

Global Economic Outlook

———— May 2020



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Cut-off date for data

15 May 2020

CF survey date

11 May 2020

GEO publication date

22 May 2020

Notes to charts

ECB, Fed, BoE and BoJ: midpoint of the range of forecasts.

The arrows in the GDP and inflation outlooks indicate the direction of revisions compared to the last GEO. If no arrow is shown, no new forecast is available. Asterisks indicate first published forecasts for given year. Historical data are taken from CF, with exception of MT and LU, for which they come from EIU.

Leading indicators are taken from Bloomberg and Refinitiv Datastream.

Forecasts for EURIBOR and LIBOR rates are based on implied rates from interbank market yield curve (FRA rates are used from 4M to 15M and adjusted IRS rates for longer horizons). Forecasts for German and US government bond yields (10Y Bund and 10Y Treasury) are taken from CF.

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I. Introduction

COVID-19: hope? The main news item again in May is naturally coronavirus, which, according to the WHO, the African continent will not avoid in the near future. This raises concerns of a death toll several times higher than in advanced countries. Signs of the pandemic receding, especially in Europe, and the related restart of the European economies, offer some hope for the world economy. Similar tendencies are visible in the still strongly affected USA. However, the price paid for the pandemic will be astronomical. Moreover, two major pre-coronavirus topics are returning to the headlines. The first concerns trade relations – and now perhaps general relations – between the USA and China, burdened by sharpened rhetoric over the last few weeks. This is due not only to US mistrust regarding China's fulfilment of

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

GDP	EA	DE	US	UK	JP	CN	RU
2020	-7.9 ↘	-6.3 ↘	-5.4 ↘	-7.9 ↘	-5.5 ↘	1.5 ↘	-3.8
2021	6.2 ↗	5.2 ↗	4.3 ↗	6.1 ↗	2.4 ↗	8.0 ↗	3.0
Inflation	EA	DE	US	UK	JP	CN	RU
2020	0.3 ↘	0.6 ↘	0.7 ↘	1.0 ↗	-0.4 ↘	3.1 ↘	4.8
2021	1.1 ↘	1.4 ↗	1.8 ↗	1.4 ↘	0.1 ↘	1.9 ↘	3.7

Source: Consensus Forecasts (CF)

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

the first phase of the January 2020 trade agreement, but also to the suspicion that China has intentionally failed to pass on information about the coronavirus pandemic and has been unwilling to help investigate its causes. The second topic is the continued failure to reach even an outline of an agreement on the Brexit deal between the UK and the EU. Time is against both sides in this case as well, as 31 December 2020 is approaching quickly. In addition, economists have great concerns about the risks of the

ECB's now extremely easy monetary policy. However, its PSPP decision has been undermined by a German constitutional court ruling that the programme is partly incompatible with the German constitution as it does not respect the proportionality principle. It was thus suggested that the ECB is de facto overstepping its mandate.

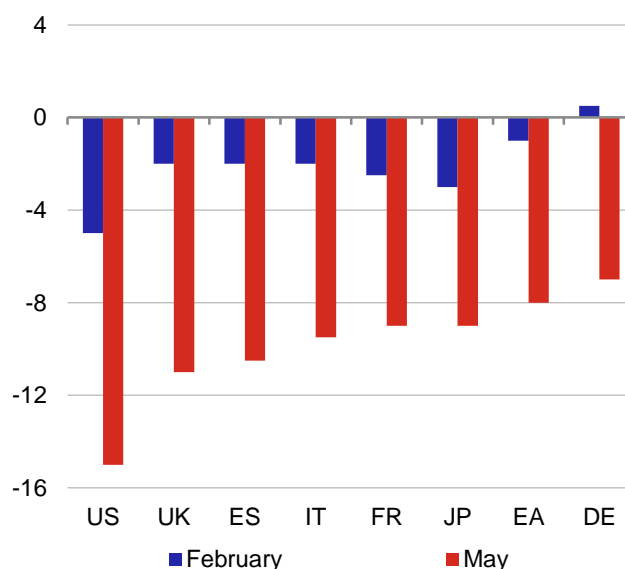
The May GDP growth outlooks for this year for the countries we monitor have been lowered further, with China still the only country expected to overcome the coronavirus crisis with positive GDP growth. Assuming that a second wave of the pandemic does not arrive, most economies will visibly return to growth in 2021. The good news is that the estimates have shifted upwards compared with April. **Consumer price inflation outlooks** are also lower than in April. This will push most economies further below the 2% "ideal". The current crisis is unlikely to follow the stagflation scenario. Of the countries under review, Russia is the only one at risk of seeing this scenario materialise.

The dollar will weaken slightly against the euro, sterling, the yen and the renminbi at the one-year horizon. This may be linked with the dollar's previous appreciation trend and the economic situation in the USA. The CF outlook for the Brent crude oil price at the one-year horizon is now only slightly lower than in April, at USD 41.7/bbl (highest estimate USD 60/bbl, lowest estimate just USD 27/bbl). The outlook for market rates is slightly falling for the 3M USD LIBOR, while the outlook for 3M EURIBOR rates remains negative over the entire outlook horizon, as has been the case for several years now.

The chart in the current issue shows the change in expected government deficits due to the coronavirus pandemic. The rise in deficits is caused not only by revenue shortfalls, but also by the fiscal stimuli provided by the countries under review to support their economies. However, debt financing of these stimuli will lead to a surge in total debt.

The current issue also contains an analysis: [The fiscal policy reaction to COVID-19, or the fast way out of the crisis.](#) The article follows up on the previous issue, which also focused on the pandemic. It provides an overview of the approaches of selected countries to supporting their economies and contains an analysis of the reasons for the fiscal stimuli and an assessment of the effectiveness of the current measures. It also warns that high debt may cause a long-lasting problem.

Expected government deficits relative to GDP in selected economies, in %

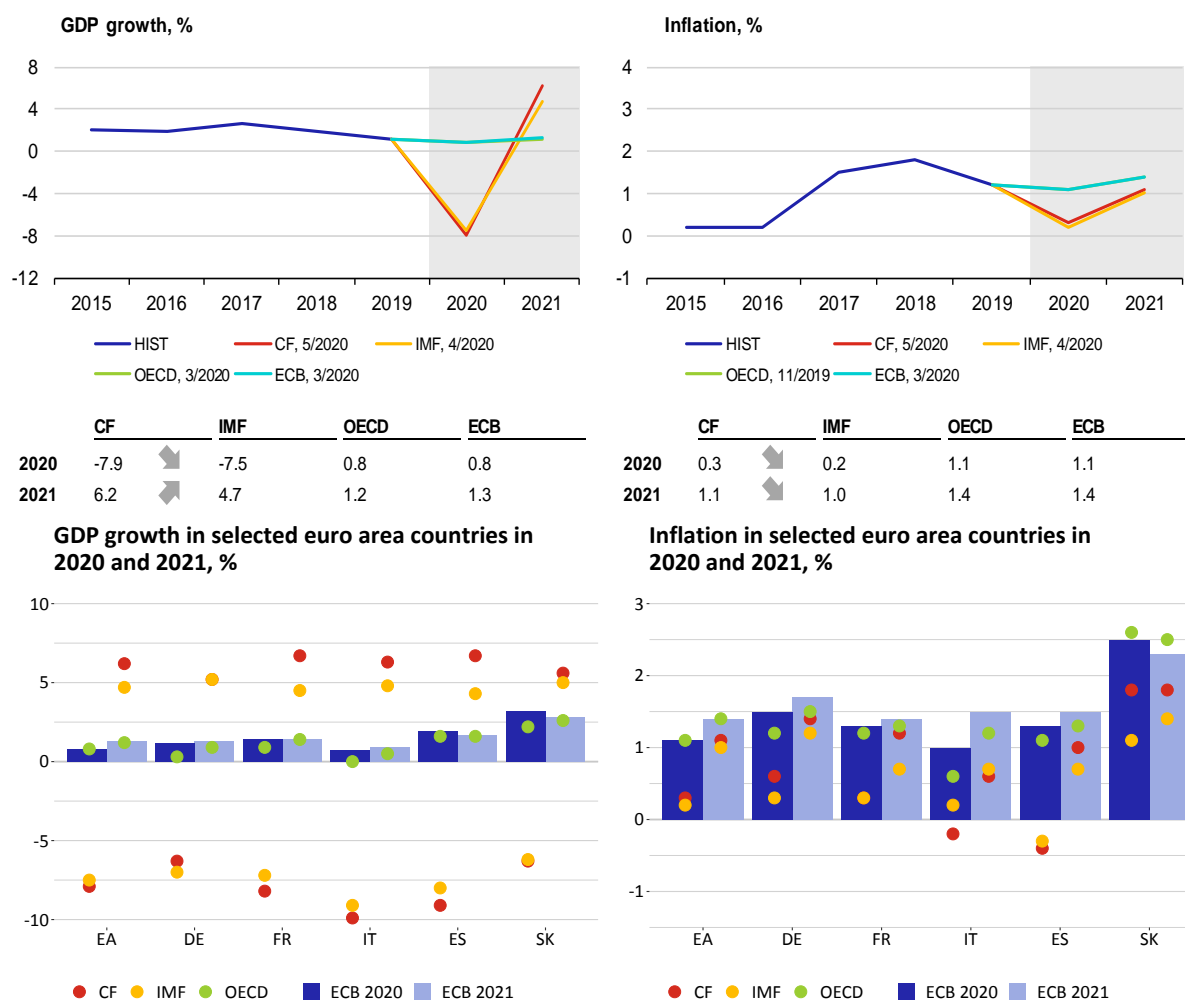


Source: Consensus Economics

II.1 Euro area

The new GDP growth estimate has confirmed that the coronavirus pandemic will have a devastating impact on the euro area's economic performance. GDP recorded a record-high decrease of 3.8% compared with the previous quarter, while the quarter-on-quarter decline was 3.2%. Economic activity in the monetary union was hit above all by government measures aimed at curbing the spread of the disease. The most stringent measures were adopted in Italy, Spain and France, whereas those in Germany, for example, were less restrictive. The quarter-on-quarter GDP contraction in Spain was therefore 5.2%, while German GDP fell by just 2.2% (according to first estimates). The available data also show that the government measures affected household consumption and investment above all. From a sectoral perspective, the decline was concentrated in services. Sizeable and long-lasting losses can be expected above all in tourism.

However, an even larger contraction can be expected in Q2, as confirmed by leading indicators. Euro area activity will be restricted for much longer in 2020 Q2 than it was in Q1, when the restrictions had been in place for only 2–4 weeks. In most countries the strictest restrictions were applied until the end of April, but the return to normal will only be gradual even now they have been lifted. The return will be slowed, in addition to consumers' concerns, by possible delays in supply chains, as the timing of the lifting of restrictions differs across countries. On the other hand, the effects of the fiscal stimuli introduced by governments to combat the economic consequences of the pandemic should start to be felt. The PMI in manufacturing fell from 44.5 in March to a record low of 33.4 in April, with all its components decreasing. Employment declined, delivery delays rose further to record levels, and expectations deteriorated. The PMI in services even dropped to 12, illustrating how hard the measures have hit this sector. The rapid deterioration in corporate and household sentiment is also illustrated by the European Commission's ESI indicator, which dropped to 67 points. In addition to a fall in activity in services, it confirms consumers' concerns that unemployment will rise. According to the April ZEW figures, however, German investors can now see the light at the end of the tunnel and expect the situation to improve in the months ahead.

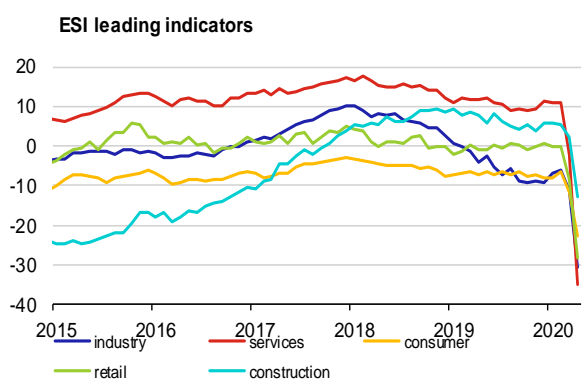


Note: Charts show institutions' latest available outlooks of for the given economy.

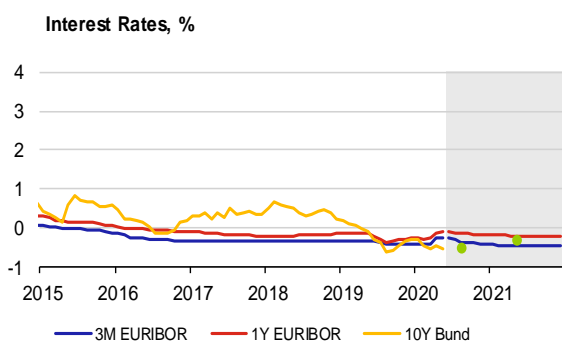
The May CF revised expected GDP developments for this year down sharply, but the euro area economy should grow at a faster pace in 2021. The higher growth next year reflects expectations that this year's marked decline will be made up. Of the five largest countries, CF expects the sharpest contraction this year to be recorded in Italy (9.9%), followed by Spain (9.1%) and France (8.2%). By contrast, the decrease in Germany will be just 6.3%. As regards the components of GDP, the decline in the euro area this year will be driven mainly by household consumption (-8.3%) and gross fixed capital formation (-11.5%). The foreign trade outlook is not favourable either. By contrast, government consumption should increase by just under 3% year on year. Despite the announced fiscal measures, the CF analysts expect unemployment to rise to 9.7% on average in 2020.

The expected economic downturn is reflected in a lower consumer price inflation outlook. The May CF expects headline inflation in the euro area to decline both this year and the next. Inflation should be just above zero this year and rise to more than 1% next year. Already in March, inflation dropped to 0.7%, and the analysts' outlook for April is only 0.4%. A further slowdown in euro area inflation is also suggested by data from France, where inflation was just 0.3% in April.

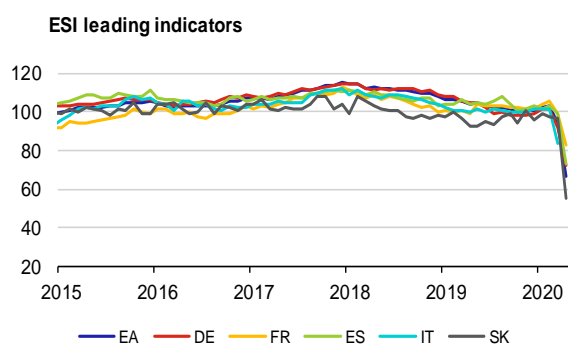
Despite visible efforts on the part of the ECB, financial market tensions persist in the euro area. One source of uncertainty is the economic impacts of the pandemic on the individual economies and their debt levels, which may lead to rating downgrades. For example, the revision of Italy's rating in late April increased financial markets' concerns, causing the spread vis-à-vis German bonds to widen sharply. The ECB therefore started to accept as collateral bonds whose rating had dropped below investment grade after 7 April due to the coronavirus crisis. However, this is conditional on the rating staying in the upper part of the speculative range, which corresponds to BB or higher with the large rating agencies. The ECB also cut the rate on longer-term refinancing operations (TLTROs) and introduced a short-term refinancing facility (PELTRO) in order to lower banks' costs without affecting the deposit rate and to provide additional liquidity. The ECB's measures mainly reflect an effort to prevent further fragmentation of the euro area financial markets.



