

Global Economic Outlook

— June 2021



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Czech National Bank — Global Economic Outlook — June 2021

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Cut-off date for data

18 June 2021

CF survey date

14 June 2021

GEO publication date

25 June 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

Vaccination coverage is rising steadily around the world, but the virus has not given up yet and the Greek alphabet has gained a new epidemic-related meaning. Europe has been mostly spared the spread of the more contagious strains of the virus, especially the Gamma (Brazilian) and Delta (Indian) ones. However, this is not true of Portugal, Spain and the UK, where the Delta variant has dampened hopes of a well-started recovery. The virus knows no borders in today's globalised world, so caution and a global perspective are needed to tackle the problem. Representatives of the world's richest countries (the G7) must have realised this at their June summit, as they concluded with a pledge to donate one billion Covid-19 vaccines and USD 100 billion for infrastructure projects to the world's poorest countries. The G7 leaders also undertook to continue to support their economies, which enormously affect the world economy, for as long as

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

GDP	EA	DE	US	UK	JP	CN	RU
2021	4.4 ↗	3.3 →	6.7 ↗	6.6 ↗	2.6 ↘	8.7 →	3.1 →
2022	4.4 ↗	4.2 ↗	4.1 ↘	5.3 ↘	2.8 ↗	5.6 →	2.7 →
Inflation	EA	DE	US	UK	JP	CN	RU
2021	1.8 ↗	2.5 ↗	3.5 ↗	1.7 ↗	0.0 →	1.5 →	4.8 ↗
2022	1.4 ↗	1.7 ↗	2.6 ↗	2.3 ↗	0.5 →	2.3 ↗	4.1 →

Source: Consensus Forecasts (CF)

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

necessary and agreed to introduce a minimum global tax rate of at least 15% for multinational enterprises. Long-term bonds (EU-Bonds) should also help actively fight the impacts of the pandemic in Europe; the first ten-year bond attracted strong interest on the secondary market. The Fed and FOMC members visibly revised their monetary policy stance. Monetary policy in the USA is now expected to start to be tightened in 2023 instead of 2024.

However, Jerome Powell softened the hawkish tone and emphasised that the recent spike in inflation is seen as temporary. There are calls from ECB circles for the introduction of a Fed-like „asymmetrical“ inflation target, which would perhaps better anchor long-term inflation expectations.

According to CF analysts, **the June GDP growth outlooks** for the world's largest economies for 2021 are again higher than the May ones. Lower growth is expected only for Japan. For next year, the growth outlooks for the economies under review were lowered only for the USA and the UK.

The consumer price inflation outlooks were generally revised upwards again compared to May for both this year and the next. Japan remains the exception to the global trend of higher inflation. The question is how far inflation expectations will rise, especially this year, and how long the trend of upward revisions of expected inflation will last

According to the June CF, **the US dollar** will weaken against all the monitored currencies at both the one-year and two-year horizons (except for the Chinese renminbi this year). The CF forecast for **the Brent crude oil price** at the one-year horizon increased compared to May, to USD 68/bbl (range: USD 56–83/bbl).

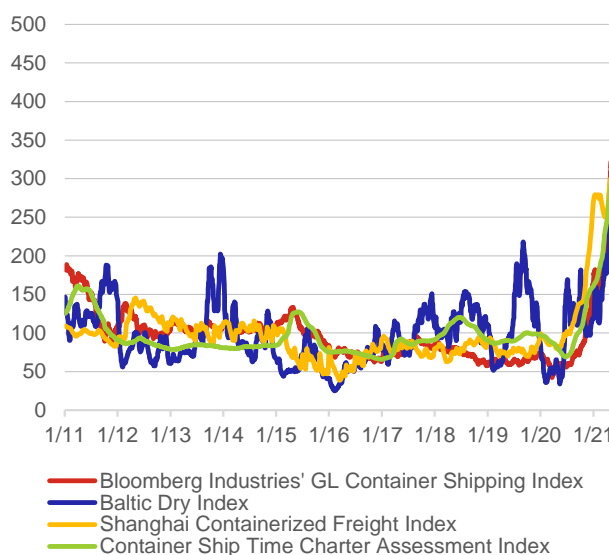
The outlook for market rates is rising for both the 3M USD LIBOR and the 3M EURIBOR, with that for the 3M EURIBOR remaining negative.

The chart in the current issue shows the continued growth in international freight prices. Prices of sea transport of dry materials and goods have grown enormously over the past year, as captured by the Baltic Dry Index among others. At the same time, it seems the situation cannot be expected to return to normal in the next few months. Problems in international transport and the resulting supply chain disruptions will remain an important topic for economists and others in the coming months.

The current issue also contains an analysis [Outlooks in the pandemic year 2020 – where are world economies heading?](#)

The article takes a look back at the outlooks presented in GEO last year and assesses how institutions succeeded in forecasting the pandemic. In addition to the traditional assessment, we analyse the long-term forecasts of GDP growth and inflation in the world's major economies.

Growing freight costs as measured by several indices, index 100 = long term average



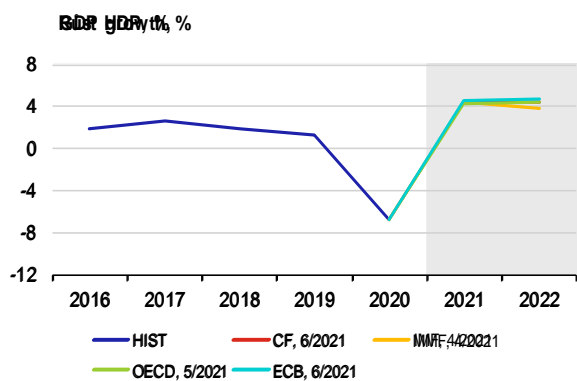
Source: Bloomberg

Note: The value 100 represents the average of the index over the last 10 years.

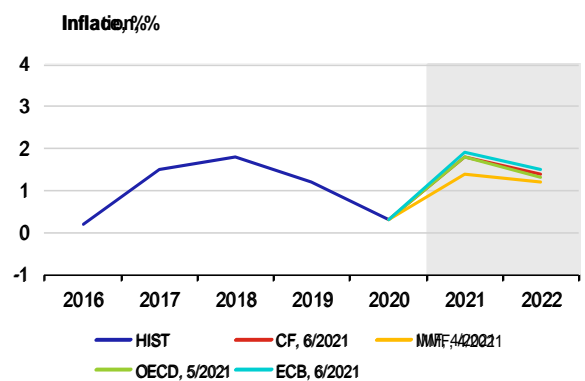
II.1 Euro area

GDP in the euro area declined quarter on quarter in 2021 Q1, as it had done at the end of 2020. However, the fall observed at the start of this year was smaller. In year-on-year terms, economic activity dropped by 1.3%, adversely affected by a worse course of the pandemic and longer lockdowns in the first few months of this year. The negative effect of household consumption on GDP was partly offset by positive contributions from net exports and gross capital formation. Portugal recorded the largest quarter-on-quarter drop (3.3%). However, Slovakia and Germany – the Czech Republic's largest euro area trading partners – also saw significant falls (2% and 1.8% respectively). The economies of France and Italy fared much better, remaining flat quarter on quarter. As the pandemic subsided, euro area economies began to reopen slowly in April. Growing vaccination coverage, in which continental Europe is catching up quickly with the USA, will foster a further easing of restrictions. The aim is to achieve a vaccination coverage rate of 70% before the end of June. This should allow the remaining government restrictions to be lifted.

The services sector was the main driver of growth in economic activity in May. The PMI reached its highest level since February 2021. The recovery in services, coupled with the lengthy period of rapid growth in industry (the PMI in manufacturing hit another all-time high in May), indicates strong GDP growth in Q2. A large increase in the European Commission's sentiment indicator (ESI) in May also suggests a further improvement in the situation. Electricity consumption – another auxiliary indicator of economic recovery – was above the 2019 level in Germany, France and Italy. However, production and transport capacity constraints – in the form of both supply shortages and problems hiring new staff to meet the growing demand – are alarming. This is leading to currently strong growth in price pressures, which may remain a concern for a few months more, especially if labour shortages push wages upwards.

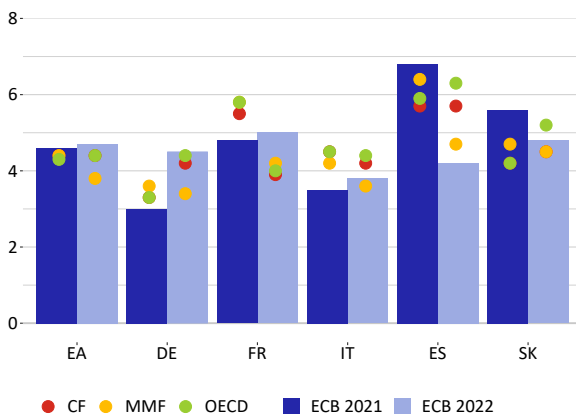


	CF	MMF	OECD	ECB
2021	1.8	1.4	1.8	1.9
2022	1.4	1.2	1.3	1.5

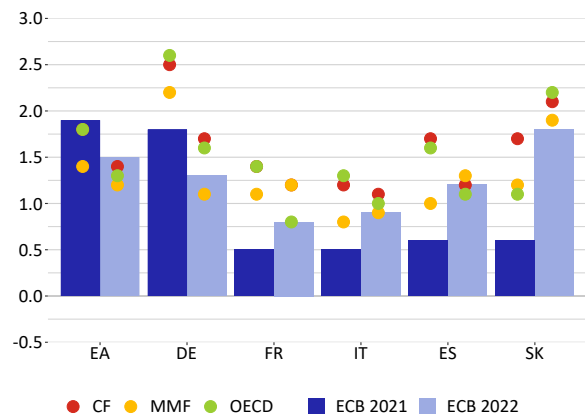


	CF	MMF	OECD	ECB
2021	1.8	1.4	1.8	1.9
2022	1.4	1.2	1.3	1.5

Růst HDP ve vybraných zemích eurozóny pro rok 2021 a 2022, %



Inflace ve vybraných zemích eurozóny pro rok 2021 a 2022, %

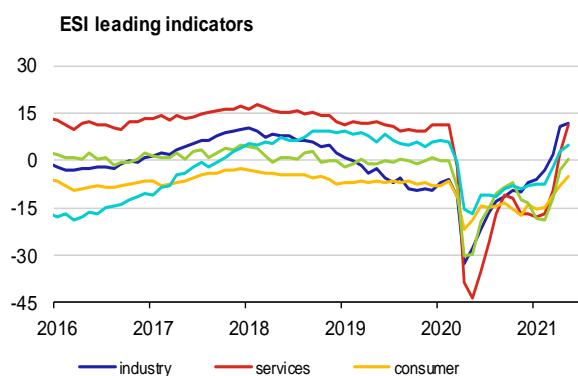


Note: Charts show institutions' latest available outlooks for the given economy.

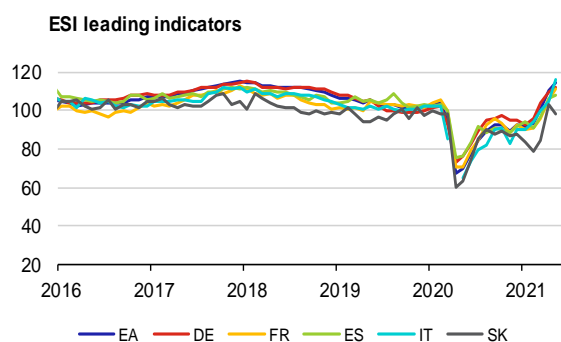
CF analysts' expectations of euro area GDP growth improved compared with the previous month, in line with newly available positive data. The growth is thus expected to reach 4.4% both this year and the next. Germany will grow less than the euro area as a whole. However, Germany was hit less hard by the pandemic. By contrast, the economies of France and Spain will accelerate much more this year. The German, French, Italian and Slovak economies will grow by about 4% in 2022, while Spain will maintain an economic growth rate of almost 6%.

In line with the observed strong upward pressures on prices, CF raised the outlook for euro area inflation in both coming years. According to the June CF survey, average inflation will accelerate to 1.8% this year and slow to 1.4% next year again after the effects of one-off post-pandemic factors (such as rise in VAT rates in Germany early this year) wear off. Inflation had gradually increased to 2% by May, due mainly to energy prices and, to a lesser extent, to services prices. The outlooks indicate a further acceleration in inflation for the rest of this year. Seasonally adjusted wage growth in the private sector remained subdued at 2.2% in 2021 Q1. This year, prices will grow fastest in Germany (by 2.5%), while inflation in other large euro area countries will be lower.

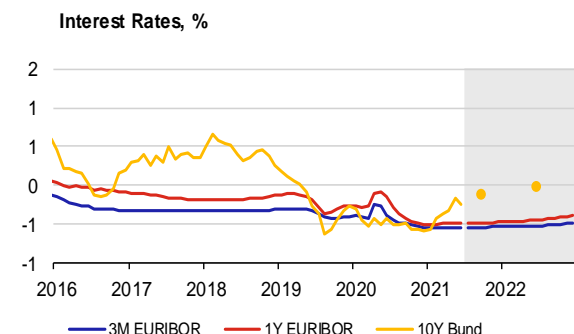
The ECB is actively communicating the temporary nature of the currently elevated inflation, which therefore does not require any change in its monetary policy stance. The ECB confirmed its accommodative monetary policy stance at its June meeting. It left its monetary policy rates and the parameters of its asset purchases unchanged. The press conference indicated that some ECB representatives feel it is very premature to discuss ending the PEPP.



	industry	services	consum.	retail	constr.
3/21	2.1	-9.6	-10.8	-12.2	-2.3
4/21	10.9	2.2	-8.1	-3.0	3
5/21	11.5	11.3	-5.1	0.4	4.9



	EA	DE	FR	ES	IT	SK
3/21	100.9	103.7	96.2	96.9	99.5	84.7
4/21	110.5	109.4	105.8	106.0	104.8	103.3
5/21	114.5	112.2	110.8	108.3	115.8	98.4



	5/21	6/21	9/21	6/22
3M EURIBOR	-0.54	-0.54	-0.54	-0.52
1Y EURIBOR	-0.48	-0.49	-0.48	-0.45
10Y Bund	-0.17	-0.23	-0.10	0.00



