Global Economic Outlook

December 2021

CZECH NATIONAL BANK

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Cut-off date for data
10 December 2021

CF survey date
6 December 2021

GEO publication date
17 December 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

We're already at Omicron, so let's hope there are enough letters in the Greek alphabet for all the Covid-19 variants... With the arrival of winter, the Covid-19 epidemic has again gained momentum. The current signs of a decline in high infection numbers give us a glimmer of hope. With the end of the year approaching, it's a time to take stock of past economic developments and look to the future. In the next two years, many advanced countries will experience a slowdown in economic growth. The December OECD forecast brings the latest outlook for the future. Its outlook for next year is very similar to those of the CF analysts (see Table). In 2023, the OECD expects GDP to grow by 2.5% in the euro area, 2.4% in Germany and the USA, 2.1% in the UK and only 1.1% in Japan. Inflation should also ease gradually. Consumer inflation for 2023 should drop to more acceptable levels (1.8% in the euro area, 2.2% in Germany, 2.5% in the USA, 2.4% in the UK and only 0.8% in Japan). However, the currently strong, record-breaking inflation pressures remain a reality. The persisting factors include supply chain disruptions, the effects of massive fiscal stimuli by governments, savings due to deferred household consumption (especially in advanced countries) and surging commodity and energy prices on global markets. The current growth rate of emission allowance prices, which are at their all-time high, and the related growth in gas and electricity prices are a cause for concern; the latter seems to lack real substance, but rather reflects growing geopolitical tensions with a potential threat of military conflict in Ukraine.

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

GDP	EA	DE	US	UK	JP	CN	RU
2021	5.1	2.7	5.6	7.0	1.8	8.0	4.2
2022	4.2	4.0	4.0	4.7	3.2	5.1	2.6

Inflation	EA	DE	US	UK	JP	CN	RU
2021	2.5	3.1	4.6	2.5	-0.2	0.9	7.5
2022	2.6	2.7	4.2	4.1	0.7	2.1	4.6

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

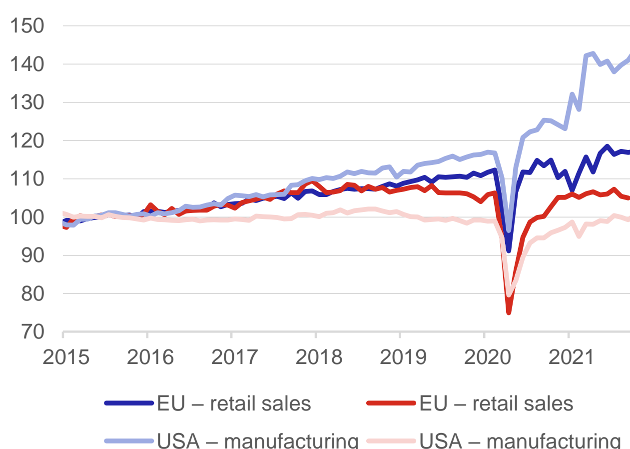
The December meetings of the Fed and the ECB show how they differ in their view on raising interest rates. The Fed is expected to respond to the rising inflation (6.8% in November) right after it ends its tapering in early summer 2022. The ECB keeps emphasising the temporary nature of the current inflation pressures. An increase in the standard APP programme after the pandemic programme ends in March 2022 is expected at the next meeting of the Governing Council. Interest rates may thus increase in the euro area in 2023 at the earliest.

As in previous months, **the consumer price inflation outlooks** for both this year and the next were generally revised upwards again compared to November. Inflation pressures are not easing and the question is when they will really fade out.

According to the December CF, the **US dollar** will weaken against the currencies of the advanced countries monitored (the euro, the pound, the yen) at both the one- and two-year horizons. It will fluctuate against the renminbi. The CF forecast for the **Brent crude oil price** one year ahead is slightly lower than a month earlier, at almost USD 72/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 this issue captures the different consumer behaviour in the USA and the EU. While retail sales are surging and prices rising very quickly in the USA, sales returned to the pre-pandemic path in the EU. In the USA, total consumption is growing at the expense of services. Industrial production has reached roughly the pre-pandemic level in both economies, but not enough to satisfy the high demand, which continues to push up prices. We have observed persistent inflation pressures in 2021 as a whole.

Retail sales and industrial production in the EU and the USA, index 2015=100



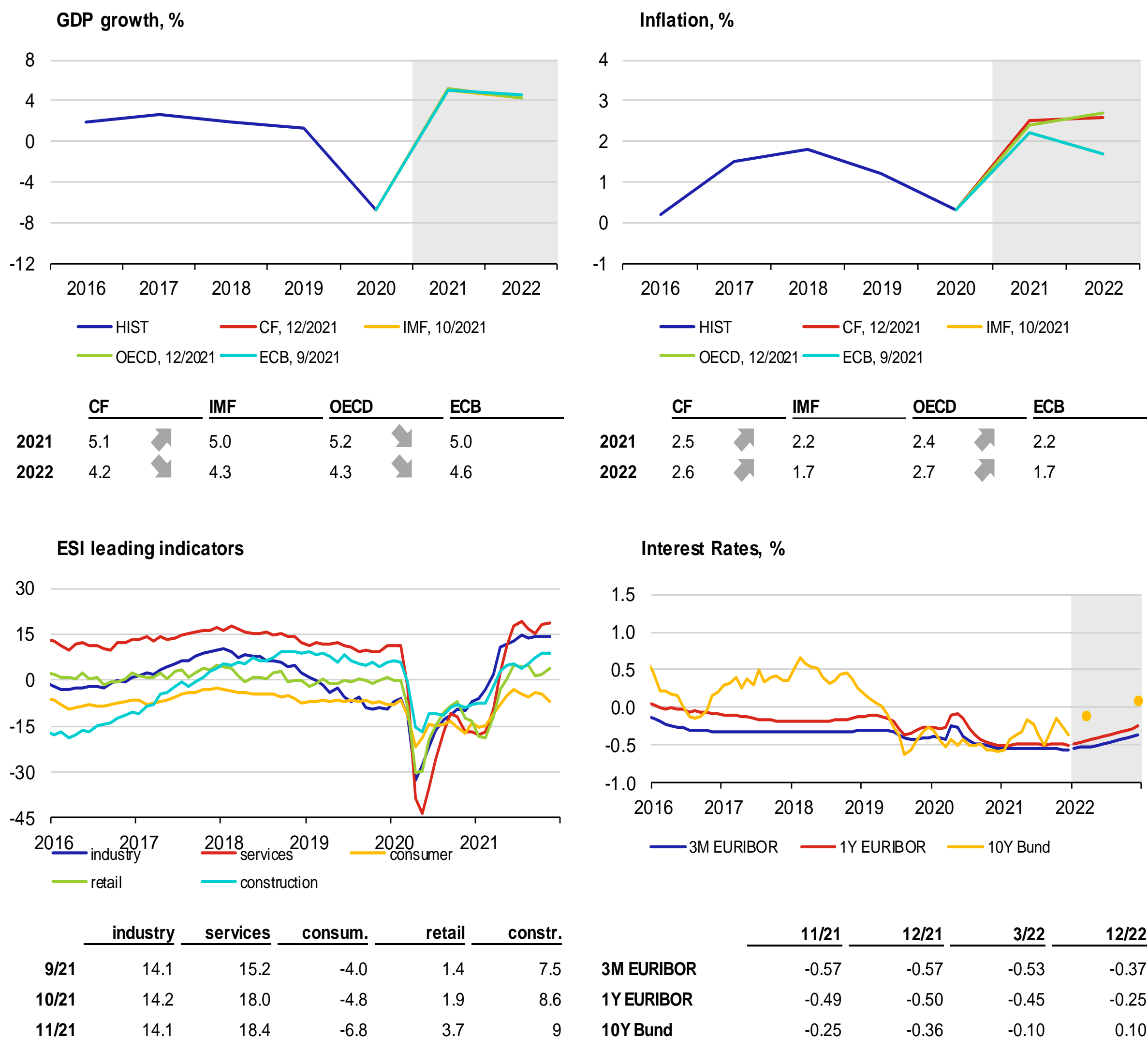
Source: St. Louis Fed (FRED), Eurostat, authors' calculation
Note: Seasonally adjusted data

The current issue also contains a thematic article: "The recovery plan for Europe and its importance for the future of European integration". The article provides a closer look at the triple meaning of the European recovery plan (NGEU). This is the largest form of budgetary sharing in the history of the EU, a novelty in European financial markets and, last but not least, a tool for transforming the European economy. Unlike previous common financial instruments, the plan does not create a two-speed Europe because it affects all EU Member States, not just the euro area.

II.1 Euro area

The current wave of the pandemic in Europe is characterised by smaller economic losses than in past waves. Spain, Italy and France have announced vaccination coverage of over 70% of total population; Germany is close to this threshold and, moreover, is rolling out the booster very quickly. Unfortunately, countries with lower vaccination coverage had to impose nationwide (Austria, Slovakia) or regional (Germany) restrictions. Shutdowns and the related downturn in consumption will negatively impact the euro area, as will persisting supply chain issues. But, compared to previous waves, there will only be a slowdown at the end of the year, as consumers have got used to the difficult Covid situation and several large economies have not imposed any economic restrictions whatsoever. There was even a slight increase in retail sales in the euro area in October, but the November consumer confidence indicator already suggests deterioration. Similarly, the situation in industry is likely to have improved in October, due mainly to renewed supplies of chips for the automotive industry. The November PMI survey also confirms that the situation in industry is more stable in the euro area. The hard times faced by German and Austrian industry are being offset by the rapid expansion of Italian corporations. However, there is continued upward pressure on selling prices amid relatively decent demand and limited supplies of inputs; given the expected growth in commodity prices (especially gas and electricity), this implies a further increase in prices in industry.

The outlook for consumer inflation in the euro area is increasing further, while economic growth expectations remain broadly unchanged. According to CF, inflation in the euro area will accelerate from 2.5% this year to 2.6% next year. By contrast, GDP growth will slow from 5.1% this year to 4.2% in 2022. The gloomy outlook for prices in the euro area is also fostered by the onset of the Omicron variant, which might cause yet another drag in supply chains and extend the wave of rising prices. This creates a complicated situation for the ECB. While the Fed has turned more hawkish, the ECB insists that inflation pressures in the euro area are of a temporary nature. Given the relatively stable inflation expectations and sizeable uncertainties of the forecast, the ECB's meeting next week will be marked by a tense debate.



	CF	IMF	OECD	ECB
2021	5.1	5.0	5.2	5.0
2022	4.2	4.3	4.3	4.6

	CF	IMF	OECD	ECB
2021	2.5	2.2	2.4	2.2
2022	2.6	1.7	2.7	1.7

	industry	services	consum.	retail	constr.
9/21	14.1	15.2	-4.0	1.4	7.5
10/21	14.2	18.0	-4.8	1.9	8.6
11/21	14.1	18.4	-6.8	3.7	9

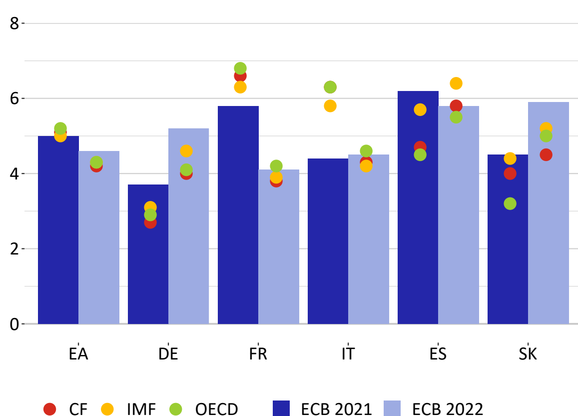
	11/21	12/21	3/22	12/22
3M EURIBOR	-0.57	-0.57	-0.53	-0.37
1Y EURIBOR	-0.49	-0.50	-0.45	-0.25
10Y Bund	-0.25	-0.36	-0.10	0.10

II.2 The euro area in the spotlight – Austria

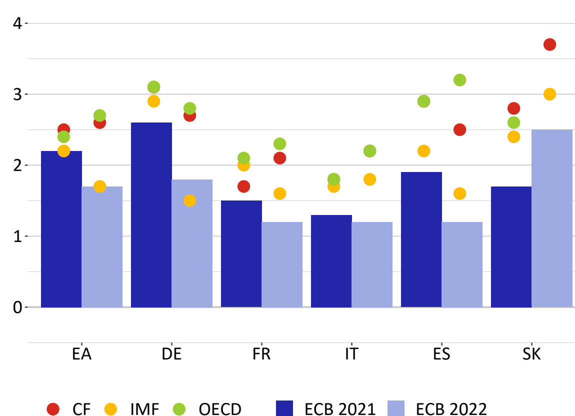
Austria is one of the countries hit the hardest by the latest wave of the pandemic. It introduced a month-long nationwide lockdown in November. All non-essential shops (other than food shops, pharmacies, etc.) and services (restaurants, culture venues, hotels, etc.) were shut down. Schools remained open but there was a call on the public to work from home more and to look after their children at home. Although the lockdown to some extent initially only applied to the unvaccinated, the government ultimately introduced a nationwide lockdown on 22 November. The measures were lifted for the vaccinated and recovered on 12 December, while the unvaccinated will have to wait. Moreover, the government insists on introducing mandatory vaccination from 1 February 2022. It has already published a list of fines for the unvaccinated, the only country in Europe to do so.

According to CF analysts, growth of the Austrian economy will reach 4.6% in 2021 and slow to 4.0% in 2022. The above-average performance of the Austrian economy is due to strong annual GDP growth in 2021 Q2 (+4%) and Q3 (+3.3%). Even a month-long nationwide lockdown is not expected to cause a sharp drop in the Austrian economy. Market outlooks for quarterly GDP growth in Q4 are positive at around 0.5%. The Austrian central bank also anticipated a scenario involving further shutdowns, but the actual situation was much more moderate than expected in June. However, the reality may turn out to be worse if Austrian industry, which has been severely tested, does not see an improvement in the supply of materials and components by the end of the year. Lockdowns in Austria and Germany may reduce total quarterly growth in the euro area by as much as 0.2 pp. Prices in Austria are below the euro area average, with inflation expecting to peak at the end of 2021. It will be 2.7% on average in 2021 and 2.5% in 2022

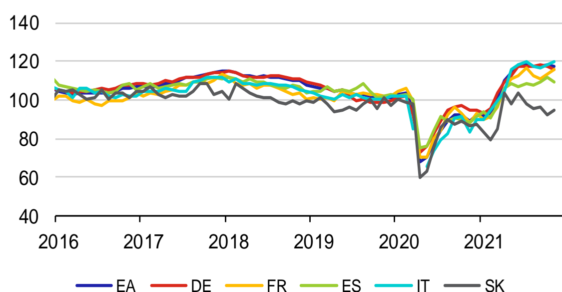
GDP growth in selected euro area countries in 2021 and 2022, %



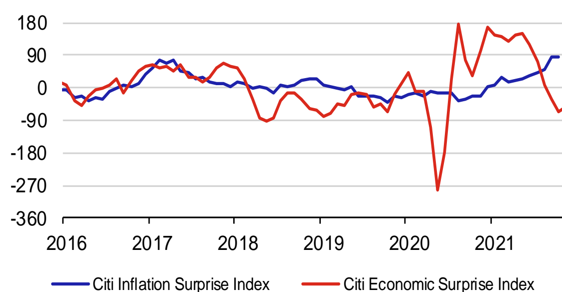
Inflation in selected euro area countries in 2021 and 2022, %



ESI leading indicators



Economic and inflation surprises in the euro area, %



	EA	DE	FR	ES	IT	SK
9/21	117.8	118.0	111.2	109.4	116.8	96.2
10/21	118.6	117.5	113.1	111.9	118.6	92.0
11/21	117.5	115.8	116.1	109.3	119.5	94.8

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

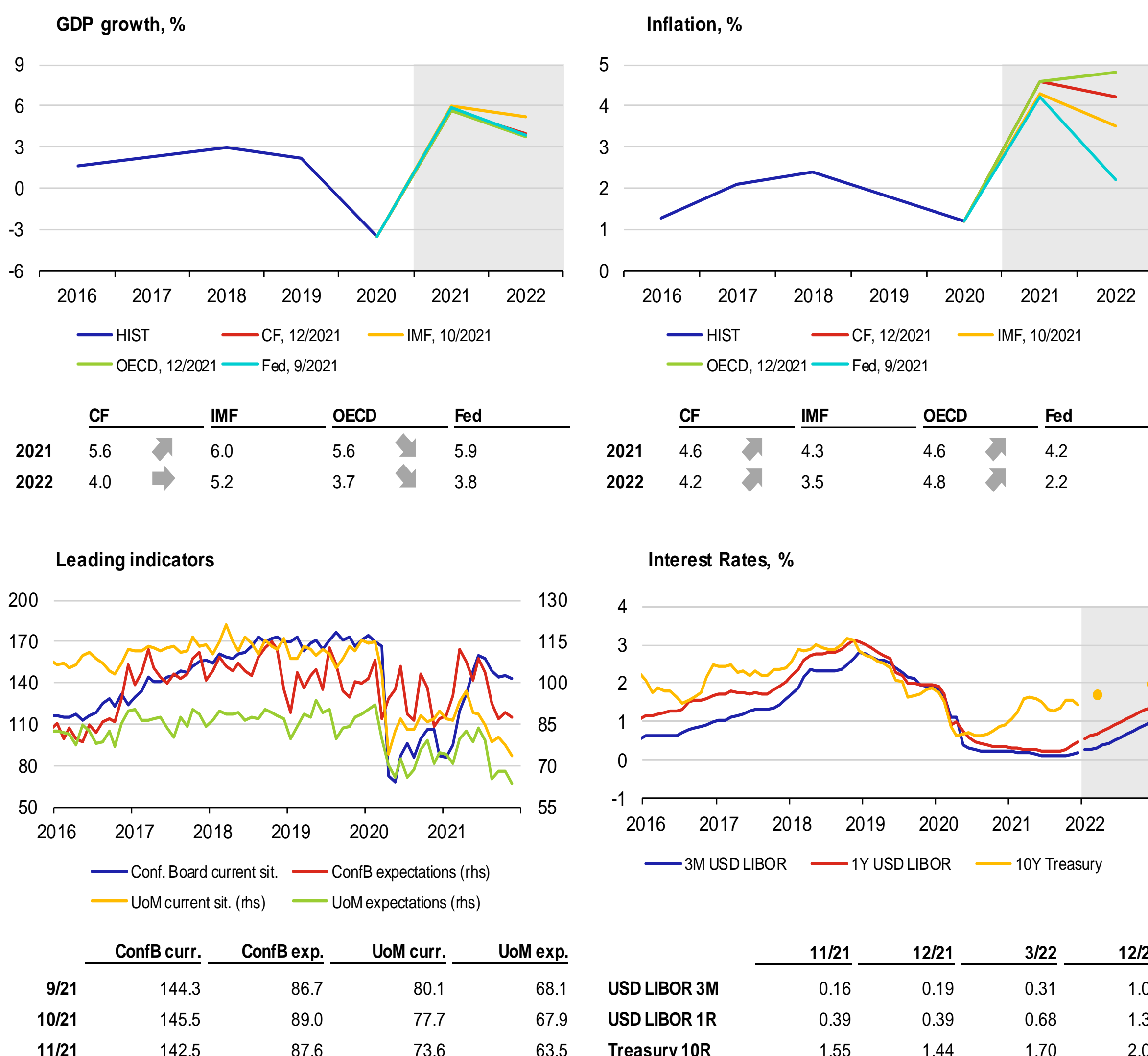
	5y5y	SPF
9/21	1.75	1.82
10/21	1.90	1.90
11/21	1.93	1.90

II.3 United States

President Joe Biden is having hard time in international political negotiations. His talks with Vladimir Putin about geopolitical tensions in Ukraine and his meeting with Chinese president Xi Jinping were of major importance. China is gaining increasing economic strength, while problems in the USA are growing.

