0

Finland

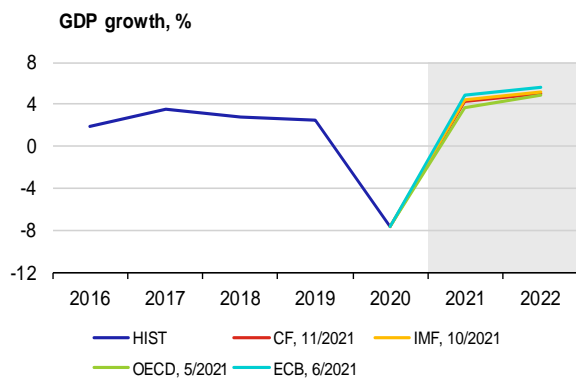


	CF	IMF	OECD	ECB
2021	3.2	3.0	2.6	2.9
2022	2.8	3.0	2.7	3.0

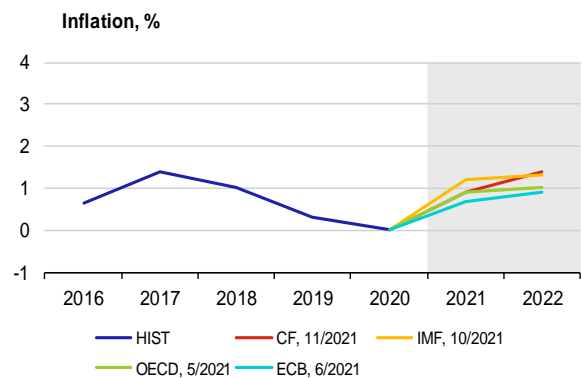


	CF	IMF	OECD	ECB
2021	1.9	1.9	1.8	1.7
2022	1.5	1.6	1.5	1.4

Portugal

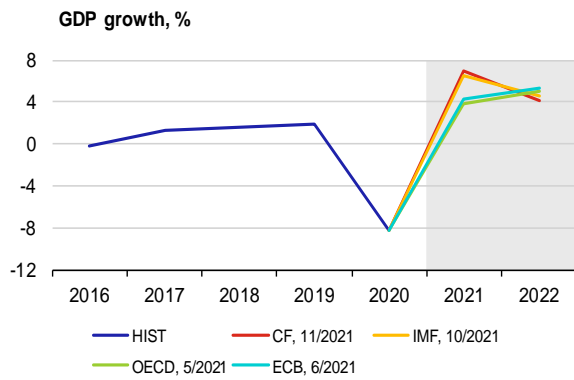


	CF	IMF	OECD	ECB
2021	4.3	4.4	3.7	4.8
2022	5.0	5.1	4.9	5.6

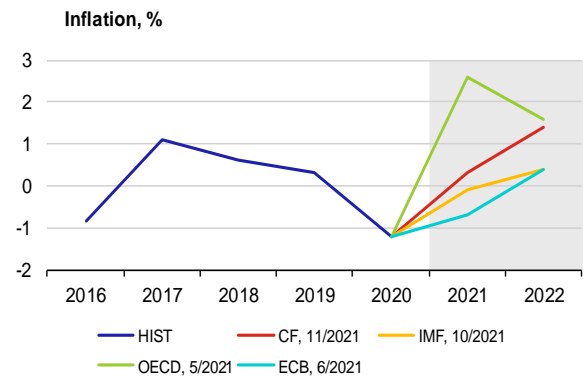


	CF	IMF	OECD	ECB
2021	0.9	1.2	0.9	0.7
2022	1.4	1.3	1.0	0.9

Greece

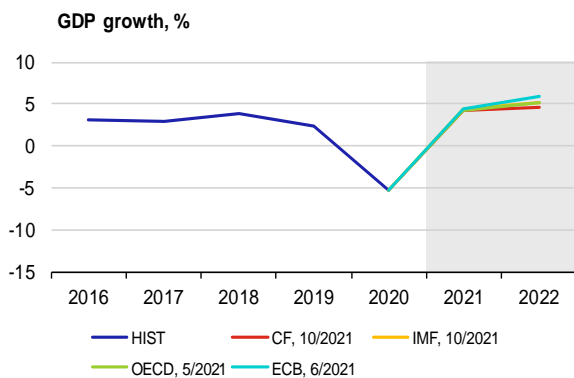