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

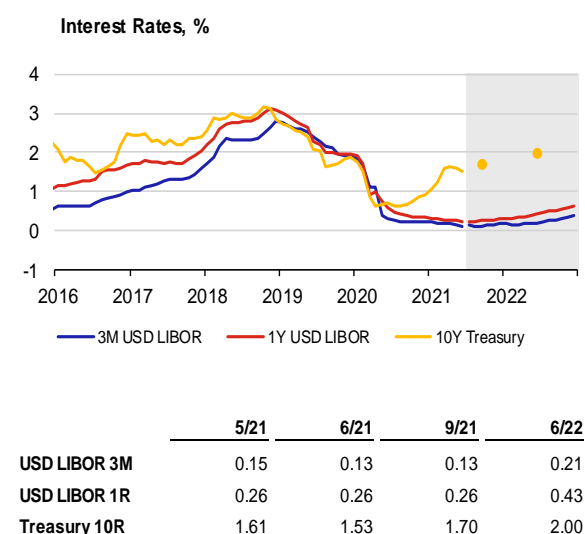
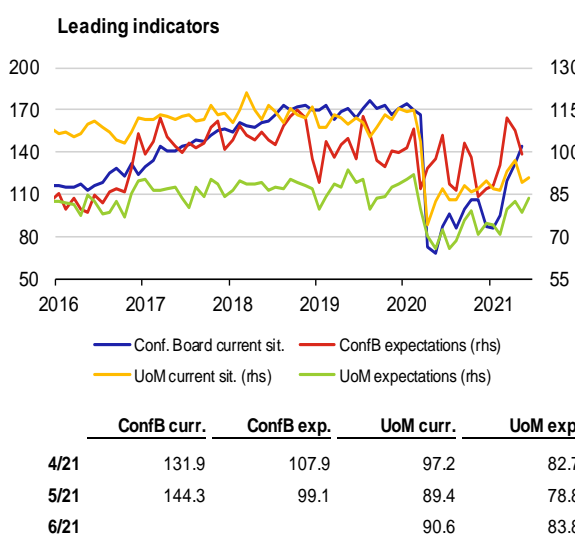
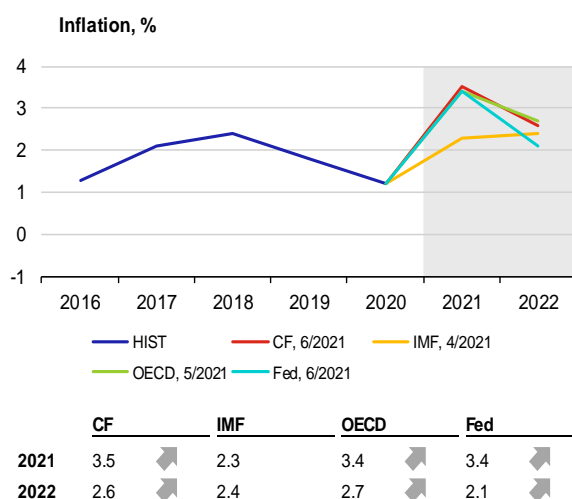
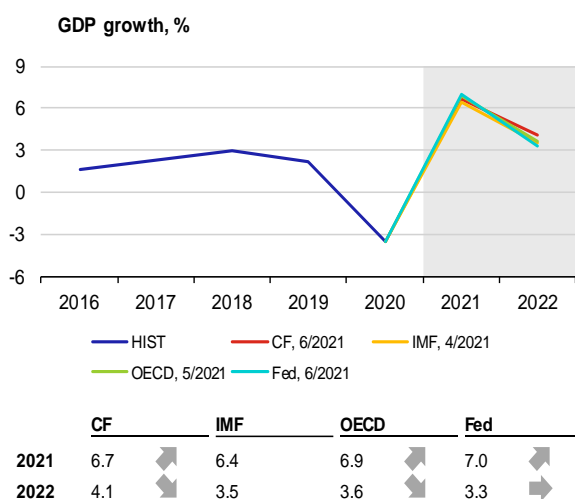
	5y5y	SPF
4/21	1.54	1.68
5/21	1.58	1.68
6/21	1.58	1.68

II.2 United States

President Joe Biden met Russian president Vladimir Putin in Geneva. This was another important political meeting after the G7 summit. Not much is known about what the Russian and US representatives discussed. However, the meeting and the ensuing press conference suggested that the two countries might cooperate in some areas and tensions between them might ease. The G7 summit, held in Cornwall on 11–14 June, discussed not just issues related to Covid-19, but also climate change and international cooperation on supporting economies. Joe Biden is thus delivering on the expectation that Western countries should in his view work more closely together in the international environment.

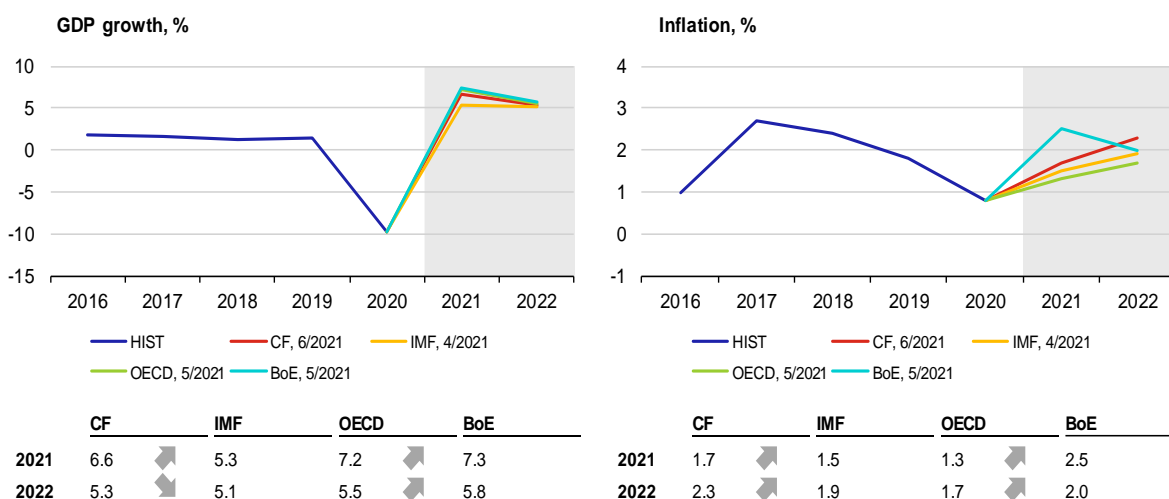
The Fed's monetary policy meeting surprised the markets, as the rhetoric turned hawkish. After the previous meeting in March, rates had not been expected to be raised until 2024. However, according to the latest statement made by the Fed Chair, there is a risk that inflation will be higher than expected. The statement also suggested that two rate hikes instead of one are expected in 2023. At the same time, however, the Fed has not yet reduced the use of its unconventional tools and is continuing to purchase assets at a pace of USD 120 billion a month. Markets responded to the news from the central bank with only a slight correction – a drop in US stock prices (of around 0.5% for indices) and bond yields, especially long-term ones (of 5 bp for five-year maturity and 10 bp for 30-year maturity).

The current outlooks for the US economy moved upwards again. According to the Fed's outlook, the economy will grow by 7% this year, 0.5 pp more than in the March estimate. The projection for 2022 remains unchanged at 3.3%, while that for 2023 is 0.2 pp higher at 2.4%. The inflation outlook increased by a full 1 pp to 3.4% in 2021 and by 0.1 pp in both 2022 and 2023 to 2.1% and 2.2% respectively. The CF outlooks for this year also moved higher but expect GDP growth of 6.7% and inflation of 3.5%. The lumber market situation (for details see the chart of the month in [GEO 05/2021](#)) is starting to calm and prices are gradually falling. A similar trend is expected for the used car market, which is also important for inflation.



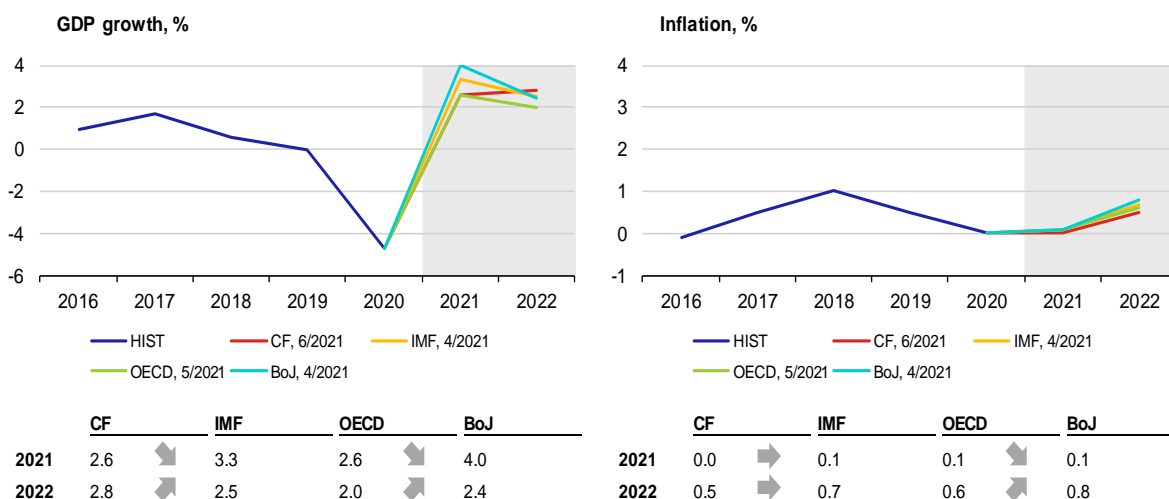
II.3 United Kingdom

A delay of four weeks in the full opening of the UK economy dampened hopes that the well-started recovery would continue. The Delta variant, which is spreading in the UK despite a successful vaccination scheme, postponed the plan for the final reopening of the economy until 19 July. However, Prime Minister Boris Johnson has rejected calls for further financial support. Despite that, CF now expects higher GDP growth this year (6.6%), while the NIESR predicts more sober growth (5.7%) in its new forecast. A combination of high demand for labour and an insufficient supply of applicants, which caused wages to grow in May, also has the potential to slow the recovery. Inflation in May rose sharply year on year to 2.1% (the highest level since July 2019), exceeding the BoE's inflation target. The composite PMI remains positive for now. Its May increase to 62.9 signals record growth, with the manufacturing and services sectors expanded at a solid pace due to a slightly better pandemic situation. As regards the repercussions of Brexit, the UK and the EU signed a new, balanced deal on fishing rights mainly for the rest of 2021.



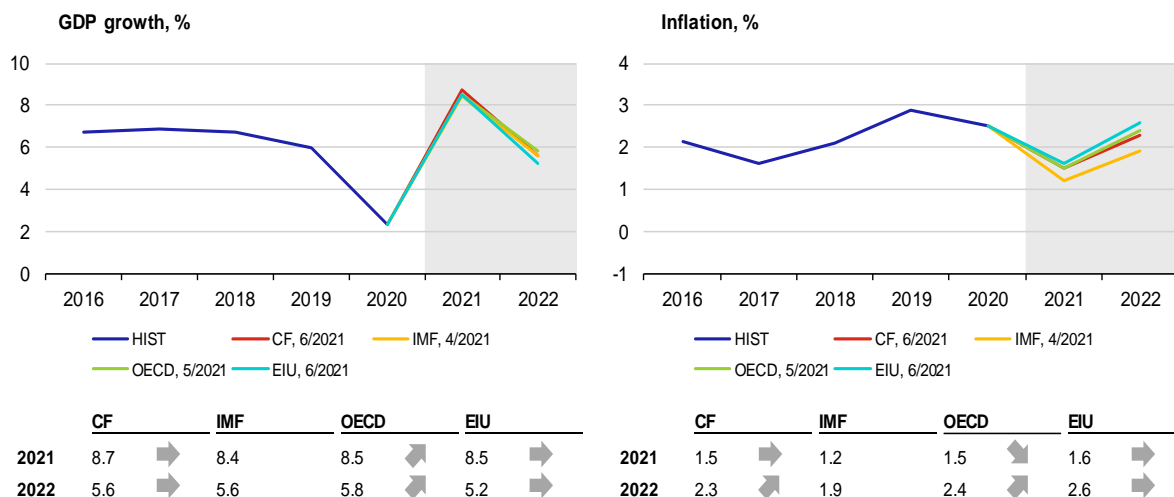
II.4 Japan

Japan remains the exception to the global trend of higher consumer price inflation. Although the year on year decline in the CPI slowed by 0.1 pp to 0.1% in May, Japan remained in deflation for the ninth consecutive month. Consumer prices fell despite the highest wage growth since 2018 and the highest producer price inflation in 13 years (4.9% year on year). Industrial prices were pushed up mainly by rising prices of commodities and key production inputs. The GDP data for Q1 showed a quarter-on-quarter drop of 1%, linked mainly with the impact of stricter pandemic lockdowns on household consumption. However, other components of GDP, including private investment, net exports and government expenditure, also declined. Question marks hang over the attendance of fans at the Tokyo Olympics and the potential budget impact.



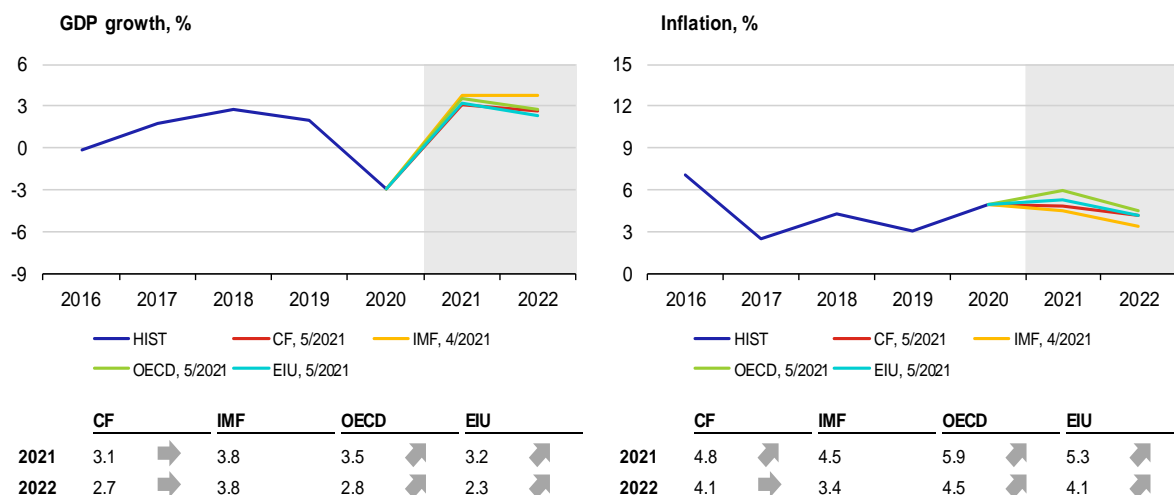
II.5 China

Following a record expansion of the Chinese economy in Q1, GDP growth will slow in Q2. The robustness of China's economic growth remains uncertain, partly due to its uneven distribution across sectors. At the start of this year, China recorded one of its lowest quarterly growth rates in two decades. In addition, the continued disruption of global supply chains is being negatively reflected in production capacity constraints. The observed industrial production and retail sales data indicate much lower growth in April and May compared with previous months. Moreover, the monetary and fiscal stimuli provided to the economy last year will diminish gradually over the rest of the year. According to the CF analysts' June outlook, the Chinese economy will grow by 8.7% year on year in 2021 and 5.6% in 2022. Consumer price inflation in China will average 1.5% this year and accelerate to 2.3% in 2022.



II.6 Russia

The surge in the Covid-19 epidemic in Russia has yet to be reflected in short-term indicators. The number of new cases has been growing fast since early June and there are increasing concerns that it might be a new strain of the virus. The hardest hit region is Moscow, which registered more than a half of all new cases in Russia as of 17 June. As a result, there is a mandatory vaccination for 60% of services staff in the capital. Financial developments have not yet responded to the epidemic situation. The Russian rouble is firming on the back of good news about a halt in the imposition of new US sanctions and due to the meeting of the Russian and US presidents. The rouble is also being boosted by the rising price of oil. The leading PMIs were clearly indicating expansion in May. Inflation rose to 6% in the same month. The central bank is registering further growth in inflation pressures (partly due to a faster-than-expected economic recovery in Russia and globally). As a result, it raised the key rate by another 0.5 pp to 5.5% in mid-June.