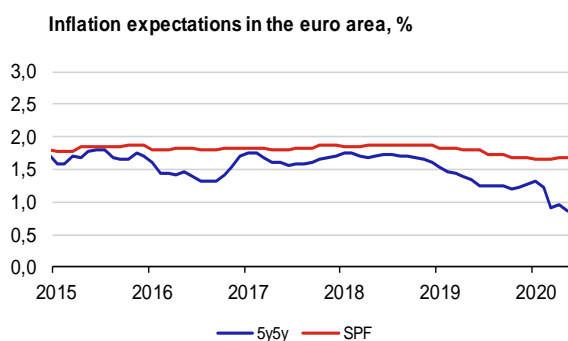
	industry	services	consum.	retail	constr.
2/20	-6.2	11.1	-6.6	-0.2	5.4
3/20	-11.2	-2.3	-11.6	-8.6	2.3
4/20	-30.4	-35.0	-22.7	-28.3	-12.8



	4/20	5/20	8/20	5/21
3M EURIBOR	-0.25	-0.27	-0.36	-0.45
1Y EURIBOR	-0.11	-0.09	-0.14	-0.19
10Y Bund	-0.43	-0.53	-0.50	-0.30



	EA	DE	FR	ES	IT	SK
2/20	103.4	101.8	105.5	102.7	101.3	97.2
3/20	94.2	92.0	99.0	99.3	83.7	96.7
4/20	67.0	72.1	82.7	73.3	55.1	



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

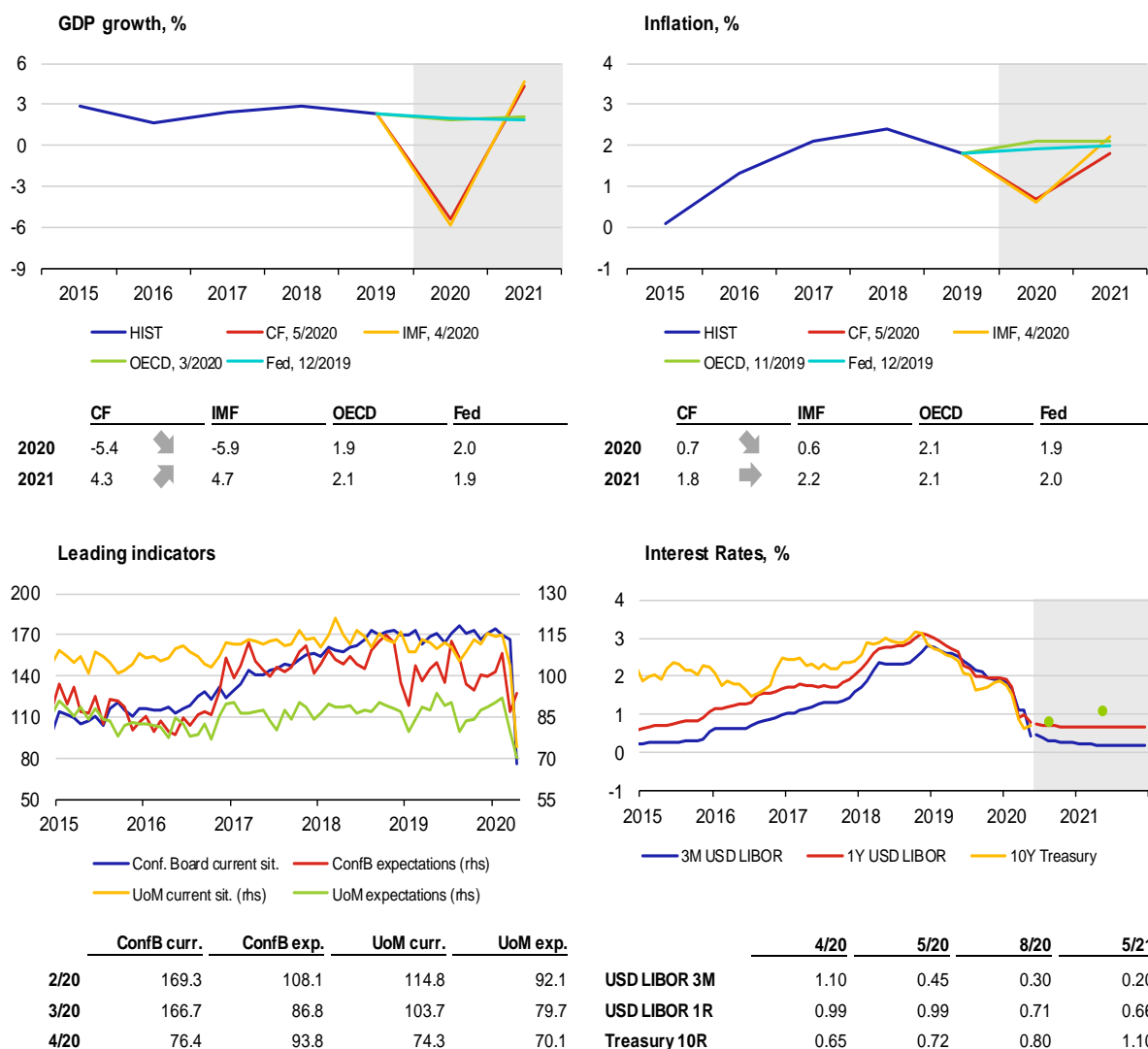
	5y5y	SPF
3/20	0.91	1.66
4/20	0.95	1.67
5/20	0.87	1.67

II.2 United States

The coronavirus is still stifling the US economy, but President Trump has already unveiled orders for opening up America again. The plan is based on recommendations from public health experts and has several stages. The intended steps should help national and local administrations to open up the economy again, get people back to work, and continue to save lives. However, the spread of the disease is not slowing and there are large differences across states. The situation is particularly acute in California and Texas, whereas in New York the situation (in terms of growth in new cases) is improving. The number of unemployed persons is still rising by millions a week and the unemployment rate has reached almost 15%. According to CF outlooks, unemployment will be at 10% at the end of this year. Non-farm payrolls fell by more than 20 million in April, the largest decrease ever. Wages declined by almost 1% in March.

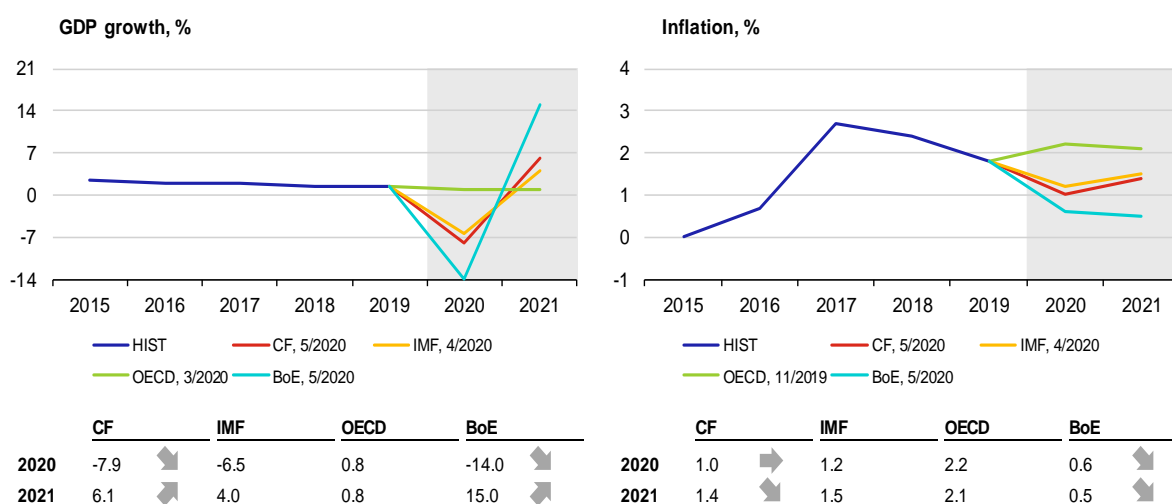
Consumption has dropped despite the positive effect of panic buying. Consumption dropped by 7.6% quarter on quarter and spending on services by 10.6%. Consumer confidence edged up in May compared with April, mainly on the back of the CARES Act. By contrast, the forward-looking PMI in manufacturing fell to 41.5 in April. The closure of borders has also affected trade: US exports were down by 11% and imports by almost 7% month on month in March. The April figures will probably be even worse.

The GDP growth outlooks expect a deepening decline, and debt will increase. The US economy will this year contract by 5.4% according to the new CF outlook and 6.5% according to the European Commission's late April outlook. The economy will not make up this fall next year, as it will grow by 4.3% according to CF and 4.9% according to the European Commission in 2021. These figures are expected despite a government stimulus of around 11% of GDP. This means the deficit should approach 16% of GDP this year according to CF. The debt ratio will thus rise to 131% of GDP at the end of 2020. One advantage for the government, however, is that the real interest rate on ten-year government bonds is negative according to the outlooks.



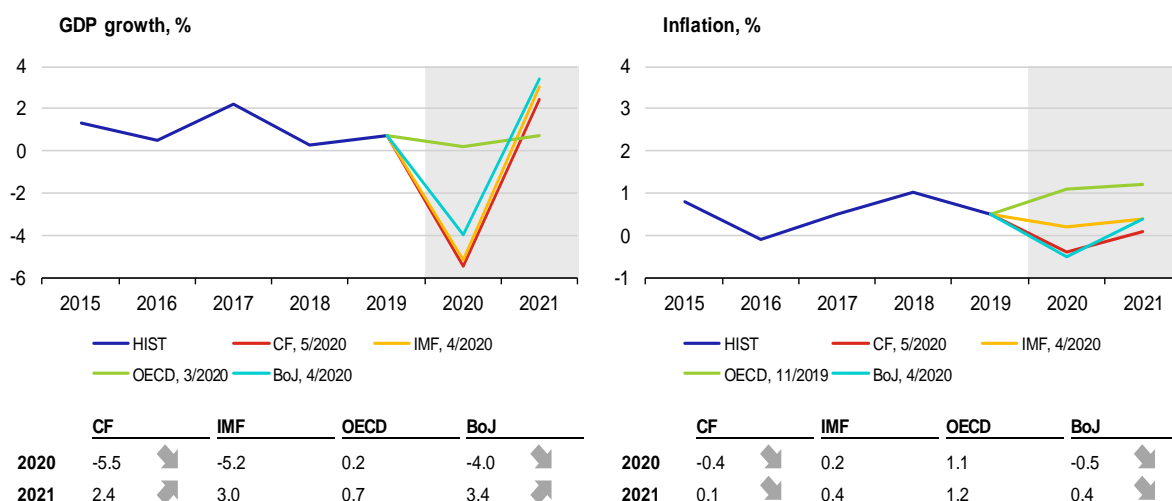
II.3 United Kingdom

The UK has the highest absolute number of deaths due to coronavirus in Europe, and the BoE foresees the worst recession in the country's modern history this year. According to the BoE forecast, GDP will drop by as much as 25% in 2020 Q2. The BoE left its base rate at the minimum level of 0.1% and expects the unemployment rate to rise to 9% in Q2. The NIESR assumes GDP to fall by 7% in 2020 but rise to a similar extent in 2021. CF expects the economy to fall by 7.9% in 2020, followed by growth of 6.1% in 2021. The PMI composite leading indicator remains at a record low of around 30. Prime Minister Boris Johnson, who is back at work after recovering from Covid-19, has introduced a three-step plan for slowly easing the restrictive measures against the spread of the disease. The first step will primarily involve making progress in combating coronavirus, including massive testing of up to 200,000 tests daily. The government is also offering new support to the economy in the form of loans of up to GBP 50,000 for small businesses. Talks with the EU on future relations after the end of the post-Brexit transition period have also resumed.



II.4 Japan

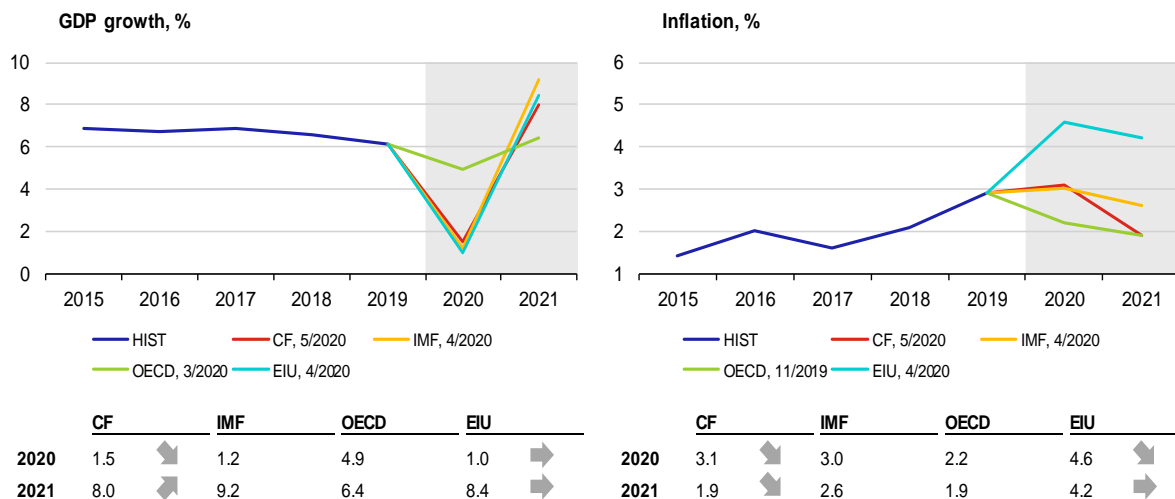
Japanese GDP declined again in Q1, but the quarter-on-quarter decrease moderated from 1.9% at the end of the year to 0.9% according to a preliminary estimate. The economy recorded a year-on-year decline of 0.7%. The April PMI index was rather worse than expected, having fallen to 41.9 in manufacturing and 21.5 in services. In April, the BoJ left its key rate unchanged while lifting restrictions on government bond purchases and taking further unconventional measures to ease monetary policy. According to the new forecast, GDP could fall to slightly negative levels in fiscal year 2019 (the January estimate had expected growth of 0.8%–0.9%). The decline will deepen to 3%–5% this fiscal year. The economy will return to growth of 2.8%–3.9% next year (higher than the BoJ's January outlook had expected).



II.5 China

The Chinese economy recorded a 6.8% year-on-year contraction in 2020 Q1 after decades of uninterrupted growth.