The US economy is struggling with a not yet fully recovered labour market. Non-farm payrolls rose by 210,000 in November but employment is still lower than before the crisis, although high demand for new employees prevails (more than 10.5 million jobs). The unemployment rate decreased to 4.2% in November and wages grew by almost 10% year on year in October. Leading indicators still indicate optimism, as the PMI in services remains in the expansion band (58) and the industrial PMI is even slightly higher (58.3). The new CF outlook for the US economy was revised upwards to 5.6% for this year and remains unchanged for 2022. The OECD expects the same figure for this year but is more pessimistic about growth next year (3.7%).

Consumer price inflation in the US economy is already starting to worry Fed Chairman J. Powell. The Fed's previous rhetoric emphasised the temporary nature of inflation pressures and monetary policy was thus tightened very slowly. However, ahead of the December monetary meeting, after which the Fed will also publish its new forecast, Chairman Powell said that the Fed was likely to respond to current consumer price inflation by tightening monetary policy more quickly, i.e. by slowing down the pace of asset purchases and raising rates earlier. Consumer prices grew by 6.9% year on year in November. Rapid growth was also recorded for industrial producer prices (9.8%). The CF outlook for consumer price inflation was revised upwards to 4.6% for this year and to 4.2% for 2022 (up by 0.5 pp from November). The OECD's inflation outlook for next year is 4.8%.



GDP	CF	IMF	OECD	Fed
2021	5.6	6.0	5.6	5.9
2022	4.0	5.2	3.7	3.8

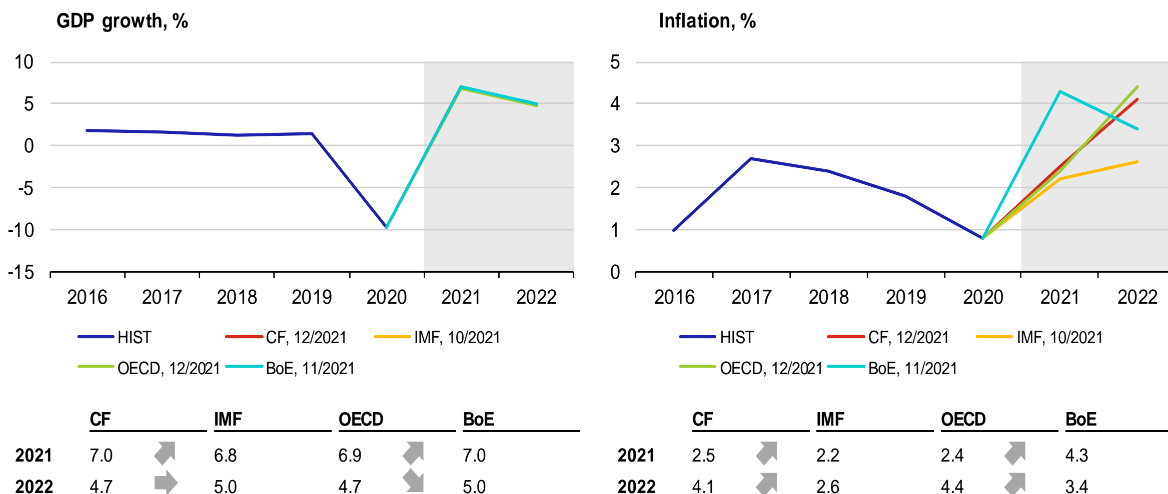
Inflation	CF	IMF	OECD	Fed
2021	4.6	4.3	4.6	4.2
2022	4.2	3.5	4.8	2.2

	ConfB curr.	ConfB exp.	UoM curr.	UoM exp.
9/21	144.3	86.7	80.1	68.1
10/21	145.5	89.0	77.7	67.9
11/21	142.5	87.6	73.6	63.5

	11/21	12/21	3/22	12/22
USD LIBOR 3M	0.16	0.19	0.31	1.01
USD LIBOR 1R	0.39	0.39	0.68	1.37
Treasury 10R	1.55	1.44	1.70	2.00

II.4 United Kingdom

Community spread of the Omicron variant in the UK has increased the uncertainty of the economic outlook. Measures are being tightened and concerns are growing about weaker consumer confidence and labour shortages in key sectors. Consumer spending remains the driver of the UK economic recovery in Q4, with a surge in retail sales in November (up by 5% year on year). Both the new CF and OECD forecasts expect GDP to grow by around 7% this year and almost 5% in 2022. The November composite PMI (57.6) continues to point to strong private sector growth. Growth in the services sector remained much higher than the recovery in manufacturing, which was again slowed by commodity and electronic component shortages. Negotiations continue between the UK and the EU on the disputed Northern Ireland Protocol included in the Brexit deal. No turnaround is expected before Christmas, but UK threats to suspend the protocol and the danger of putting peace in the region at risk raise concerns and affect trade talks between the UK and the USA.



GDP growth, %

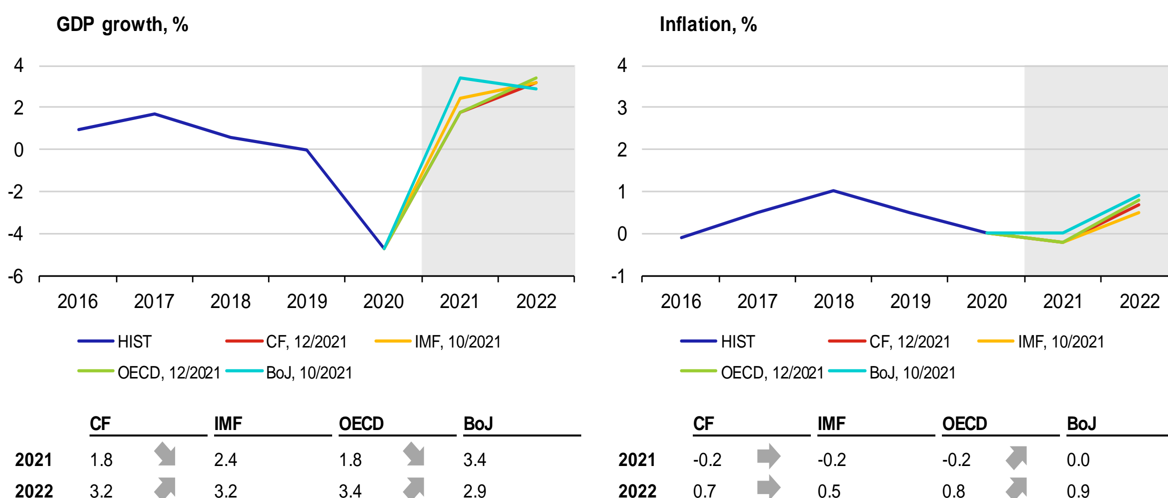
	CF	IMF	OECD	BoE
2021	7.0	6.8	6.9	7.0
2022	4.7	5.0	4.7	5.0

Inflation, %

	CF	IMF	OECD	BoE
2021	2.5	2.2	2.4	4.3
2022	4.1	2.6	4.4	3.4

II.5 Japan

Lower household demand during the summer wave of Covid-19 in Japan led to a quarterly decline in GDP of 0.9% in Q3. The revised data showed a deeper economic contraction than suggested by preliminary data. All major GDP components, except government consumption, recorded a decline. However, lagging private consumption has the largest effect on the slow recovery. The government will try to stimulate private consumption with a new extensive fiscal package which, among other things, will provide direct financial benefits to families with children, students and low-income households. Japan is thus moving away from the trend in other advanced economies to gradually reduce fiscal support for fear of overheating the economy. Japan is also continuing with its record easy monetary policy. Consumer inflation remains close to zero although some indicators of core inflation observed by the BoJ are suggesting gradual growth.



GDP growth, %

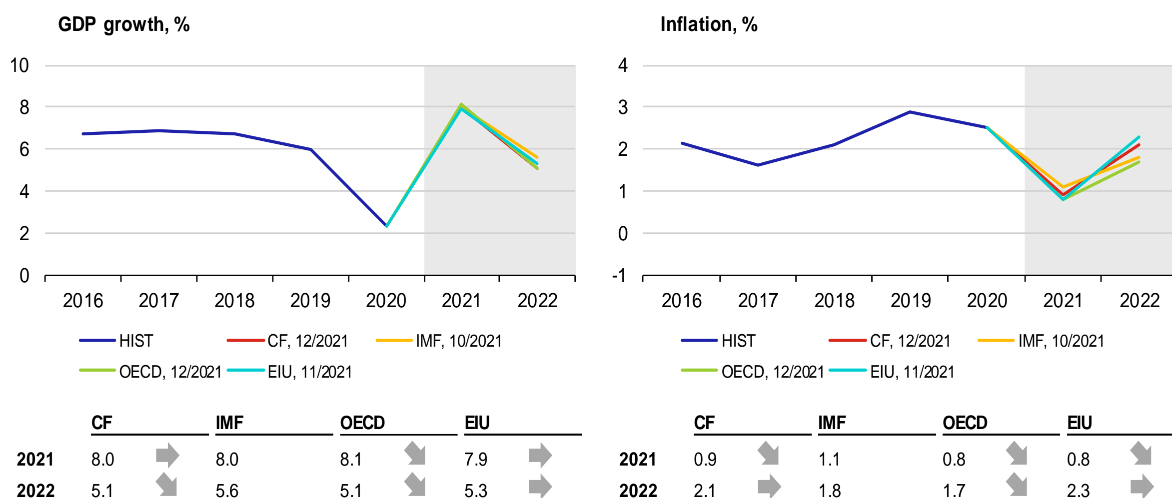
	CF	IMF	OECD	BoJ
2021	1.8	2.4	1.8	3.4
2022	3.2	3.2	3.4	2.9

Inflation, %

	CF	IMF	OECD	BoJ
2021	-0.2	-0.2	-0.2	0.0
2022	0.7	0.5	0.8	0.9

II.6 China

The slowdown in the growth of the Chinese economy will be a risk for the global economy next year too. Lower economic activity in China has already been clearly reflected in subdued industrial production worldwide due to weaker demand in 2021. The CF analysts expect the annual growth rate of China's GDP to decline further from 8% in 2021 to 5.1% in 2022. Growth will continue to be driven by consumption next year, which will also benefit from the improving labour market situation. Stronger domestic demand will also be reflected via higher imports in a lower contribution of net exports, which will also be dampened by weaker demand from abroad. Economic growth will be fostered significantly by continued government investment in infrastructure and digitalisation, and investment related to gradual transition to a low-carbon economy. According to the December CF, consumer prices in China will grow at a pace of 0.9% this year, picking up to 2.1% in 2022.

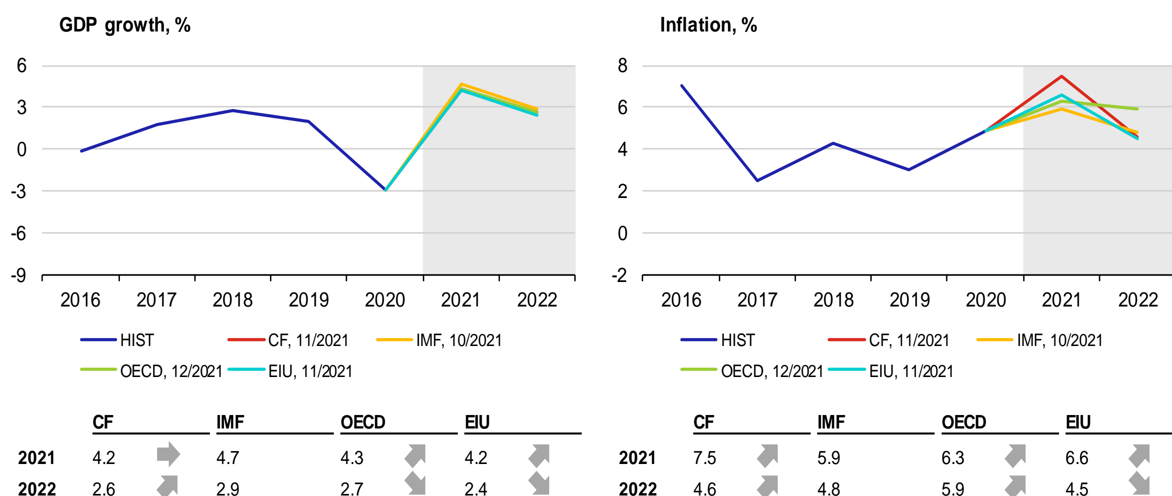


	CF	IMF	OECD	EIU
2021	8.0	8.0	8.1	7.9
2022	5.1	5.6	5.1	5.3

	CF	IMF	OECD	EIU
2021	0.9	1.1	0.8	0.8
2022	2.1	1.8	1.7	2.3

II.7 Russia

Russia's GDP slowed in Q3. According to Rosstat's flash estimate, annual growth in economic activity slowed to 4.3%. At the same time, GDP was only 0.7% higher compared to the same quarter of 2019. The volume of passenger transport increased the most – by about one-half year on year. By contrast, production in agriculture decreased by more than 6%. Despite a slight cooling of domestic demand in Q4, inflation pressures remain high and inflation continues to rise. Annual consumer price inflation was 8.4% in November. Prices are being pushed up by both growing costs of food products (due to rising prices of agricultural commodities) and growing costs in non-food sectors, which have persisting problems with supply chains or logistics problems in some regions. This is also due to the effect of increasing oil product prices after their decline in September.

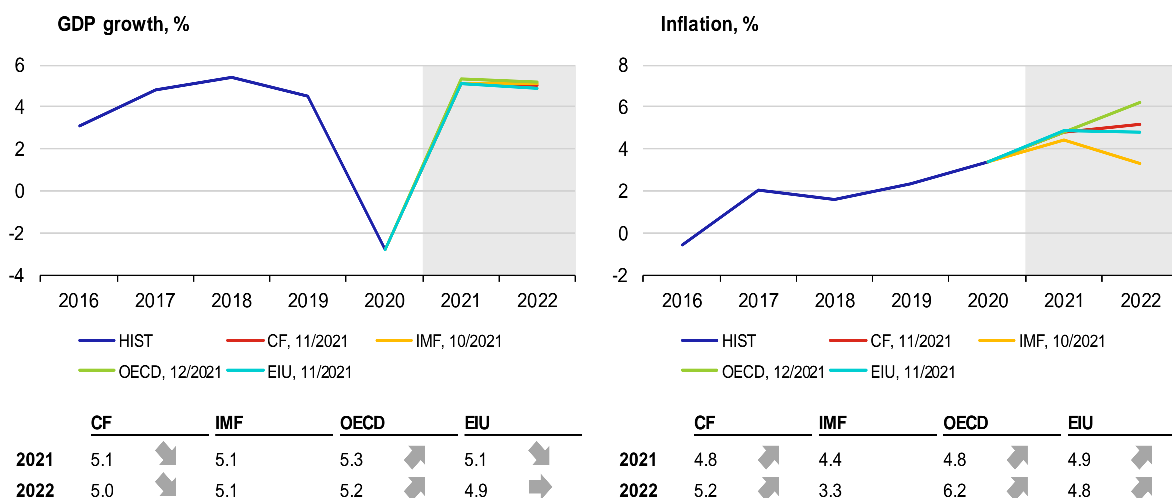


	CF	IMF	OECD	EIU
2021	4.2	4.7	4.3	4.2
2022	2.6	2.9	2.7	2.4

	CF	IMF	OECD	EIU
2021	7.5	5.9	6.3	6.6
2022	4.6	4.8	5.9	4.5

II.8 Poland

At its meeting on 8 December, the Monetary Policy Council of the Polish central bank decided to raise interest rates from 1.25% to 1.75%. According to a preliminary estimate, annual consumer price inflation rose again markedly from 6.8% in October to a record 7.7% in November. In month-on-month terms, consumer prices were up by 1.0% in November (1.1% in October). This mainly reflected growth in energy prices, but also an economic recovery driven by growth in households' disposable income. GDP growth slowed to 5.3% year on year in 2021 Q3 from the all-time high of 11.2% in the previous quarter. Industrial production slowed year on year in October, down from 8.8% in September to 7.8% due to a weakening of manufacturing and a slowdown in mining and quarrying. The business confidence survey for the Polish economy is pessimistic. It has followed a falling trend for some time now, recording the worst result since December 2020 in November.