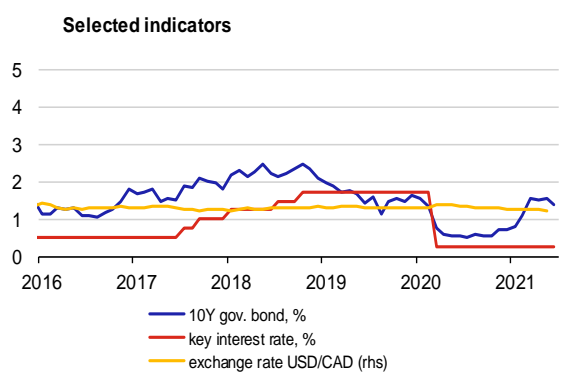
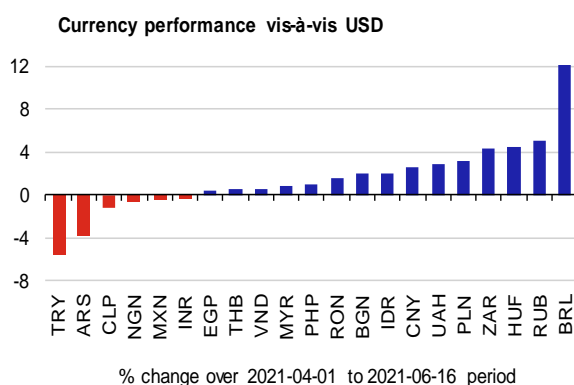
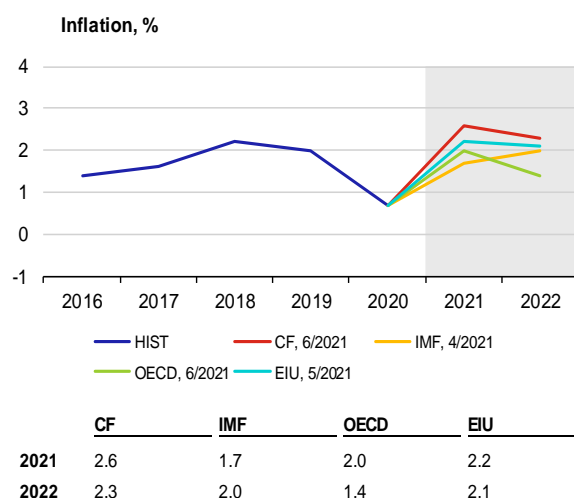
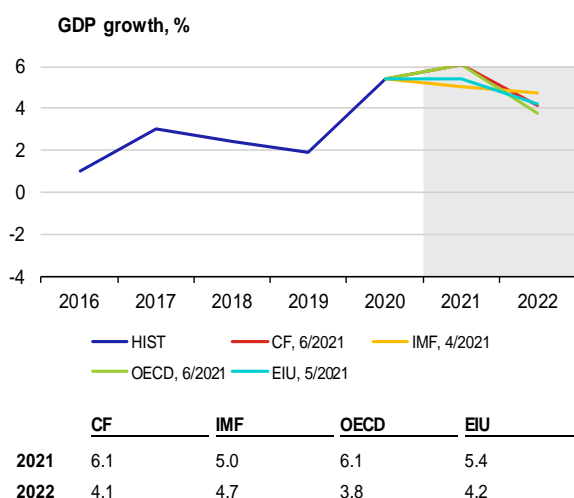


II.7 Canada

The Canadian economy is continuing to recover from the consequences of the epidemic, due to a solid pace of vaccination and an improved outlook for the global economy. The central bank (the BoC) expects GDP to grow by 6.75% in 2021 after a 2.5% drop in 2020. Growth will slow to 4% next year and remain just above 3.5% in 2023. Domestic fiscal and monetary policy, which is supporting potential output growth, along with faster growth and fiscal stimuli in the USA and high commodity prices, which are leading to more favourable terms of trade, are important for Canada's economy. Moreover, consumer and business confidence is growing. This is being reflected in higher expected export and investment growth. Firms' financing conditions remain favourable. However, it will take some time for the economy to recover fully, especially as regards services and unemployment.

The BoC expects inflation to rise temporarily to the upper bound of the 1–3% tolerance band of the inflation target, due to base effects and growth in petrol prices. Inflation is expected to return to the 2% target in 2022 H2. However, there are significant risks to this outlook due to the uneven impact of the epidemic (which hit services particularly hard) and uncertainty about the economy's potential. An important part of the Canadian economy is the housing market, which continues to show above-average activity due to growth in disposable income of higher-income workers and low mortgage rates. Work from home has increased demand for owner-occupied housing and housing in more remote areas. All this is increasing demand in the construction industry, which, however, lacks labour and material. Property prices are thus growing strongly and the fundamental pressures may later be joined by speculative ones.

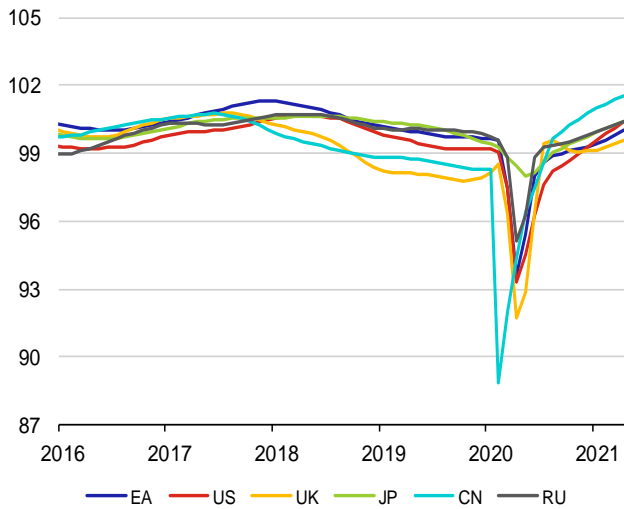
The expected growth in Canadian exports of goods and services (tourism) due to growth in external demand will be only partly offset by a stronger Canadian dollar. Although Canada is a commodity country (one whose exchange rate is closely linked to commodity prices), its main exports are cars and machinery. Exports of electrical equipment and mineral fuels are roughly half the size of those of cars and machinery. At about a quarter of the value, exports of plastics are also important. However, exports of motor vehicles will remain weak for some time due to the global chip shortage.



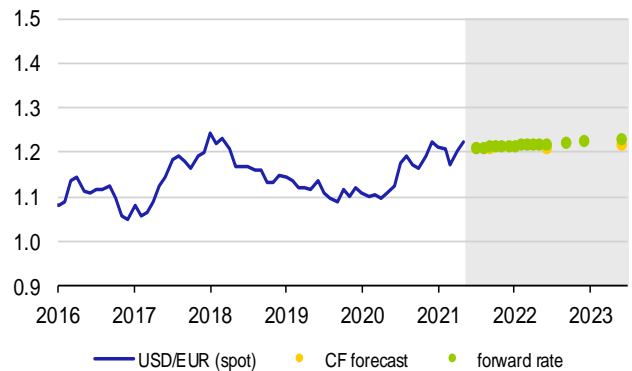
	10Y gov. bond, %	interest rate, %	USD/CAD
4/2021		1.53	1.25
5/2021		1.55	1.21
6/2021		1.38	1.25

III. Leading indicators and outlook of exchange rates

OECD Composite Leading Indicator

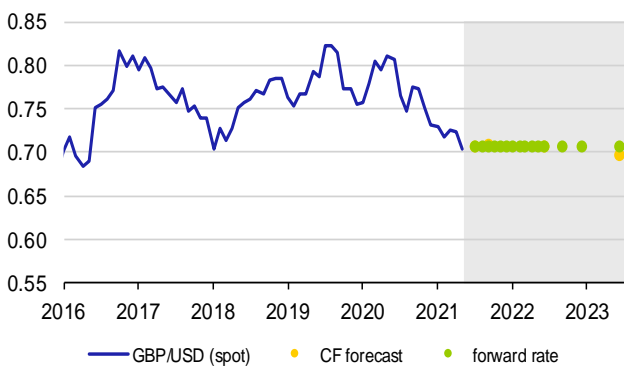


The US dollar (USD/EUR)



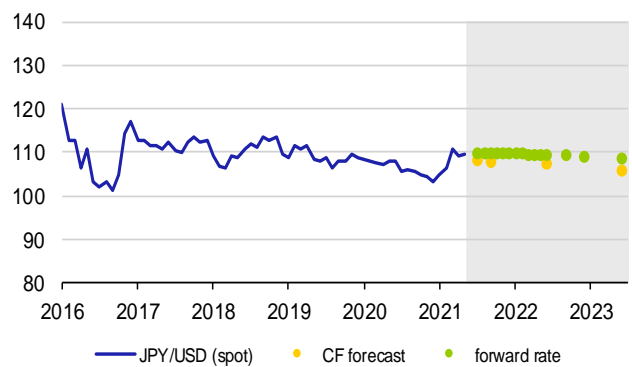
	14/6/21	7/21	9/21	6/22	6/23
spot rate	1.212				
CF forecast		1.211	1.212	1.213	1.219
forward rate		1.213	1.214	1.221	1.232

The British pound (GBP/USD)



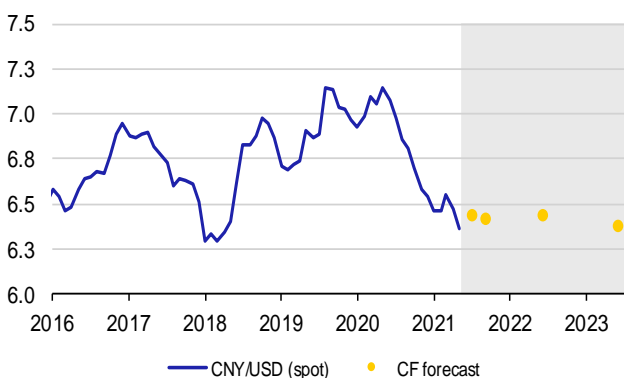
	14/6/21	7/21	9/21	6/22	6/23
spot rate	0.708				
CF forecast		0.709	0.710	0.707	0.698
forward rate		0.709	0.709	0.708	0.708

The Japanese yen (JPY/USD)



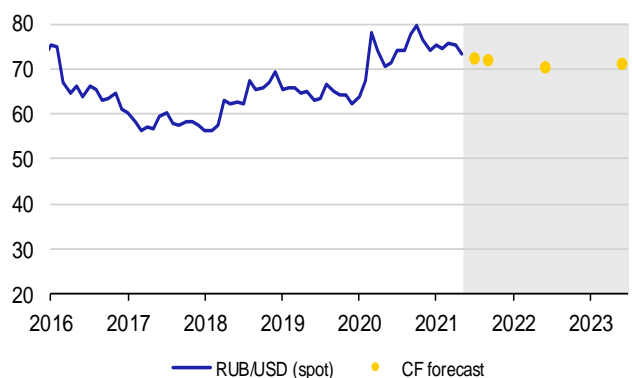
	14/6/21	7/21	9/21	6/22	6/23
spot rate	110.0				
CF forecast		108.6	108.2	107.5	106.2
forward rate		110.0	110.0	109.7	109.0

The Chinese renminbi (CNY/USD)



	14/6/21	7/21	9/21	6/22	6/23
spot rate	6.390				
CF forecast		6.440	6.428	6.442	6.383

The Russian rouble (RUB/USD)

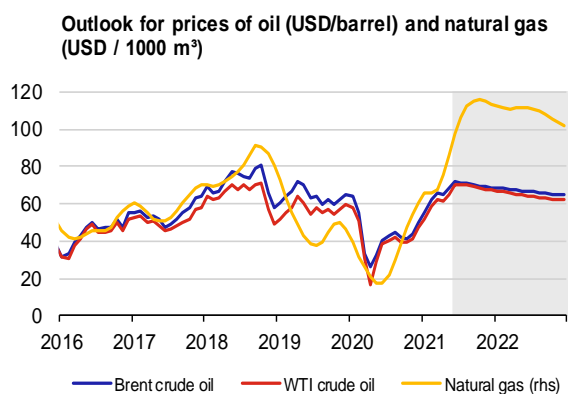


	14/6/21	7/21	9/21	6/22	6/23
spot rate	72.07				
CF forecast		72.65	72.08	70.41	71.45

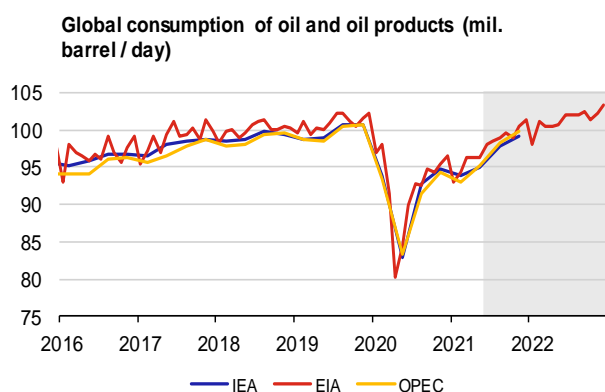
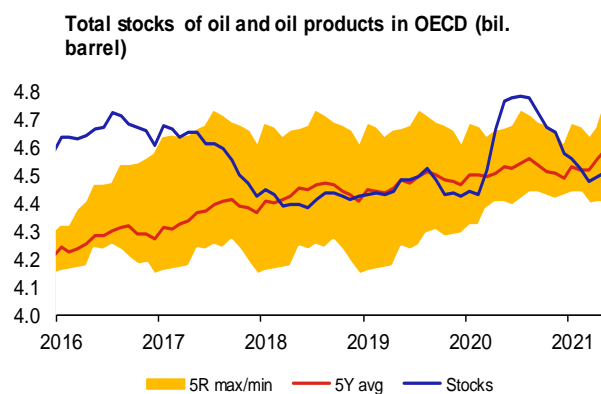
Note: Exchange rates as of last day of month. Forward rate does not represent outlook; it is based on covered interest parity, i.e. currency of country with higher interest rate is depreciating. Forward rate represents current (as of cut-off date) possibility of hedging future exchange rate.

IV.1 Oil

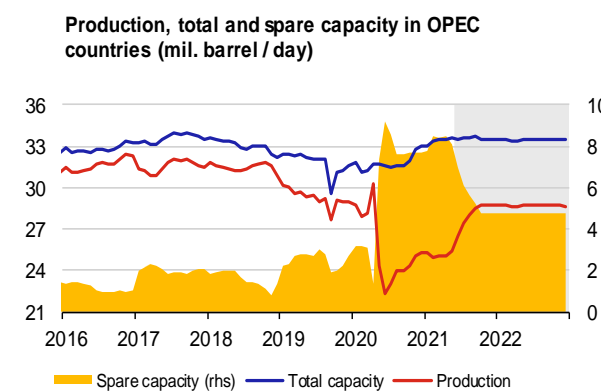
After the rapid growth seen in mid-April, the Brent crude oil price continued to rise steadily. In early June it broke through USD 70/bbl and accelerated further. The temporary but sharp drop in the oil price in the second half of May was due to news of successful talks between world powers and Iran about renewing the nuclear deal. However, this later turned out to be prematurely optimistic. Several more rounds of talks will probably be needed to secure a deal, and Iranian oil of up to 2 million barrels a day is unlikely to return to world markets before the autumn. The Brent price thus broke through USD 70/bbl in early June and kept rising fast to its highest level since October 2018. Demand for oil is expected to grow apace in 2021 H2 due to accelerating vaccination worldwide. Only a worse epidemic situation in India and some other Asian and Latin American countries is preventing oil prices from growing more strongly. OPEC+ will raise production by 2 million barrels a day in May and June but intends to wait until it sees real consumption growth before increasing output further. Its policy has been very successful so far, partly due to the financial discipline of US producers, which, despite the fast oil price growth, are raising production only slowly and focusing on consolidating their finances. Global oil inventories, which built up at the start of the pandemic, have dropped to almost the pre-pandemic level and are expected to fall further. The tight market situation is also evidenced by a strongly negative slope of the Brent futures curve, which is attracting hedge funds and investors to the market to buy commodities as a hedge against expected higher inflation. The market curve in the first half of June is signalling a drop in the Brent price from its current level of above USD 70/bbl to about USD 69/bbl and USD 65/bbl at the end of 2021 and 2022 respectively. The June CF also expects the price to fall at the one-year horizon, to USD 65.6/bbl. The current EIA forecast predicts an even bigger drop in this period – to USD 62 and 60/bbl respectively.



	Brent		WTI		Natural gas	
2021	67.41	↗	65.37	↗	331.83	↗
2022	66.52	↗	64.27	↗	381.40	↗



	IEA	EIA	OPEC	
2021	96.47	↘	96.55	↗
2022		101.32		↘



	Production	Total capacity	Spare capacity			
2021	26.86	↘	33.49	↗	6.63	↗
2022	28.67	↗	33.44	↗	4.77	↘

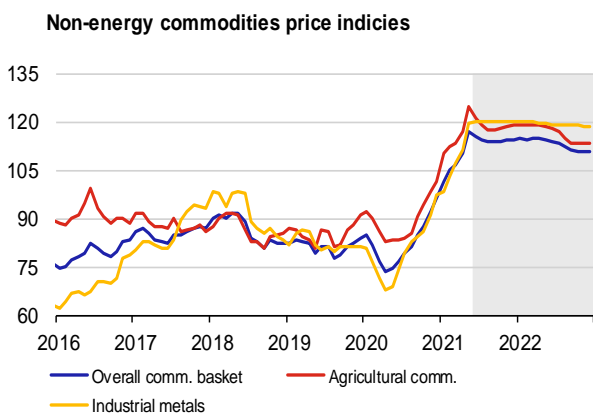
Source: Bloomberg, IEA, EIA, OPEC, CNB calculation

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.