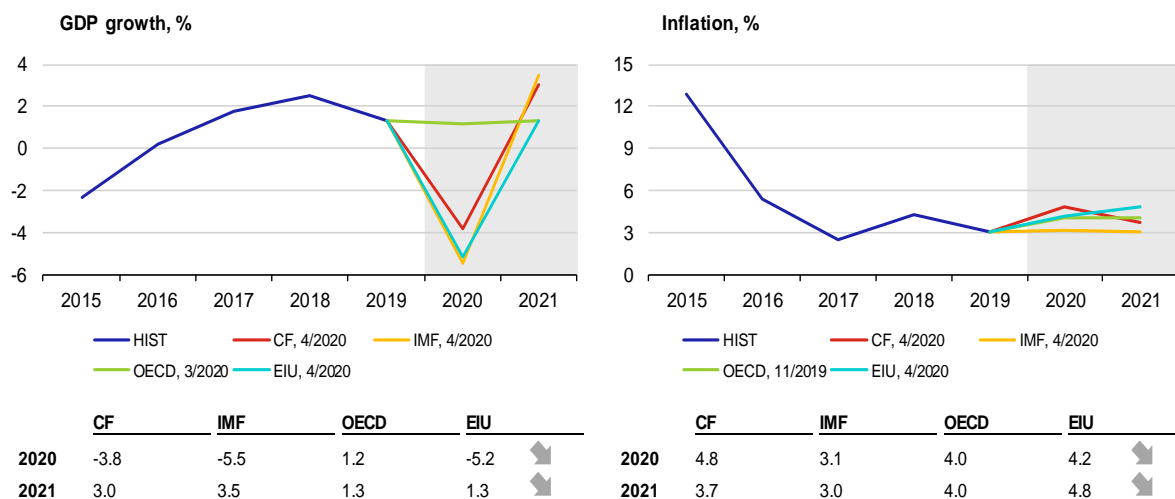
This reflects the introduction of extensive quarantine measures in response to the spread of Covid-19, which caused a sharp fall in domestic demand. Although these measures have gradually been eased since early April and things have steadily been returning to normal, the situation is still very fragile, since Covid-19 is continuing to spread worldwide and there are concerns about a resurgence in China. In Q2, the Chinese economy will be hit mainly by a sharp fall in external demand due to the substantial contraction in its main trading partners' economic activity. The CF analysts expect the Chinese economy to grow by 1.5% and 8% year on year in 2020 and 2021 respectively. According to the May CF outlook, consumer prices in China will grow at a rate of 3.1% this year, slowing to 1.9% in 2021.



II.6 Russia

The economic situation in Russia will worsen further in Q2.

Annual industrial output growth was 1.5% in Q1, only just below last year's dynamics. Output is nonetheless expected to decline in the months ahead. The PMI in manufacturing fell to a record low of 31.7 in April. The current situation has impacted even harder on services, which account for more than half of Russian GDP (excluding public administration and military security). The PMI in services fell to 12.2 in April. The central bank lowered its key rate to 5.5% at the end of April. According to its new forecast, GDP will fall to 4%–6% this year. This will be fostered by an almost four-fold decrease in net exports compared with last year: goods exports will fall by almost 40% and imports by more than 17%. The current account will record a USD 35 billion deficit. The economy is expected to return to growth of 2.8%–4.8% next year. The baseline forecast scenario is based on a Urals oil price of USD 27/bbl for 2020 and USD 35/bbl next year.

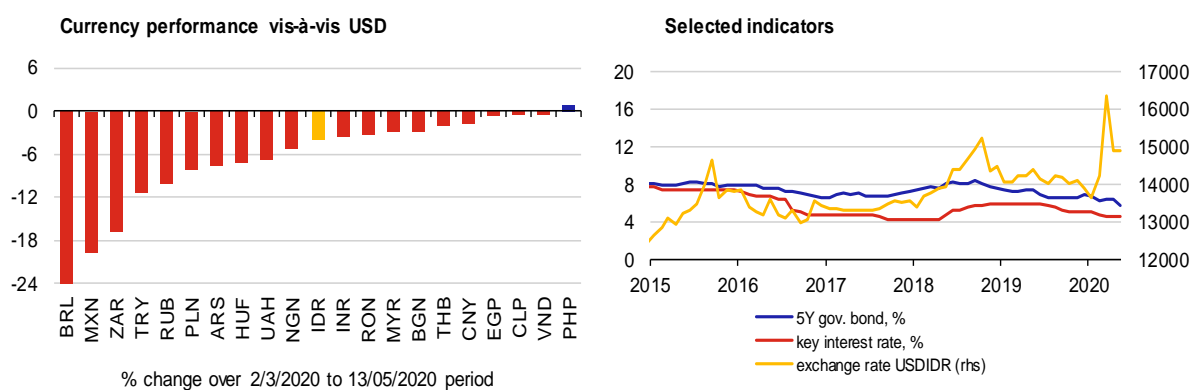
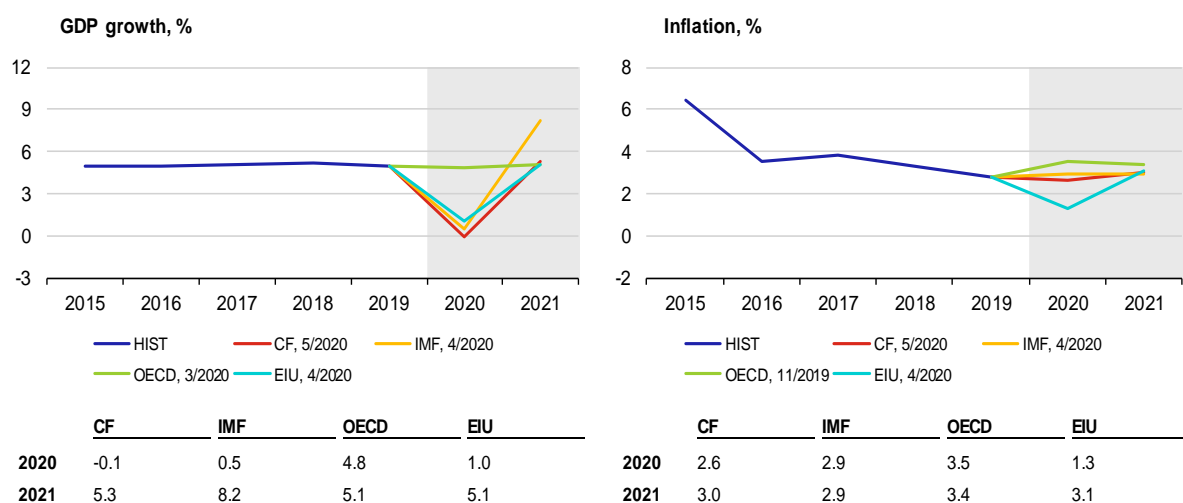


II.7 Developing countries in the spotlight

Economic growth in Indonesia slowed from around 5% year on year in 2019 to 3% in 2020 Q1, the lowest level since 2001. The slower rate of economic activity, due to the coronavirus crisis, was reflected mostly in a downturn in consumption, the main driving force of the largest South-East Asian economy. Investment and exports were also negatively affected, mainly reflecting a decline in demand from China. Despite this, the Indonesian economy held up better in Q1 than most other economies in the region, mainly because of the later introduction of quarantine measures. The fourth most populous country in the world, with a population of over 270 million, detected its first cases of the novel coronavirus on 9 March. Indonesia had reported more than 16,000 confirmed cases as of 15 May. There were 3,500 recovered patients, but even so the number of deaths exceeded 1,000. The later introduction of quarantines implies a later easing. The local authorities are expecting a return to normal at the end of June. The economy can thus be expected to record its deepest decline in Q2. According to the May CF outlook, economic activity is expected to fall by 0.1% on average in 2020.

The central bank of Indonesia has gradually lowered its key interest rate from 6% in mid-2019 to a current 4.5%. The central bank has also launched a liquidity-providing scheme for the financial sector. Increased government expenditure to mitigate the impacts of the crisis, estimated at 2.6% of GDP, will cause the government deficit to increase to more than 5%, the highest level in decades. The stimulus packages include support to the health care sector, social assistance for low-income households, expanded unemployment benefits and tax relief.

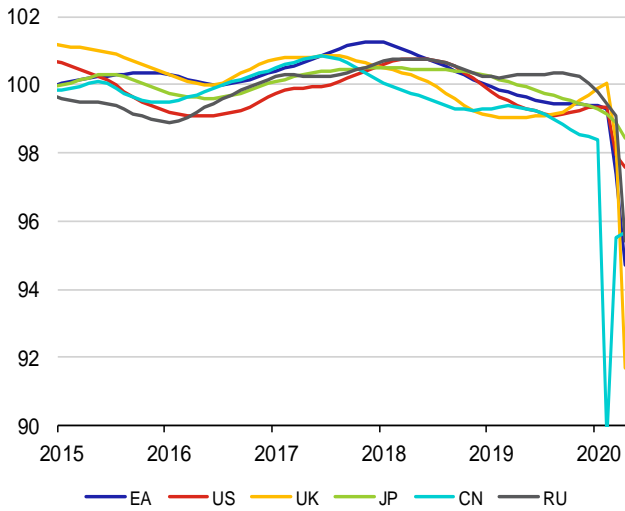
The initial inflationary effect of the disruption of production in China will later be outweighed to the inflation downside by direct negative impacts on domestic consumption. The higher inflation in Q1 also reflected a sharp depreciation of the Indonesian rupiah against the dollar of around 17%. However, the rupiah has erased almost half of the losses since April. According to the May CF outlook, consumer prices will go up by 2.6% this year. Consumer inflation is expected to rise to 3% next year on the back of an economic recovery.



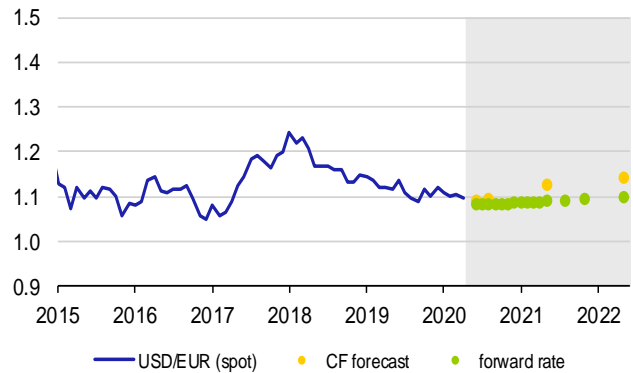
	5Y gov. bond, %	interest rate, %	USD/IDR
3/2020		6.36	4.50
4/2020		6.37	4.50
5/2020		5.72	4.50

III. Leading indicators and outlook of exchange rates

OECD Composite Leading Indicator

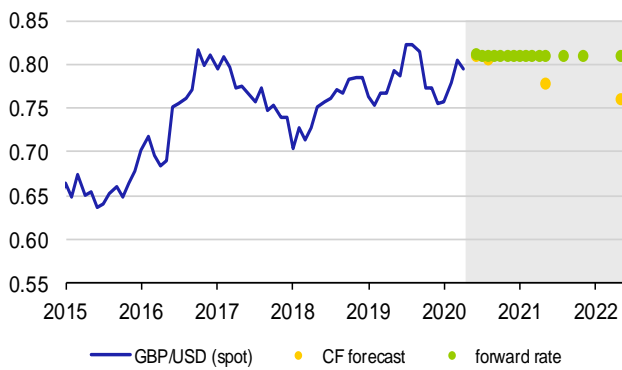


The US dollar (USD/EUR)



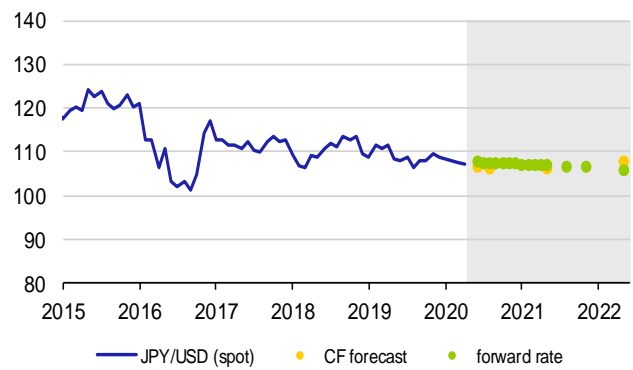
	11/5/20	6/20	8/20	5/21	5/22
spot rate	1.083				
CF forecast		1.092	1.097	1.126	1.144
forward rate		1.081	1.083	1.090	1.099

The British pound (GBP/USD)



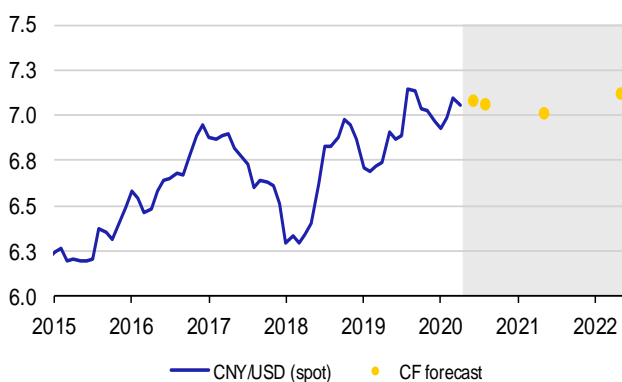
	11/5/20	6/20	8/20	5/21	5/22
spot rate	0.809				
CF forecast		0.810	0.806	0.778	0.760
forward rate		0.811	0.810	0.810	0.809

The Japanese yen (JPY/USD)



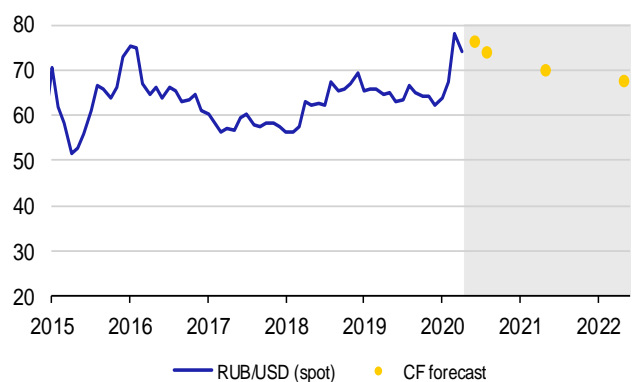
	11/5/20	6/20	8/20	5/21	5/22
spot rate	107.5				
CF forecast		106.5	106.2	106.1	107.9
forward rate		107.6	107.5	106.9	106.0

The Chinese renminbi (CNY/USD)



	11/5/20	6/20	8/20	5/21	5/22
spot rate	7.086				
CF forecast		7.076	7.061	7.014	7.115

The Russian rouble (RUB/USD)



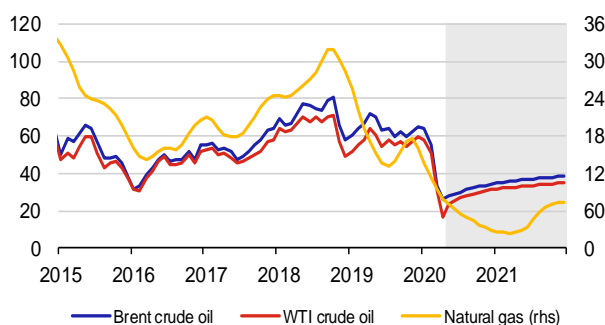
	11/5/20	6/20	8/20	5/21	5/22
spot rate	73.53				
CF forecast		76.15	74.03	69.92	67.73

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

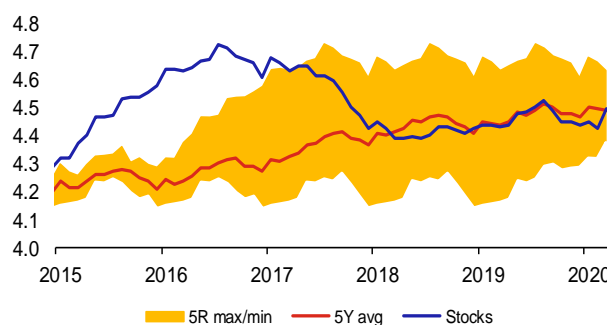
After rising briefly in the first half of April oil prices fell again, but in late April and early May the market situation improved and the Brent price rose from USD 20/bbl to around USD 30/bbl. The OPEC+ agreement on unprecedented production reductions failed to prop up oil prices as expected, as most countries continued to raise output until (almost) the end of April and the large oil glut on the market did not shrink. The Brent price thus fell sharply again in late April, temporarily dipping below USD 20/bbl. Sentiment improved only at the end of April due to the sizeable production cuts introduced by OPEC+ along with an unexpectedly large fall in extraction in North America and signs of a slight recovery on the demand side. This lowered the risk that spare storage capacity would be filled, which would have necessitated more drastic cuts in production and prices. The Brent price thus rose again, stabilising around USD 30/bbl in the first half of May. Following temporary turbulence prior to the expiry of the May contract, the WTI price also settled (below USD 25/bbl). This is seen as a reasonable price for the decline in shale extraction in the USA to continue, a necessary condition for oil market rebalancing. US oil producers are closing some older wells and greatly reducing drilling and fracking activity. However, some would consider increasing production again at a WTI price of USD 30/bbl. The improvement in the situation on the physical market is confirmed by a moderation of the slope of the contango at the start of futures curves. The oil glut has thus probably peaked but will persist for some time. Record-high oil stocks and the escalation of tensions between the USA and China will prevent a faster price recovery. A resurgence of the epidemic in individual countries remains a risk. The EIA only marginally raised its estimate for average Brent prices to USD 34.1/bbl in 2020 and USD 47.8/bbl in 2021.