	CF	IMF	OECD	ECB
2021	7.0	6.5	3.8	4.2
2022	4.1	4.6	5.0	5.3

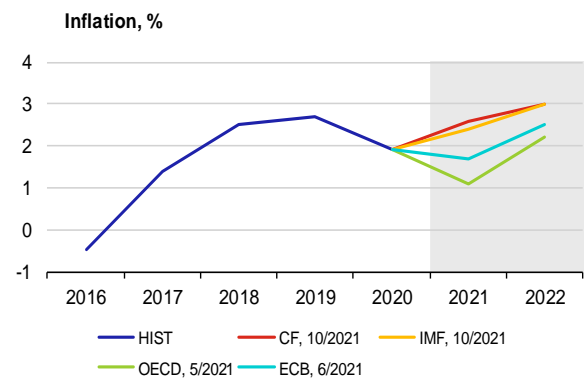


	CF	IMF	OECD	ECB
2021	0.3	-0.1	2.6	-0.7
2022	1.4	0.4	1.6	0.4

Slovakia

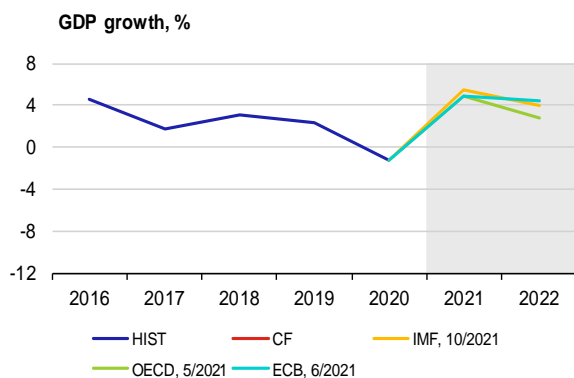


	CF	IMF	OECD	ECB
2021	4.2	4.4	4.2	4.5
2022	4.6	5.2	5.2	5.9

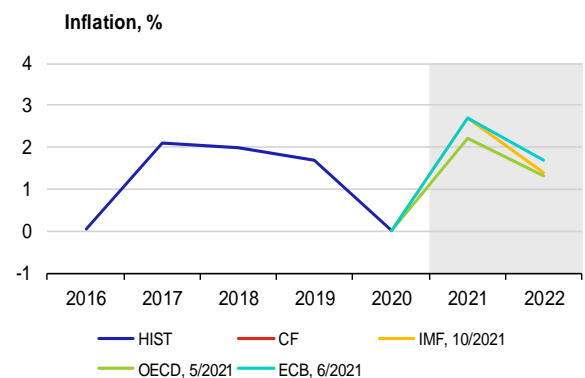


	CF	IMF	OECD	ECB
2021	2.6	2.4	1.1	1.7
2022	3.0	3.0	2.2	2.5

Luxembourg

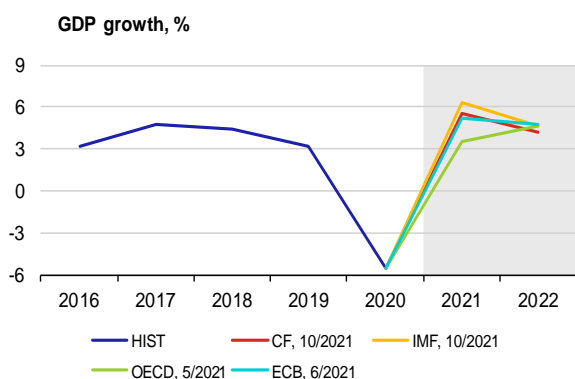


	CF	IMF	OECD	ECB