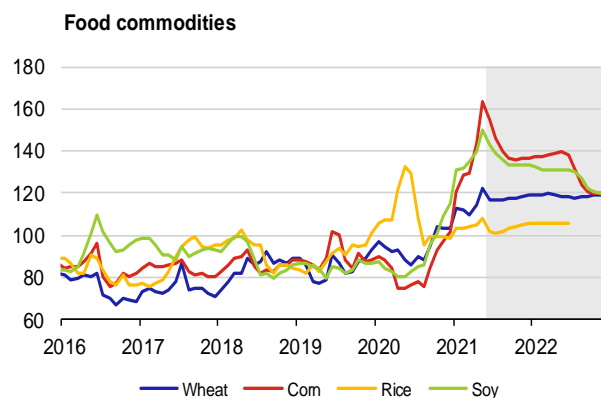
IV.2 Other commodities

The average natural gas price in Europe rose by 46% in April and May. This was due to cold weather in Europe, which delayed the replenishment of significantly below-average inventories, to continued growth in prices of emission allowances, which is raising power stations' demand for gas at the expense of coal, and to high LNG prices in Asia, which are leading to lower imports of LNG to Europe. At the end of May, storage facilities in Europe were at roughly 38% of capacity, compared to 73% last year. The price of coal also surged in the first half of May and again in the first half of June, reaching its highest level since the end of 2011. This was due to global growth in industrial activity, high gas prices in Asia and high electricity output in China.

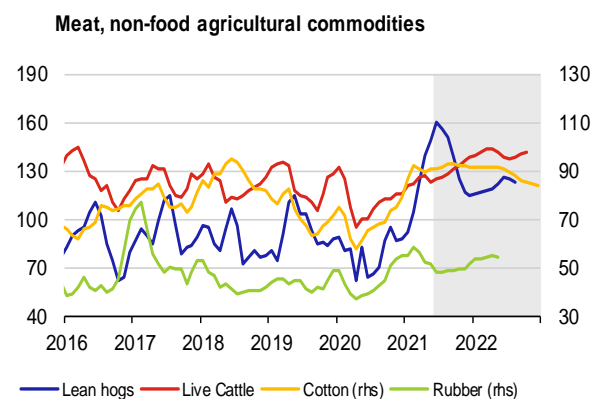
The average monthly non-energy commodity price index rose sharply in May but dropped slightly in the first half of June due to a correction of the food commodity price sub-index. Prices of most base metals accelerated in the second half of April and early May, but the growth then halted. Copper, tin and iron ore prices reached new all-time highs. This was due to strong manufacturing demand, a weaker dollar and concerns about a drop in production in South America. Copper prices were also affected by a fall in stocks on the LME. Tin and iron ore prices are expected to fall significantly over the outlook horizon, while prices of other metals will stay roughly at current levels. Food commodity prices recorded similarly strong growth in the second half of April and early May. However, grain prices partially reversed their previous growth in the rest of the month, and corn and soy prices are expected to continue to fall sharply over the outlook horizon. By contrast, pork prices keep rising apace, although a correction is also expected over the outlook horizon. As for non-food agricultural commodities, the price of rubber declined in May and the first half of June.



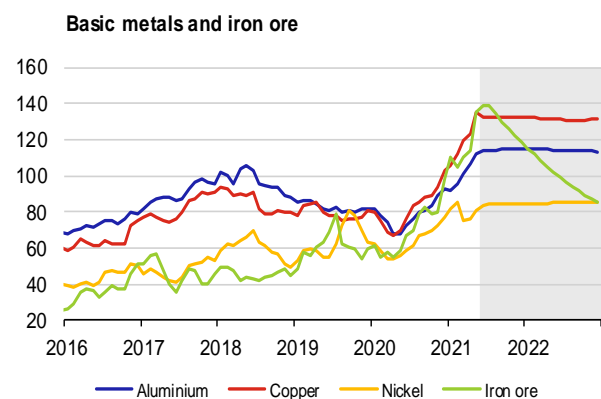
	Overall	Agricultural	Industrial
2021	111.7	117.3	115.0
2022	113.0	116.5	119.3



	Wheat	Corn	Rice	Soy
2021	116.2	139.4	103.9	136.5
2022	118.8	130.6	105.9	127.3



	Lean hogs	Live Cattle	Cotton	Rubber
2021	130.8	127.9	91.1	51.4
2022	120.7	140.7	88.8	54.0



	Aluminium	Copper	Nickel	Iron ore
2021	108.9	126.8	82.6	123.5
2022	114.1	131.3	85.0	98.6

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.

Outlooks in the pandemic year 2020 – where are world economies heading?¹

Every month, *Global Economic Outlook (GEO)* provides a commented overview of the latest economic outlooks issued by international institutions, selected central banks and Consensus Economics. Assessing the outlooks for 2020 has its peculiarities, as the whole world was hit by the coronavirus pandemic. Who best forecasted future developments at the onset of the pandemic? And how have selected institutions' perceptions of growth of the world's major economies changed over the past ten years? You can read about this and other things in this article.

How successful were the forecasts in the year of coronavirus?

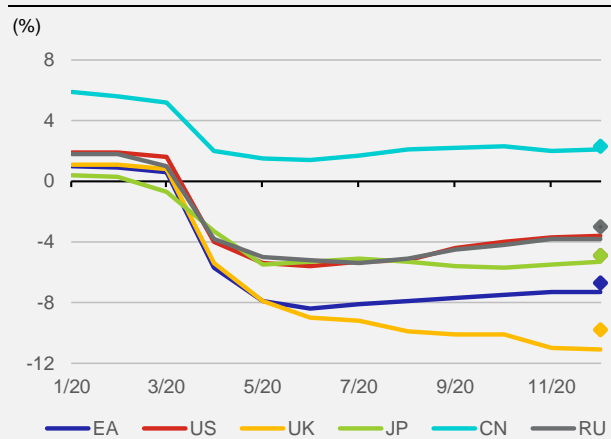
Every year we assess the accuracy of the forecasts presented in GEO. This backward-looking assessment determines which of the institutions we monitor was closest to the observed outcomes in its outlooks and estimates. Every year we assess the forecasts for key macroeconomic indicators not only from the real economy, but also from financial and commodity markets. We focus on GDP, CPI, interest rates, oil prices and exchange rates against the dollar. GEO presents forecasts for various countries, but in our assessment of the forecasts we usually focus only on the euro area, the USA, the UK, Japan, China and Russia. In this article, we will continue in this vein.

Last year was unusual because of the unexpected pandemic of the coronavirus causing COVID-19. Its spread from China had an overwhelming impact on all economies of the world. Chart 1 clearly illustrates how unexpected the onset of the pandemic was in the first few months of last year. The initial growth estimates were generally optimistic, but expectations worsened sharply as the disease spread rapidly. The accuracy of the forecasts then gradually increased over time, but, as Chart 1 shows, they were not very accurate even in December 2020 and were more pessimistic than the subsequent outcomes for all countries. The strong countercyclical monetary policy and especially fiscal policy response², which was evidently underestimated by the CF analysts, undoubtedly supported the more favourable overall outcome. China was the only country to maintain positive growth in 2020.

Last year, some institutions based their estimates on multiple scenarios rather than just one. As a result, we have slightly modified our traditional annual assessment this year. We look at how pessimistic or optimistic the institutions we monitor were about the pandemic at its onset. We take March 2020 – when the coronavirus had spread across the world – as the global start of the pandemic. By that time, it had also become evident from the experience of China, the first country to be affected, that the disease was serious. The governments of all the countries hit by the coronavirus infection were by then introducing previously unimaginable lockdowns that caused their economies to contract sharply.

The initial optimism gradually faded as the lockdowns became more protracted. As shown in Chart 1, the first estimates of the impact of the epidemic were generally “positive” and the situation seemed analogous to the 2008–2009 global financial crisis. However, as the cause of the crisis was different, its course and impact on macroeconomic variables also differed. Chart 2 offers a

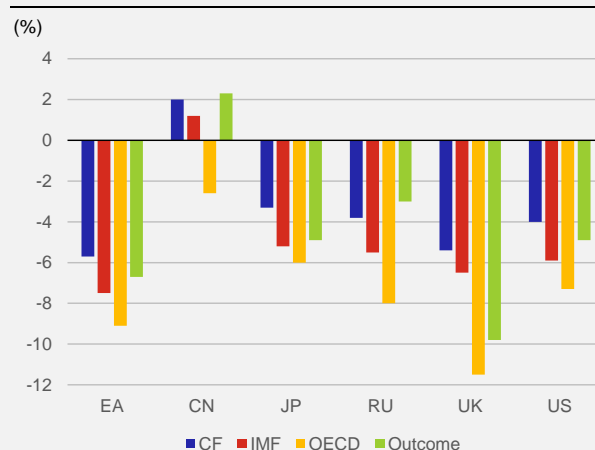
Chart 1 – GDP growth outlooks during 2020



Source: Consensus Economics.

Note: The point at the end indicates the observed outcome.

Chart 2 – GDP growth outlooks at the onset of the crisis



Source: Consensus Economics.

Note: CF – April, IMF – April, OECD – June.

¹ Authors: Filip Novotný and Petr Polák. The views expressed in this article are those of the authors and do not necessarily reflect the official position of the Czech National Bank.

² Fiscal policy measures are discussed by e.g. Polák at al. (2020).

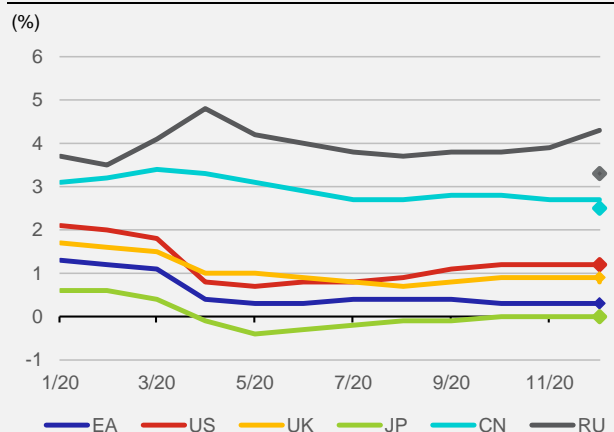
comparison of the outlooks of various institutions at the onset of the crisis. It is difficult to make a direct comparison, as the publication frequency of international institutions' outlooks varies and, for example, the OECD's March outlook had not yet incorporated the impacts of the pandemic. We could also include central banks' outlooks in our comparison, but the US Fed, for example, skipped its spring outlook (the one of most interest to us). It is therefore more appropriate to compare the mid-April 2020 CF and IMF outlooks. In all cases, the IMF was much more conservative (pessimistic) than CF and, with the exception of the United Kingdom (where the impact of Brexit was still reflected), predicted lower growth rates than the eventual outcomes. In terms of the accuracy of the forecasts, the CF performed similarly to the IMF, and both made smaller errors in their initial estimates of the impact of the pandemic than the OECD, which, however, prepared its outlook a quarter later. It is worth recalling that the IMF further lowered its growth projections in its June 2020 outlook (at that time the pandemic had been brought under control in some nations but was becoming increasingly widespread in developing countries). Other institutions made similar changes. Chart 1 shows how the GDP growth outlooks dropped during 2020 Q2 and then started rising as economies began to adjust to the new situation and the restrictive measures were partly lifted in the summer, especially in Europe.

The outlooks expected consumer price inflation to slow. This was due mainly to a decline in global demand caused by the shutdowns of economies and to concerns about the future. Chart 3 shows how perceptions of the effects of the coronavirus crisis on the consumer price index evolved. A slowdown in consumer price inflation was expected in advanced economies, whereas an acceleration was forecasted for China and Russia. The developed countries under review ended last year with inflation below the 2% ideal (EA 0.3%, US 1.2%, UK 0.8%, JP 0%). At 3.3%, inflation in Russia also fell short of the central bank's target of 4%, as did Chinese inflation (2.5%) by comparison with the government's plan of around 3%. The typical downward revision of the inflation outlooks in early 2020 due to the pandemic was common to all international institutions. During 2020, no one was expecting the coronavirus pandemic to have upside effects on inflation.

The subdued inflation in 2020 has been replaced by a strong inflationary effect in 2021, as described in more detail by Polák and Novotný (2020), for example. The impacts of the coronavirus crisis and the effects of government stimuli and easy monetary policy have manifested themselves in full this year. The consumer price inflation outlooks for 2021 are thus at higher levels and have been increasing since the start of the year. In this respect, the outlooks are consistent with rising financial market inflation expectations. The higher inflation is due mainly to energy prices, which fell sharply last year and whose return to their pre-crisis levels coupled with base effects is now causing the CPI to rise. In addition, economies are now facing the full impact of the cracks in supply chains caused by production shortfalls last year.

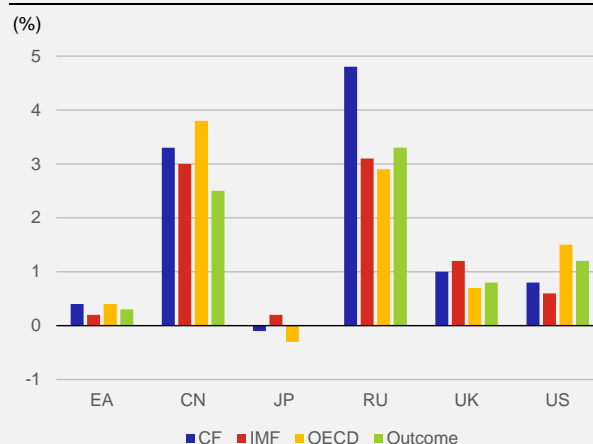
Consumer price inflation outlooks are traditionally less volatile than GDP outlooks. Paradoxically, however, they tend to be less accurate.³ Chart 4 shows how international institutions forecasted inflation in our selected economies at the beginning of the crisis. The IMF's forecast was the most accurate, while the OECD performed worse even though it did not prepare its forecast until the end of Q2. So, as with GDP, a later forecast is not necessarily a more accurate one.

Chart 3 – Inflation outlooks during 2020



Source: Consensus Economics.
Note: The point at the end indicates the observed outcome.

Chart 4 – Inflation outlooks at the onset of the crisis



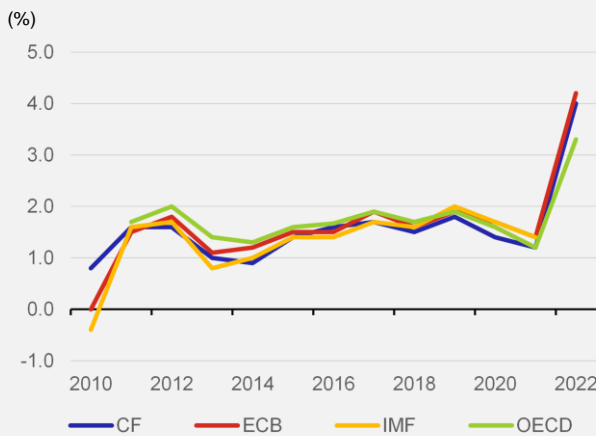
Source: Consensus Economics.
Note: CF – April, IMF – April, OECD – June.

³ See, for example, Novotný (2020).