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

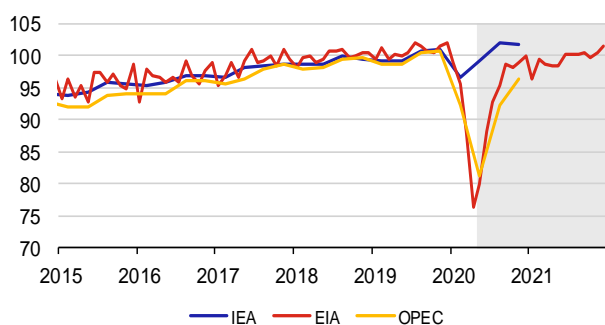


	Brent	WTI	Natural gas
2020	35.86 ↘	31.74 ↘	67.25 ↘
2021	36.85 ↘	33.46 ↘	46.31 ↘

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

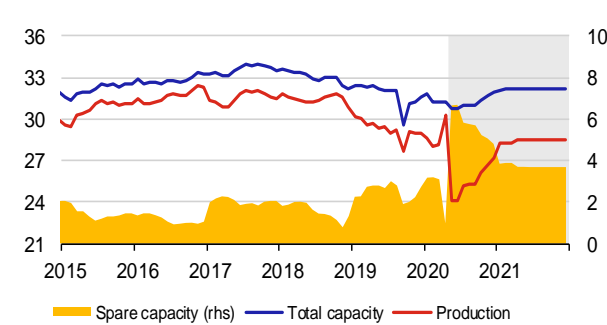


Global consumption of oil and oil products (mil. barrel / day)



	IEA	EIA	OPEC
2020	99.89 →	92.58 ↘	90.57 ↘
2021		99.53 ↘	

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



	Production	Total capacity	Spare capacity
2020	26.58 ↘	31.25 ↘	4.67 ↘
2021	28.44 ↘	32.17 ↘	3.73 ↘

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

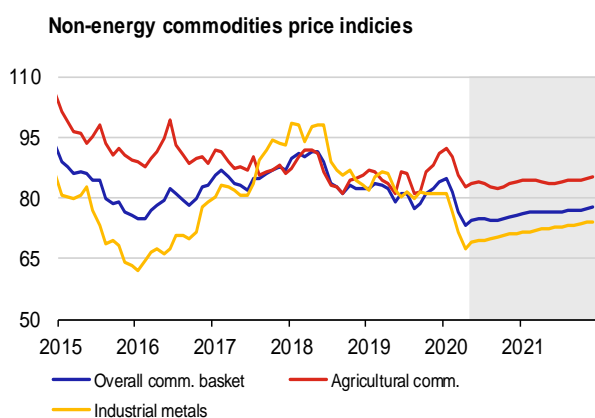
Note: Oil price at ICE, average gas price in Europe – World Bank data, smoothed by the HP filter. Future oil prices (grey area) are derived from futures and future gas prices are derived from oil prices using model. Total oil stocks (commercial and strategic) in OECD countries – IEA estimate. Production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

IV.2 Other commodities

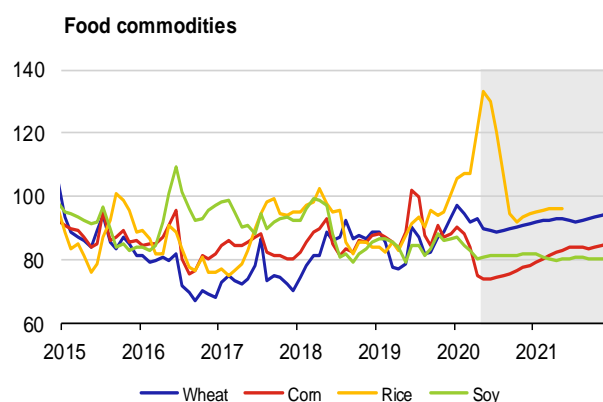
Natural gas prices in Europe decreased further in April, while coal prices fell at roughly half the rate. The average natural gas price in Europe declined by a further 22% in April, owing to lower demand from industry and high stocks after the unusually warm winter. However, LNG prices in Asia are even lower, so unsold LNG supplies are heading towards Europe and a further decline in prices can be expected for long-term contracts linked to oil prices. Coal prices decreased as a result of a recovery in production in China and still subdued demand from Chinese power stations.

The decline in the aggregate non-energy commodity price index halted in the first half of May, with its two sub-indices showing similar trends. Prices of copper, nickel, tin and zinc have been rising since the end of March due to the restart of manufacturing in China, a recovery of financial markets, and a flight to riskier assets by investors. Prices of aluminium and lead at least stopped declining. Since February, the iron ore price has been following a broadly horizontal trend with a slightly downward outlook.

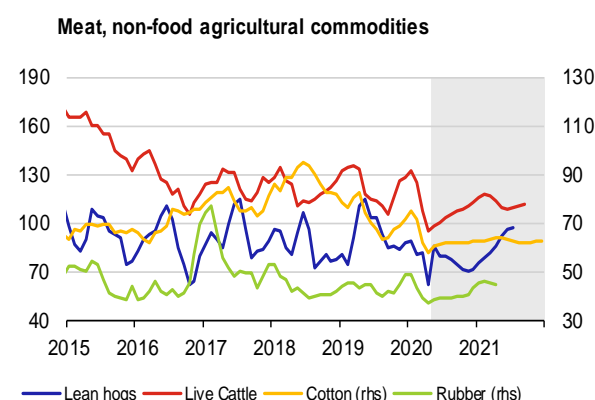
The trends within the food commodity price index remained mixed. Prices of wheat, corn and soy went down in April and then almost stabilised in the first half of May (in the case of corn and soy close to their lowest levels in many years). The price of rice went the other way, surging in April and remaining high in the first half of May. Following a decline in March, the sugar price was broadly flat, also around its lowest level in years. The cocoa price fell substantially in the first half of March and has since been rising. The coffee price slumped in the second half of April. The price of pork dropped sharply between mid-March and mid-April but rose strongly for the rest of the month. Following a decline, the beef price remained at a ten-year low in April.



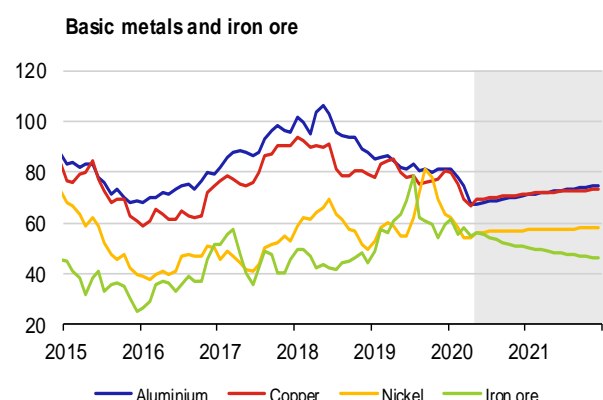
	Overall	Agricultural	Industrial
2020	76.3 ↗	84.8 ↘	71.5 ↗
2021	76.7 ↘	84.3 ↘	72.7 ↗



	Wheat	Corn	Rice	Soy
2020	91.5 ↘	78.8 ↘	109.0 ↗	82.4 ↘
2021	93.0 ↘	83.2 ↘	95.8 ↘	80.7 ↘



	Lean hogs	Live Cattle	Cotton	Rubber
2020	76.6 ↗	108.7 ↗	63.1 ↗	40.5 ↗
2021	86.6 ↗	112.3 ↗	62.6 ↗	45.3 ↗



	Aluminium	Copper	Nickel	Iron ore
2020	71.2 ↗	71.1 ↗	56.8 ↗	54.6 ↗
2021	72.9 ↗	72.4 ↗	57.7 ↗	47.9 ↗

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 fiscal policy reaction to COVID-19, or the fast way out of the crisis¹

The COVID-19 pandemic has affected the entire world economy. Few countries have escaped being paralysed directly by the illness, but the openness of economies and the close trade links between them and have resulted in serious downturns even in countries with a lower incidence of the disease. Many businesses were forced to shut down overnight, so many parts of the economy have locked up completely. Central banks have eased monetary policy to avert catastrophic effects on the economy and financial stability. Governments are introducing support measures in astronomical amounts to maintain employment and stop households and businesses going under. This article gives an overview of these measures and compares them between countries. We conclude by using two hypothetical cases – moderately (60%) and highly (90%) indebted economies – to illustrate how the pandemic shock may affect countries' fiscal positions for many years to come.

The need for fiscal stimulus and the specifics of the current crisis

The ideas underlying the government support measures that were implemented on a large scale during the last financial crisis in 2008 originated in the Great Depression of the 1930s. Such measures are intended to help resolve liquidity problems and stop them turning into insolvency problems. It has also been shown that saving on public finances at times of crisis increases the time it takes the economy to recover and not only decimates most of the economy, but also causes negative social phenomena. In G20 countries the fiscal support amounting to 4,3% of GDP was provided in the financial crisis sparked by the fall of Lehman Brothers.

In sharp contrast to other recent crises, the coronavirus epidemic has frozen most of the economy.

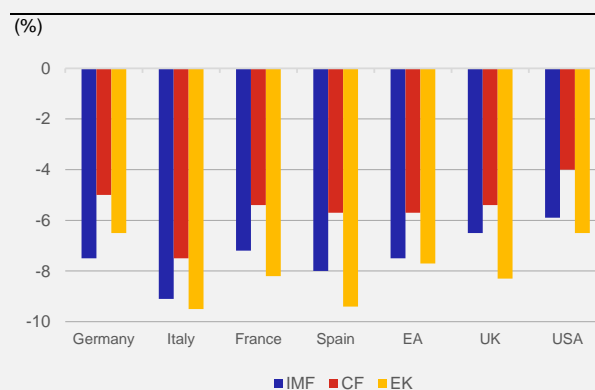
The measures taken to contain the spread of the virus are deepening the recession, although it would have come in some form anyway even if the disease had spread very rapidly in the absence of restrictive measures. Schools, shops, restaurants and cinemas have been closed and social activities curtailed in an effort to stop the transmission. In some countries, all non-essential economic activity has ceased. Modern technology and services-oriented economies have made it possible for some employees to work from home, but for most workers this is not an option. The halt in production has led to plunges in output and sales, as reflected in large drops in GDP. The restrictive measures are aimed at preventing the health system from becoming overwhelmed, because at that point people would start to die for reasons other than COVID-19. It is important to bear in mind, however, that the work capacity of those infected is limited and the performance of the economy would drop sharply if the number of cases was high. We also need to factor in the behaviour of individuals, who would voluntarily reduce their consumption and movement in public due to the threat. For example, in Sweden, where the government has implemented only moderate measures, people have significantly curbed their activities themselves.

If the government of a democratic country prohibits private individuals from going about their business, it should somehow compensate them. Support should thus be seen not only as an expression of the government's goodwill, providence and desire to keep the system and society running, but also to some extent as its duty. Business is risky, but the hardest thing to prepare for is unexpected state intervention, so support and compensation are warranted. The question is how much compensation should be provided, as no government guarantees full coverage of private entities' risks.

A decline in economic activity by one-half for two months represents an 8.5% drop in GDP. This rough and ready estimate of the impacts on change in GDP, abstracting from seasonality and side effects, illustrates the dangers of the situation. An April IMF report estimates that global GDP will contract by 3.0% in 2020 and grow by 5.8% in 2021. For comparison, real GDP growth of 2.9% was recorded in 2019. For advanced economies, the contraction this year is estimated at 6.1% and growth the following year at 4.5%. In 2019, these economies grew by 1.7%.

The loss caused by the stoppage of the economy is de facto permanent. Part of the contraction is cyclical, but part will be reflected in a decline in the potential of the economy due to structural changes. Some economies will attain their original

Chart 1 – Estimated contractions of economies in 2020



Source: IMF World Economic Outlook, April 2020, Consensus Economics, European Commission
Note: EA = euro area

¹ Authors: Petr Polák, Luboš Komárek, Iveta Polášková and Pavla Netušilová. The authors would like to thank Pavla Růžičková for her valuable input. The views expressed in this article are those of the authors and do not necessarily reflect the official position of the Czech National Bank.

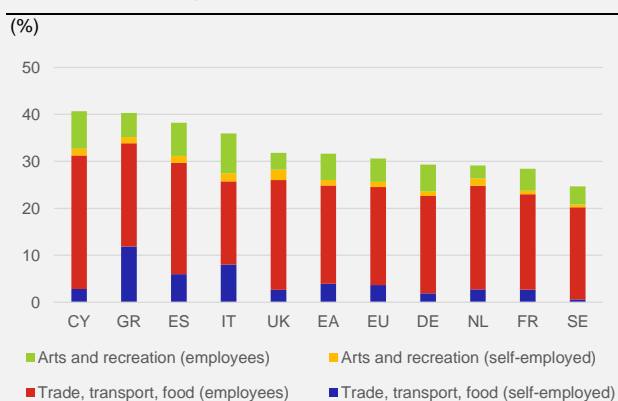
real GDP level at the end of 2021, others later. Regardless, every country will see a loss, especially in public finances. Debt ratios will take years to return their original level.

The fiscal stimulus is intended to keep the system stable and maintain positive expectations about the future. The economy is an integrated system in which customers and vendors interact. The failure of one link can cause a chain reaction. Expectations are also important in determining behaviour, since households may significantly limit reduce their consumption and firms their investment if they fear future uncertainty. This will make the contraction deeper and longer. In an ideal world, we would return to the original order after the pandemic, but for that we need to preserve as many functioning employee and supplier-customer ties as possible.