2021	n. a.	5.5	4.8	4.9
2022	n. a.	3.9	2.8	4.4

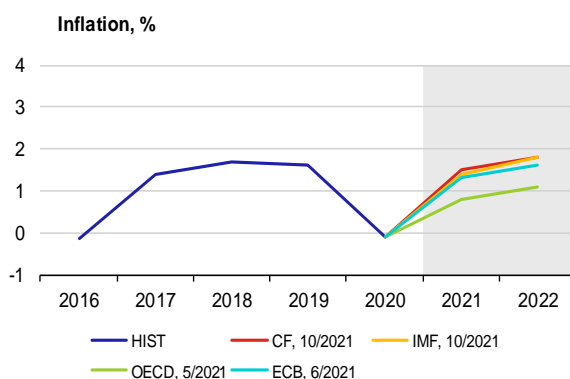


	CF	IMF	OECD	ECB
2021	n. a.	2.7	2.2	2.7
2022	n. a.	1.4	1.3	1.7

Slovenia

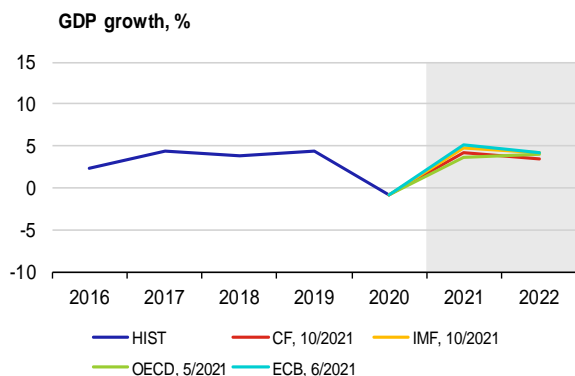


	CF	IMF	OECD	ECB
2021	5.5	6.3	3.5	5.2
2022	4.2	4.6	4.6	4.8

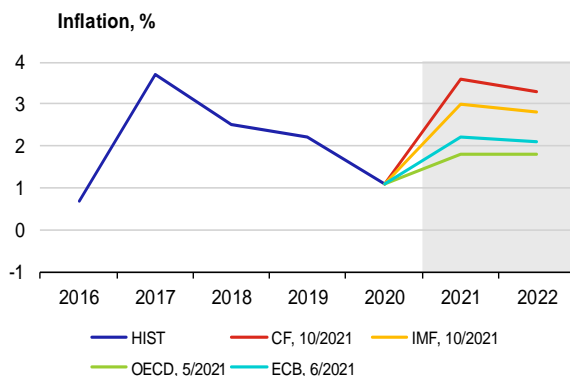


	CF	IMF	OECD	ECB
2021	1.5	1.4	0.8	1.3
2022	1.8	1.8	1.1	1.6

Lithuania

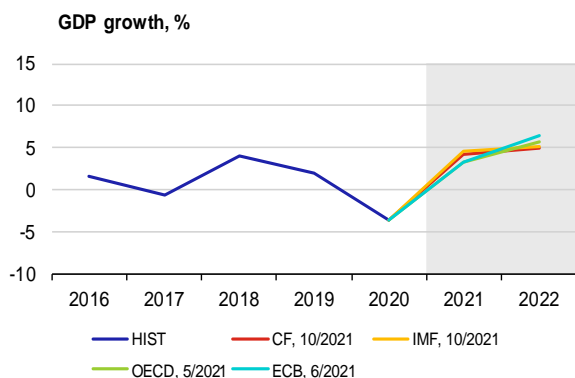


	CF	IMF	OECD	ECB
2021	4.2	4.7	3.7	5.1