GDP growth, %

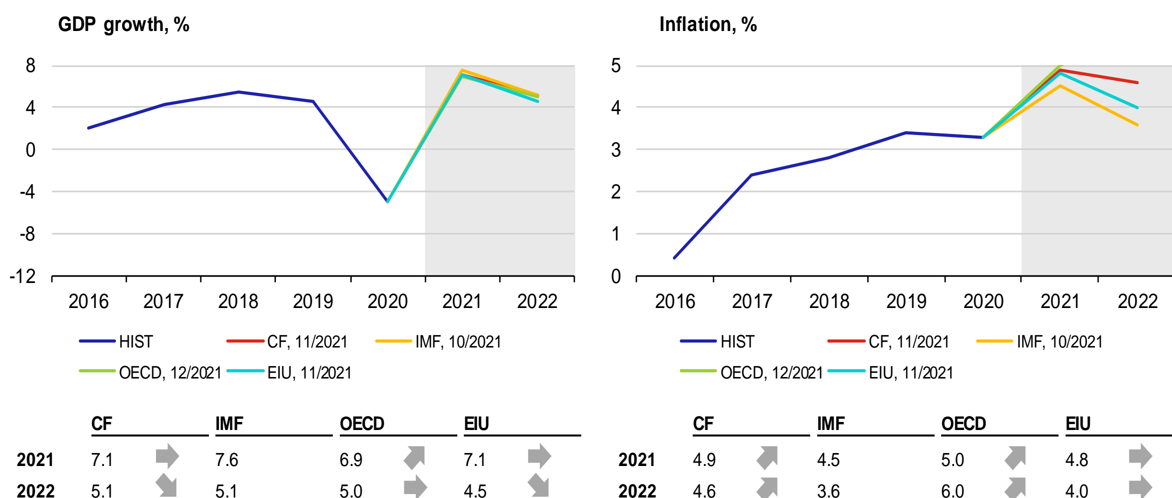
	CF	IMF	OECD	EIU
2021	5.1	5.1	5.3	5.1
2022	5.0	5.1	5.2	4.9

Inflation, %

	CF	IMF	OECD	EIU
2021	4.8	4.4	4.8	4.9
2022	5.2	3.3	6.2	4.8

II.9 Hungary

At its meeting on 16 November, the Monetary Council of the Hungarian central bank (MNB) decided to raise the policy rate again (from 1.8% to 2.1%). 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 markedly to 7.4% in November, up from 6.5% in October. Net inflation accelerated from 4.7% in October to 5.3%. According to GKI Economic Research, business confidence in the Hungarian economy has grown to its highest level since May 2019 (from 8.7 in October to 9.1). According to a preliminary estimate, economic activity continued to recover in Q3, albeit at a slower pace (6.1% year on year in Q3, down from 17.8% in Q2). By contrast, industrial production fell by 3.4% year on year in October according to a preliminary estimate (compared with a decline of 2.3% in September), the worst result since January.



GDP growth, %

	CF	IMF	OECD	EIU
2021	7.1	7.6	6.9	7.1
2022	5.1	5.1	5.0	4.5

Inflation, %

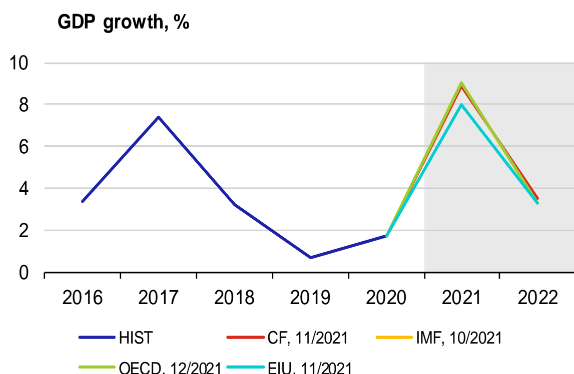
	CF	IMF	OECD	EIU
2021	4.9	4.5	5.0	4.8
2022	4.6	3.6	6.0	4.0

II.10 Countries in the spotlight – Turkey

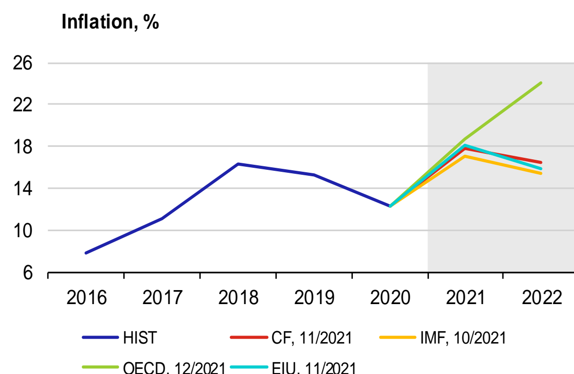
Turkey is in the throes of a currency crisis. The Turkish lira has lost almost half of its value against the dollar since the start of this year. Lira asset sell-off picked up pace especially during autumn after the central bank cut interest rates several times despite consumer price inflation of over 20%. In early December, the central bank tried to stabilise the currency by selling reserves for a while, but their volume is low after unsucessful attempts to prop up the lira with interventions in 2019 and 2020.

The low rates policy which triggered the crisis is a long-standing priority for President Erdogan. Over the past two years, the President has dismissed three central bank governors. He also recently replaced the finance minister with a politician who will support his vision of development through cheap investment financing. During similar crises in previous years (2018 in particular), Erdogan eventually backed off and let the central bank raise rates. However, this year's consolidation of his power over economic policy and the aggressive rhetoric of an "economic war for independence" are causing concerns about the crisis escalating to a spiral of hyperinflation and hyperdepreciation. Moreover, the government is facing allegations of distorting the inflation figures. The ENAG independent research group estimated consumer price inflation as high as double the official figure.

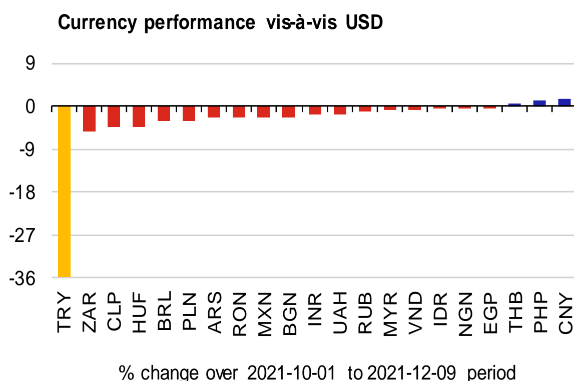
Economic growth remained robust in 2021 Q3. The Turkish economy grew by 7.4% year on year and its total growth for 2021 will probably be among the strongest in the world. However, the currency crisis and its potential further escalation may pose a serious threat to Turkey's economic potential. Rising costs of living, including food prices 27% higher than a year earlier, are already undermining consumer sentiment. Producer prices – which are more sensitive to the exchange rate than consumer prices – even surged by 55% year on year in November. In an economy dependent on imports of energy and materials, a further drop in the lira could turn the currency crisis into a broader economic one. This could also lead to further loss of confidence in the currency, deepen the dollarisation of the economy and cut off Turkish banks from foreign funding. Government debt servicing costs will also grow markedly, as about three-fifths of the debt is in foreign currency.

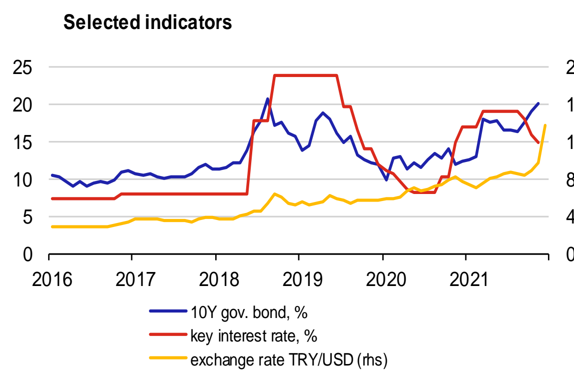


	CF	IMF	OECD	EIU
2021	8.9	9.0	9.0	8.0
2022	3.5	3.3	3.3	3.3



	CF	IMF	OECD	EIU
2021	17.8	17.0	18.7	18.1
2022	16.5	15.4	24.0	15.8

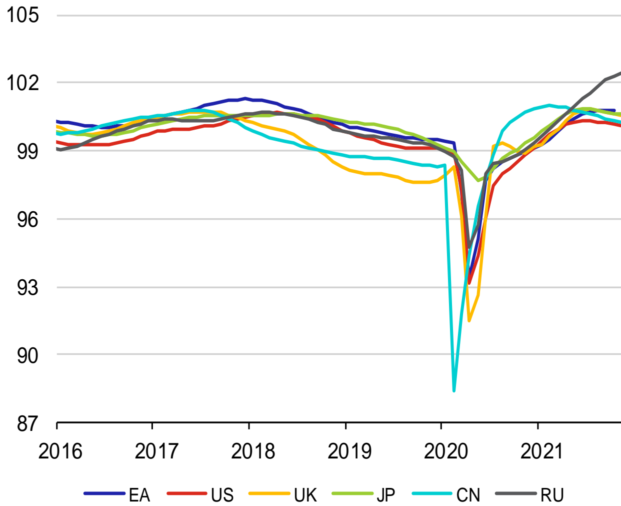




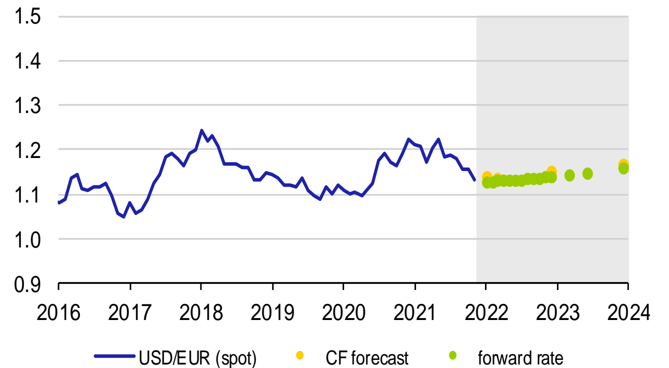
	10Y gov. bond, %	interest rate, %	TRY/USD
9/2021	17.73	18.00	8.47
10/2021	19.08	16.00	8.91
11/2021	20.20	15.00	9.71

III. Leading indicators and outlook of exchange rates

OECD Composite Leading Indicator

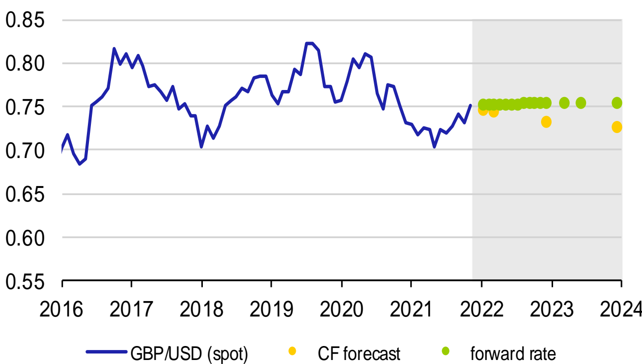


The US dollar (USD/EUR)



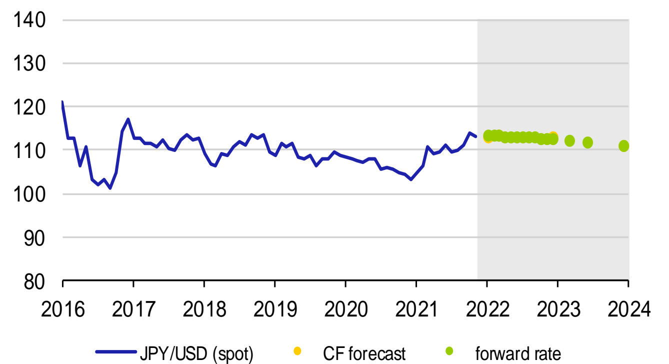
	6/12/21	1/22	3/22	12/22	12/23
spot rate	1.127				
CF forecast		1.139	1.138	1.151	1.170
forward rate		1.130	1.131	1.140	1.159

The British pound (GBP/USD)



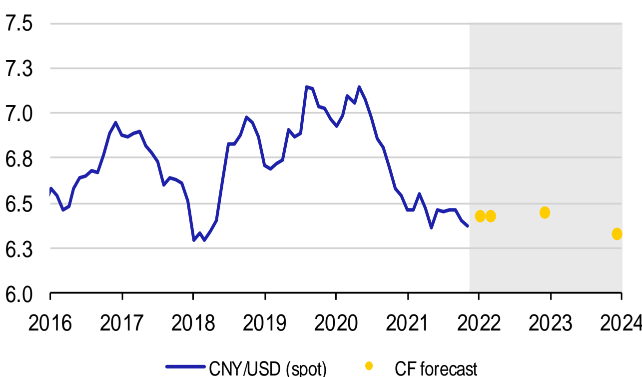
	6/12/21	1/22	3/22	12/22	12/23
spot rate	0.755				
CF forecast		0.747	0.746	0.734	0.727
forward rate		0.753	0.754	0.755	0.754

The Japanese yen (JPY/USD)



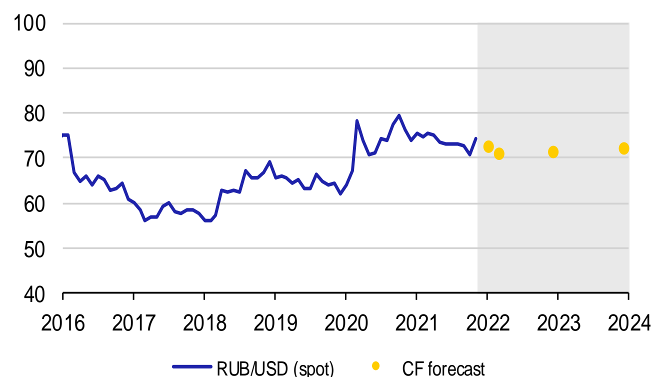
	6/12/21	1/22	3/22	12/22	12/23
spot rate	113.5				
CF forecast		113.3	113.7	113.2	111.3
forward rate		113.4	113.4	112.8	111.0

The Chinese renminbi (CNY/USD)



	6/12/21	1/22	3/22	12/22	12/23
spot rate	6.372				
CF forecast		6.430	6.430	6.454	6.332

The Russian rouble (RUB/USD)

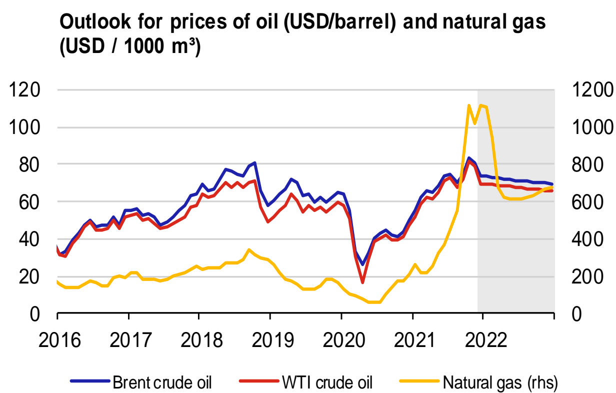


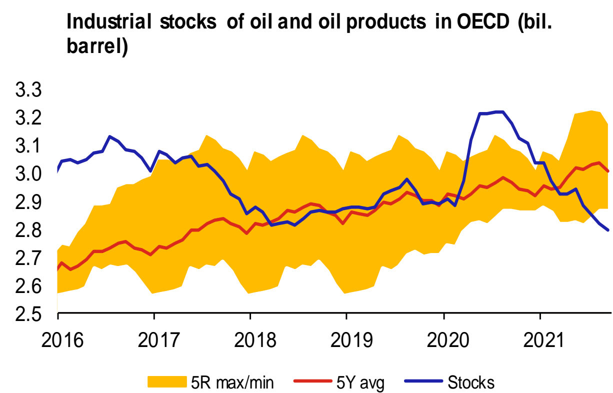
	6/12/21	1/22	3/22	12/22	12/23
spot rate	74.03				
CF forecast		72.70	71.17	71.68	72.39

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.

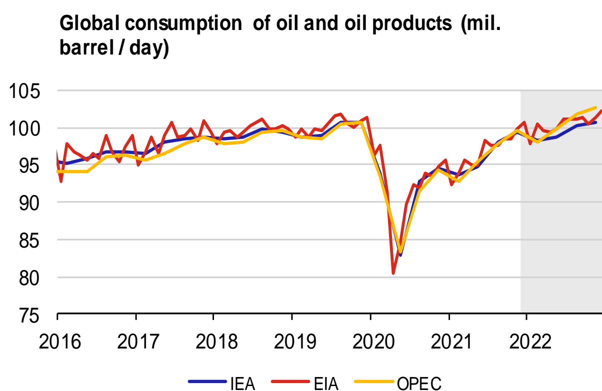
IV.1 Oil

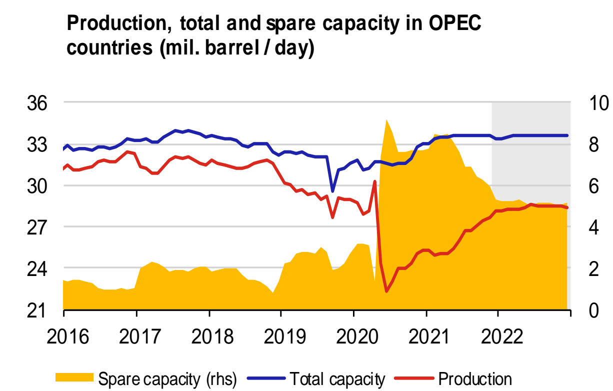
The price of Brent crude oil fell in November from the seven-year high recorded in October (USD 86.4/bbl), with a sharp drop to below USD 70/bbl at the end of the month due to the spread of the Omicron variant. After reaching the highest level since October 2014 in late October, oil prices started falling owing to rising pressure from the US administration to release oil from strategic reserves. Moreover, the IEA stated that oil market tensions were easing thanks to resumed extraction in the Gulf of Mexico and continued growth in global extraction. In the end, several countries (above all the USA) released oil from their strategic reserves, but to a smaller extent than expected by the market, so oil prices edged up. They then dropped sharply in late November due to the new variant of the coronavirus. The drop was later amplified by hawkish comments from the US Fed fostering an appreciation of the dollar. In early December, however, oil prices returned to growth as concerns about the Omicron variant moderated gradually and hopes for an early lifting of sanctions on Iranian oil exports diminished. The price increase was due partly to an optimistic OPEC outlook for oil demand and a rise in selling prices by Saudi Arabia. OPEC+ will thus continue to raise production in January as planned. However, many countries are again tightening anti-epidemic measures, which could adversely affect oil demand. Therefore, the price of Brent crude oil stabilised close to USD 75/bbl before mid-December. The EIA forecast expects Brent prices to be around USD 73/bbl in 2022 Q1 and then fall to USD 66/bbl in late 2022. The early December market outlook also remains falling, but is signalling a higher oil price (USD 69.5/bbl and USD 66.9/bbl at the end of 2022 and 2023 respectively). The highest price is predicted by the December CF (USD 71.6/bbl at the end of next year).





	Brent	WTI	Natural gas
2021	70.75	67.70	561.40
2022	71.43	67.57	704.45





	IEA	EIA	OPEC
2021	96.43	96.90	96.41
2022	99.45	100.46	100.57

	Production	Total capacity	Spare capacity
2021	26.29	33.49	7.21
2022	28.38	33.55	5.16

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.