Monetary policy can be effective in supporting fiscal policy. To finance their support measures, governments will have to borrow, as tax revenue also falls at a time of subdued production. By easing – that is, by cutting monetary policy rates – the central bank enhances the effectiveness of fiscal multipliers and makes it easier for governments to borrow money on the financial market – thanks to the low rates, debt is cheaper. Central banks have not only lowered rates in an almost coordinated way, but have also injected liquidity into financial markets and begun to purchase bonds on a large scale. These steps make it possible to support not just banks, but other players in the financial sector, such as insurance companies and pension funds, which have also been hit hard by the current situation but are getting less attention.

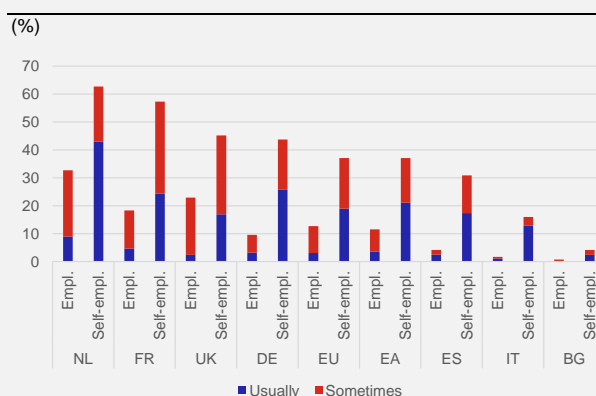
The most severely impacted sectors are travel and hospitality. In an effort to prevent the uncontrolled spread of the disease, the governments of most countries have reduced social contact by restricting movement and banning mass events and travel. The exceptions include Sweden and Asian countries such as Singapore, South Korea and Taiwan, which have adopted different approaches to the pandemic from the outset. The restrictions on mass events and travel have had the greatest impact on tourism (especially air transport) and hospitality (hotels and restaurants). In Europe, roughly a quarter of the workforce is employed in this area (see Chart 2).

Chart 2 – Employment in individual sectors in the EU



Source: Eurostat
Note: Data for 2019

Chart 3 – Shares of those working from home in selected countries



Source: Eurostat
Note: Data for 2019

The option of, and expansion in, working from home is one of the “positive” impacts of the current pandemic. Statistics (see Chart 3) reveal that almost 84% of workers never worked from home in the EU as a whole last year. Working from home is logically more widespread among the self-employed, almost 20% of whom usually work this way in the EU. It is much less common among employees: in 2019, only 3.1% of employees worked from home usually and less than 10% did so sometimes. This type of work is most widespread in the Netherlands, where almost a third of employees work from home usually or sometimes. It is least prevalent in Bulgaria, where less than 1% of employees work from home sometimes. Many firms and managers that had not previously introduced working from home and are now being forced to do so by circumstances will be able to evaluate the effectiveness of remote work. For firms, more remote workers would mean lower costs in terms of rent and energy and travel expenses. The greater use of home working at times of flu epidemics, for example, also leads to a reduction in the number of employees on sick leave. According to many surveys,² people who are able to work from home are more satisfied and loyal to their employers. Working from home together with an extensive spread of online education at all school levels increases public digital literacy and forms a pressure on digitizing the economy.

² In the USA, the Owl Labs’ “State of Remote Work Report 2019”, for example.

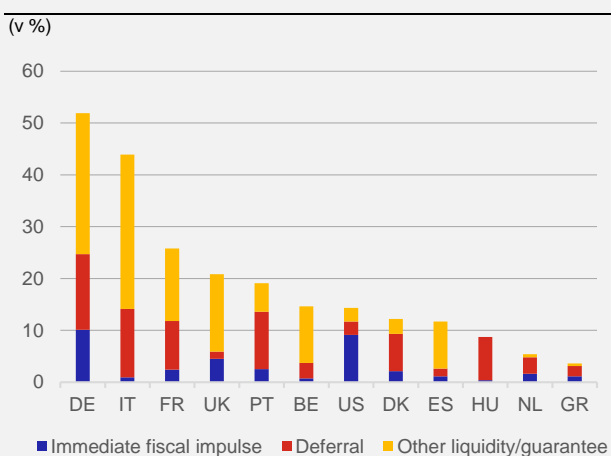
The impact of government support and stretched budgets

One of the most commonly used fiscal support methods is employment protection. Almost all European countries are focusing on avoiding unnecessary labour market volatility – that is, avoiding firms laying off workers and re-hiring them later. One form of support draws on the early 20th century German example of “Kurzarbeit”, where working hours are reduced and the rest of the employee’s salary is paid by the state instead of the employer. The current, modified version involves the state paying the full salaries of employees – hopefully only for a short time – in order to prevent them from being dismissed, which would exacerbate the macroeconomic consequences of the pandemic.

The demands on the government budget fall on the income side as well as the expenditure side. Expenditures are affected not only by fiscal stimuli, but also by additional spending on medical equipment, huge amounts of which are currently required, and whose prices have soared. This is another difference compared with the financial crisis, when public finances could be used differently. However, the current situation affects public revenues as well as expenditure. The closure of shops, service providers, factories and so on is causing a loss of tax revenue. At the same time, the government support provided to firms, employers and the self-employed includes tax deferrals and the suspension or even complete waiver of contributions to the state coffers on behalf of employees. Governments are thus short of funds and being forced further into debt. According to current estimates based on the measures taken, countries such as Germany, Italy and France are facing a revenue shortfall of around 1.5% of GDP. These measures focus primarily on the prevention of the cash-flow issues of companies..

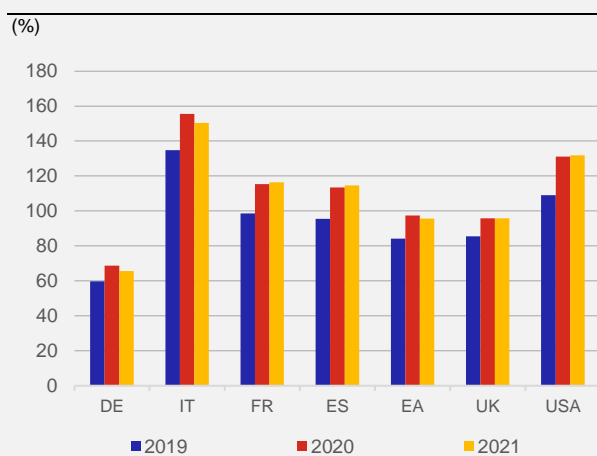
Will Germany save Europe again? The scrappage premium offered in Germany in 2009 (EUR 2,500 for the purchase of a car) gave Europe a big helping hand out of the last crisis. This measure is on the table again. Germany has maintained balanced government finances in recent years and has been criticised for this from many sides in Europe and overseas. The proponents of German thrift argued that they were preparing for times of crisis. Thanks to its sound public finances, Europe’s strongest economy can now “save” other countries via the side effects of its government incentives, which will not only help boost demand for domestic goods and services, but also stimulate international trade. Germany now ranks among the “generous” countries in terms of the size of its measures relative to the size of its economy (see Chart 4)

Chart 4 – Size of fiscal measures as a percentage of GDP in selected countries



Source: Bruegel.org

Chart 5 – Debt-to-GDP ratios in euro area countries, the UK and the USA



Source: IMF, Fiscal Monitor

Many governments already have high debt levels, and the current situation will increase those levels much further (see Chart 5). Governments are planning to fund their fiscal measures by issuing government bonds, so national debts will rise significantly (for example, the US debt-to-GDP ratio will increase by 22 pp this year according to the IMF). The fiscal space available for an economic policy response following the 2008 financial crisis is visibly lower than it was, say, at the start of the millennium. At the end of 2019, just before the pandemic erupted, eight OECD countries had debt-to-GDP ratios of more than 90%³, which for many economists represents a threshold. For example, Checherita-Westphal and Rother (2010) and Baum et al. (2012) showed that government debt starts to drag on growth at 90%–100% of GDP. Cecchetti, Mohanty and Zampolli (2011) estimated similar criteria in more detail, further distinguishing that growth is inhibited when government and household debt is higher than 85% of GDP and non-financial corporate debt is above 90% of GDP. It might seem that there is untapped space for fiscal stimulus between a government debt-to-GDP ratio of 60% (the upper limit of the Maastricht fiscal criterion) and the ratio of roughly 90% mentioned above. However, this is not entirely the case. Even at a debt level of 60%–70% of GDP, the long-term fiscal multiplier turns negative, as Ilzetzki, Mendoza and Végh (2010)

³ According to IMF.

demonstrated empirically. For the reasons set out above, it would therefore be a good idea to increase the coordination of monetary, fiscal and, where appropriate, macroprudential policy in a period of economic policy normalisation. The question is, however, when this will happen, as euro area monetary policy has still not been normalised a full ten years after the financial crisis.

Direct support is one thing, and the provision of guarantees is another (see Chart 4). As stated above, the figures are still preliminary and the amounts of the individual items may still increase significantly. Another risk for public budgets is loan guarantees, which are many times larger than the direct support provided. If the companies concerned fail, the state will have to honour these guarantees. The risk is all the greater because corporate indebtedness is growing worldwide. According to the IMF, it has increased by about 50% compared with the crisis of 2007–2009.

The unconventional government stimulus aimed at future stability chosen by Japan could serve as an inspiration to many countries. Most countries have opted for a general approach where the most widely used step is to provide short-term support just to survive the crisis. There is hardly any talk of taking advantage of the current situation to achieve progress. Fiscal stimulus could be used for investment. Idle factories and furloughed employees could be used to develop and deploy new technologies and hence raise future productivity. Investment subsidies would generate returns for companies in the long run, whereas funds to cover operating costs will be lost forever. Fiscal stimulus could encourage creative destruction and boost development. Japan is to give firms money to relocate production from China back to Japan.⁴ This is both a strategic step and an investment stimulus. In Europe, a fundamental structural change of the economy might be realized within the European Commission initiative called the Green Deal created at the end of 2019.

Fiscal policy offers many support options, but according to empirical studies investment support is the most effective. From the neo-Keynesian perspective, which is the mainstream in modern economics and advocates fiscal stimuli, the effectiveness of such stimuli can be quantified using the government multiplier. Gechert (2015) studied 104 empirical studies estimating the multiplier. He found that public spending multipliers are close to 1 and about 0.3 to 0.4 units larger than tax and transfer multipliers. Government investment multipliers are the highest (0.5 higher than those of government consumption). Gechert and Rannenberg (2018) focused on multipliers in times of crisis and found that they are generally even more effective at such times, with the exception of tax multipliers. If we look at the structure of the currently planned public spending, the vast majority is of the government expenditure type, followed by transfers and taxes. From the point of view of the empirical evidence, public funds could therefore be used much more effectively. According to a recent paper (Boumans et al., 2020), this evidence is ignored by the vast majority of 1,000 economic experts, who rate liquidity assistance and temporary tax deferrals as the most effective policy measures.

An overview of the measures adopted in selected European and world economies

Germany: In mid-March, the government unveiled an extensive package of measures to protect jobs and support firms. The main aim is to provide businesses with sufficient liquidity. The government declared it had enough resources to tackle the crisis and was prepared to use them. The additional COVID-19-related government expenditure is currently estimated at EUR 104.5 billion, or 3% of GDP (excluding government guarantees), and the decline in revenue caused by the tax deferrals at EUR 49.3 billion, or 1.4% of GDP. State-subsidised short-time work (Kurzarbeit), contributions to cover part-time work by agency workers, and other related social security contributions have been introduced to support employment (with an estimated impact of around EUR 11 billion). With respect to Kurzarbeit, Germany is a European pioneer emulated by other countries. In providing liquidity to firms, the government has deliberately chosen not to cap these measures. The liquidity assistance programmes of the state-owned development bank (KfW) have been expanded to make it easier for firms to access cheap loans. This may mobilise a large amount of credit from commercial banks as well. The estimates for the refinancing of guaranteed KfW loans alone are close to EUR 100 billion. The total estimated value of contingent liabilities is EUR 1.2 trillion.

France: In mid-March, the government presented a general plan containing measures to mitigate the economic impact of the epidemic, and most of them have now been implemented. The additional COVID-19-related government expenditure is currently estimated at EUR 67 billion, or 3% of GDP. The government protects employment by supporting reduced-hour work in companies. This will have an estimated impact of EUR 35 billion. To support entrepreneurs the government set up so call Solidarity Fund with allocation of EUR 8 billion. It plans to provide EUR 300 billion of state guarantees for bank loans to firms. It is also declared the possibility of nationalising large companies that get into problems as a result of COVID-19.

United Kingdom: The British government has announced a GBP 401.5 billion fiscal package to cover the costs of the measures introduced gradually since March to support firms, social care, public services and the NHS, protect employment and prevent job losses. It has also approved the deferral of VAT payments and has waived some taxes for 12 months, especially in the leisure and tourism sectors. GBP 330 billion of state loans and guarantees is also available for the companies affected. The employment support consists of the payment of up to 80% workers' salary of up to GBP 2,500 a month, and the self-employed are also entitled to 80% of earnings. In addition to domestic support, the UK government has

⁴ <https://www.scmp.com/news/asia/east-asia/article/3079126/japan-pay-firms-leave-china-relocate-production-elsewhere-part>

made GBP 150 million available to the IMF's Catastrophe Containment and Relief Trust to support the international response to the coronavirus.

Italy: The Italian Government has drafted a "Cura Italia" decree intended to "heal Italy" in terms of both health and the economy. Two rescue packages were approved totalling EUR 75 billion, or 4,3 % of GDP. The main economic measures include the option for employers who have suspended or reduced their economic activity during the epidemic to apply for employee allowance.. A EUR 600 monthly allowance is also being provided to self-employed persons in selected professions, such as seasonal workers in the tourism and agriculture sectors and theatre workers. A new fund was created to provide contributions to workers in material need in other professions as well. The obligation to pay taxes and social security contributions for employees has also been deferred. State guarantees are being provided for bank loans to SMEs. The total value of contingent liabilities is currently estimated at EUR 380 billion.

Spain: The government has introduced a special social allowance for workers in firms that have been forced to cancel or reduce their activities due to the declaration of the state of emergency. It has increased and extended sick pay for those sick with coronavirus. It has also increased spending on healthcare and reduced social insurance payments for employers. It has also deferred income tax and VAT payments for the self-employed and SMEs by six months. Unemployment benefit for laid-off workers has been increased in connection with the emergency measures against the spread of COVID-19. The additional COVID-19-related government expenditure is currently estimated at EUR 26.9 billion, or 2.2% of GDP.

USA: Congress has passed a USD 8.3 billion emergency spending bill and a subsequent bill that is assumed to be worth USD 108 billion. The CARES (Coronavirus Aid, Relief, and Economy Security) Act, aimed at supporting both individuals and businesses, will have a total cost of around USD 2 trillion, or 9% of GDP. Additionally, the government has deferred loan and tax payments for businesses and individuals. Some taxes are deferred not just for a few months, but to 2022, and businesses can also reduce their taxes. The US will give almost USD 50 billion in international aid.

How difficult might the fiscal contagion of COVID-19 be?