2022	3.5	4.1	4.0	4.1

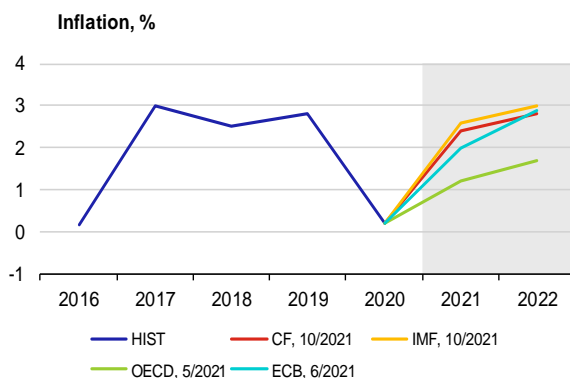


	CF	IMF	OECD	ECB
2021	3.6	3.0	1.8	2.2
2022	3.3	2.8	1.8	2.1

Latvia

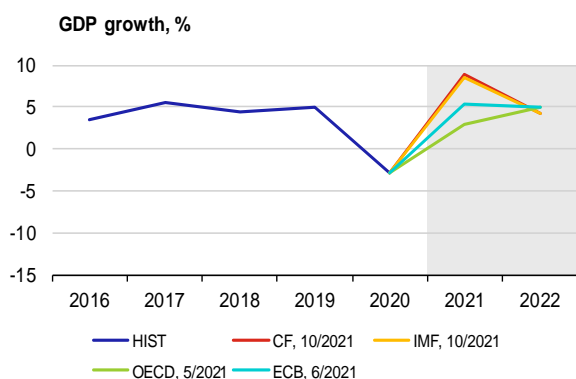


	CF	IMF	OECD	ECB
2021	4.1	4.5	3.2	3.3
2022	5.0	5.2	5.6	6.5

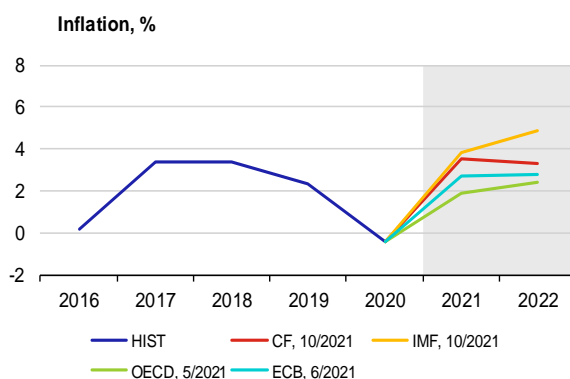


	CF	IMF	OECD	ECB
2021	2.4	2.6	1.2	2.0
2022	2.8	3.0	1.7	2.9

Estonia

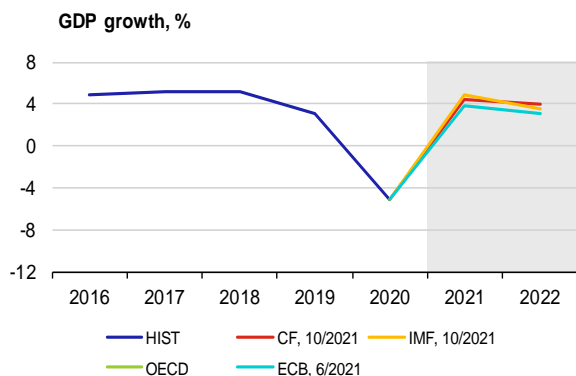


	CF	IMF	OECD	ECB
2021	8.8	8.5	2.9	5.3
2022	4.2	4.2	5.0	4.9