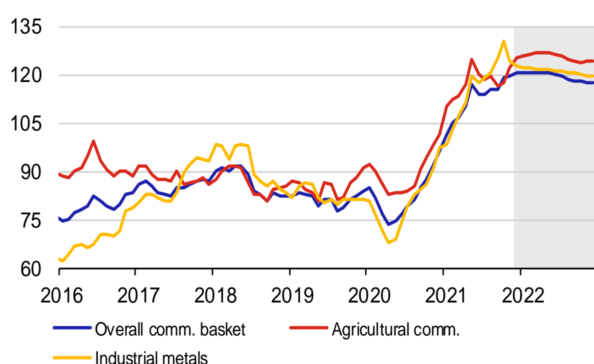
IV.2 Other commodities

The outlook for natural gas and electricity prices remains close to record highs in the next few months. The price of natural gas in Europe fell sharply in late October in response to a pledge of higher supplies from Russia. However, this has not materialised yet, so gas prices have been rising again since then and should stay close to the record highs seen in October at least until January. The outlook for electricity prices is even more catastrophic. Electricity prices surged again in December and will stay at the new highs at least until March. Emission allowance prices hit USD 90/tonne in early December and their outlook is rising. Only the price of coal – also at record highs throughout October – dropped sharply in early November (by about 35%). It continued to fall in November and a slight decline is also expected in 2022.

The average monthly food commodity price index reached its highest level in more than seven years in the first half of December. It is expected to rise slightly further in the next quarter. This is due chiefly to prices of wheat, rice, coffee and beef. Wheat prices again hit their nine-year high due to low exports from Russia and high export tariffs there. However, they subsequently declined as the Russian government announced less restrictive export quotas than expected. Coffee prices were the highest in ten years owing to production shortfalls in several regions.

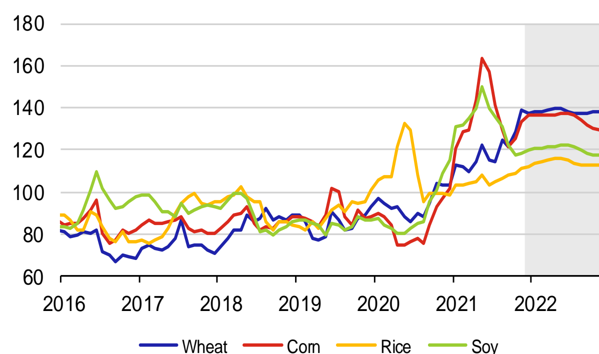
By contrast, the average monthly industrial metals price sub-index fell slightly from October (when it almost equalled the all-time high reached in May 2007) and its outlook expects a further slight decrease. Aluminium, copper, lead and zinc prices saw a downward correction. By contrast, tin prices reached a new all-time high. Nickel prices also remain high. Iron ore prices had been falling sharply since early August, but their decline halted at the start of November as China emerged from the energy crisis and returned to normal functioning of heavy industry.

Non-energy commodities price indicies



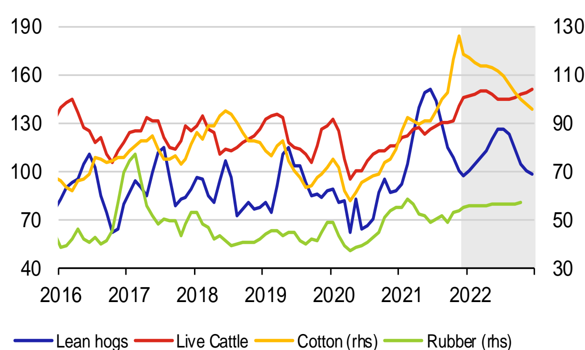
	Overall	Agricultural	Industrial
2021	113.3	118.1	116.5
2022	119.3	125.4	120.9

Food commodities



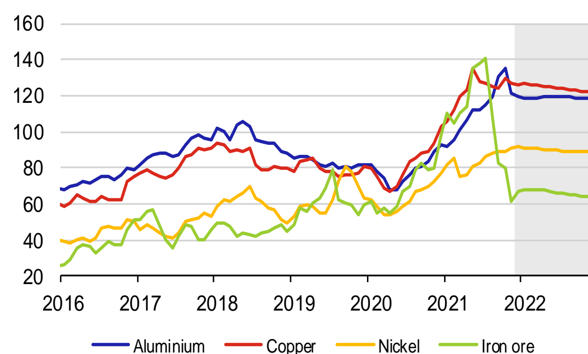
	Wheat	Corn	Rice	Soy
2021	121.0	135.9	106.6	131.0
2022	138.3	134.4	114.0	120.2

Meat, non-food agricultural commodities



	Lean hogs	Live Cattle	Cotton	Rubber
2021	120.8	129.0	99.8	52.7
2022	111.2	147.3	107.8	56.1

Basic metals and iron ore



	Aluminium	Copper	Nickel	Iron ore
2021	113.2	123.6	84.6	104.4
2022	118.9	124.1	89.7	66.0

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

The recovery plan for Europe and its importance for the future of European integration[1]

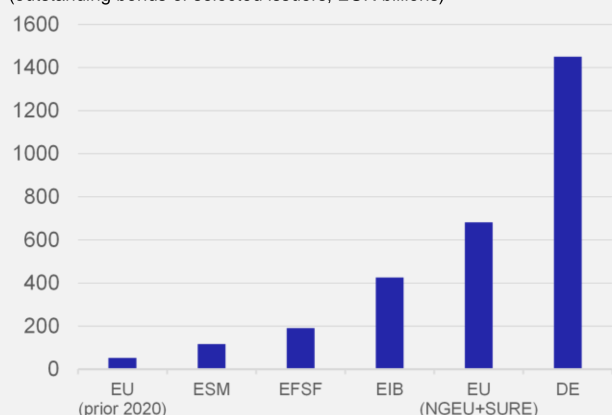
"Europe will be forged in crises, and will be the sum of the solutions adopted for those crises", predicted Jean Monnet as early as 1976. The COVID-19 pandemic is the latest example of an economic shock which has brought another milestone in the history of European integration. In response to the temporary shutdown of their economies, for the first time ever, the EU countries have embarked in solidarity on significant fiscal risk sharing through joint borrowing. This article provides a closer look at the triple meaning of the European recovery plan (NGEU), as the largest form of fiscal transfer in the history of the EU, as a novelty in European financial markets and as a tool for transforming the European economy. NGEU-funded projects do not focus on completely new areas, but help to advance the previously planned EU environmental and digital objectives, leading to a further partial shift of decision-making on national spending priorities to de facto EU competence. In contrast to the earlier joint financial instruments (EFSF, ESM), which also served to raise finance on capital markets during the debt crisis, the NGEU does not only apply to euro area countries, but to all EU Member States. Moreover, the financial support to Member States takes the form of non-repayable grants alongside loans. Thus, the currently approved plan does not create a two-speed Europe, but builds on the principle of a united and solidarity-based Union.

Recovery plan for Europe

The Next Generation EU (NGEU) recovery plan for Europe represents the largest fiscal transfer in the history of European integration. Before the outbreak of the pandemic, European policies and priorities were mainly financed from the EU budget. In July 2020, NGEU of up to EUR 806.9 billion was approved in addition to the usual budget as a temporary crisis instrument. Alongside NGEU, a smaller programme, SURE (up to EUR 100 billion) was also approved to support employment during the COVID-19 crisis. For the first time in its history, the EU has embarked on large-scale support for its members' economies financed by the issuance of bonds guaranteed by the EU budget. NGEU covers several spending packages, with a key role played by the new Recovery and Resilience Facility (RRF), which accounts for 90% of NGEU funding[2]. This fund of up to EUR 723.8 billion is distributed on the basis of national recovery plans to help the Union to recover from the coronavirus pandemic. Roughly half of the funds (EUR 338 billion) will be made available to Member States in the form of non-repayable grants, while Member States may draw the other half (EUR 386 billion) in the form of loans. However, only a minority of countries have expressed interest in those in their recovery plans, so only EUR 166 billion is expected to be drawn down. Projects included in the national plans focus mainly on digital and green transformation of the economies of the EU Member States. The economic areas supported are thus largely determined by a mandatory share of green and digital spending. The investments and reforms of the plans are implemented in 2021–2026. The disbursement of the RRF is conditional on the fulfilment of quantitative and qualitative targets in individual projects supervised by the European Commission throughout their implementation.

Chart 1 — NGEU will significantly increase the common debt of EU Member States

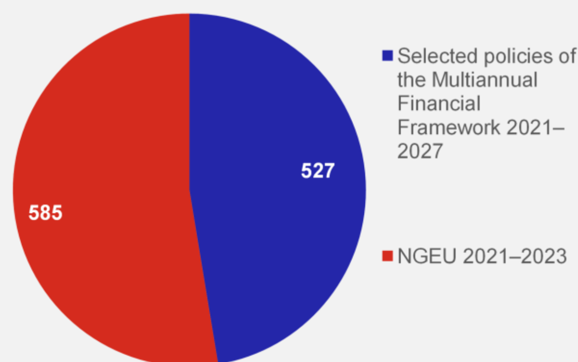
(outstanding bonds of selected issuers, EUR billions)



Source: European Commission, ESM, Fitch, Federal Ministry of Finance
Note: NGEU on the basis of requested grants and loans in national recovery plans (not maximum drawdown) as at 31 December 2021. Germany's debt is shown in the chart for scale comparison only.

Chart 2 — NGEU will more than double the EU's investment and reform spending

(EUR billions)



Note: Selected policies 2021–2027 MFF include the part of the EU budget aimed at financing cohesion policy, European strategic investments and investments and reforms in agriculture and climate protection. NGEU represents the volume of grants and loans in recovery plans.

[1] Authors: Pavla Netušilová and Martin Kábrt. 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] The remaining 10% of NGEU consists of other funds and programmes relating to various EU policies, specifically ReactEU, the Just Transition Fund, the European Agricultural Fund for Rural Development, Horizon Europe, InvestEU and RescEU.

The coordination of Member States' fiscal policies has until now taken place through budgetary rules and constraints, while shared fiscal instruments have been relatively rare and limited in scope. The European Economic and Monetary Union was designed asymmetrically in the Maastricht Treaty in 1992. While monetary policy moved to the EU level into the hands of the European Central Bank (ECB)[3], fiscal policy has remained the responsibility of the Member States. Only budgetary disciplinary constraints (the Stability and Growth Pact) were created at the EU level, later reinforced by other supervisory and coordination instruments (e.g. the European Semester, the Macroeconomic Imbalance Procedure). However, mechanisms for the direct sharing of national budgets have remained limited, with the EU budget representing only about 1% of the EU's GDP. Common debt through EU bonds has been used since the 1970s, but only sporadically, on a relatively small scale, and only for the purpose of lending to a Member State hit by a crisis.[4] European Investment Bank (EIB) loans, in which all Member States are shareholders, can be considered significant in volume, but the bank's lending policy is extremely conservative and generally requires guarantees from national resources. Therefore, the instruments created during the euro area debt crisis in 2009–2013, i.e. the (temporary) European Financial Stability Facility (EFSF) and the (permanent) European Stability Mechanism (ESM) represented the first large-scale interconnection of national budgets. After several early repayments, there is currently EUR 262 billion outstanding loans from these instruments to Greece, Portugal, Ireland, Cyprus and Spain.

However, NGEU is markedly different from these crisis tools, and not only due to its larger scale. While the EFSF/ESM were based on the budgetary difficulties of only a few countries, the pandemic has affected all of them. In addition, while only euro area countries have participated in the EFSF/ESM, all EU Member States participate in NGEU. Funding is therefore mobilised directly by the EU on the capital markets, and not by a special institution set up by an international treaty. Unlike the EFSF/ESM, NGEU also provides non-repayable grants to the countries in addition to loans, and the conditions for accessing the funds differ. While NGEU aims to transform the European economy through large-scale investments, the debt crisis was primarily about returning "sinners" to fiscal sustainability. To access financial support, beneficiary states had to make painful budget cuts and reform socially sensitive areas or their tax systems. However, the strict conditions are not the only reason why Member States are reluctant to request ESM assistance. During the pandemic crisis, the ESM offered funding of up to EUR 240 billion to its members, almost without conditions, the only one being that the funds had to be used to respond to the challenges of the COVID-19 pandemic. However, not a single euro area member asked for money, although at least seven countries would have been able to borrow more cheaply than through national bonds (Fitch, 2020). The lack of interest was likely related to the stigma of the ESM as a lender of last resort, which provided resources to countries that could no longer obtain funds on the open market during the politically tense debt crisis.[5]

From a less conventional perspective, asset purchases by the European Central Bank (ECB) under the quantitative easing programme can also be seen as a form of fiscal risk sharing (QE is four times the cumulative size of the NGEU programme).[6] When the ECB purchases a national bond on the capital market, the liability of the Member State also becomes an asset of the central bank. The central bank pays for it with reserves, i.e. newly created short-term liabilities to commercial banks. Taking a consolidated view, the public sector as a whole (governments plus the central bank) transforms its liabilities from national bonds (which only the issuing Member State guarantees) into liabilities of the central bank, which are theoretically guaranteed by all its ultimate owners, i.e. the euro area countries. In practice, however, central bank reserves are a distinctive liability — funds that the central bank can create in any quantity.[7] Thus, the central bank's limitation on the purchase of assets is inflation, not the risk that the bank will not be able to meet its liabilities and will need a capital injection from shareholders.[8] The ECB is prohibited by EU law to provide debt relief or any other explicit form of budgetary assistance to Member States. Its purchases thus link the public debts of euro area countries "only" in that the central bank bears investment risks (e.g. the risk of default or a falling market price) and reduces the borrowing costs of the individual countries through its market demand. Any financial losses may reduce future dividends that the ECB pays on its profits to national budgets. This "investment" channel can therefore be seen to some extent as an additional budgetary link between euro area countries, but in the rest of this article, we will regard the ECB only as one of the investors (albeit specific) in national or European bonds.

A novelty on the European financial markets

While the EU budget is financed by Member States' contributions, NGEU funds are borrowed by the European Commission on the financial markets. The Commission is not a newcomer when it comes to issuers of debt securities[9],

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[3] With the exception of Denmark, all Member States have undertaken to join the monetary union.

[4] An overview of the EU's pre-2008 debt can be found for example in Horn, S, J Meyer and C Trebesch (2020). Post-2008 examples are given in footnote 9.

[5] Paradoxically, the presentation materials of the ESM, which seek to eliminate this perception (ESM, 2021), illustrate that this stigma exists.

[6] Between 2015 and October 2021, the ECB purchased euro area bonds for more than EUR 3.5 trillion.

[7] In addition, it chooses how (and if at all) to pay interest on reserves.

[8] Many central banks, including the CNB, operated for many years with negative equity. A central bank is the only institution that, by definition, can never be in a position not to be able to repay debt in its own currency.

[9] Before 2020, the EU issued bonds for targeted loans to Member States experiencing a monetary or financial crisis. For example, it provided assistance (together with the IMF and other lenders) to Hungary, Latvia and Romania in post-2008 crises under the Balance of Payments (BoP) assistance facility. Ireland and Portugal received further support during the European debt crisis under the then established European Financial Stabilisation Mechanism (EFSM). The EU, along with other international creditors, has also lent to at least 10 non-Member States in crisis as part of the neighbourhood policy under the Macro-Financial Assistance (MFA). The total amount of outstanding EU bonds was around EUR 50 billion before 2020.

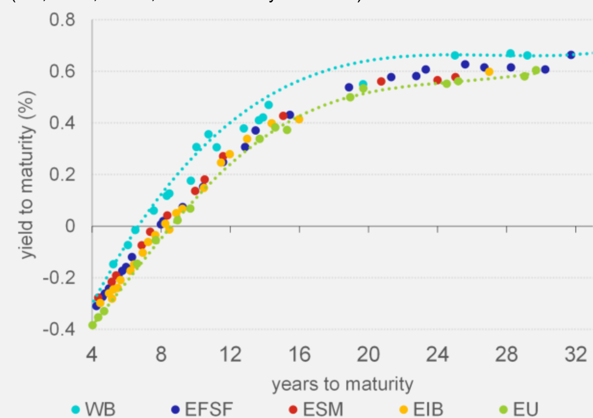
but the new undertaking exceeds the scale of the earlier programmes (NGEU and SURE will increase the volume of outstanding EU bonds more than twenty times). This allows the EU to join the ranks of the "large" issuers that raise money on the capital markets on a regular basis and whose bonds cover the entire yield curve in sufficient liquidity. It is also the first time that the EU uses auctions to sell bonds, the first time it issues short-term instruments, and the first time that the funds raised will be made available to Member States also as (non-repayable) grants.

Investors are showing considerable interest in European bonds. Syndicated issues, which have so far been the main way the Commission has used to raise funds on the market, have attracted ten times more orders from investors than the volume offered.[10] Such interest is unusual as, for example, orders of French government syndicated bonds exceeded supply seven times in the same period; for EIB bonds it was six times and for German government bonds "only" five times. The number of investors also varies significantly, with around 600 institutions showing interest in EU issues, while around 300 in French bonds and around 200-250 in the EIB debt and federal Bunds.[11] However, syndicated issues are more of a secondary tool for national issuers to obtain resources in the market, the main tool being more frequent and smaller auctions. The Commission has also been using the auction system since September 2021. The first 5-year bond offered attracted interest exceeding the size of the issue 2.3 fold, but this bid-to-cover ratio was only comparable to the 5-year bond auctions in the same month in Germany (1.6), France (2.3), Italy (1.8) and Spain (2.6).[12]

The European Commission borrows more cheaply than the majority of Member States. The yields on the new European bonds are higher compared to the debt of the most creditworthy Member States (Germany, the Netherlands, Luxembourg). But for other Member States, it is more financially advantageous to borrow through a bond that is jointly guaranteed by the Member States through the EU budget. The European Commission estimates that countries that borrowed under the SURE programme will save a total of EUR 8.2 billion on interest (9% of the amount borrowed) compared to if they had secured the same resources through national bonds (EC, 2021). Given the significantly larger scope of NGEU, the savings from this programme may be even greater, especially for Member States perceived by investors as riskier (see Chart 4).

Chart 3 — The EU borrows cheaper than other supranational euro bond issuers

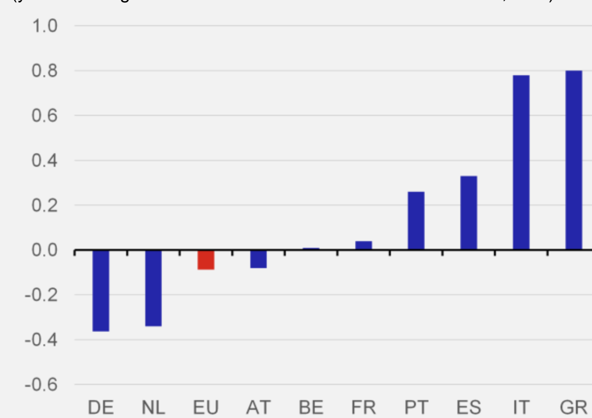
(EU, ESM, EFSF, EIB and WB yield curve)



Source: Refinitiv (21/10/2021)
Note: Points show the individual bonds.