The effects of the authorities' responses to the pandemic will have visible negative impacts on most economies for years to come. Those impacts can be illustrated using the following example. Let's assume two hypothetical economies. The first is a country with relatively satisfactory past fiscal discipline and an initial debt-to-GDP ratio of 60% (the maximum possible debt burden under the Maastricht debt criterion). The other is a significantly less fiscally responsible country whose debt-to-GDP ratio was 90% before the coronavirus began to spread. We assume the following pandemic-induced effects for both countries. **GDP:** Nominal GDP will decline by 10% year on year in the first year and grow by 5% the following year, and the economy will subsequently return to 2% long-run GDP growth. **Inflation:** We assume that two situations may arise: (i) the pandemic shock will give rise to stagflation, or (ii) the drop in GDP will be accompanied by a decline in inflation pressures; in both scenarios the central bank subsequently manages to stabilise inflation around its 2% inflation target, reflecting an assumption of successful monetary policy. **Primary balance:** It will be in deep deficit in the first few years and will gradually, with different consolidation efforts, stabilise around relatively acceptable levels at the maximum level of the Maastricht government deficit criterion (3% of GDP). **Real interest rate:**⁵ It will depend on the debt level. Up to a debt burden of 110 % of GDP, we assume no additional penalisation of financial markets. At a higher debt ratio (above 110% of GDP), it will become apparent that borrowing on financial markets is more costly for the fiscal authority. A rate of between -1% and 1% is considered, and here it primarily determines debt service costs. The parameters of our two hypothetical economies are summarised in Table 1.

Table 1 – Variants of assumptions regarding the evolution of the hypothetical economy

(%)

Debt path	Initial debt ratio	Real interest rate (r)	Primary balance (PB)
D1	90	-1	3
D2	90	0	3
D3	90	1	3
D4	90	-1	1
D5	90	0	1
D6	60	-1	3
D7	60	0	3
D8	60	1	3
D9	60	-1	1
D10	60	2	1

Source: Authors' calculations
Note: PB=E-T, i.e. a positive figure expresses a deficit

⁵ For a discussion of the phenomenon of equilibrium real interest rates, see Benecká et al. (2017).

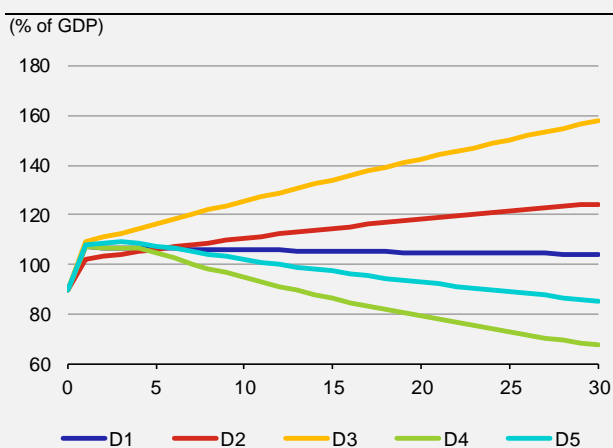
A simple textbook relationship⁶ will help us illustrate the debt path (D1–D10) and signal how little it takes for to the economy to gradually destabilise in the long run (see Charts 6 and 7).

$$\frac{B_t - B_{t-1}}{Y_t - Y_{t-1}} = \underbrace{\frac{(r_t - g_t)}{Y_{t-1}}}_{\substack{\text{RG} \\ \text{differential} \\ \text{debt servicing costs}}} \frac{B_{t-1}}{Y_{t-1}} + \underbrace{\frac{E_t - T_t}{Y_t}}_{\substack{\text{primary} \\ \text{balance}}}$$

It is clear from the equation that the debt-to-GDP ratio and the change therein (the “debt dynamics”) depend on the initial debt level (B), the real interest rate (r), real output growth (g) and fiscal policy as reflected in the resulting primary balance-to-GDP ratio (PB=(E_t-T_t)/Y_t). The primary balance (net of debt servicing costs) expresses whether the government budget was prepared with a surplus (PB<0) or a deficit (PB>0). The key factor for the debt dynamics is the RG differential (RG=r-g). Assuming a balanced budget (PB=0), if (r) is lower than (g) in the long run the debt-to-GDP ratio declines and converges to a sustainable level. This situation is referred to as stable debt dynamics. Conversely, if (r) is higher than (g) in the long run, the debt level diverges from the sustainable level. In extreme cases, if the RG differential stays positive in the long run, or suddenly rises, the debt dynamics can explode. The key variable for any fiscal policy adjustment is the primary balance, which reflects whether fiscal policy slows or accelerates the economy.

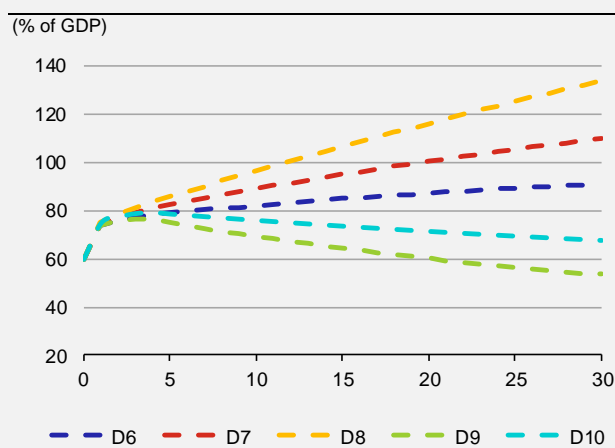
For the debt-to-GDP ratio to stabilise, the primary surplus must be equal to debt interest costs. If a primary deficit is recorded, the debt is sustainable if r<g.⁷ However, this condition cannot be interpreted as the optimal fiscal rule, as it is procyclical by construction and such procyclicality is inconsistent with the traditional objective of fiscal (and also monetary) policy. If the debt is already at the limit of sustainability and the government wants to reduce it by pursuing fiscal consolidation, a negative RG differential (r<g) implies a need to draw up a balanced budget. When the economy worsens and the RG differential turns positive again, the government’s stabilisation efforts will build on the new lower level of debt.

Chart 6 – Path of the nominal government debt-to-GDP ratio of the hypothetical economy with initial debt at 90% of GDP



Source: Authors’ calculations

Chart 7 – Path of the nominal government debt-to-GDP ratio of the hypothetical economy with initial debt at 60% of GDP



Source: Authors’ calculations

The results of our simple calculations (see Charts 6 and 7) show that half of the presented debt variants will lead to the debt ratio exceeding 100% of GDP within 30 years. The D3 debt path (a GDP growth rate of 2% at a real interest rate of 1%) even shows a debt-to-GDP ratio of almost 160% at the end of the projection period. The long-term debt levels would be much higher still if we applied the projection to countries whose current debt ratios are much higher than the 90% of GDP selected here. Examples include Italy and, in the near future, France, Spain and the USA, whose debt ratios will be close to, or – in the case of Italy – significantly higher than, 120% of GDP (see Chart 5).

The endogeneity of the variables has a major impact on the debt dynamics. It arises from the fact that high debt has a feedback effect on both long-term interest rates (which are linked to short-term rates via the shape of the yield curve) and economic growth. The effect of high deficits on long-term rates is usually explained in the context of the neoclassical theory of saving, according to which a government deficit reduces the saving rate and increases aggregate demand. As a result of a higher supply of government bonds, this exerts upward pressure on interest rates. Where high public debt is accompanied by weak economic growth, interest rates are also driven up by a lack of market confidence in future debt repayment. This is

⁶ For a description of a more sophisticated approach to public finance sustainability, see Komárková et al. (2013).

⁷ However, this is a necessary but not sufficient condition. For the PB deficit to be sustainable, it must hold that $-(r-g) \cdot (B/Y) \geq PB$.

reflected in a higher government bond credit premium. With regard to the effect of high debt on economic growth, economic theory predicts that in the long run, government consumption will crowd out private investment, leading to weaker economic performance.

The above simulations suggest a strong link between the real economy and the financial market situation. The simulations show that even relatively positive developments in the real economy in the post-coronavirus period may in the long run be overshadowed by the situation on financial markets (the level of the real effective rate). They may thus be assessed as clearly unsatisfactory overall, as the trends described above surface over period longer than the usual monetary policy horizon (the horizon of most effective transmission) and fiscal policy horizon (the election cycle).

Conclusion

At the moment it is almost impossible to assess whether the coronavirus-related measures are cost-effective and make economic sense. Only time and a deeper understanding of the virus will show whether the criticism that health (tough quarantine measures) has been given too much priority over economics (a sizeable loss of output) in the response to the pandemic is valid. It is also impossible to quantify what the impact would have been had no quarantine restrictions been introduced. Like military leaders, governments must make quick decisions based on imperfect information. However, this article draws attention to the long-term effects (going well beyond the monetary policy horizon and the election cycle).

The situation is currently being complicated by the fact that the fiscal space for stimulating the economy has been exhausted in the vast majority of cases and many countries are now entering the “prohibited zone” as regards debt. In the near future, this may cause huge problems with restoring fiscal soundness and dealing with the rising amounts of poor-quality and toxic assets in financial institutions’ balance sheets.⁸ In the euro area, for example, it will not be easy to find a solution, as there are differing views on the scale and type of assistance needed.⁹

The exhaustion and vulnerability of economies is illustrated in our simple model calculation, which reveals that it will take a long time to return to the original debt level. This level can be reached either through relatively high growth, or through great fiscal responsibility. Some countries have long had problems with fiscal responsibility, but someone will have to foot the bill for the current fiscal measures. The burden is most likely to fall on taxpayers, through higher taxes, a possible loss of savings in funds, or higher inflation.

Some euro area countries have started to discuss the idea of establishing a “bad bank” to assume non-performing loans (NPLs) from commercial banks’ balance sheets dating back to the 2008 financial crisis.¹⁰ This is a theoretically known and tested concept involving the creation of an asset management company to which bad assets are then transferred. The aim is to resolve problem banks quickly and systemically in a debt restructuring process when NPL contagion can no longer be assessed as an isolated issue concerning just a few banks. This topic will be discussed in detail in a future issue of Global Economic Outlook. This discussion is likely to be more academic than the one reflecting the need to stabilise the European banking sector.

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⁸ See, for example, Komárek (2017, 2019).

⁹ According to a ruling of the German constitutional court in May, the government bond purchases that the ECB is using to support the euro area economy partly conflict with the German constitution.

¹⁰ A parallel can be found here with a similar solution adopted after the privatisation of large banks, when Konsolidační banka – later converted into the Czech Consolidation Agency – was established in the Czech Republic.

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Keywords

COVID-19, fiscal policy, financial crisis, debt

JEL Classification

E62, H30, H68

A1. Change in predictions for 2019

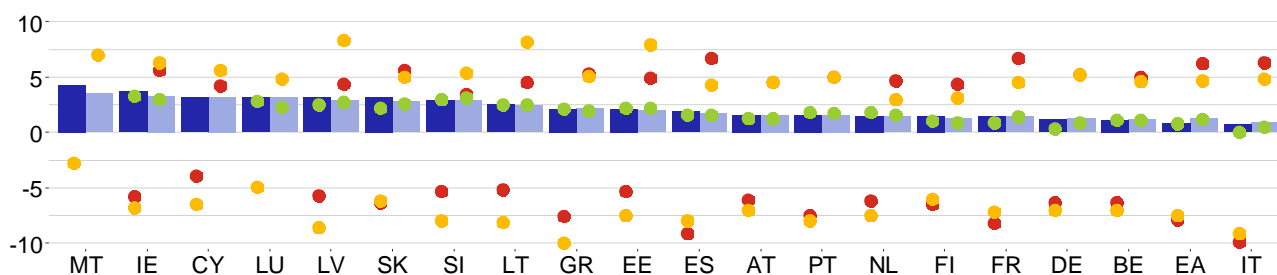
	GDP growth, %				Inflation, %			
	CF	IMF	OECD	CB / EIU	CF	IMF	OECD	CB / EIU
EA	-2.2	-8.8	-0.3	-0.3	-0.1	-1.2	-0.4	0
	2020/5 2020/4	2020/4 2020/1	2020/3 2019/11	2020/3 2019/12	2020/5 2020/4	2020/4 2019/10	2019/11 2019/5	2020/3 2019/12
US	-1.4	-7.9	-0.1	0	-0.1	-1.7	0	0
	2020/5 2020/4	2020/4 2020/1	2020/3 2019/11	2019/12 2019/9	2020/5 2020/4	2020/4 2019/10	2019/11 2019/5	2019/12 2019/9
UK	-2.5	-7.9	-0.2	-14.8	0	-0.7	+0.3	-0.9
	2020/5 2020/4	2020/4 2020/1	2020/3 2019/11	2020/5 2020/1	2020/5 2020/4	2020/4 2019/10	2019/11 2019/5	2020/5 2020/1
JP	-2.2	-5.9	-0.4	-4.9	-0.3	-1.1	-0.4	-1.5
	2020/5 2020/4	2020/4 2020/1	2020/3 2019/11	2020/4 2020/1	2020/5 2020/4	2020/4 2019/10	2019/11 2019/5	2020/4 2020/1
CN	-0.5	-4.8	-0.8	0	-0.2	+0.6	+0.1	-0.6
	2020/5 2020/4	2020/4 2020/1	2020/3 2019/11	2020/4 2020/3	2020/5 2020/4	2020/4 2019/10	2019/11 2019/5	2020/4 2020/3
RU	-4.8	-7.4	-0.4	-2.6	+0.7	-0.4	0	-2.6
	2020/4 2020/3	2020/4 2020/1	2020/3 2019/11	2020/4 2020/4	2020/4 2020/3	2020/4 2019/10	2019/11 2019/5	2020/4 2020/4

A2. Change in predictions for 2020

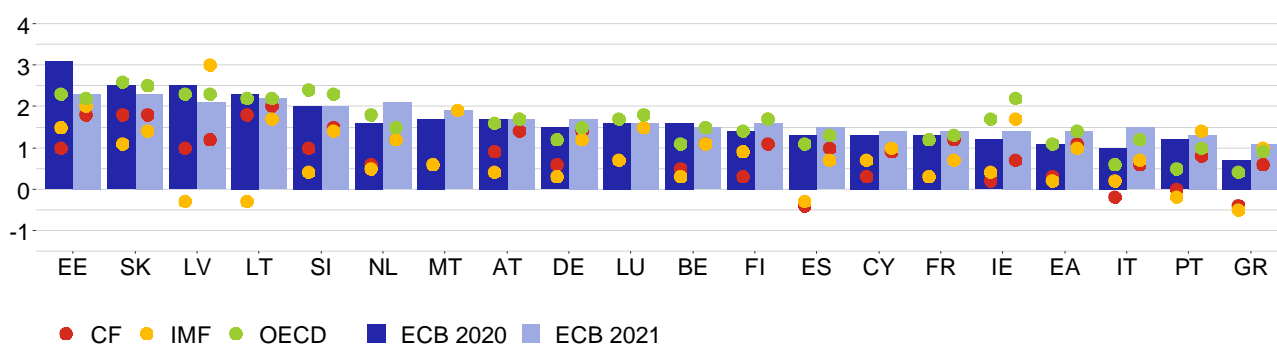
	GDP growth, %				Inflation, %			
	CF	IMF	OECD	CB / EIU	CF	IMF	OECD	CB / EIU
EA	-2.2	-8.8	-0.3	-0.3	-0.1	-1.2	-0.4	0
	2020/5 2020/4	2020/4 2020/1	2020/3 2019/11	2020/3 2019/12	2020/5 2020/4	2020/4 2019/10	2019/11 2019/5	2020/3 2019/12
US	-1.4	-7.9	-0.1	0	-0.1	-1.7	0	0
	2020/5 2020/4	2020/4 2020/1	2020/3 2019/11	2019/12 2019/9	2020/5 2020/4	2020/4 2019/10	2019/11 2019/5	2019/12 2019/9
UK	-2.5	-7.9	-0.2	-14.8	0	-0.7	+0.3	-0.9
	2020/5 2020/4	2020/4 2020/1	2020/3 2019/11	2020/5 2020/1	2020/5 2020/4	2020/4 2019/10	2019/11 2019/5	2020/5 2020/1
JP	-2.2	-5.9	-0.4	-4.9	-0.3	-1.1	-0.4	-1.5
	2020/5 2020/4	2020/4 2020/1	2020/3 2019/11	2020/4 2020/1	2020/5 2020/4	2020/4 2019/10	2019/11 2019/5	2020/4 2020/1
CN	-0.5	-4.8	-0.8	0	-0.2	+0.6	+0.1	-0.6
	2020/5 2020/4	2020/4 2020/1	2020/3 2019/11	2020/4 2020/3	2020/5 2020/4	2020/4 2019/10	2019/11 2019/5	2020/4 2020/3
RU	-4.8	-7.4	-0.4	-2.6	+0.7	-0.4	0	-2.6
	2020/4 2020/3	2020/4 2020/1	2020/3 2019/11	2020/4 2020/4	2020/4 2020/3	2020/4 2019/10	2019/11 2019/5	2020/4 2020/4