Longer-term outlooks show similar trends

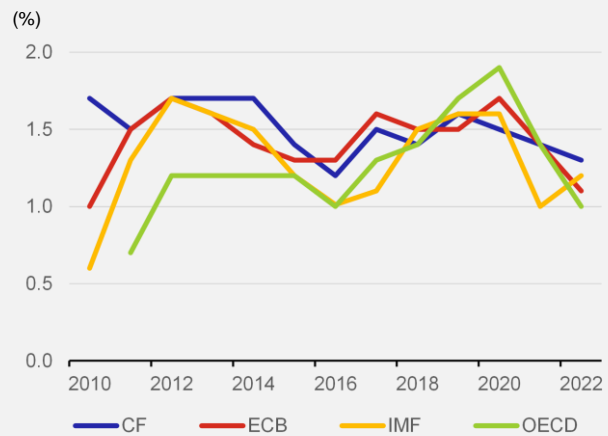
In this year's comparison, we also look at the changes in international institutions' outlooks for horizons of over one year. In GEO, we are usually interested in the outlooks for this year and the next. Most international institutions provide forecasts for two years ahead, and some regularly add outlooks for three years or more. Chart 5 shows international institutions' growth outlooks for euro area GDP one year ahead (in 2021, for example, it shows the growth expected in 2022). We compare the January CF outlooks with the first available forecasts from other institutions.⁴ The euro area GDP outlooks for one year ahead are almost identical regardless of the institution. This may be due to the importance and close monitoring of the euro area economy. However, the same argument does not apply to the US outlooks, which show a similar trend but are much more volatile. Chart 6 shows expected consumer price inflation one year ahead. It is clear from the chart that the volatility of the outlooks has decreased markedly and the outlooks generally have a common trend (all going up or down).

Chart 5 – Euro area GDP growth outlook over time



Source: Consensus Economics.
 Note: The chart shows the January estimate from the previous year (for example, the January 2020 estimate is shown for 2021).

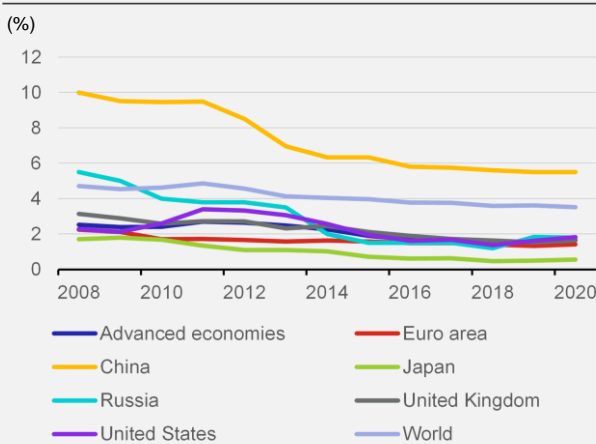
Chart 6 – Euro area CPI outlook over time



Source: Consensus Economics.
 Note: The chart shows the January estimate from the previous year (for example, the January 2020 estimate is shown for 2021).

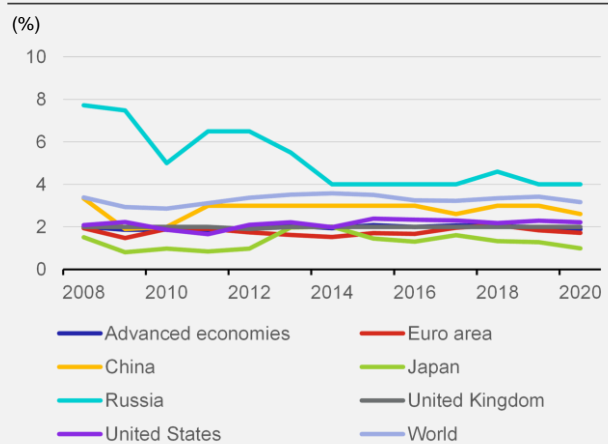
An even more useful picture can be obtained from international institutions' long-term outlooks. The IMF regularly provides outlooks for longer timescales, usually in its autumn report, which contains outlooks for a full five years ahead. The economy can be expected to return to its potential at the two-year horizon, and this outcome is even more likely at the five-year horizon. The time series of such outlooks meanwhile shows whether the potential of the economy is rising or falling. Chart 7 summarises the IMF's GDP outlooks for the economies under review, for the whole world and for advanced countries over the past decade. It is clear that the growth potential of all economies is generally declining. This is logical to

Chart 7 – Long-term GDP growth outlook



Source: IMF.
 Note: The outlooks are published for five years ahead, i.e. the outlook for 2021 was published in 2016.

Chart 8 – Long-term CPI outlook



Source: IMF.
 Note: The outlooks are published for five years ahead, i.e. the outlook for 2021 was published in 2016.

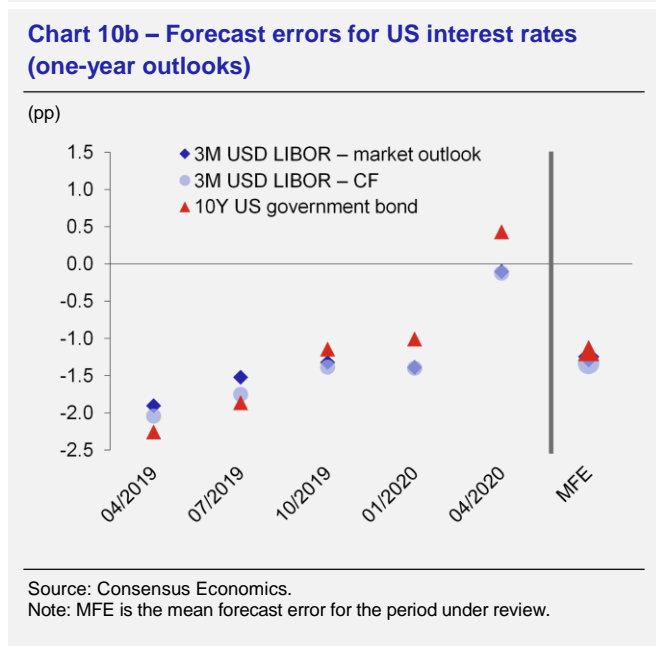
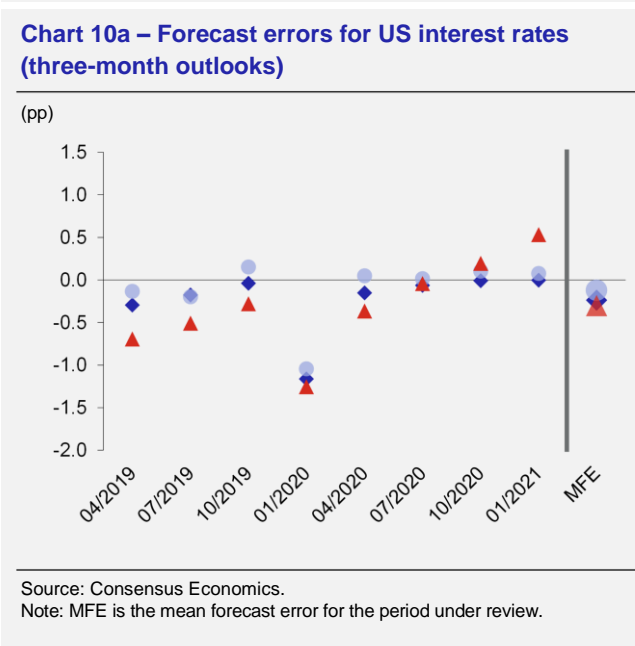
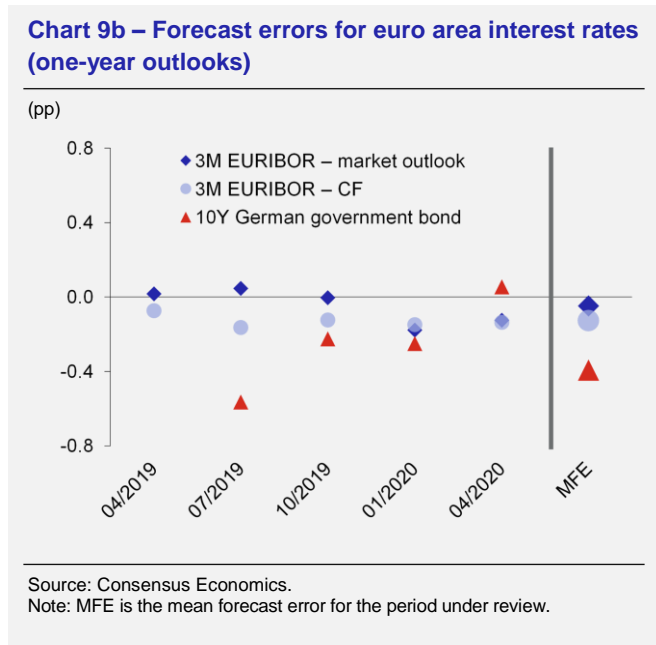
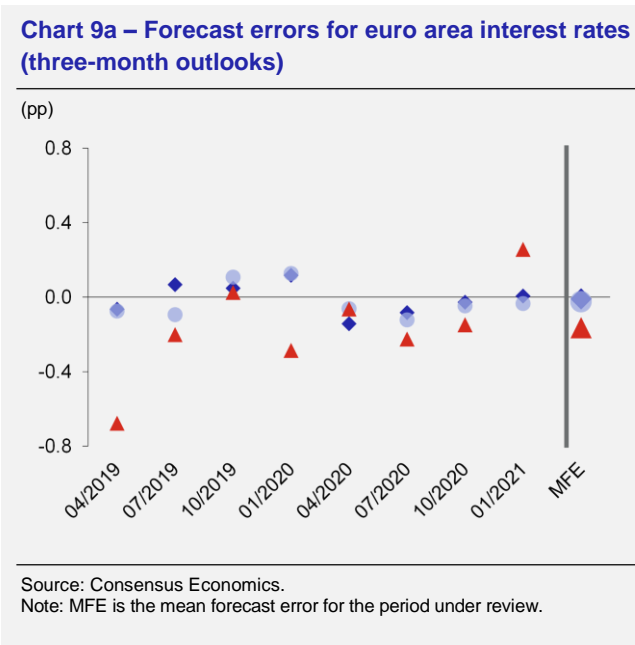
⁴ The value for December of year T and the outlook for year T+2 are used for the ECB and the OECD. The January outlook is used for the IMF.

some extent, as a constant rate of growth would mean exponential growth of economies, which is not sustainable. Even so, the expected growth of the world economy has fallen from 4.7% to 3.5% over the last more than ten years. Similarly, expected growth in advanced economies has declined from 2.5% to 1.7%. This could stir up a debate about the configuration of some pro-growth models, which see a figure of around 2% as representing sustainable real GDP growth. Of course, there is a correlation between an economy’s level of development and its growth potential.

Inflation targeting delivers higher inflation stability, due mainly to inflation expectations being anchored at the inflation target. It is therefore quite logical that the long-term outlooks are close to the inflation targets. The long-term inflation outlooks are relatively stable, peaking at around 2% for advanced economies. Price stability is the main objective of central banks, and the IMF’s long-term outlooks expect price stability to be achieved. The inflation outlooks thus support, and are consistent with, the inflation targets.

Expectations of higher interest rates did not materialise

In GEO, interest rate outlooks are monitored for the euro area and the USA only. The outlooks for three-month interest rates are derived from futures. By contrast, the outlooks for long-term (ten-year) government bond yields are taken from CF. In the assessment we additionally use alternative three-month rate forecasts published in CF for comparison. As these are important financial market variables, they respond rapidly to shocks.



Short-term interest rate expectations at the one-year horizon were slightly higher than the outcomes (see Charts 9 and 10). In the case of the three-month outlooks, the accuracy of the forecasts was affected mainly by central banks' communications. As regards the short-term outlooks for euro rates, the forecasts were led by the ECB's current forward guidance, so expectations were firmly anchored to the current rate level. Facing the zero lower bound on interest rates, the ECB had to adopt additional unconventional instruments in response to the coronavirus pandemic. These included the Pandemic Emergency Purchase Programme (PEPP). Last year, after a short period of increased volatility linked with the coronavirus pandemic, the 3M EURIBOR fell below -0.5%, where it stayed for the rest of the period from April 2020 on.

Over the period under review, the path of US interest rates followed a downward trend, which was reinforced by the onset of the pandemic. The difference between EA and US rates has long been large, mainly because euro area rates have long been negative. Furthermore, recall that US rates were not at zero at the start of 2020, as they were being normalised in the period between the crises. Owing to a worsening economic situation, the Fed started a cycle of lowering interest rates in August 2019. This had been expected at neither the one-year nor the three-month horizon. In April 2019, CF had been expecting short-term interest rates to be at 2.4% three months ahead. The market outlook was even 2.6%. The Fed cut rates further by the usual 25 basis points in September and October 2019. Eventually, it lowered rates sharply in two steps to zero in March 2020 in response to the negative impacts of the unexpected shock taking the form of the global coronavirus pandemic. The mean forecast error at the one-year horizon was thus significant. The accuracy of the market outlooks for three-month rates differed only slightly from the CF outlooks for both economies under review.

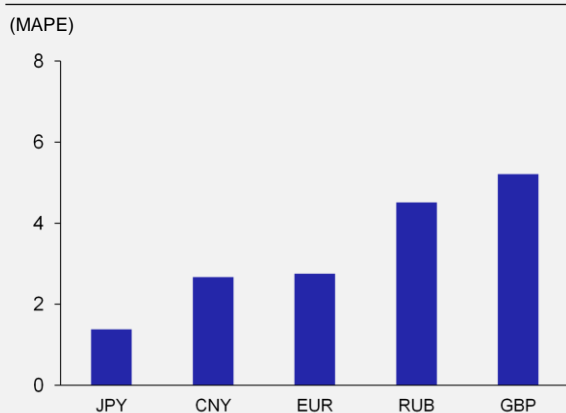
The forecasts for ten-year government bond yields at the one-year horizon were overestimated on average for both the USA and the euro area. The short-term (three-month) outlooks were only slightly overestimated on average. The similarity in the deviations of the forecasts for long-term yields is due to the high correlation between German and US ten-year government bond rates themselves.

Assessment of the accuracy of the dollar exchange rate forecasts

The deviations of the monitored exchange rates were negligible on average, especially as regards the three-month outlook (Annexes 3 and 4). GEO provides information about the outlooks for the exchange rates of selected currencies against the US dollar based on CF forecasts. In addition, forward rates are provided for the euro, the Japanese yen and sterling. They are based on covered interest parity and represent the current ability to hedge the future exchange rate rather than the outlook. CF's one-year outlooks for the euro, sterling and the Japanese yen were more accurate over the past year than those derived from market contracts. At the one-year horizon, the dollar was expected to be stronger against the monitored currencies compared to the subsequent outcome. The exception was the Russian rouble, for which the opposite was true. The CF outlook for sterling and the Japanese yen almost materialised on average.

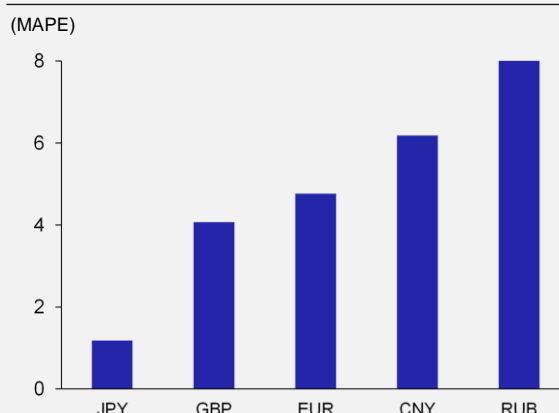
The outlook for the exchange rate of the Japanese yen was the most accurate of all the currency pairs at both the three-month and one-year horizons. The same was the case in the 2020 and 2019 assessments. Conversely, the forecasts for sterling at the three-month horizon and for the Russian rouble at the one-year horizon were the least accurate (see Chart 11).

Chart 11a – Forecast errors for the exchange rates of selected currencies against the dollar (three-month outlooks)



Source: authors' calculations.
Note: MAPE is the mean absolute percentage error of the forecast.