Chart 4 — EU Member States perceived as riskier by investors will save the most on interest

(yield of 10Y government bonds of selected Member States; in %)



Source: Refinitiv
Note: Average of daily data in September 2021.

The European Commission's bond yields are also lower compared to other supranational euro bond issuers. Institutions, which arose as a result of the euro area debt crisis, the ESM and the EFSF, also finance their loans to Member States with euro bonds. Multilateral development banks, in particular the EIB, but also the World Bank (WB) and the European Bank for Reconstruction and Development (EBRD), are also major issuers. The yield curves of the individual institutions in Chart 3 show that the EU borrows most cheaply in euros. One explanation is the rating, which expresses the risk of default. The EU is rated by Moody's, S&P and Fitch as Aaa/AA/AAA, i.e. the best possible rating by two of the three most important agencies. Rating agencies justify top ratings mainly by the creditworthiness of those Member States that contribute significantly to the EU budget (and are obliged to contribute more if necessary) while are themselves rated AAA[13] (Fitch 2021) or only slightly lower (Moody's 2020). The EU therefore owes its rating to the guarantees of its most creditworthy Member States. Other factors include the strong financial and political support of the Union by Member

[10] By the end of October 2021, the EU had received 146.6 billion for the SURE and NGEU through 17 syndicated issues. Investors' total demand across issues amounted to EUR 1,463.2 billion. Thus, the average bid-to-cover ratio was 10.0.

[11] The values are based on the results of issues reported by the Federal Ministry of Finance, the EIB and the European Commission.

[12] The results of the auctions are published by the national public debt management offices.

[13] Germany, the Netherlands, Denmark, Sweden, Luxembourg.

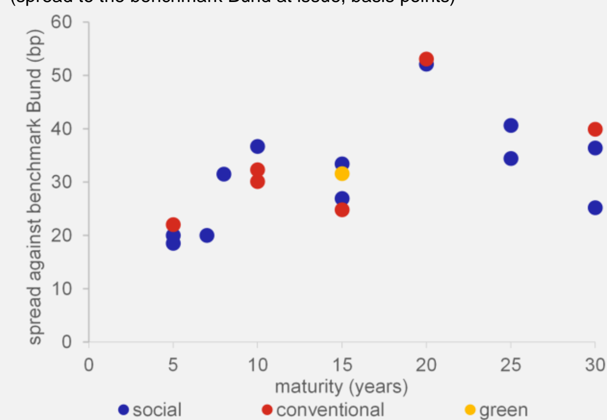
States[14] and the robust legal structure of shared responsibility for EU liabilities, including several new guarantees (Moody's, 2020). By contrast, the EFSF, the crisis lender later replaced by the ESM, does not achieve the best rating from any of the agencies.

However, excellent creditworthiness is not the only cause of the EU's low borrowing costs. For example, both the EIB and WB have an even better rating (AAA from all agencies), underpinned by conservative lending, preferential creditor status, political support from Member States and a massive capital base. Yet, they are unable to attract the same number of investors as the EU and are thus unable to achieve such low borrowing costs. By contrast, Germany or the Netherlands have significantly lower borrowing costs than the EU. Investors can therefore also welcome a new supply of AAA bonds on the European market, receiving a higher return on an extremely safe asset than that available on national bonds with the same rating.

On the contrary, "green" and "social" bonds do not seem to significantly affect yields. Bonds issued under the SURE programme are "social bonds" which, in addition to yield, also guarantee investors a positive social impact. In October 2021, the EU also sold its first "green" bond, the proceeds of which are earmarked for green transformation (up to 30% of the total NGEU resources are to be financed by such bonds). However, a comparison of borrowing costs in syndicated issues in Chart 5 does not provide convincing evidence that investors demand a lower yield on social or green bonds. This conclusion is consistent with the literature that examines this effect. For example, AFME (2021) and ING (2020) conclude that the green bond discount (sometimes called the "greenium") was still relatively large – up to 9 basis points – in 2020, as demand for green assets exceeded the limited supply. However, the rapid growth in supply soon reduced the greenium to just 1 basis point. The same is confirmed by the experience of the German Ministry of Finance, which issued three conventional bonds between autumn 2020 and spring 2021 along with their green twins with identical parameters. The difference in the yield on the bond was 1–2 basis points at issuance, and only a modeslty higher differential persists in the secondary market to this day (1–4 basis points).

Chart 5 — It is not clear from the data whether investors demand a lower yield on ESG bonds

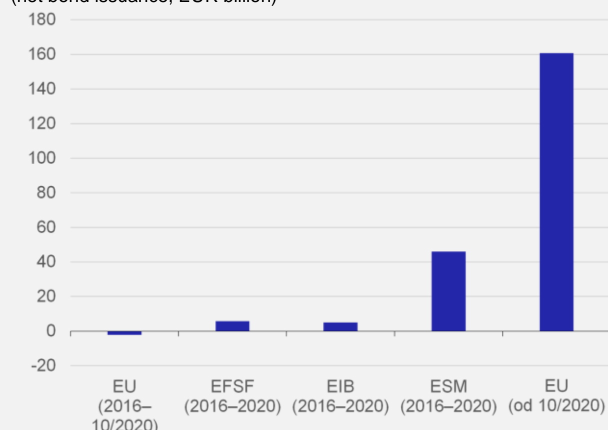
(spread to the benchmark Bund at issue, basis points)



Source: Refinitiv
Note: Points represent EU bonds issued since October 2020.

Chart 6 — While other issuers are only replacing debt maturing, the EU is expanding its existing supply

(net bond issuance, EUR billion)



Source: Institutions' financial statements
Note: EFSF = European Financial Stability Facility, EIB = European Investment Bank, ESM = European Stability Mechanism.

A new safe European asset with sufficient liquidity over the entire yield curve can help the development of European capital markets and the international role of the euro. Unlike US Treasuries, the EU has so far lacked a benchmark financial instrument that covers the entire yield curve in sufficient liquidity. Such an instrument could support the development and integration of the shallow and fragmented European capital markets. At the same time, a wider supply of a secure European asset may strengthen the role of the euro as an international reserve currency. Chart 6 shows that the EIB and the EFSF have only replaced maturing bonds in the past 5 years (the volume of new issues roughly corresponded to repaid bonds in the given period). Although the ESM expanded its supply on the market during this period, its last active loan programme ended in 2018, so new issues will soon only cover maturing bonds. EU issues under the SURE and NGEU programmes thus represent a significant net increase in the supply of euro supranational debt securities. However, time will tell whether NGEU bonds will only be a one-off operation similar to EFSF bonds (after all the crisis loans to Member States are repaid, the EFSF will repay its bonds and cease to exist) or whether this is just the start of a permanent common EU debt facility for crisis situations. However, it cannot be ruled out that the current NGEU supranational bond financing will

[14] The importance of political support is illustrated, for example, by the EU's downgrade by S&P in 2016 (from AAA to AA), with reference to reduced cohesion after the Brexit referendum. The agency improved this rating in July 2020, due to a positive outlook, again referring to political cohesion and European solidarity reflected in the approval of NGEU (S&P, 2020).

gradually become the basis for a future general EU fiscal resource, which, once certain criteria are met, will allow EU Member States to borrow on financial markets on more favourable terms.

The need to repay common debt will lead to an expansion of the EU's own tax resources. Although RRF loans will be repaid by individual EU Member States, RRF grants will be covered from the common EU budget, which is to be expanded to include new own tax resources, such as revenues from the carbon border adjustment mechanism, emission allowances and European digital taxes. These new tax revenues would at least partially release the Union from the current fiscal dependency on Member State contributions based on gross national income and value added tax.

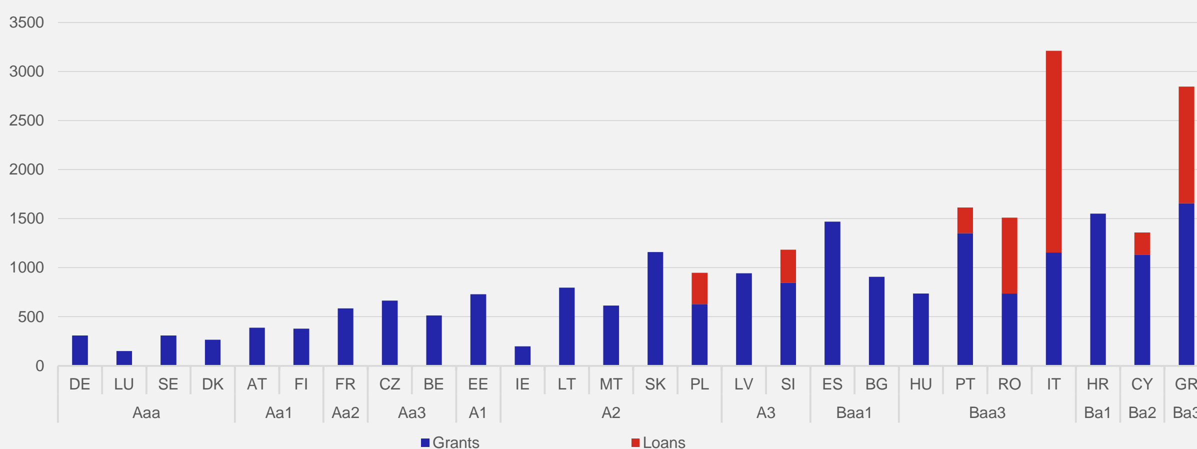
A tool for transforming the European economy

Most EU Member States[15] already have national recovery plans approved at EU level and have started implementing the envisaged investments and reforms. Most EU Member States submitted their national plans to the European Commission by summer 2021. Those states that received a positive assessment by the European Commission were gradually approved by the EU Council in the second half of 2021. However, the assessment process has stalled in the case of Poland and Hungary as countries facing doubts about their adherence to fundamental EU values such as the rule of law.For the approved recovery and resilience plans, the first payment was made automatically, but further payments under the national plans are conditional on the achievement of targets and milestones in individual projects with pre-quantified costs. The fulfilment of these project indicators will be monitored by the European Commission every six months. This new system of reimbursement of EU funds envisages faster drawdown of national grants and loans from the key NGEU fund compared to the cohesion and agricultural allocations of EU Member States under the standard Multiannual Financial Framework for 2021–2027.

In addition to the non-repayable allocation in the form of grants, Member States may also receive repayable loans from the RRF. While all countries except Latvia and Sweden requested for the entire national grant allocation of the Recovery and Resilience Facility, only a few (Poland, Slovenia, Portugal, Romania, Italy, Cyprus and Greece) expressed interest in drawing loans. These are mainly countries with poorer financial market ratings in relation to national bond issuance. However, EU Member States may also apply at a later stage for loan funding of their plans, i.e. until the end of August 2023. The national recovery and resilience plans may be further revised in the context of the recalculation of grant allocations in the first half of 2022 based on actual economic developments in 2020–2021. Unlike the grant allocations, the loan allocations will not be re-calculated in the future. In per capita terms, Italy and Greece will receive the largest amounts of funding, and Luxembourg and Ireland will receive the lowest (see Chart 7).

Chart 7 – Grants and loans in the national recovery and resilience plans relative to ratings from Moody's

(EUR per capita)



Source: National recovery and resilience plans, Moody's
Note: Countries' sovereign debt ratings from Moody's at the time of submission of the national plans to the Commission (April–June 2021)

Of the total RRF allocation of EUR 723.8 billion, EU Member States have so far requested EUR 498 billion, i.e. approx. 70% of the available funds, on the basis of approved recovery and resilience plans. The remaining 30% remains available for potential loans to Member States that have not yet made use of this option. In absolute terms, Italy, Spain, France, Poland, Greece and Germany will be the largest beneficiaries (see Chart 8).

By contrast, Greece is the largest beneficiary, and Luxembourg the smallest one, in terms of the drawdown of funds relative to GDP in 2019. No clear conclusion can be drawn from the existing data on the correlation between the volume of

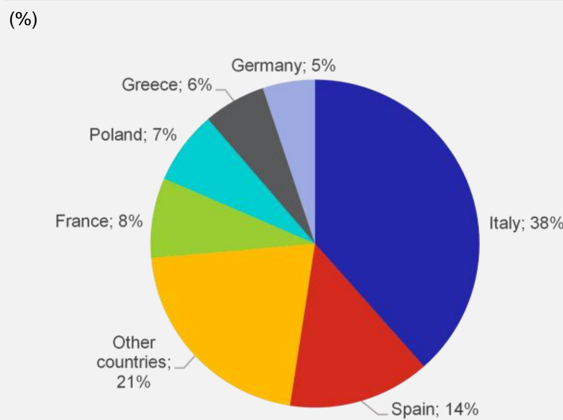
[15] By the end of October 2021, 22 of the 26 recovery and resilience plans submitted were approved. Poland, Hungary, Bulgaria and Sweden are still awaiting approval of their plans. The Netherlands has not yet submitted a recovery and resilience plan.

disbursement relative to GDP in 2019 and the annual decline of economic activity in 2020 (see Chart 9). Ireland, for example, also intends to avail of NGEU funding, although it was the only EU country to record economic growth in 2020.

National recovery and resilience plans exceed set minimum share of spending on green (37%) and digital (20%) projects, together accounting for 60% of planned expenditure of a predominantly investment nature (see Chart 10). NGEU puts emphasis on supporting investment activity to avoid a repeat of its sizeable decline observed during the financial and debt crisis. In addition, it focuses on transforming the EU economies in order to achieve climate goals (especially carbon neutrality by 2050) and support the digitalisation of the EU through a fixed threshold for the minimum share of expenditure on green and digital projects. Each project included in the recovery and resilience plan was assessed for its environmental and digital contribution according to the single methodology of the European Commission. In general, countries with experience in green investment have the largest share of green projects in their plans, as they had already prepared such projects in advance (e.g. Denmark and Finland). The plans of all countries include projects to improve the energy performance of buildings and promote clean resources in transport, as achieving carbon neutrality will require reducing carbon dioxide emissions from households and transport in addition to industry. For digital projects, support is mainly directed towards business and education, but some countries with a lower level of digitalisation in public administration have also targeted projects at this area. Other projects include investment in areas specified in the RRF or reflecting the EU Council's country-specific recommendations provided in the context of the 2019 and 2020 European Semester. This includes, in particular, the modernisation of the health sector, improvements in the business environment, and tax and pension reforms.

Chart 8 – Shares of selected countries in the total value of recovery and resilience plans

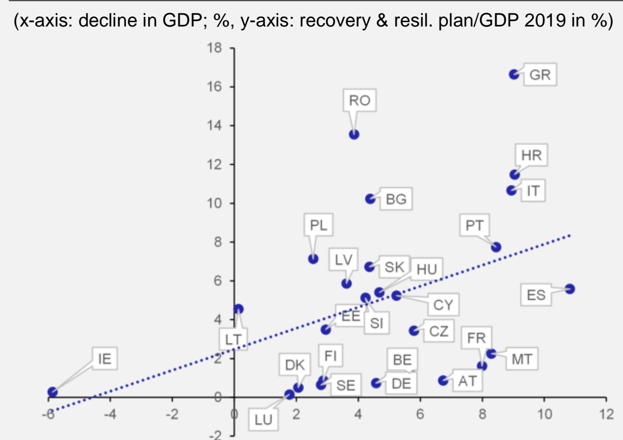
(%)



Source: authors' calculations
Note: Includes 26 recovery and resilience plans submitted

Chart 9 – Size of the recovery and resilience plan and GDP developments in 2020

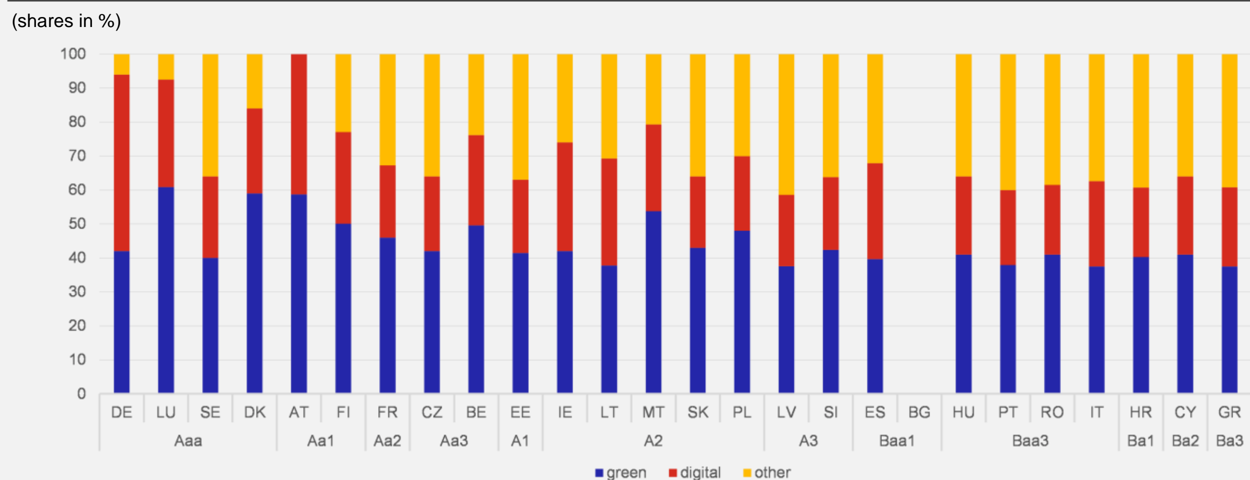
(x-axis: decline in GDP; %, y-axis: recovery & resil. plan/GDP 2019 in %)



Source: National recovery and resilience plans, Eurostat
Note: Includes 26 recovery and resilience plans submitted

Chart 10 – Types of projects in national recovery and resilience plans

(shares in %)

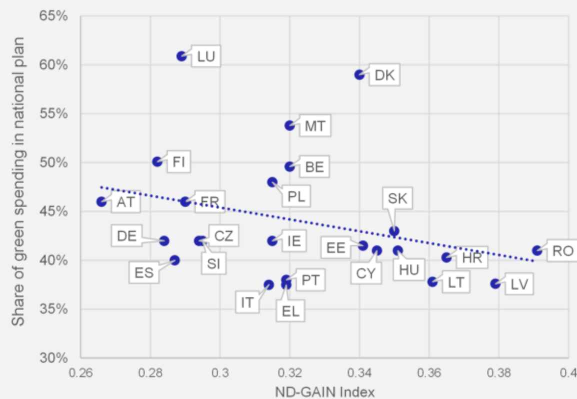


Source: National recovery and resilience plans, Moody's.
Note: Data are not available for Bulgaria. Countries' sovereign debt ratings from Moody's at the time of submission of the national plans to the Commission (April–June 2021).