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

GDP growth in the euro area countries in 2020 and 2021, %



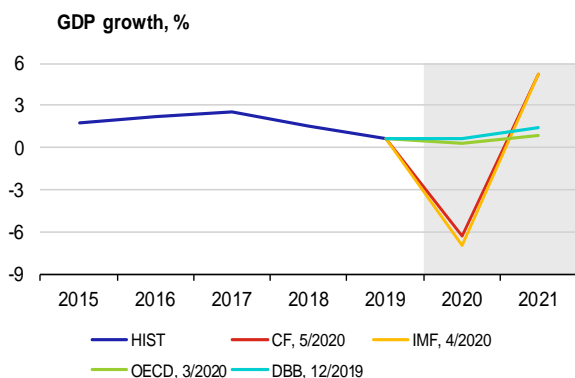
Inflation in the euro area countries in 2020 and 2021, %



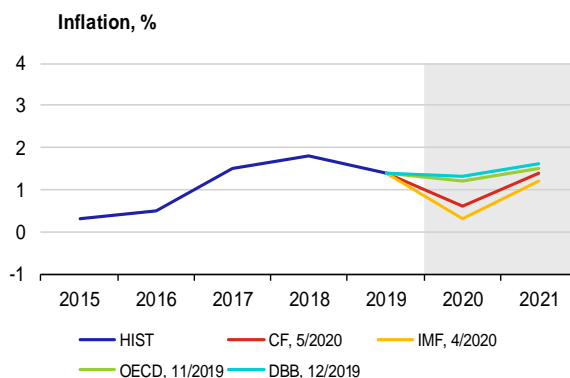
Note: Charts show institutions' latest available outlooks of for the given country.