Chart 11b – Forecast errors for the exchange rates of selected currencies against the dollar (one-year outlooks)



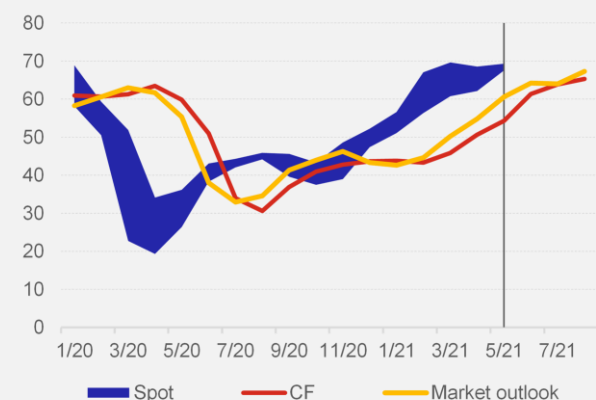
Source: authors' calculations.
Note: MAPE is the mean absolute percentage error of the forecast.

Assessment of the accuracy of the Brent crude oil price forecasts

The Brent crude oil price is one of the most important commodity price outlooks we cover in GEO. The accuracy of the forecasts for this price based on futures contracts and according to CF was the same on average, as illustrated by Charts 12 and 13, which show that the values and trends of the forecasts recorded little difference. GEO regularly describes both sources of outlooks. While the projections materialised on average at the three-month horizon, both of these sources overestimated the actual price of oil at the one-year horizon on average. This is, of course, due to the fact that such volatility is not expected at a longer horizon. The forecasted higher oil price than the outcome was largely due to the collapse of the

Chart 12 – Three-month Brent crude oil price outlook

(USD/barrel)

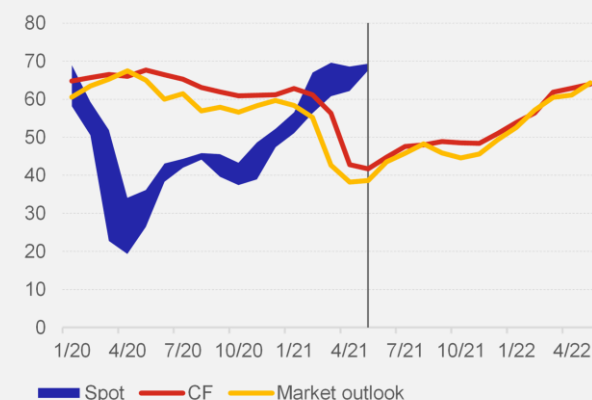


Source: CF, Bloomberg.

Note: The blue area indicates the range between the minimum and maximum prices in the given month. The vertical line denotes the end of observed data.

Chart 13 – One-year Brent crude oil price outlook

(USD/barrel)



Source: CF, Bloomberg.

Note: The blue area indicates the range between the minimum and maximum prices in the given month. The vertical line denotes the end of observed data.

oil price in April 2020, when it fell to USD 16 a barrel. After falling in early March 2020, the price of oil recovered rapidly and has been at pre-pandemic levels, i.e. below USD 70 a barrel, roughly since March 2021. Without this shock, which was due to a sharp fall in demand after the outbreak of the coronavirus pandemic, the movements in the oil price probably would not have been as dramatic. However, it is also interesting that in spring 2020, the oil price was not expected to reach its pre-pandemic levels one year ahead. The short- and medium-term outlooks now expect the price of oil to be roughly the same at the one-year horizon as it is now.

Conclusion

Owing to the coronavirus pandemic, it was harder than usual last year to forecast most of the macroeconomic variables monitored in GEO. The outlooks prepared before the pandemic could not have foreseen the developments ahead, so there were huge errors in them. In this article, which uses simple methods to assess the accuracy of the forecasts monitored in GEO over the past year, we therefore abandoned such comparisons for some variables. By contrast, for variables such as GDP and CPI, where higher volatility could obviously be expected, we were interested in how well international institutions were able to predict future developments at the start of the pandemic. The IMF and CF did very well, while the OECD performed worse in the case of GDP. For flexibly responding variables, we made the usual comparison using forecast errors.

The accuracy of the forecasts of the institutions covered by GEO changes from year to year. This is one of the reasons why several institutions' forecasts are monitored in GEO. This is particularly true of turbulent times. However, a longer time period would be needed to assess the forecasts more accurately. The accuracy of the CF forecasts, which are a key input into the CNB's own forecast for the Czech economy, is comparable with (and in 2019 even higher than) the available alternative forecasts. In addition, CF has the advantage of being published monthly and covering a relatively wide range of economic variables. The accuracy of CF stems from its defining characteristic, namely that it is the simple average of the forecasts from the contributing private institutions.⁵

The medium-term outlooks of international institutions are very similar. In addition to the year of the coronavirus, this article focused on how economic growth and consumer price inflation are perceived by various institutions at the medium-term horizon of two years. It is interesting that such outlooks do not differ much between institutions and have a very similar direction (stronger/weaker growth). This applies not only to economic output, but also to inflation.

⁵ The characteristics of CF are described in more detail in an earlier article *How consensus has evolved in Consensus Forecasts* by Tomáš Adam and Jan Hošek in GEO 4/2015.

In the long run, the GDP growth forecasts are decreasing. Looking at the time series of the IMF's long-term (five-year) economic growth outlooks, over recent decades the potential for real growth has declined and is now less than 2% for advanced economies. However, China, which is catching up quickly with the Western economies, could still grow at a pace of more than 5%. The consumer price inflation outlooks are very stable, indicating confidence in monetary policy and stable inflation close to 2%.

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Keywords

forecast error, economic outlook, Consensus Forecasts

JEL Classification

E66, E27, C18

A1. Change in predictions for 2021

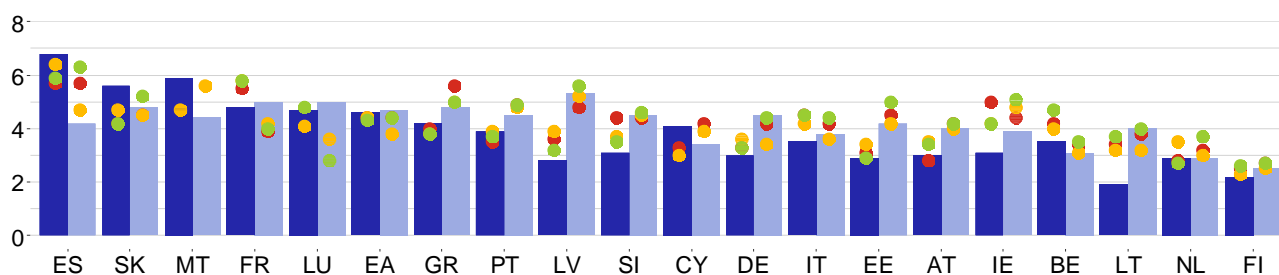
	GDP growth, %				Inflation, %			
	CF	IMF	OECD	CB / EIU	CF	IMF	OECD	CB / EIU
EA	+0.2	+0.2	+0.4	+0.6	+0.1	+0.5	+1.1	+0.4
US	+0.1	+1.3	+0.4	+0.5	+0.7	-0.5	+1.5	+1.0
UK	+0.6	+0.8	+2.1	+2.3	+0.1	+0.3	+0.6	+0.5
JP	-0.2	+0.2	-0.1	+0.1	0	-0.2	-0.1	-0.4
CN	0	+0.3	+0.7	0	0	-1.5	-0.8	0
RU	0	+0.8	+0.8	+0.5	+0.2	+1.3	+1.8	+0.7

A2. Change in predictions for 2022

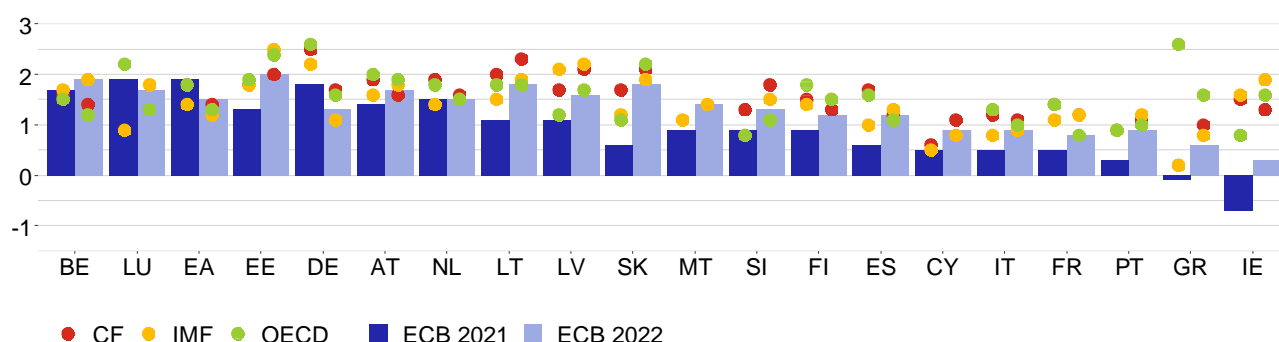
	GDP growth, %				Inflation, %			
	CF	IMF	OECD	CB / EIU	CF	IMF	OECD	CB / EIU
EA	+0.1	+0.2	+0.6	+0.6	+0.1	0	+0.3	+0.3
US	-0.1	+1.0	-0.4	0	+0.3	+0.3	+1.0	+0.1
UK	-0.1	+0.1	+0.8	-1.5	+0.1	+0.2	+0.2	-0.3
JP	+0.2	+0.1	+0.2	+0.6	0	0	+0.2	+0.1
CN	0	0	+0.9	0	+0.1	-0.7	+0.3	0
RU	0	-0.1	+0.2	+0.2	0	+0.2	+0.4	+0.1

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

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



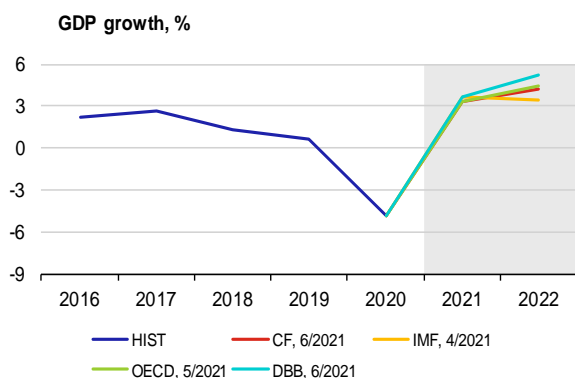
Inflation in the euro area countries in 2021 and 2022, %



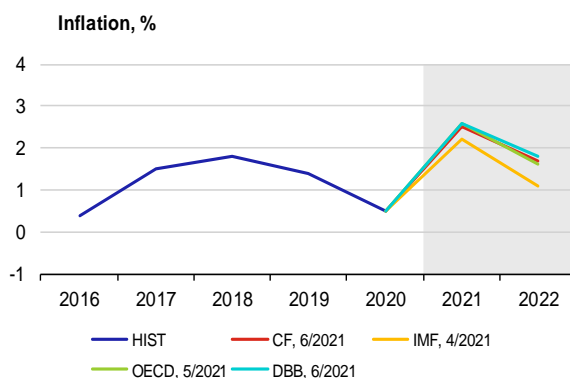
Note: Charts show institutions' latest available outlooks of for the given country.

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

Germany

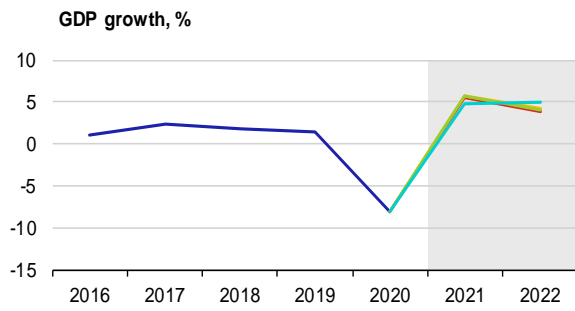


	CF	IMF	OECD	DBB
2021	3.3 →	3.6	3.3 →	3.7
2022	4.2 →	3.4	4.4 →	5.2

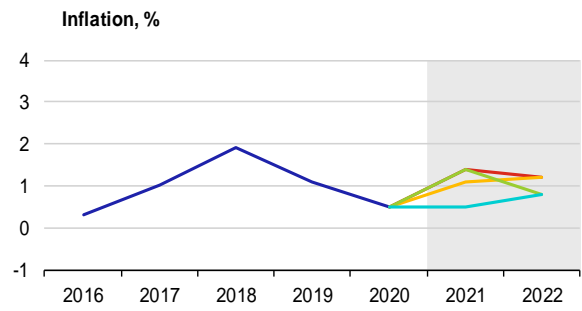


	CF	IMF	OECD	DBB
2021	2.5 →	2.2	2.6 →	2.6
2022	1.7 →	1.1	1.6 →	1.8

France

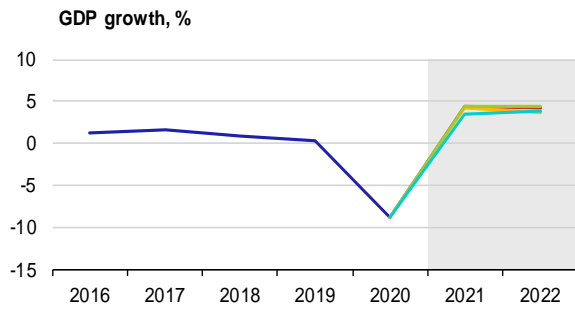


	CF	IMF	OECD	ECB
2021	5.5	5.8	5.8	4.8
2022	3.9	4.2	4.0	5.0

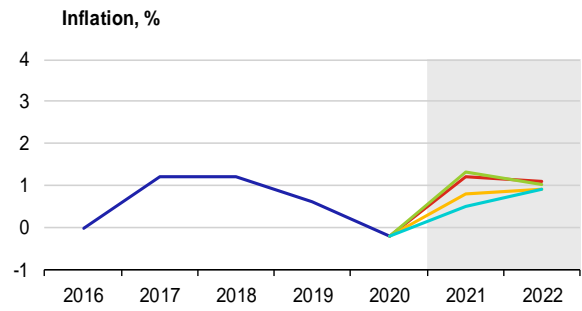


	CF	IMF	OECD	ECB
2021	1.4	1.1	1.4	0.5
2022	1.2	1.2	0.8	0.8

Italy

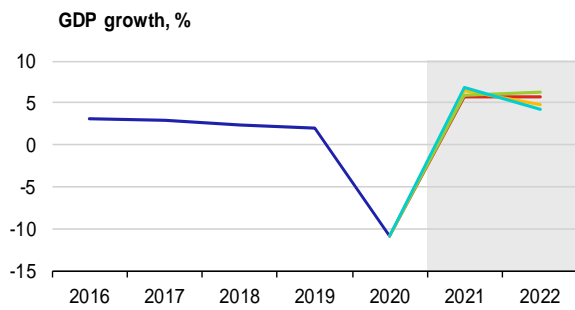


	CF	IMF	OECD	ECB
2021	4.5	4.2	4.5	3.5
2022	4.2	3.6	4.4	3.8

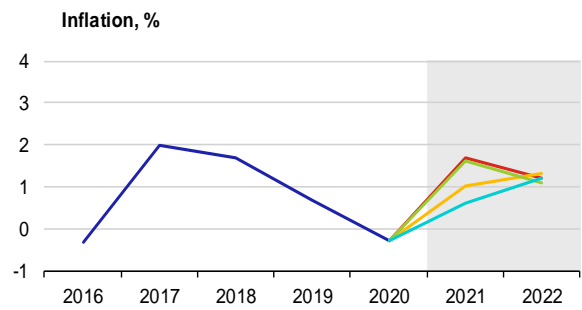


	CF	IMF	OECD	ECB
2021	1.2	0.8	1.3	0.5
2022	1.1	0.9	1.0	0.9

Spain

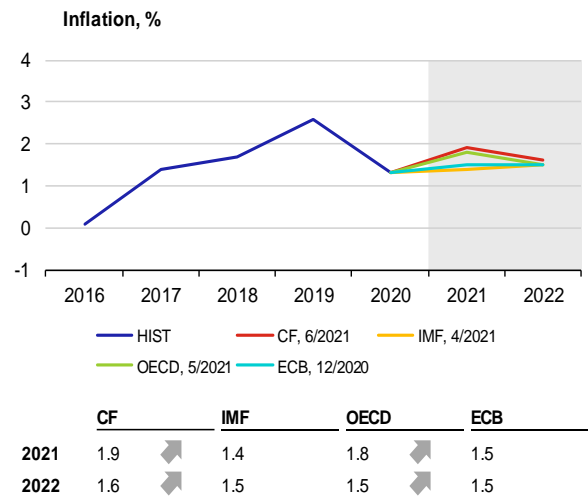
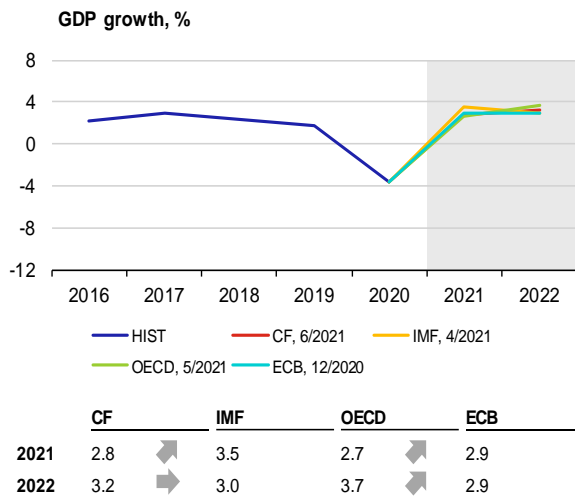