Countries better prepared to face climate change (Austria, Finland, Luxembourg) have a larger share of green spending in their recovery plans than countries with lower climate resilience (see Chart 11). The EIB's 2020 survey on firms' investment plans indicates that in countries with a higher share of green spending in national plans, a larger share of domestic firms envisage green investments. At the same time, however, the survey shows that the surveyed firms in almost all EU Member States did not consider the availability of financial resources as the main obstacle to the implementation of green investment, but rather uncertainty about the relevant legislation and the risk of possible taxation of green activities. The survey reveals that broader involvement of economic agents in the greening of economies will require – in addition to public investment – the creation of a stimulating and stable legal environment. In the area of digitalisation a similar trend as in the case of green investment can be observed, i.e. that more digitalised national economies plan more digital projects than countries lagging behind in digitalisation (see Chart 12).

Chart 11 – Countries more vulnerable to climate change plan relatively lower green spending

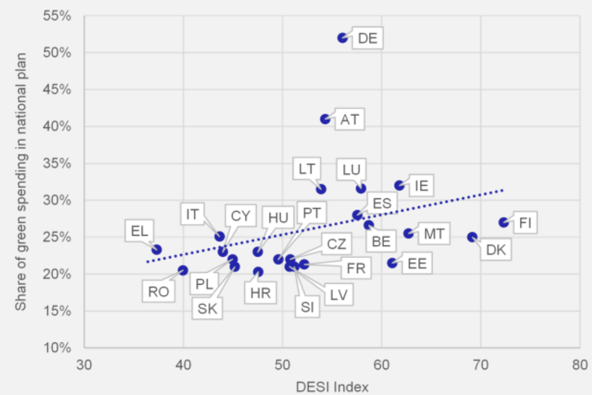
(share of green spending in the recovery and resilience plan relative to the vulnerability of an economy to climate change)



Source: National recovery and resilience plans, ND-GAIN Index reflecting the vulnerability of a given economy to climate change and its ability to face it.

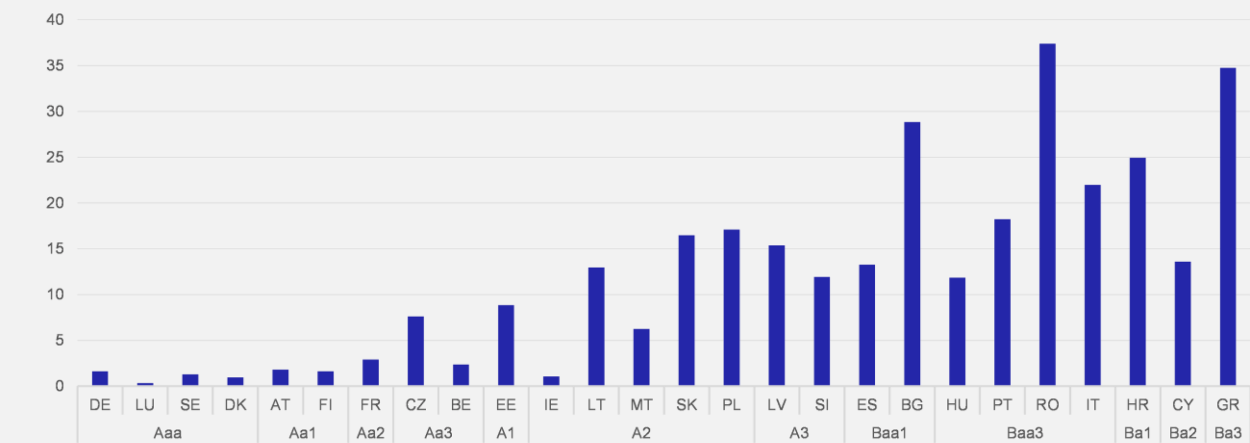
Chart 12 – Countries lagging behind in digitalisation plan to spend less on digital projects

(share of digital spending in the recovery and resilience plan relative to the economy's overall digitalisation)



Source: National recovery plans, European Commission DESI Index covering five areas of digitalisation of the economy, e.g. internet coverage and digitisation of public administration

Chart 13 – Ratio of total grants and loans in the national recovery and resilience plans to government expenditure in 2019



Source: National recovery and resilience plans, Moody's
Note: Countries' sovereign debt ratings from Moody's at the time of submission of the national plans to the Commission (April–June 2021)

The economic significance of the national recovery and resilience plans, as measured by the share of RRF grant and loan allocations **in total government expenditure in 2019, is the highest in countries with worse financial market ratings (see Chart 13).** From the fiscal perspective, drawing on grants is budget-neutral, i.e. it does not affect the general government balance in accrual terms. However, in some countries, there will be a more significant increase in government revenues and expenditures as a result of the implementation of the national recovery and resilience plan. While countries will draw down their allocations over a longer time horizon of up to six years, for Romania and Greece in particular this will

be a significant additional source of economic development in the context of existing ones.By contrast, these additional funds will not play a substantial role in the public budgets of several Member States where the share of grants will not exceed 5% of government expenditure (Germany, Luxembourg, Sweden, Denmark, Austria, Finland, France, Belgium and Ireland).

Conclusion

NGEU European recovery plan is an important milestone in linking national EU budgets and strengthening EU fiscal competencies. Compared with the resolution of the previous economic crisis in the EU in 2009 and afterwards, it is clear that the Member States were able to agree much more quickly on a final economic recovery model acceptable to all EU countries when negotiating the NGEU. At the same time, however, NGEU is a further step in the creation of common EU bonds, but this time not only for euro area countries but for all EU countries. Another key difference is that the funds raised in the financial markets are not only provided to individual Member States as repayable loans, but to a large extent are disbursed as non-repayable grants. The asymmetric shock of the pandemic affected different Member States in different ways, and caught some in an unsound fiscal position. This time, the EU chose to respond with an approach based on solidarity that led to Member States sharing fiscal risks and the further fiscal powers centralised at the EU level.

Although NGEU is defined as a one-off and time-limited solution to the post-pandemic economic recovery, it pushes the boundaries of what is possible and as a result, a future creation of common EU bonds can no longer be seen as an unrealistic dream, but rather as a realistic option to address any future economic crisis in the EU. In our view, the economic importance of the NGEU can therefore be compared to the creation of the European Single Market or the introduction of the euro.The actual outlines of a potential permanent mechanism that could replace NGEU in the future cannot yet be precisely identified, but a strong tendency to introduce a similar permanent solution can be expected. For the EU, NGEU could thus be a Hamiltonian moment that effectively created the US capital market and made the USA credible to financial markets.

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Keywords

Fical policy, NGEU, green finance

JEL Classification

E62, F36, F30

A1. Change in predictions for 2021

GDP growth, %

	CF		IMF		OECD		CB / EIU	
EA	+0.1	2021/12 2021/11	+0.4	2021/10 2021/7	-0.1	2021/12 2021/9	+0.4	2021/9 2021/6
US	+0.1	2021/12 2021/11	-1.0	2021/10 2021/7	-0.4	2021/12 2021/9	-1.1	2021/9 2021/6
UK	+0.1	2021/12 2021/11	-0.2	2021/10 2021/7	+0.2	2021/12 2021/9	-0.3	2021/11 2021/8
JP	-0.4	2021/12 2021/11	-0.4	2021/10 2021/7	-0.7	2021/12 2021/9	-0.4	2021/10 2021/7
CN	0	2021/12 2021/11	-0.1	2021/10 2021/7	-0.4	2021/12 2021/9	0	2021/11 2021/10
RU	0	2021/11 2021/10	+0.3	2021/10 2021/7	+1.6	2021/12 2021/9	+0.4	2021/11 2021/10

Inflation, %

	CF		IMF		OECD		CB / EIU	
EA	+0.1	2021/12 2021/11	+0.8	2021/10 2021/4	+0.3	2021/12 2021/9	+0.3	2021/9 2021/6
US	+0.2	2021/12 2021/11	+2.0	2021/10 2021/4	+1.0	2021/12 2021/9	+0.8	2021/9 2021/6
UK	+0.1	2021/12 2021/11	+0.7	2021/10 2021/4	+0.1	2021/12 2021/9	+0.3	2021/11 2021/8
JP	0	2021/12 2021/11	-0.3	2021/10 2021/4	+0.2	2021/12 2021/9	-0.6	2021/10 2021/7
CN	-0.1	2021/12 2021/11	-0.1	2021/10 2021/4	-0.4	2021/12 2021/9	-0.2	2021/11 2021/10
RU	+0.8	2021/11 2021/10	+1.4	2021/10 2021/4	+0.2	2021/12 2021/9	+0.7	2021/11 2021/10

A2. Change in predictions for 2022

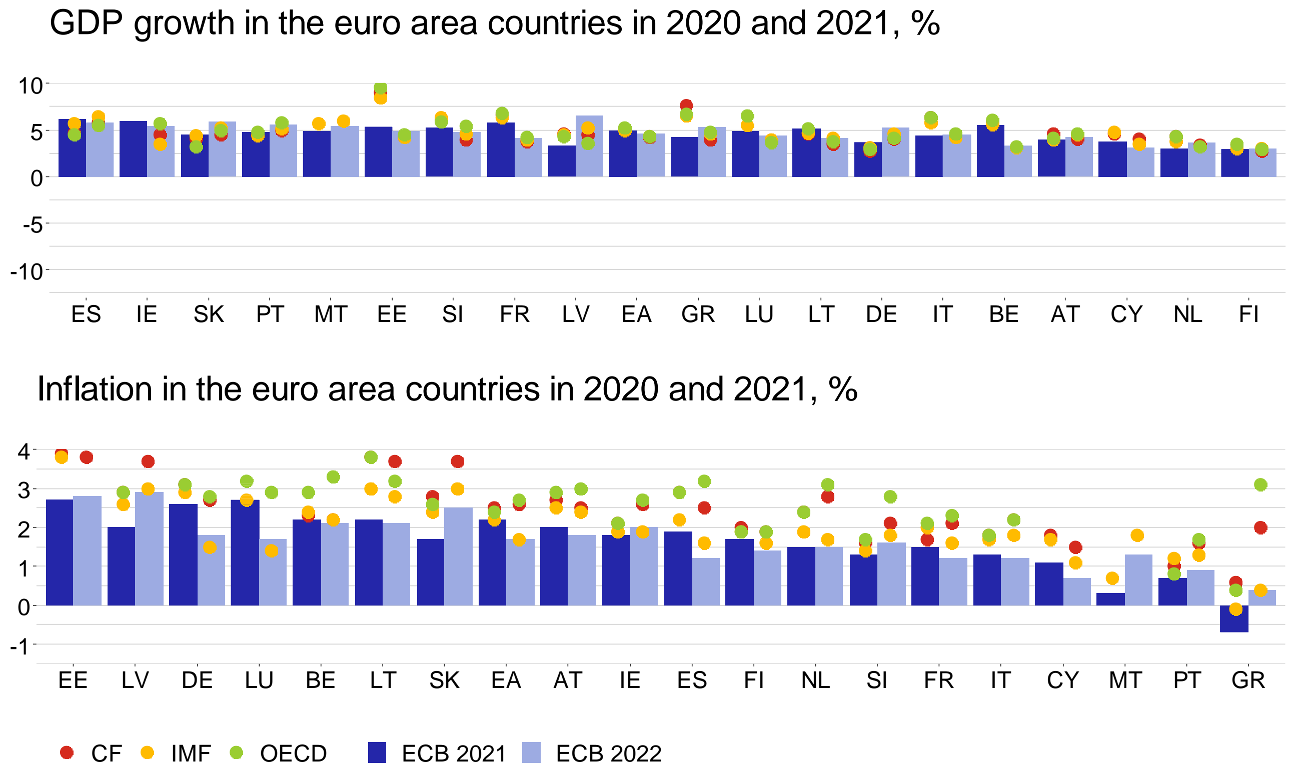
GDP growth, %

	CF		IMF		OECD		CB / EIU	
EA	-0.1	2021/12 2021/11	0	2021/10 2021/7	-0.3	2021/12 2021/9	-0.1	2021/9 2021/6
US	0	2021/12 2021/11	+0.3	2021/10 2021/7	-0.2	2021/12 2021/9	+0.5	2021/9 2021/6
UK	0	2021/12 2021/11	+0.2	2021/10 2021/7	-0.5	2021/12 2021/9	-1.0	2021/11 2021/8
JP	+0.2	2021/12 2021/11	+0.2	2021/10 2021/7	+1.3	2021/12 2021/9	+0.2	2021/10 2021/7
CN	-0.1	2021/12 2021/11	-0.1	2021/10 2021/7	-0.7	2021/12 2021/9	0	2021/11 2021/10
RU	+0.1	2021/11 2021/10	-0.2	2021/10 2021/7	-0.7	2021/12 2021/9	-0.3	2021/11 2021/10

Inflation, %

	CF		IMF		OECD		CB / EIU	
EA	+0.3	2021/12 2021/11	+0.5	2021/10 2021/4	+0.8	2021/12 2021/9	+0.2	2021/9 2021/6
US	+0.5	2021/12 2021/11	+1.1	2021/10 2021/4	+1.7	2021/12 2021/9	+0.1	2021/9 2021/6
UK	+0.4	2021/12 2021/11	+0.7	2021/10 2021/4	+1.3	2021/12 2021/9	+0.9	2021/11 2021/8
JP	0	2021/12 2021/11	-0.2	2021/10 2021/4	+0.3	2021/12 2021/9	0	2021/10 2021/7
CN	0	2021/12 2021/11	-0.1	2021/10 2021/4	-0.5	2021/12 2021/9	0	2021/11 2021/10
RU	+0.1	2021/11 2021/10	+1.4	2021/10 2021/4	+0.4	2021/12 2021/9	-0.2	2021/11 2021/10

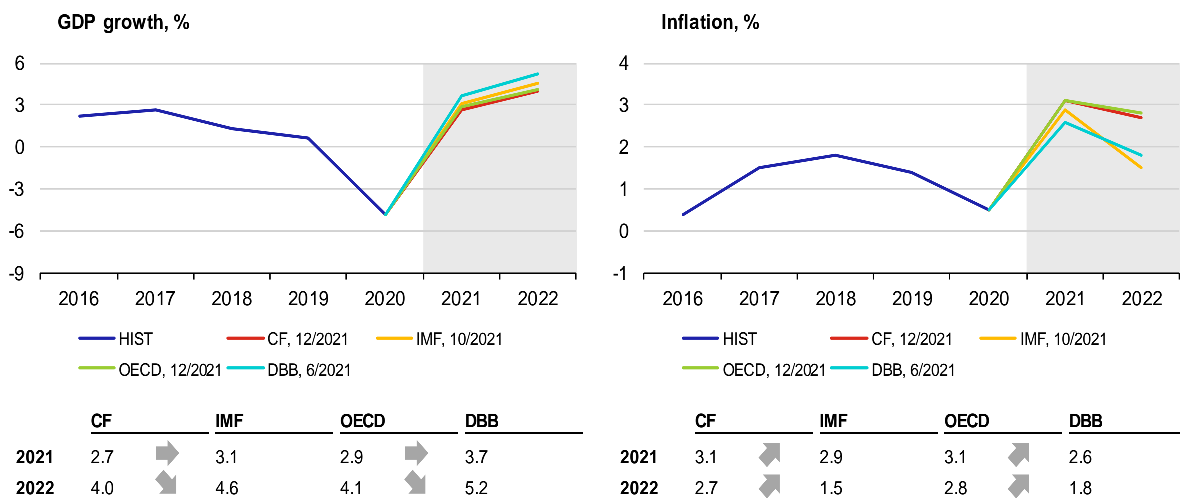
A3. GDP growth and inflation outlooks in the euro area countries



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

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

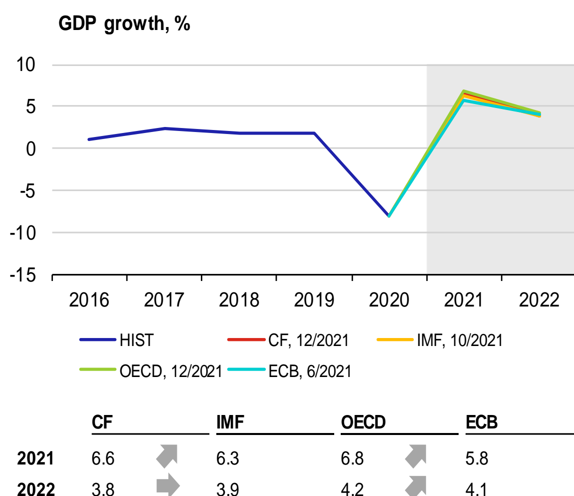
Germany



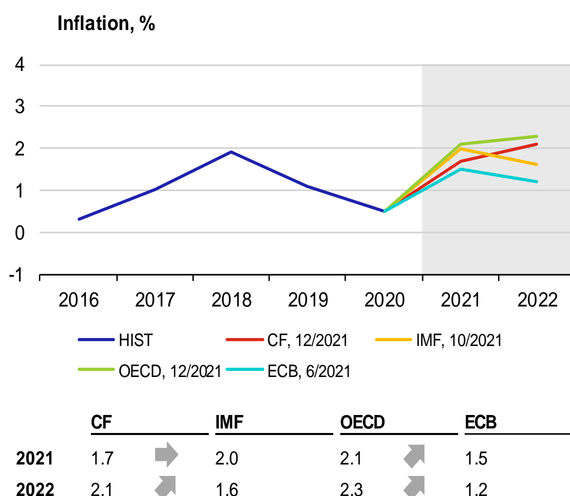
	CF	IMF	OECD	DBB
2021	2.7	3.1	2.9	3.7
2022	4.0	4.6	4.1	5.2