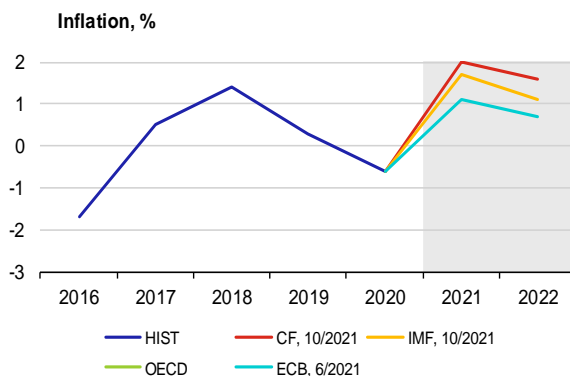


	CF	IMF	OECD	ECB
2021	3.5	3.8	1.9	2.7
2022	3.3	4.9	2.4	2.8

Cyprus

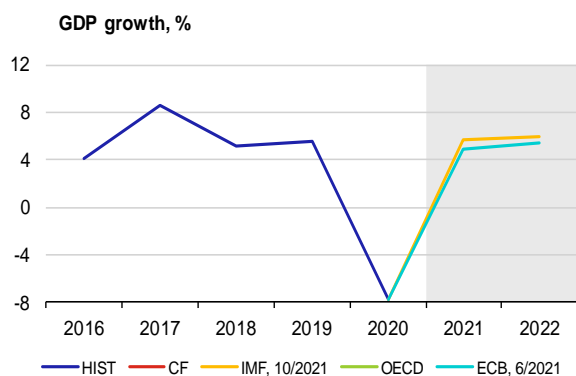


	CF	IMF	OECD	ECB
2021	4.4	4.8	n. a.	3.8
2022	4.0	3.5	n. a.	3.1

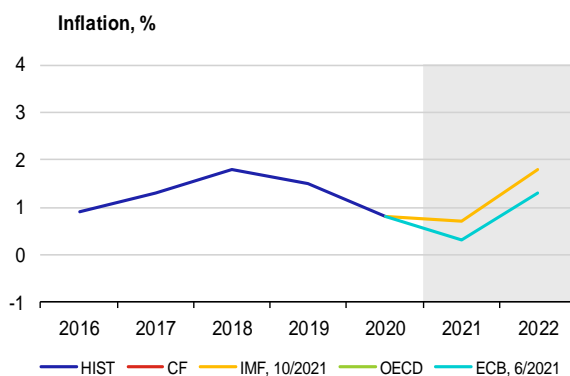


	CF	IMF	OECD	ECB
2021	2.0	1.7	n. a.	1.1
2022	1.6	1.1	n. a.	0.7

Malta



	CF	IMF	OECD	ECB
2021	n. a.	5.7	n. a.	4.9
2022	n. a.	6.0	n. a.	5.4

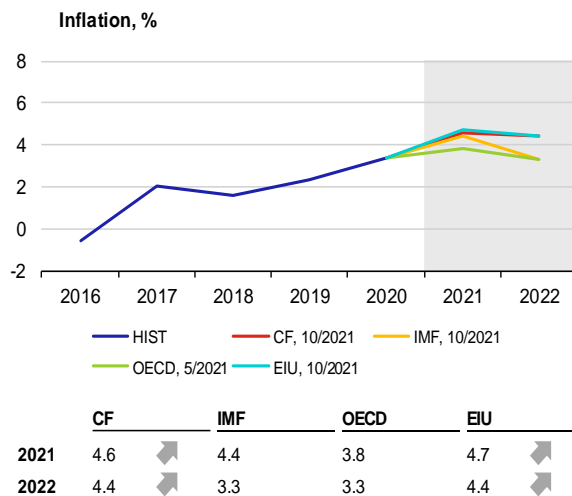
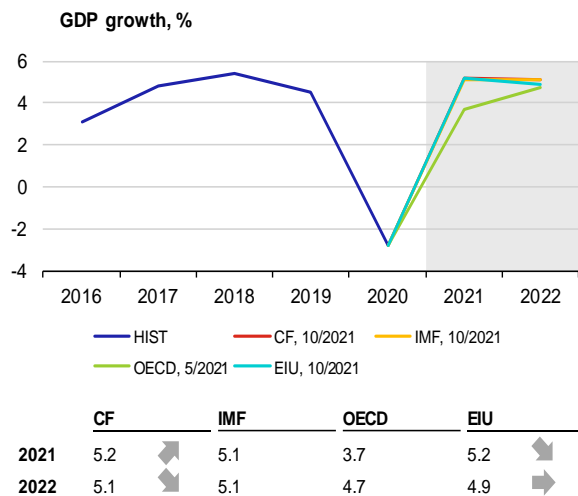