	CF	IMF	OECD	ECB
2021	5.7	6.4	5.9	6.8
2022	5.7	4.7	6.3	4.2

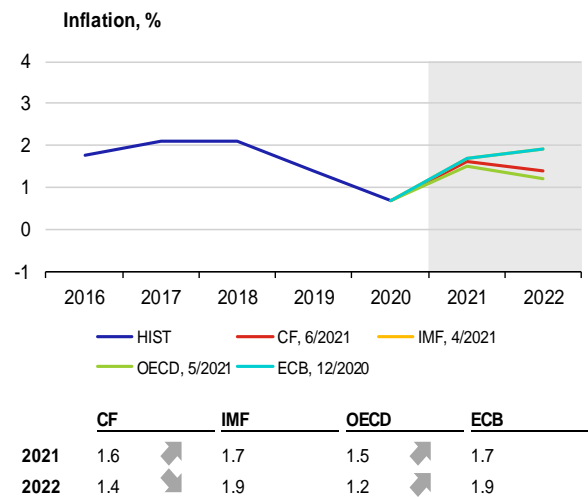
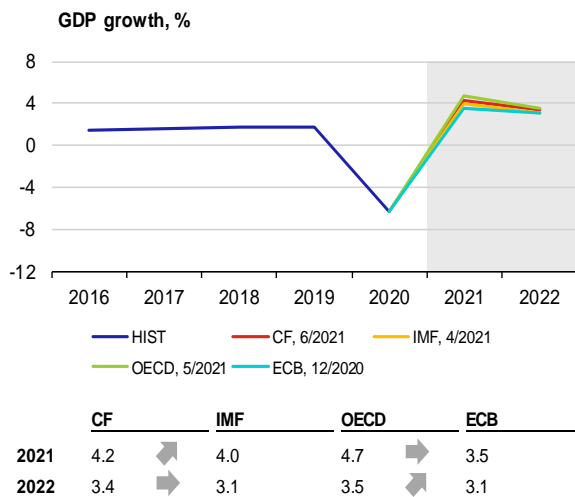


	CF	IMF	OECD	ECB
2021	1.7	1.0	1.6	0.6
2022	1.2	1.3	1.1	1.2

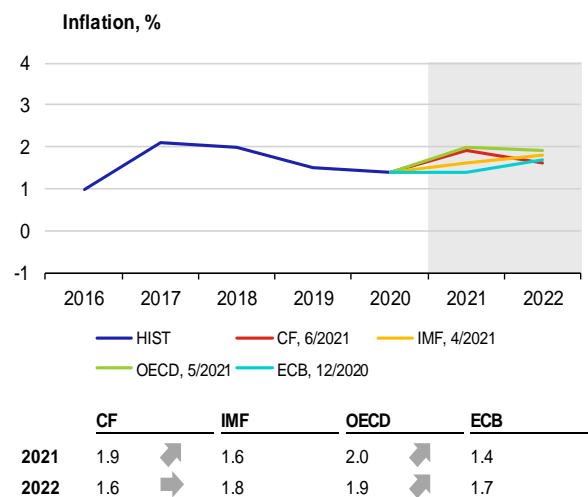
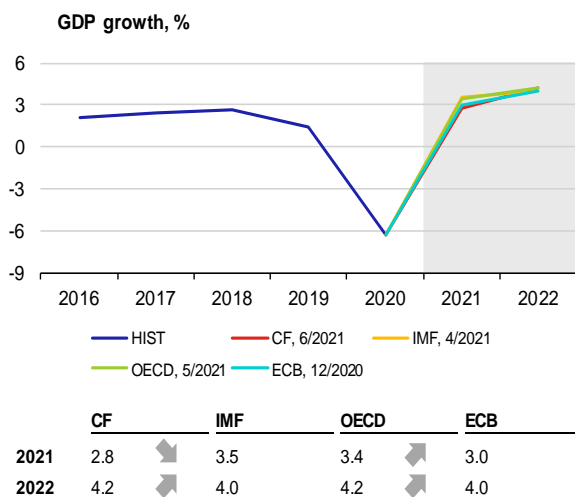
Netherlands