	CF	IMF	OECD	DBB
2021	3.1	2.9	3.1	2.6
2022	2.7	1.5	2.8	1.8

France

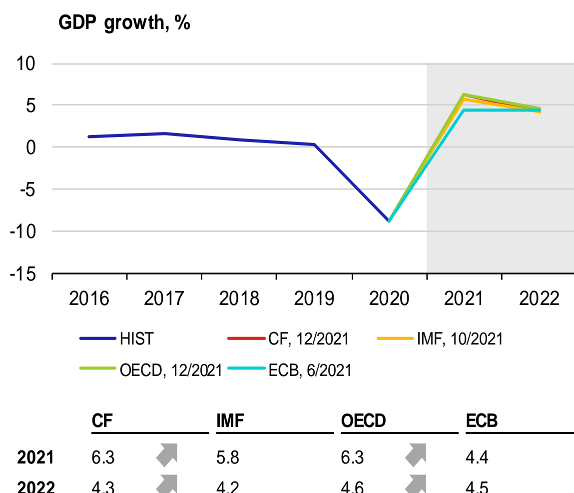


	CF	IMF	OECD	ECB
2021	6.6	6.3	6.8	5.8
2022	3.8	3.9	4.2	4.1

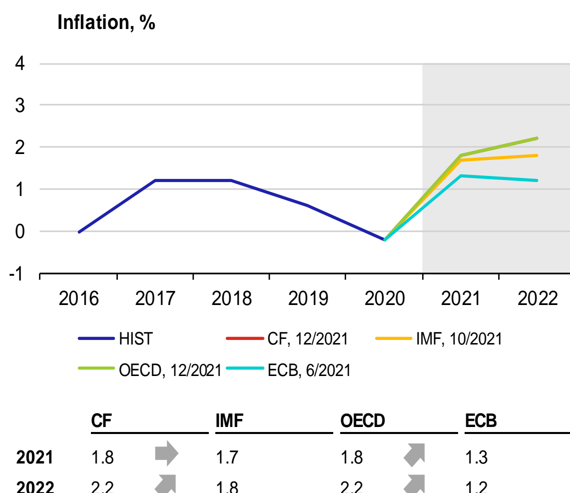


	CF	IMF	OECD	ECB
2021	1.7	2.0	2.1	1.5
2022	2.1	1.6	2.3	1.2

Italy

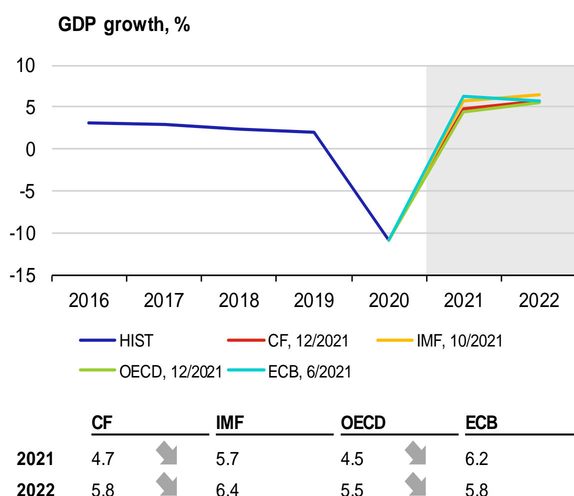


	CF	IMF	OECD	ECB
2021	6.3	5.8	6.3	4.4
2022	4.3	4.2	4.6	4.5

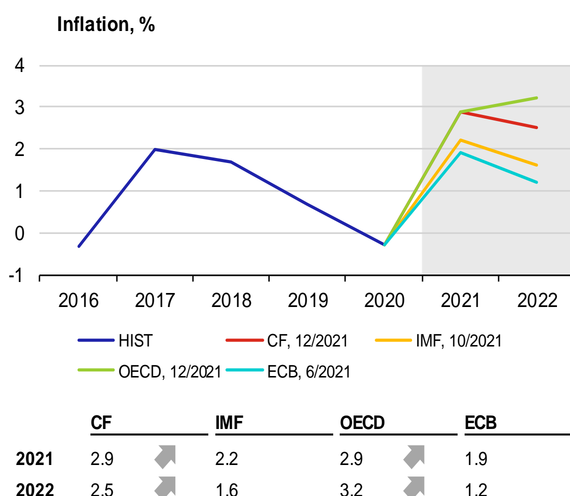


	CF	IMF	OECD	ECB
2021	1.8	1.7	1.8	1.3
2022	2.2	1.8	2.2	1.2

Spain

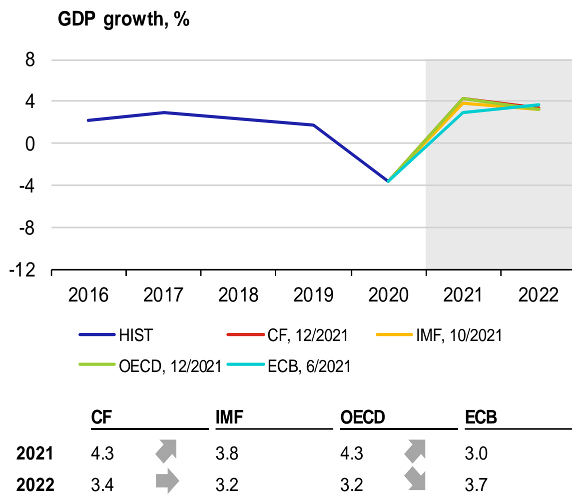


	CF	IMF	OECD	ECB
2021	4.7	5.7	4.5	6.2
2022	5.8	6.4	5.5	5.8

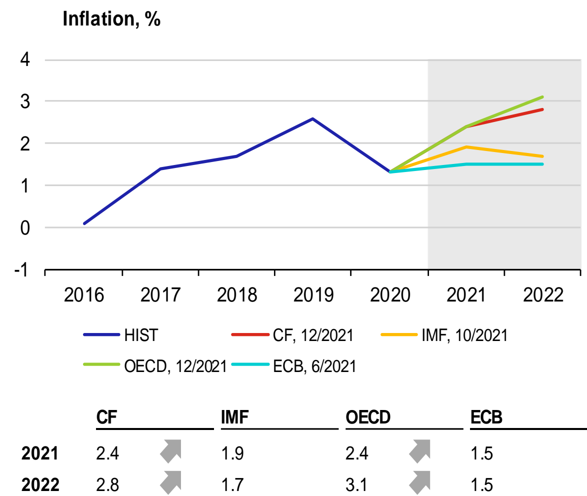


	CF	IMF	OECD	ECB
2021	2.9	2.2	2.9	1.9
2022	2.5	1.6	3.2	1.2

Netherlands

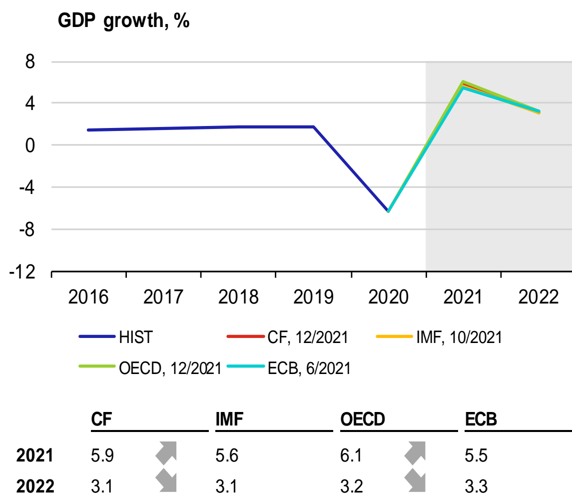


	CF	IMF	OECD	ECB
2021	4.3	3.8	4.3	3.0
2022	3.4	3.2	3.2	3.7

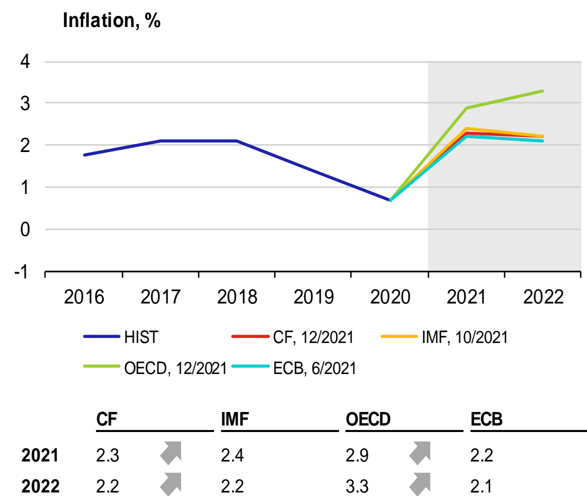


	CF	IMF	OECD	ECB
2021	2.4	1.9	2.4	1.5
2022	2.8	1.7	3.1	1.5

Belgium

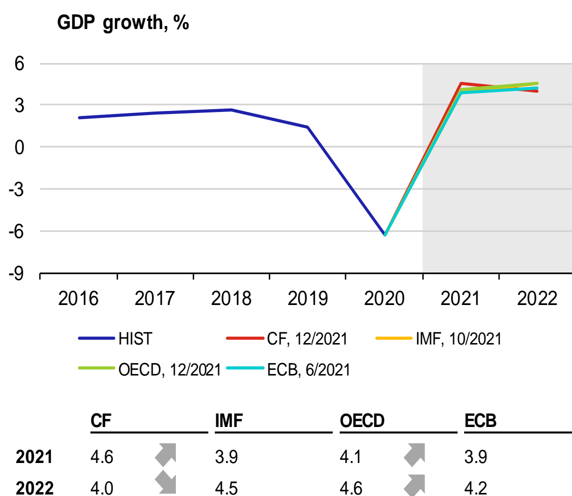


	CF	IMF	OECD	ECB
2021	5.9	5.6	6.1	5.5
2022	3.1	3.1	3.2	3.3

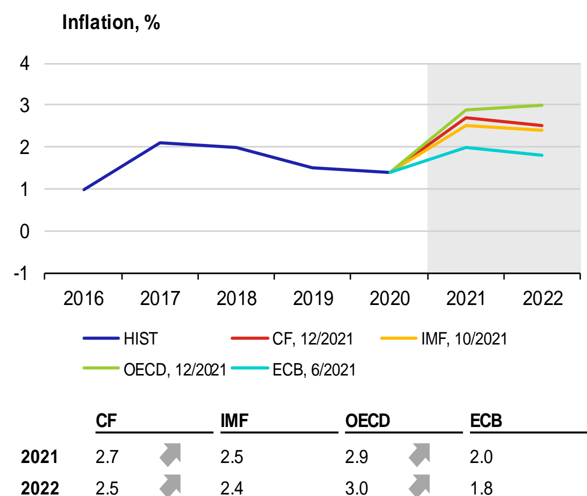


	CF	IMF	OECD	ECB
2021	2.3	2.4	2.9	2.2
2022	2.2	2.2	3.3	2.1

Austria

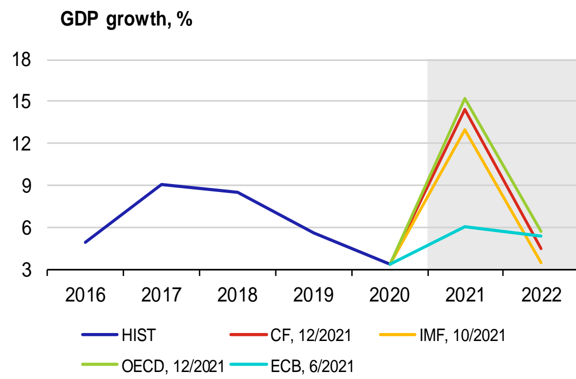


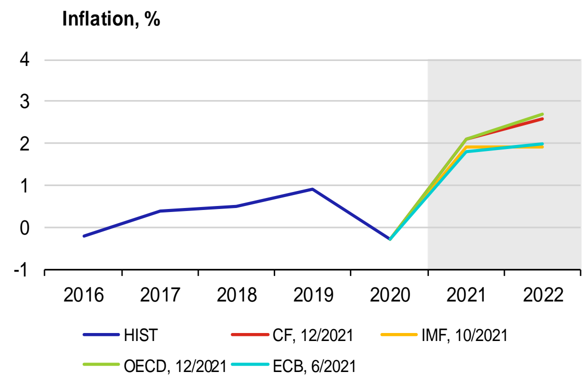
	CF	IMF	OECD	ECB
2021	4.6	3.9	4.1	3.9
2022	4.0	4.5	4.6	4.2



	CF	IMF	OECD	ECB
2021	2.7	2.5	2.9	2.0
2022	2.5	2.4	3.0	1.8

Ireland





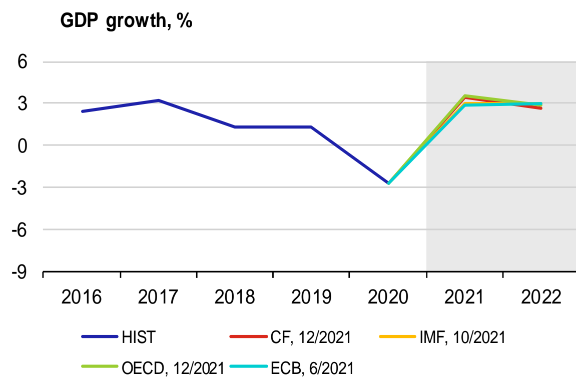
GDP growth, %

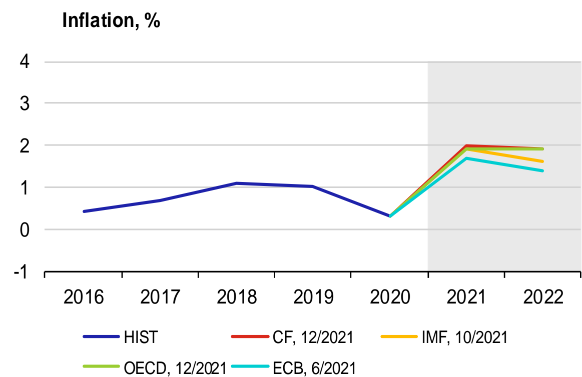
	CF	IMF	OECD	ECB
2021	14.4	13.0	15.2	6.0
2022	4.5	3.5	5.7	5.4

Inflation, %

	CF	IMF	OECD	ECB
2021	2.1	1.9	2.1	1.8
2022	2.6	1.9	2.7	2.0

Finland





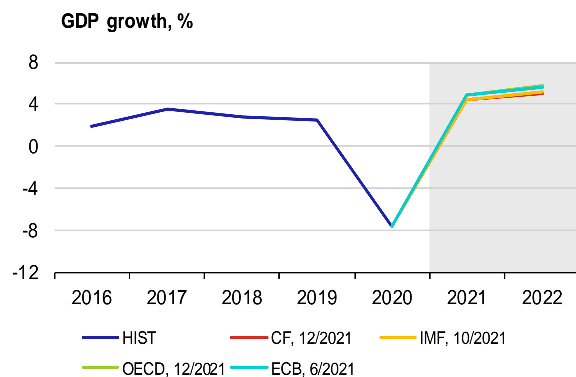
GDP growth, %

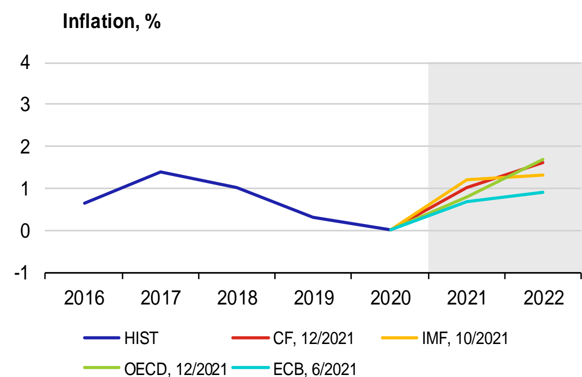
	CF	IMF	OECD	ECB
2021	3.4	3.0	3.5	2.9
2022	2.7	3.0	2.9	3.0