	CF	IMF	OECD	ECB
2021	n. a.	0.7	n. a.	0.3
2022	n. a.	1.8	n. a.	1.3

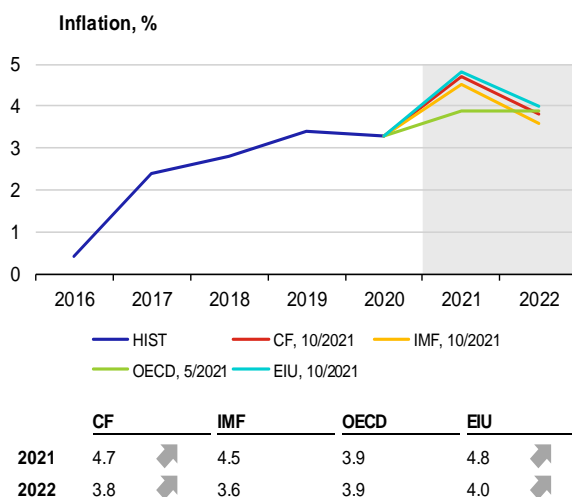
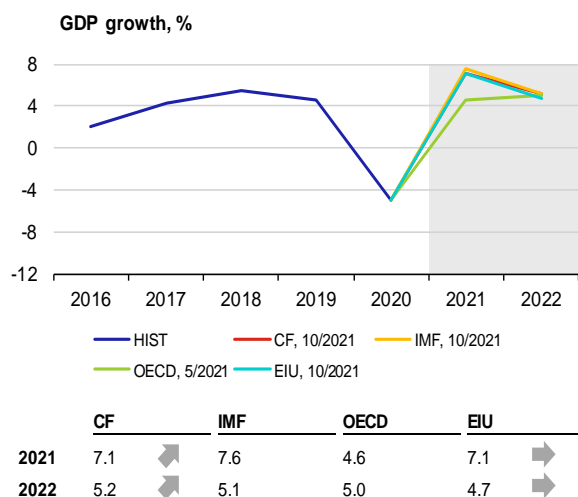
Ddd

A5. GDP growth and inflation in other selected countries

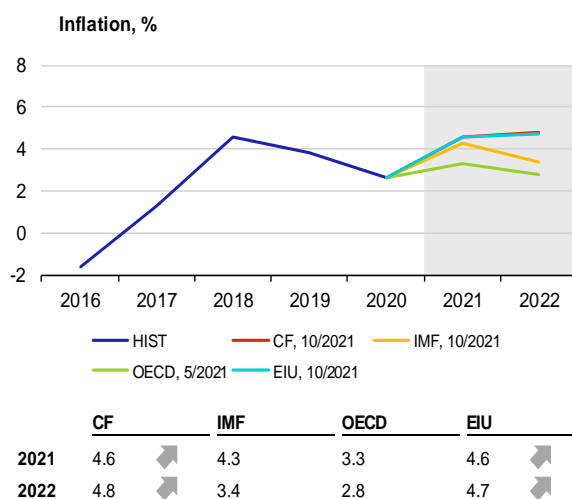
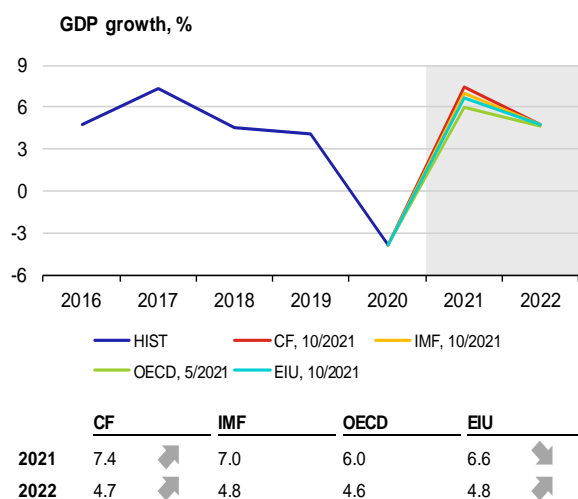
Poland



Hungary



Romania



A6. List of abbreviations

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

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