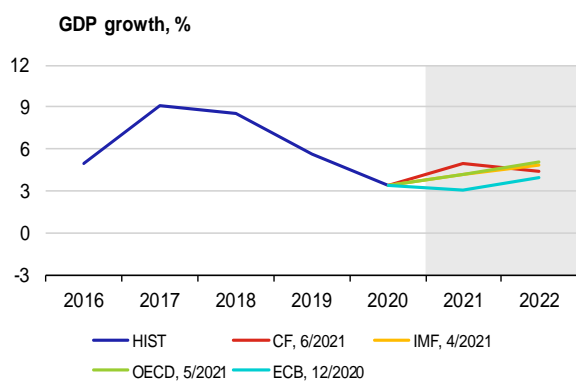
Belgium



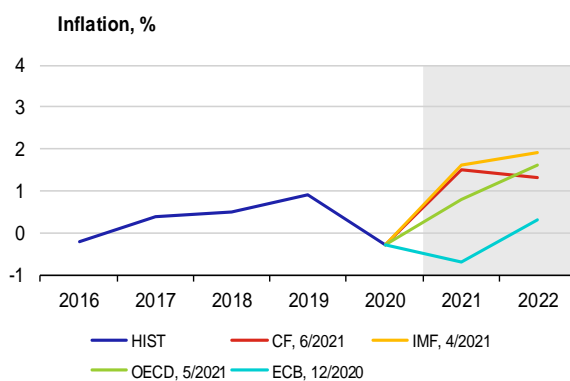
Austria



Ireland

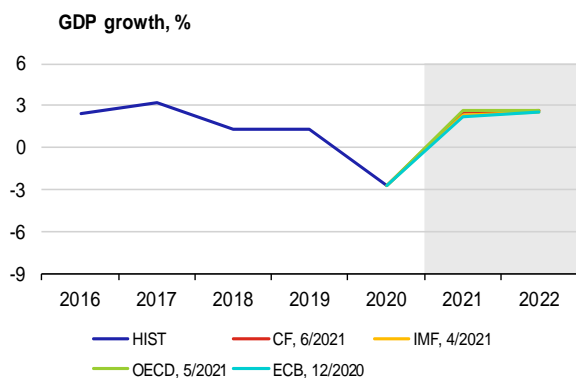


	CF	IMF	OECD	ECB
2021	5.0	4.2	4.2	3.1
2022	4.4	4.8	5.1	3.9

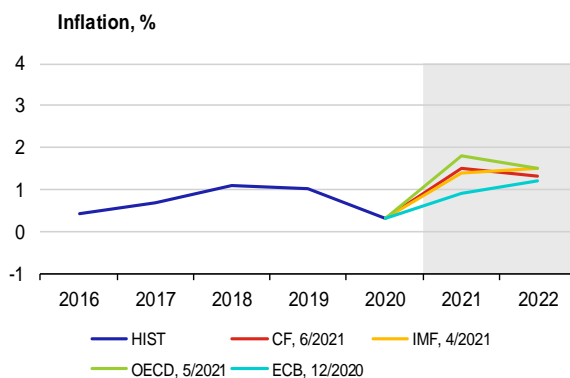


	CF	IMF	OECD	ECB
2021	1.5	1.6	0.8	-0.7
2022	1.3	1.9	1.6	0.3

Finland

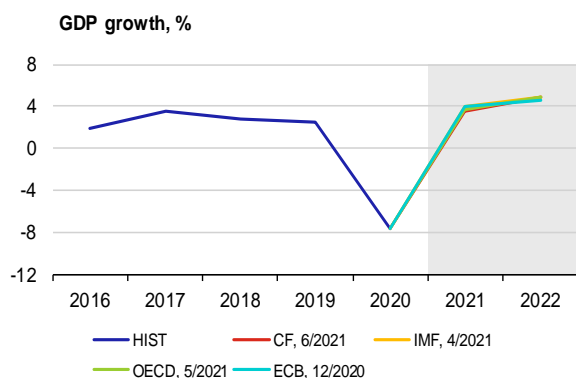


	CF	IMF	OECD	ECB
2021	2.5	2.3	2.6	2.2
2022	2.7	2.5	2.7	2.5

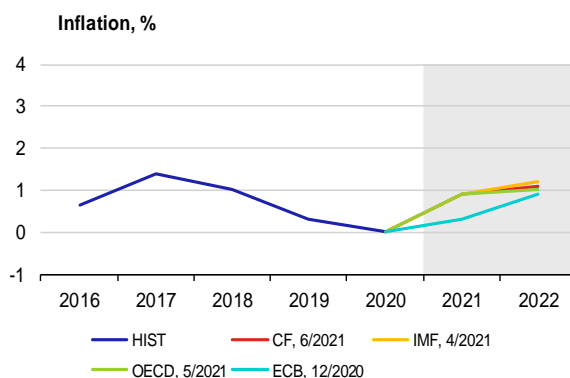


	CF	IMF	OECD	ECB
2021	1.5	1.4	1.8	0.9
2022	1.3	1.5	1.5	1.2

Portugal

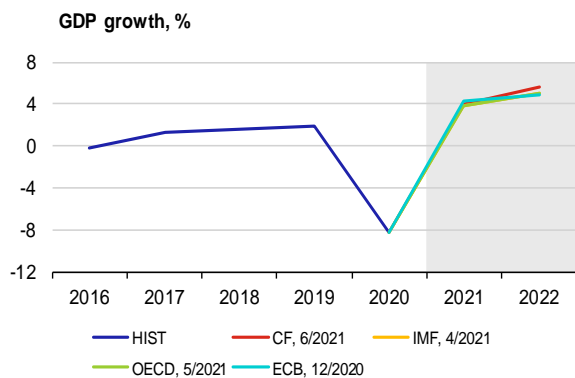


	CF	IMF	OECD	ECB
2021	3.5	3.9	3.7	3.9
2022	4.9	4.8	4.9	4.5

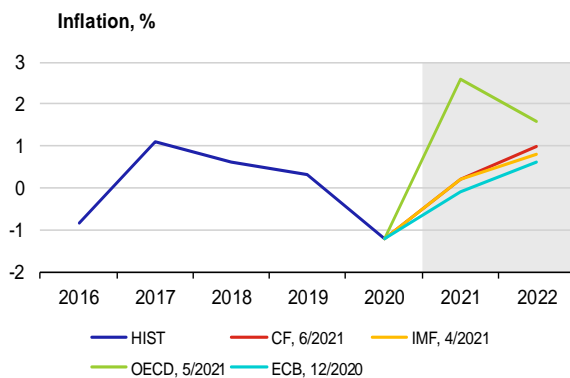


	CF	IMF	OECD	ECB
2021	0.9	0.9	0.9	0.3
2022	1.1	1.2	1.0	0.9

Greece

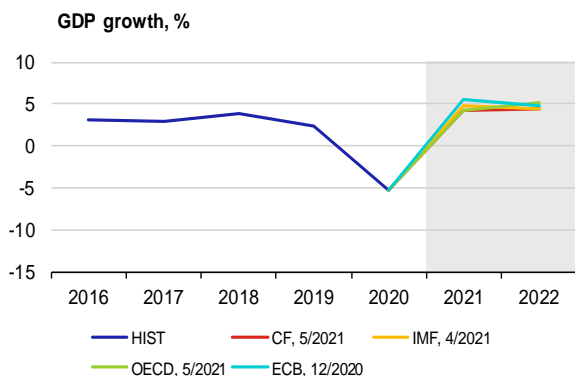


	CF	IMF	OECD	ECB
2021	4.0	3.8	3.8	4.2
2022	5.6	5.0	5.0	4.8

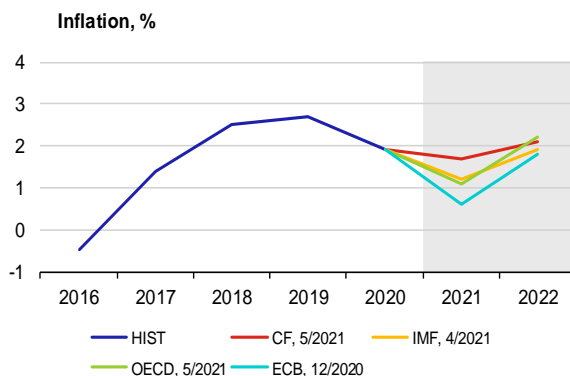


	CF	IMF	OECD	ECB
2021	0.2	0.2	2.6	-0.1
2022	1.0	0.8	1.6	0.6

Slovakia

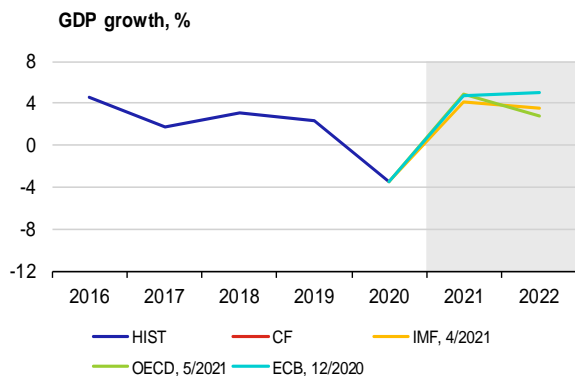


	CF	IMF	OECD	ECB
2021	4.2	4.7	4.2	5.6
2022	4.5	4.5	5.2	4.8

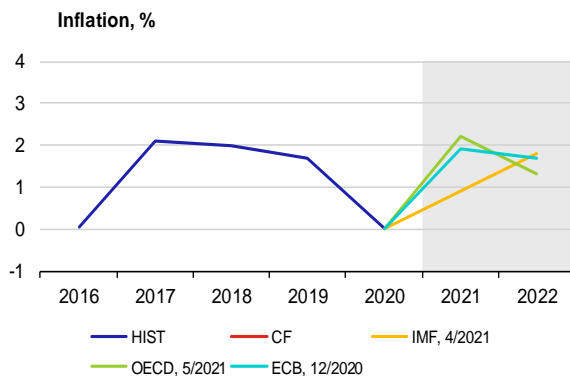


	CF	IMF	OECD	ECB
2021	1.7	1.2	1.1	0.6
2022	2.1	1.9	2.2	1.8

Luxembourg

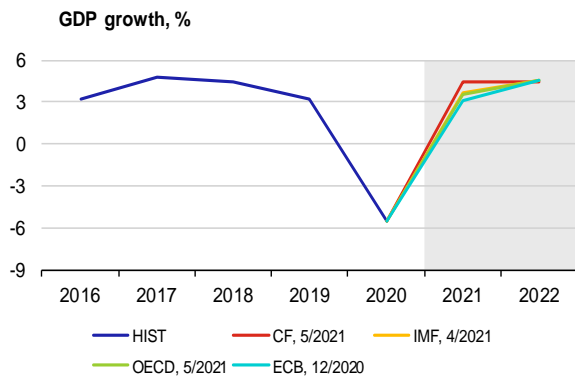


	CF	IMF	OECD	ECB
2021	n. a.	4.1	4.8	4.7
2022	n. a.	3.6	2.8	5.0

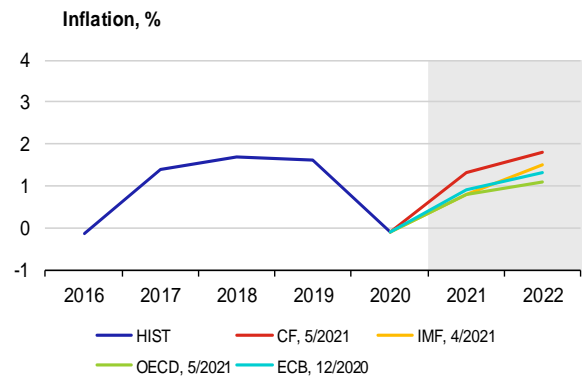


	CF	IMF	OECD	ECB
2021	n. a.	0.9	2.2	1.9
2022	n. a.	1.8	1.3	1.7

Slovenia

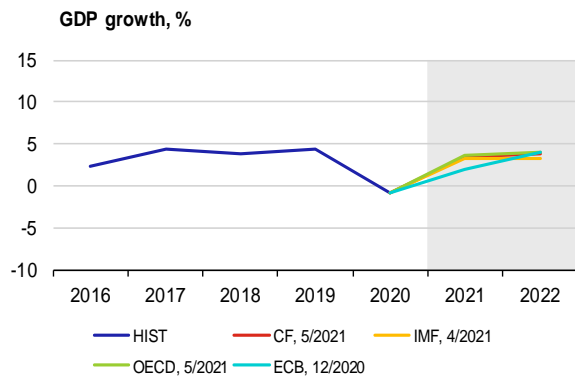


	CF	IMF	OECD	ECB
2021	4.4	3.7	3.5	3.1
2022	4.4	4.5	4.6	4.5

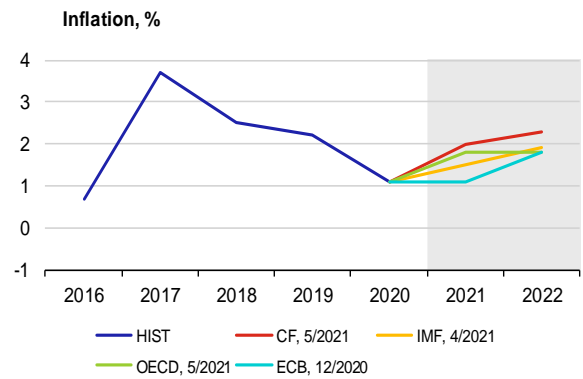


	CF	IMF	OECD	ECB
2021	1.3	0.8	0.8	0.9
2022	1.8	1.5	1.1	1.3

Lithuania

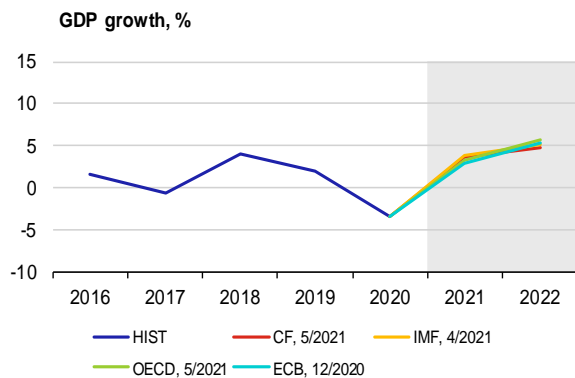


	CF	IMF	OECD	ECB
2021	3.4	3.2	3.7	1.9
2022	3.8	3.2	4.0	4.0

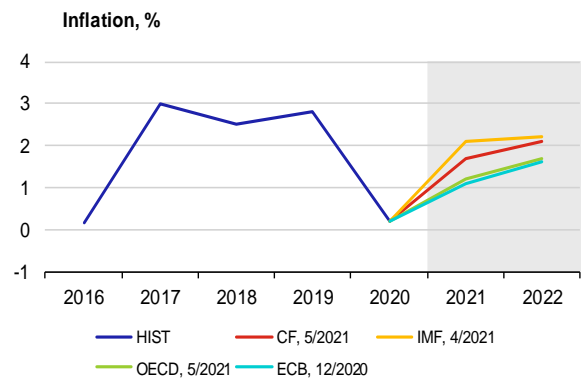


	CF	IMF	OECD	ECB
2021	2.0	1.5	1.8	1.1
2022	2.3	1.9	1.8	1.8

Latvia

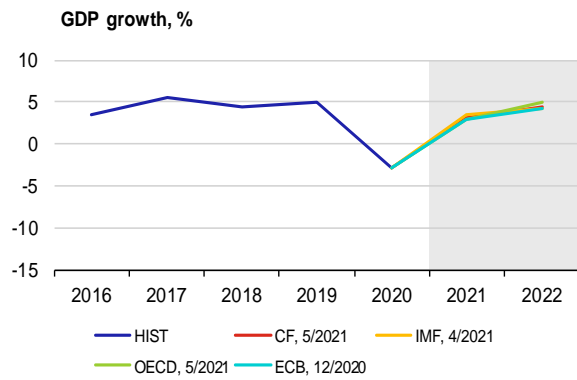


	CF	IMF	OECD	ECB
2021	3.6	3.9	3.2	2.8
2022	4.8	5.2	5.6	5.3

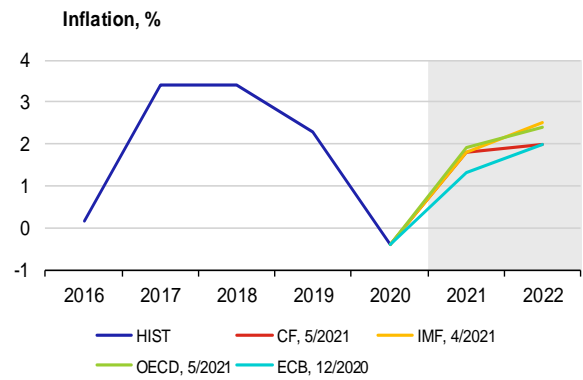


	CF	IMF	OECD	ECB
2021	1.7	2.1	1.2	1.1
2022	2.1	2.2	1.7	1.6

Estonia

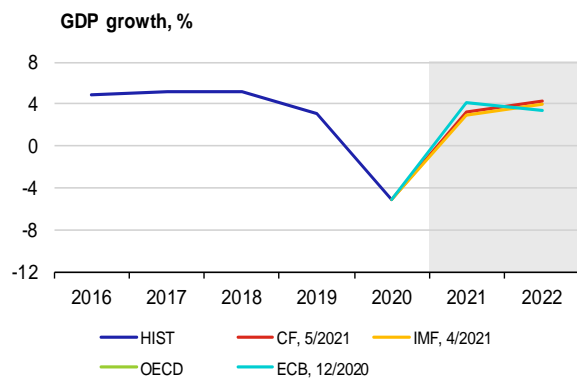


	CF	IMF	OECD	ECB
2021	3.1	3.4	2.9	2.9
2022	4.5	4.2	5.0	4.2

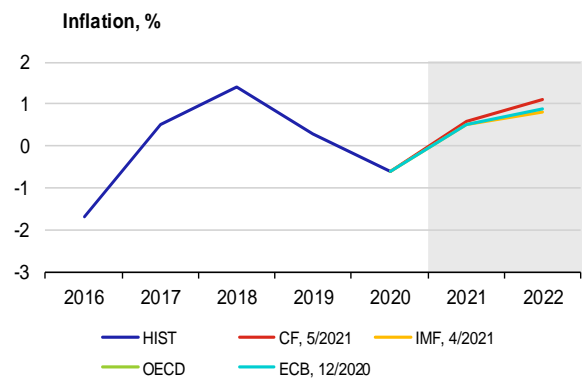


	CF	IMF	OECD	ECB
2021	1.8	1.8	1.9	1.3
2022	2.0	2.5	2.4	2.0

Cyprus

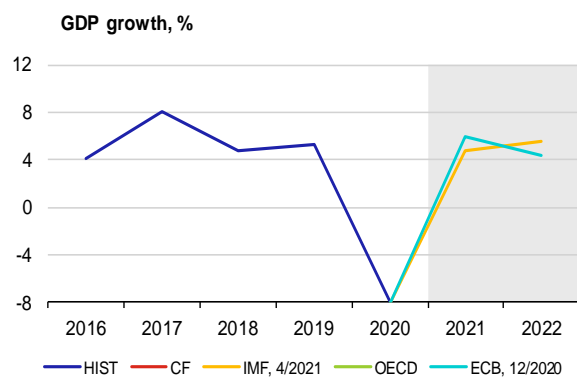


	CF	IMF	OECD	ECB
2021	3.3	3.0	n. a.	4.1
2022	4.2	3.9	n. a.	3.4

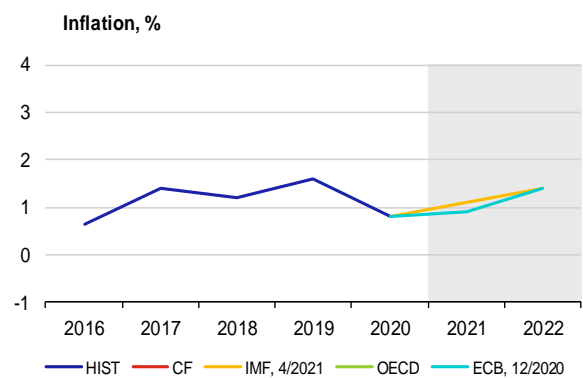


	CF	IMF	OECD	ECB
2021	0.6	0.5	n. a.	0.5
2022	1.1	0.8	n. a.	0.9

Malta



	CF	IMF	OECD	ECB
2021	n. a.	4.7	n. a.	5.9
2022	n. a.	5.6	n. a.	4.4

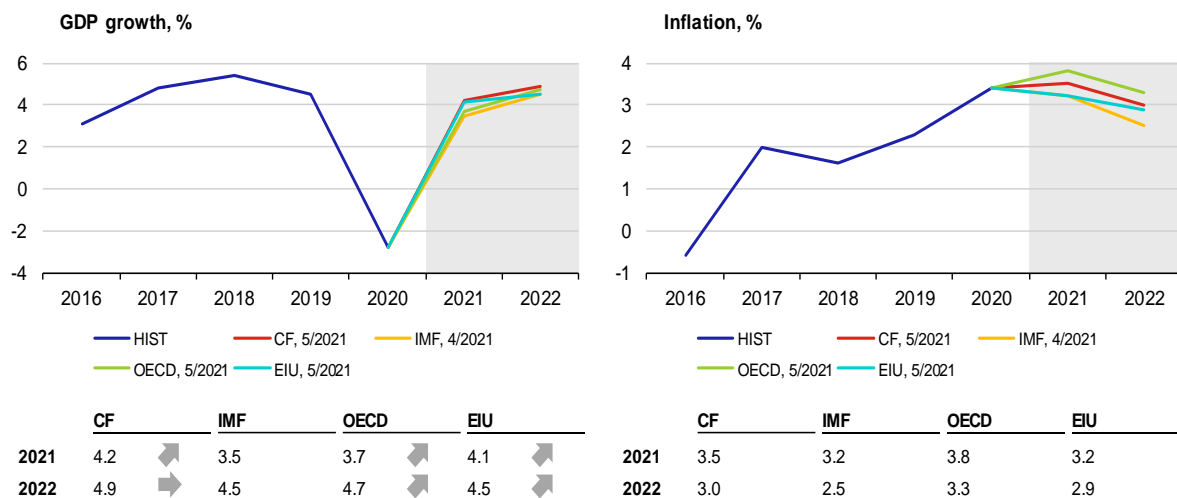


	CF	IMF	OECD	ECB
2021	n. a.	1.1	n. a.	0.9
2022	n. a.	1.4	n. a.	1.4

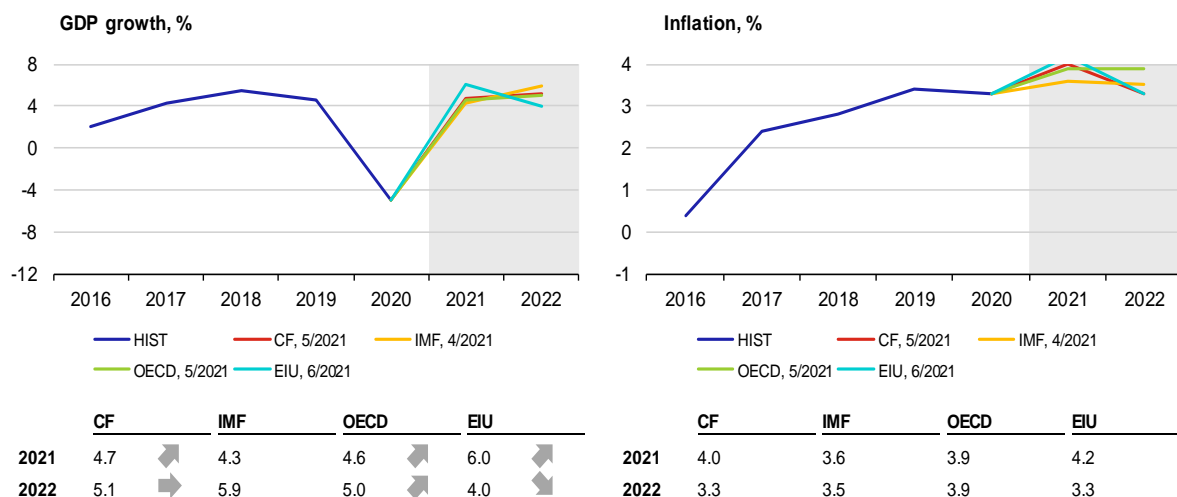
Ddd

A5. GDP growth and inflation in other selected countries

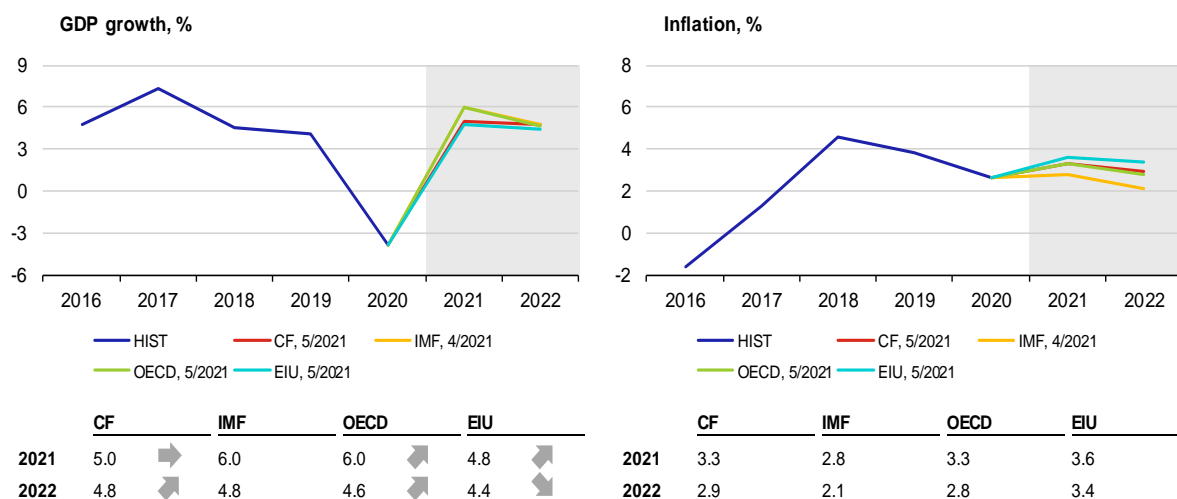
Poland



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		

Publisher:
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