Inflation, %

	CF	IMF	OECD	ECB
2021	2.0	1.9	1.9	1.7
2022	1.9	1.6	1.9	1.4

Portugal





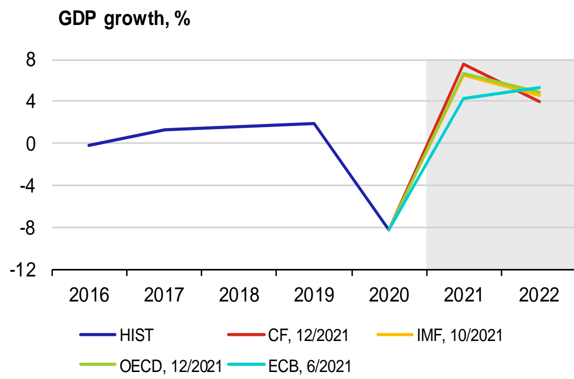
GDP growth, %

	CF	IMF	OECD	ECB
2021	4.4	4.4	4.8	4.8
2022	5.0	5.1	5.8	5.6

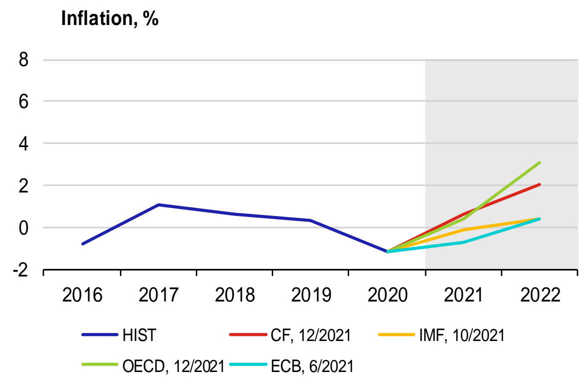
Inflation, %

	CF	IMF	OECD	ECB
2021	1.0	1.2	0.8	0.7
2022	1.6	1.3	1.7	0.9

Greece

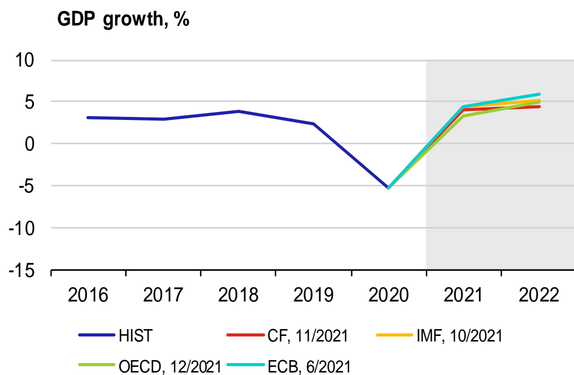


	CF	IMF	OECD	ECB
2021	7.6	6.5	6.7	4.2
2022	3.9	4.6	4.8	5.3

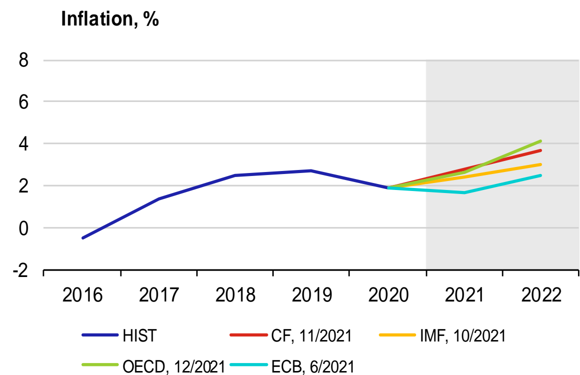


	CF	IMF	OECD	ECB
2021	0.6	-0.1	0.4	-0.7
2022	2.0	0.4	3.1	0.4

Slovakia

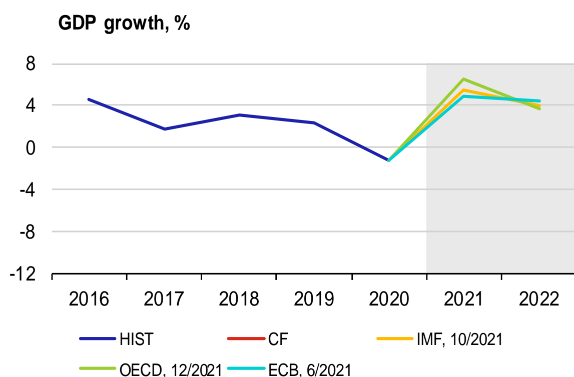


	CF	IMF	OECD	ECB
2021	4.0	4.4	3.2	4.5
2022	4.5	5.2	5.0	5.9

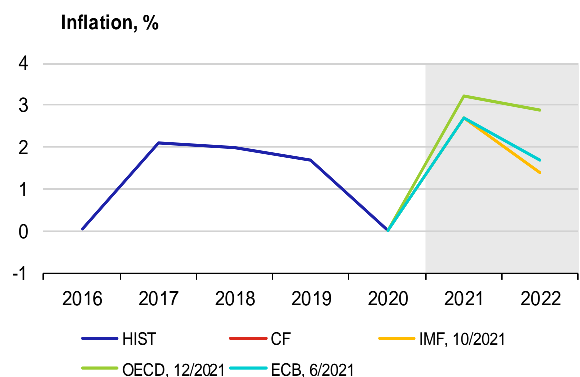


	CF	IMF	OECD	ECB
2021	2.8	2.4	2.6	1.7
2022	3.7	3.0	4.1	2.5

Luxembourg

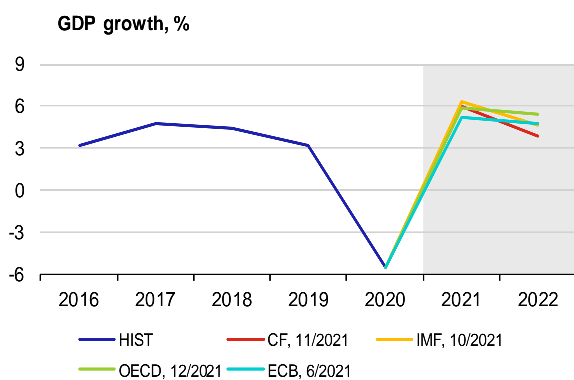


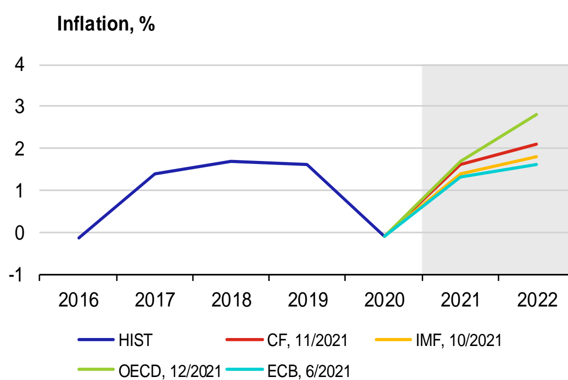
	CF	IMF	OECD	ECB
2021	n. a.	5.5	6.5	4.9
2022	n. a.	3.9	3.7	4.4



	CF	IMF	OECD	ECB
2021	n. a.	2.7	3.2	2.7
2022	n. a.	1.4	2.9	1.7

Slovenia

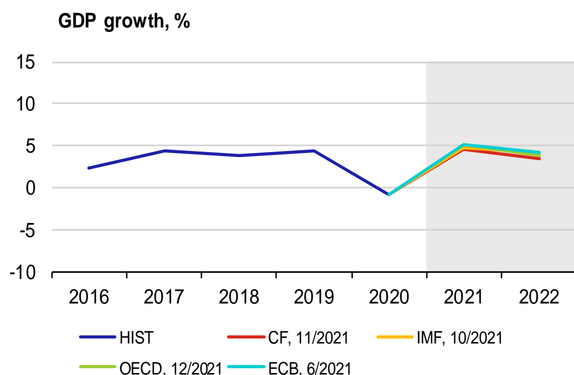


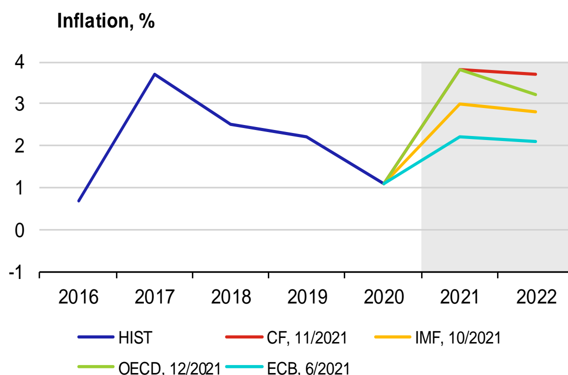


	CF	IMF	OECD	ECB
2021	6.0	6.3	5.9	5.2
2022	3.9	4.6	5.4	4.8

	CF	IMF	OECD	ECB
2021	1.6	1.4	1.7	1.3
2022	2.1	1.8	2.8	1.6

Lithuania

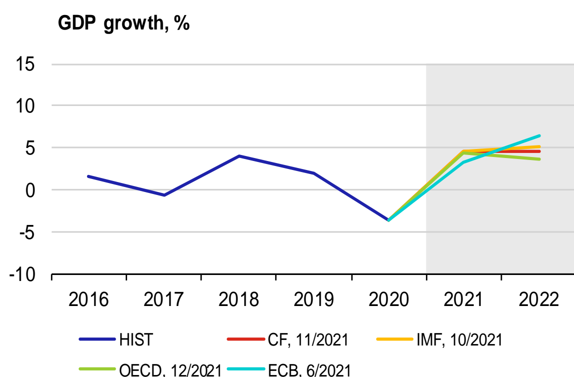


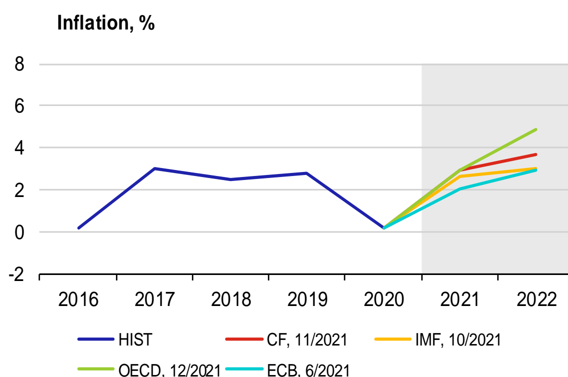


	CF	IMF	OECD	ECB
2021	4.6	4.7	5.1	5.1
2022	3.5	4.1	3.8	4.1

	CF	IMF	OECD	ECB
2021	3.8	3.0	3.8	2.2
2022	3.7	2.8	3.2	2.1

Latvia

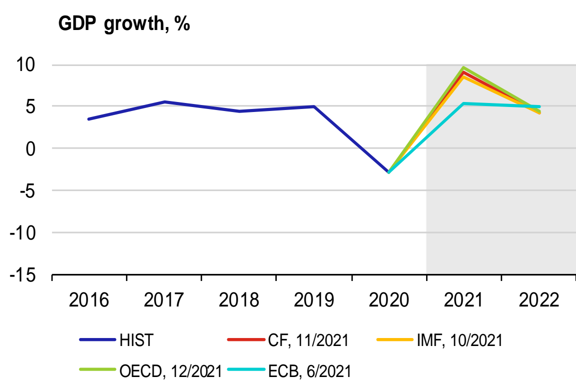


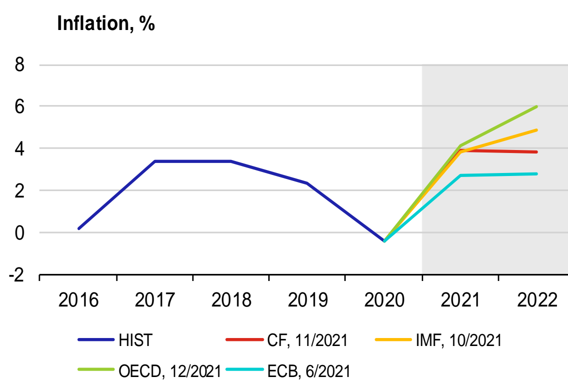


	CF	IMF	OECD	ECB
2021	4.6	4.5	4.3	3.3
2022	4.5	5.2	3.6	6.5

	CF	IMF	OECD	ECB
2021	2.9	2.6	2.9	2.0
2022	3.7	3.0	4.9	2.9

Estonia





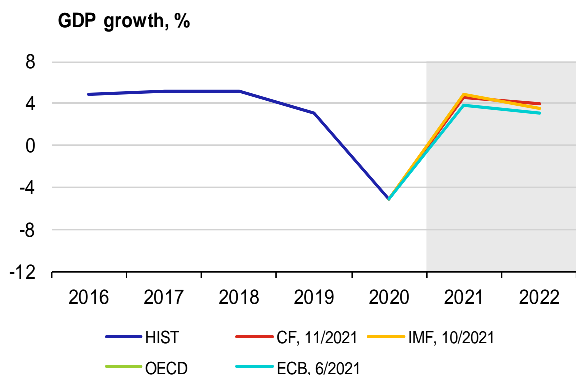
GDP growth, %

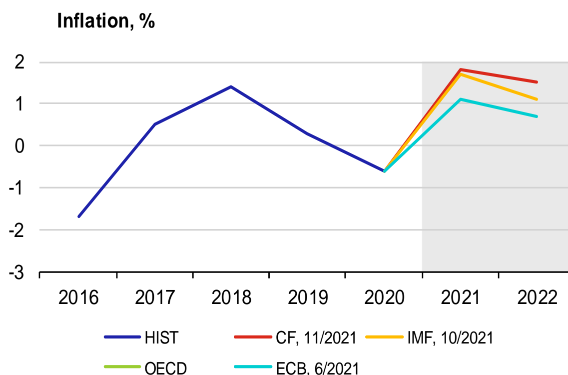
	CF	IMF	OECD	ECB
2021	9.0	8.5	9.6	5.3
2022	4.2	4.2	4.5	4.9

Inflation, %

	CF	IMF	OECD	ECB
2021	3.9	3.8	4.1	2.7
2022	3.8	4.9	6.0	2.8

Cyprus





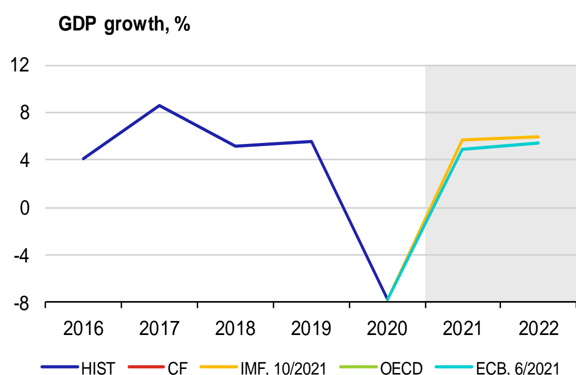
GDP growth, %

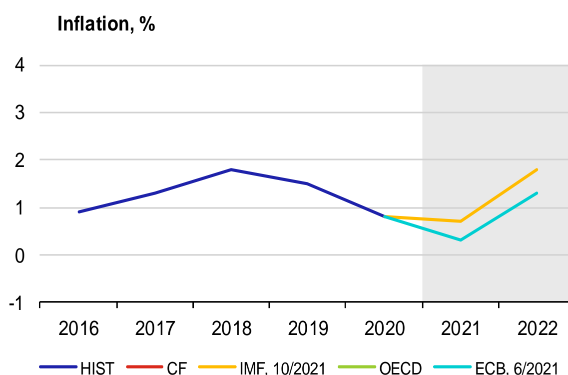
	CF	IMF	OECD	ECB
2021	4.6	4.8	n. a.	3.8
2022	4.0	3.5	n. a.	3.1

Inflation, %

	CF	IMF	OECD	ECB
2021	1.8	1.7	n. a.	1.1
2022	1.5	1.1	n. a.	0.7

Malta





GDP growth, %

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

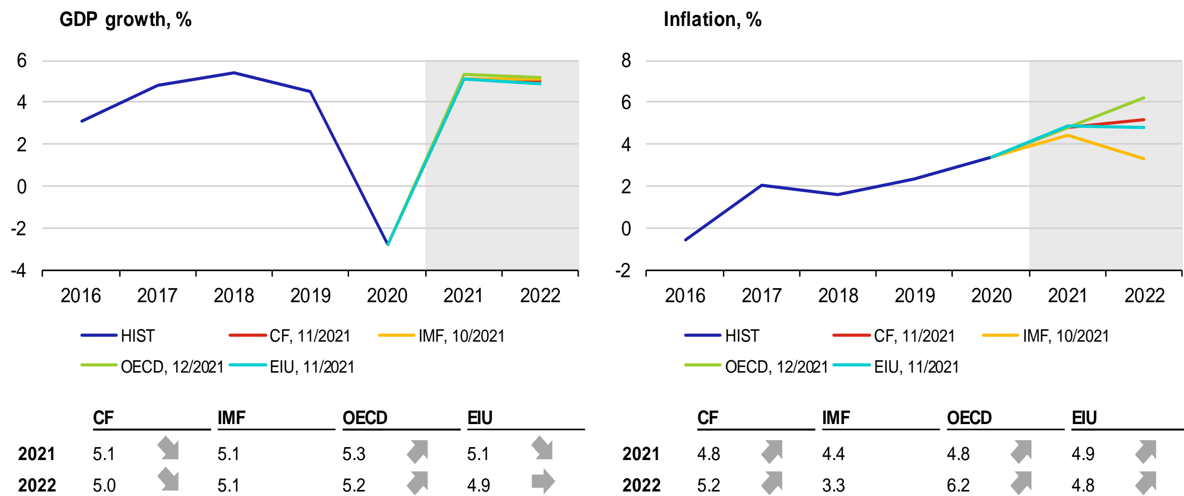
Inflation, %

	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



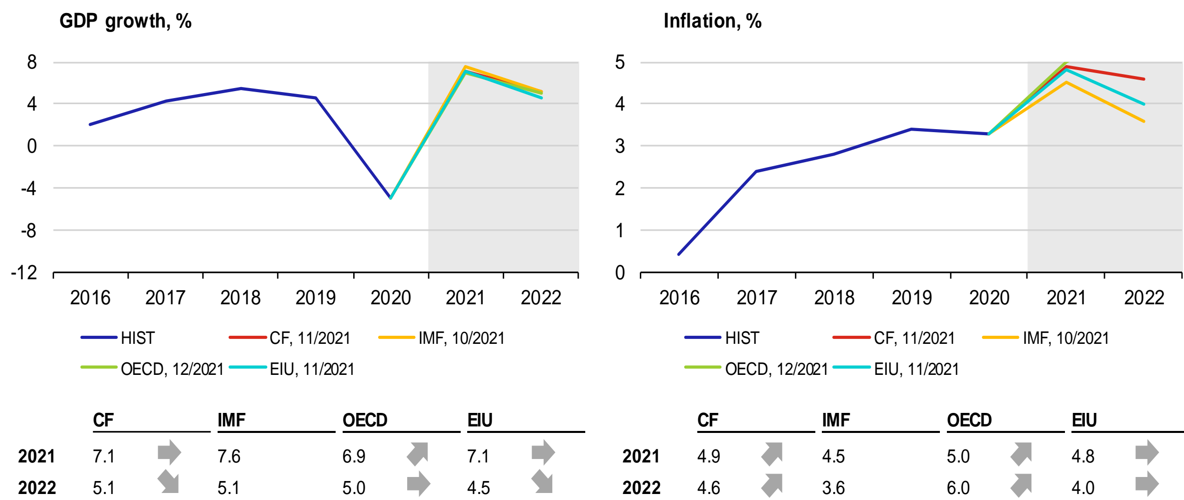
GDP growth, %

	CF	IMF	OECD	EIU
2021	5.1	5.1	5.3	5.1
2022	5.0	5.1	5.2	4.9

Inflation, %

	CF	IMF	OECD	EIU
2021	4.8	4.4	4.8	4.9
2022	5.2	3.3	6.2	4.8

Hungary



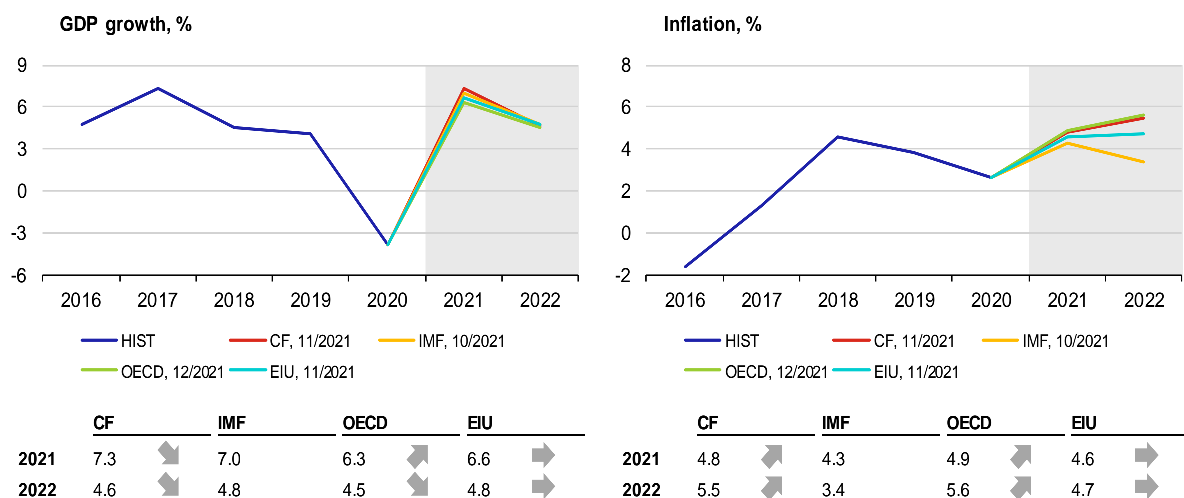
GDP growth, %

	CF	IMF	OECD	EIU
2021	7.1	7.6	6.9	7.1
2022	5.1	5.1	5.0	4.5

Inflation, %

	CF	IMF	OECD	EIU
2021	4.9	4.5	5.0	4.8
2022	4.6	3.6	6.0	4.0

Romania



GDP growth, %

	CF	IMF	OECD	EIU
2021	7.3	7.0	6.3	6.6
2022	4.6	4.8	4.5	4.8

Inflation, %

	CF	IMF	OECD	EIU
2021	4.8	4.3	4.9	4.6
2022	5.5	3.4	5.6	4.7

A6. List of abbreviations

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

Publisher:
ČESKÁ NÁRODNÍ BANKA
Na Příkopě 28
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