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

Germany

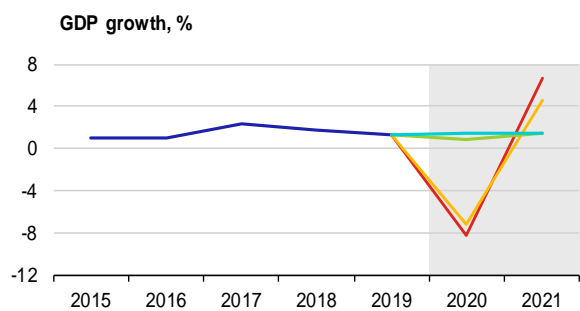


	CF	IMF	OECD	DBB
2020	-6.3	-7.0	0.3	0.6
2021	5.2	5.2	0.9	1.4

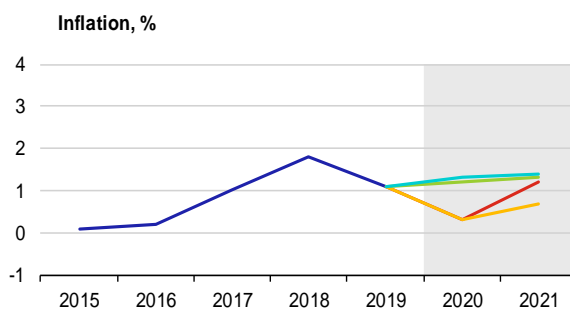


	CF	IMF	OECD	DBB
2020	0.6	0.3	1.2	1.3
2021	1.4	1.2	1.5	1.6

France

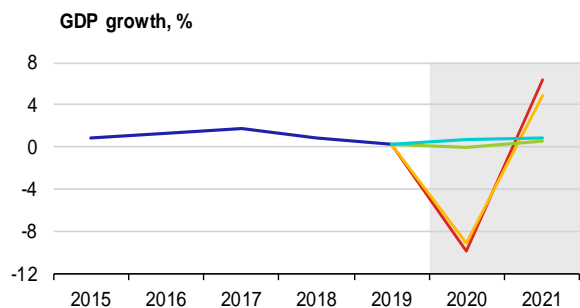


	CF	IMF	OECD	ECB
2020	-8.2	-7.2	0.9	1.4
2021	6.7	4.5	1.4	1.4

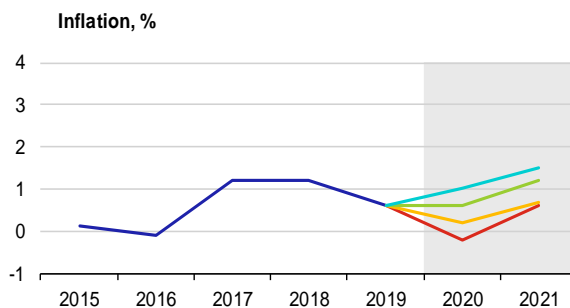


	CF	IMF	OECD	ECB
2020	0.3	0.3	1.2	1.3
2021	1.2	0.7	1.3	1.4

Italy

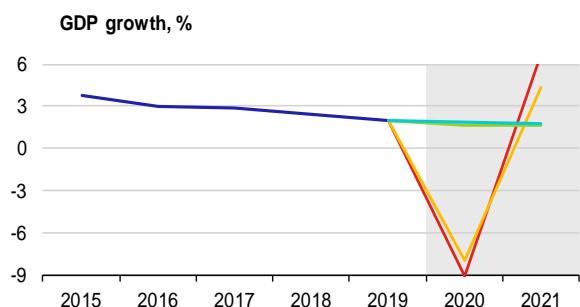


	CF	IMF	OECD	ECB
2020	-9.9	-9.1	0.0	0.7
2021	6.3	4.8	0.5	0.9

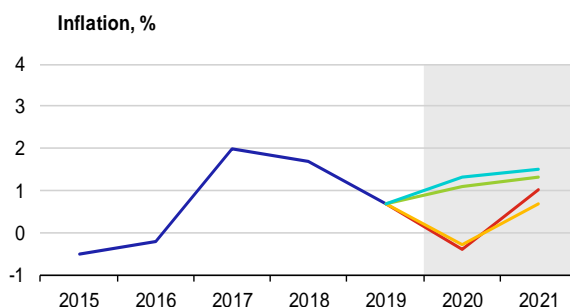


	CF	IMF	OECD	ECB
2020	-0.2	0.2	0.6	1.0
2021	0.6	0.7	1.2	1.5

Spain

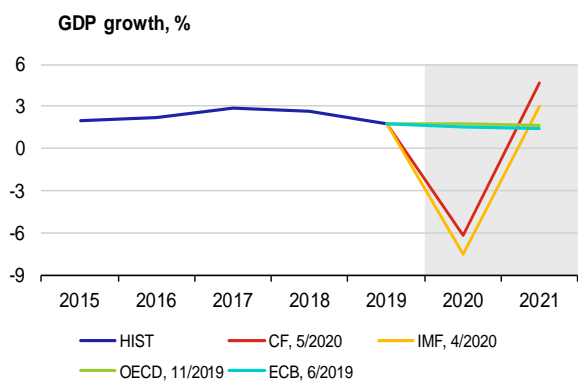


	CF	IMF	OECD	ECB
2020	-9.1	-8.0	1.6	1.9
2021	6.7	4.3	1.6	1.7

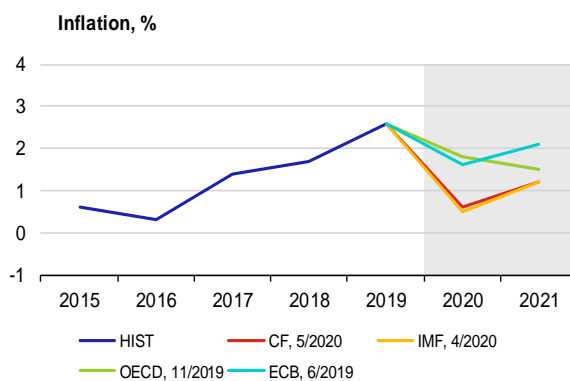


	CF	IMF	OECD	ECB
2020	-0.4	-0.3	1.1	1.3
2021	1.0	0.7	1.3	1.5

Netherlands

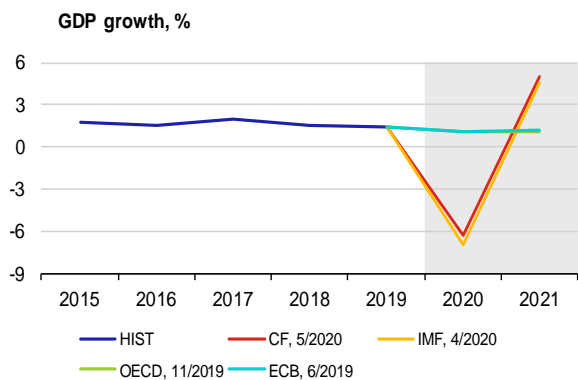


	CF	IMF	OECD	ECB
2020	-6.2	-7.5	1.8	1.5
2021	4.7	3.0	1.6	1.4

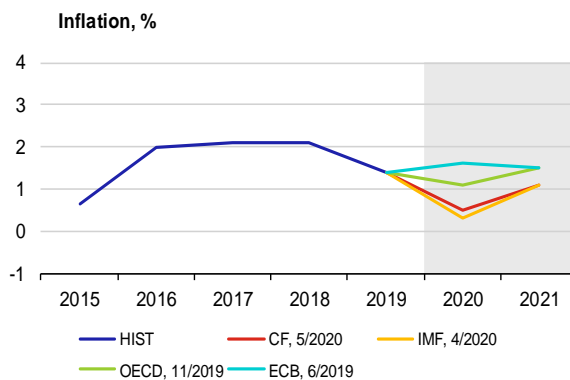


	CF	IMF	OECD	ECB
2020	0.6	0.5	1.8	1.6
2021	1.2	1.2	1.5	2.1

Belgium

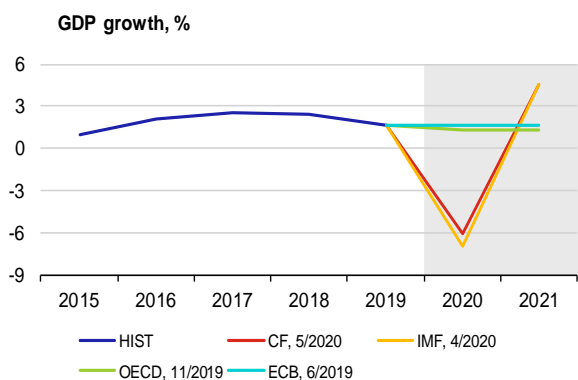


	CF	IMF	OECD	ECB
2020	-6.3	-7.0	1.1	1.1
2021	5.0	4.6	1.1	1.2

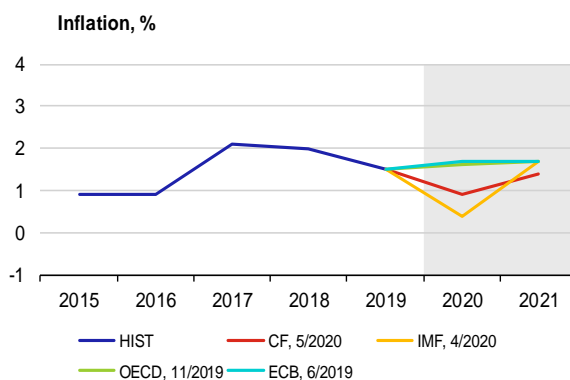


	CF	IMF	OECD	ECB
2020	0.5	0.3	1.1	1.6
2021	1.1	1.1	1.5	1.5

Austria

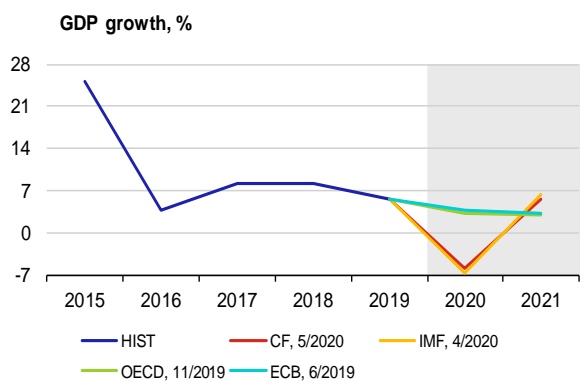


	CF	IMF	OECD	ECB
2020	-6.1	-7.0	1.3	1.6
2021	4.5	4.5	1.3	1.6

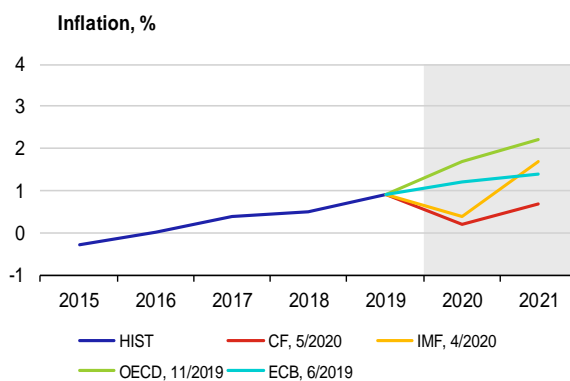


	CF	IMF	OECD	ECB
2020	0.9	0.4	1.6	1.7
2021	1.4	1.7	1.7	1.7

Ireland

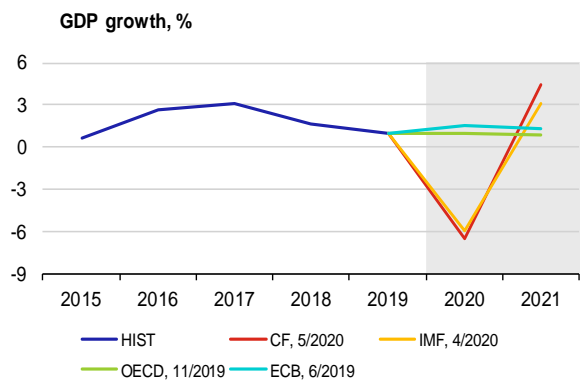


	CF	IMF	OECD	ECB
2020	-5.8	-6.8	3.3	3.7
2021	5.6	6.3	3.0	3.3

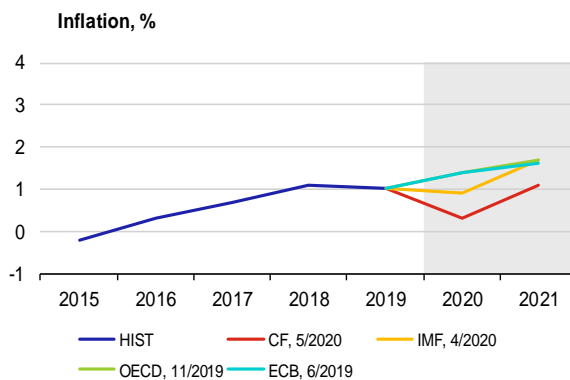


	CF	IMF	OECD	ECB
2020	0.2	0.4	1.7	1.2
2021	0.7	1.7	2.2	1.4

Finland

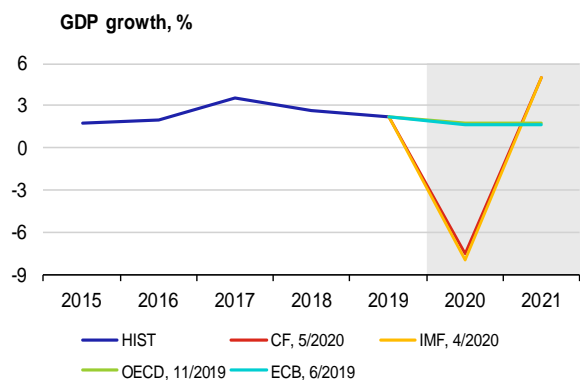


	CF	IMF	OECD	ECB
2020	-6.5	-6.0	1.0	1.5
2021	4.4	3.1	0.9	1.3

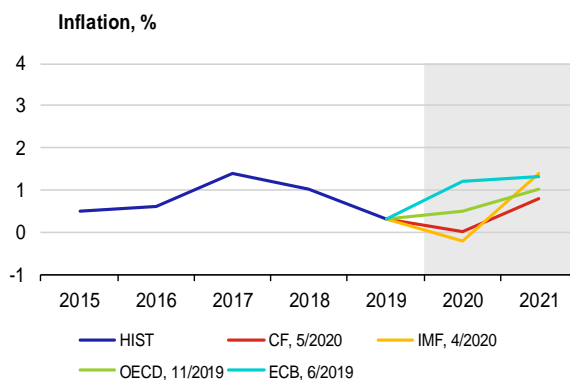


	CF	IMF	OECD	ECB
2020	0.3	0.9	1.4	1.4
2021	1.1	1.7	1.7	1.6

Portugal

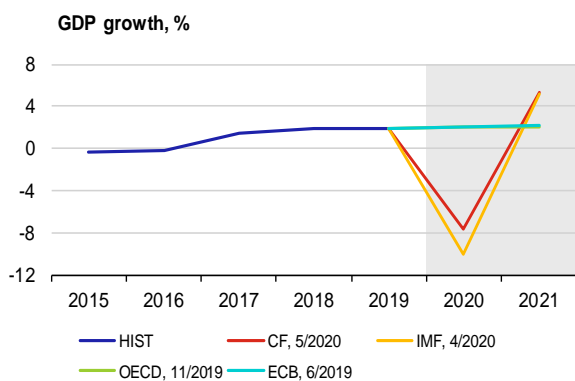


	CF	IMF	OECD	ECB
2020	-7.5	-8.0	1.8	1.6
2021	5.0	5.0	1.7	1.6

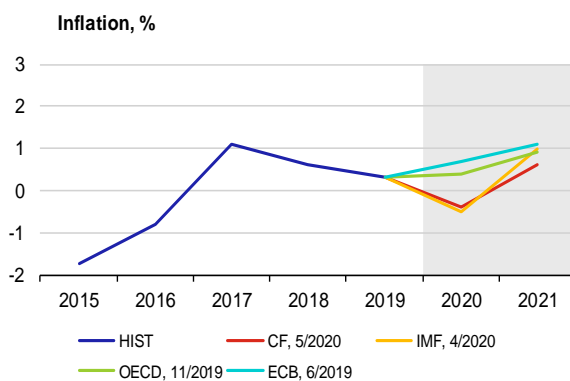


	CF	IMF	OECD	ECB
2020	0.0	-0.2	0.5	1.2
2021	0.8	1.4	1.0	1.3

Greece

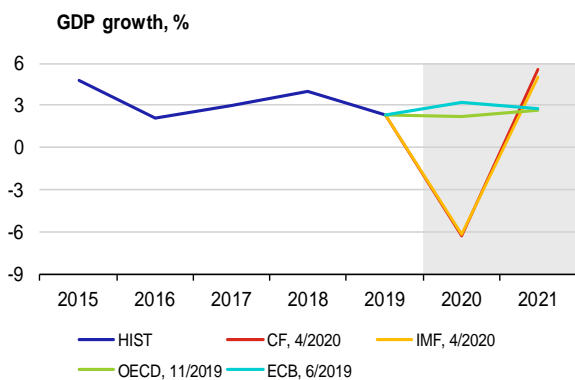


	CF	IMF	OECD	ECB
2020	-7.6	-10.0	2.1	2.1
2021	5.3	5.1	2.0	2.2

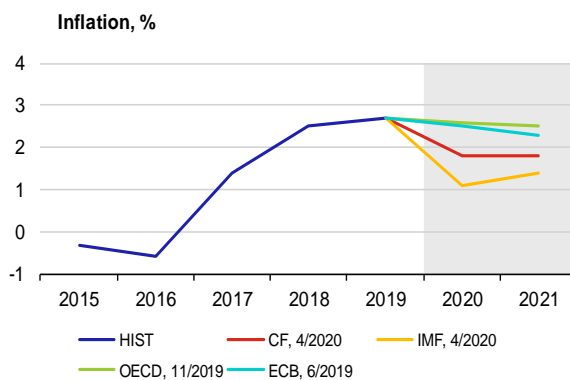


	CF	IMF	OECD	ECB
2020	-0.4	-0.5	0.4	0.7
2021	0.6	1.0	0.9	1.1

Slovakia

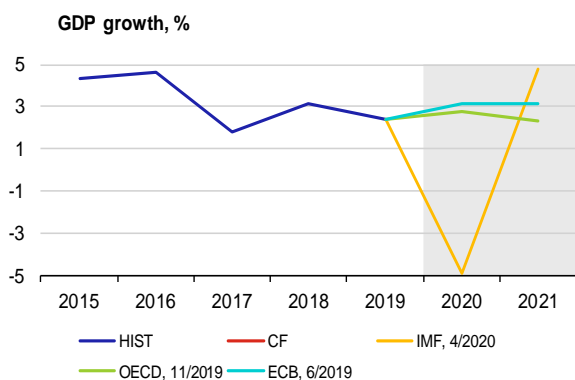


	CF	IMF	OECD	ECB
2020	-6.3	-6.2	2.2	3.2
2021	5.6	5.0	2.6	2.8

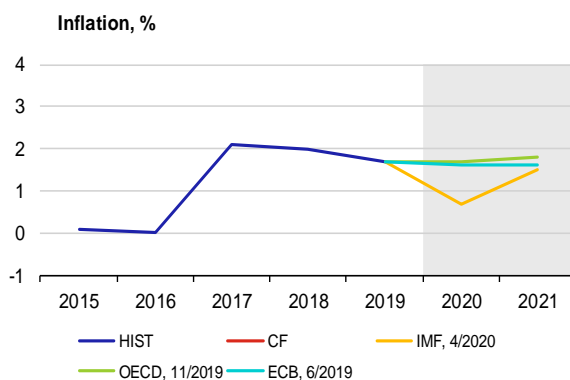


	CF	IMF	OECD	ECB
2020	1.8	1.1	2.6	2.5
2021	1.8	1.4	2.5	2.3

Luxembourg

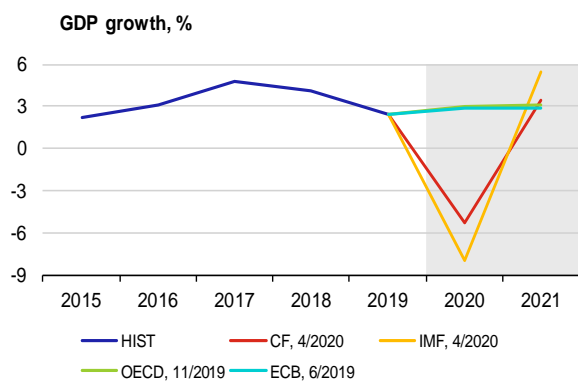


	CF	IMF	OECD	ECB
2020	n. a.	-4.9	2.8	3.1
2021	n. a.	4.8	2.3	3.1

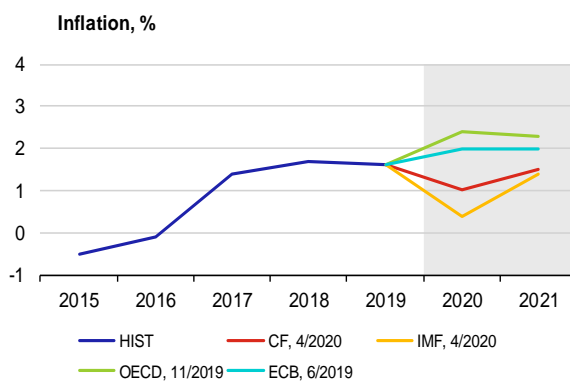


	CF	IMF	OECD	ECB
2020	n. a.	0.7	1.7	1.6
2021	n. a.	1.5	1.8	1.6

Slovenia

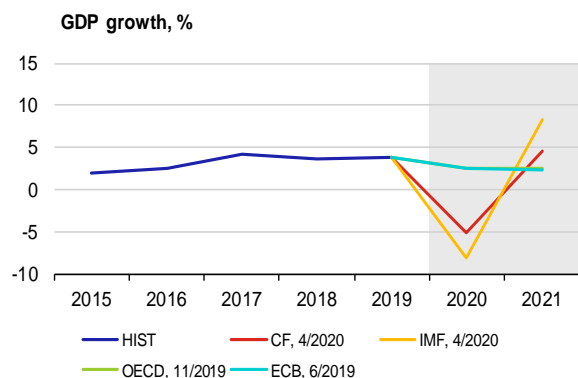


	CF	IMF	OECD	ECB
2020	-5.3	-8.0	3.0	2.9
2021	3.4	5.4	3.1	2.9

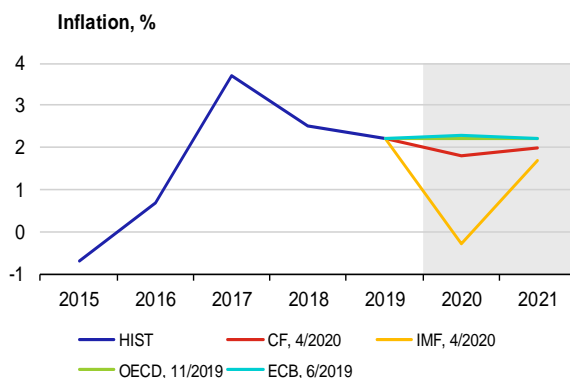


	CF	IMF	OECD	ECB
2020	1.0	0.4	2.4	2.0
2021	1.5	1.4	2.3	2.0

Lithuania

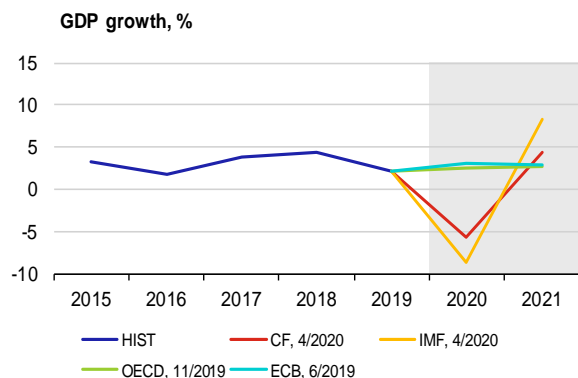


	CF	IMF	OECD	ECB
2020	-5.2	-8.1	2.5	2.5
2021	4.5	8.2	2.5	2.4

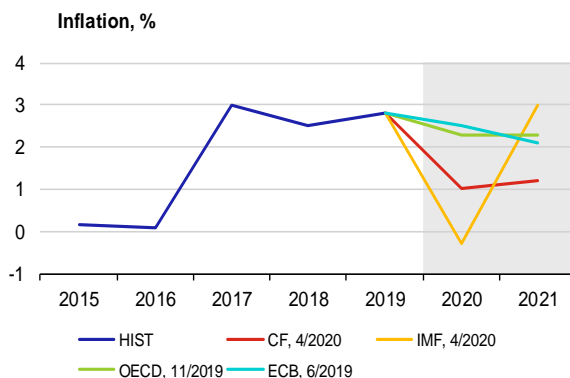


	CF	IMF	OECD	ECB
2020	1.8	-0.3	2.2	2.3
2021	2.0	1.7	2.2	2.2

Latvia

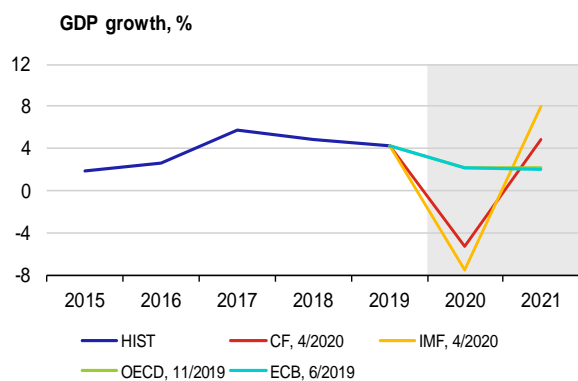


	CF	IMF	OECD	ECB
2020	-5.7	-8.6	2.5	3.1
2021	4.4	8.3	2.7	2.9

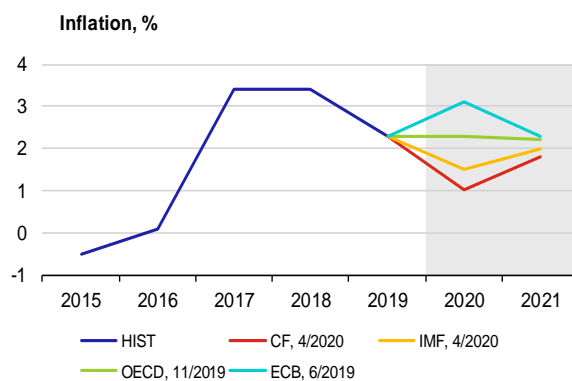


	CF	IMF	OECD	ECB
2020	1.0	-0.3	2.3	2.5
2021	1.2	3.0	2.3	2.1

Estonia

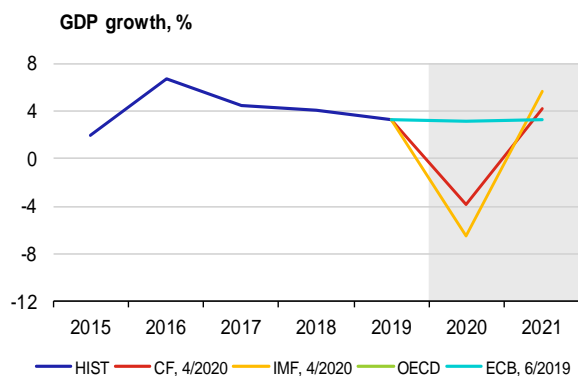


	CF	IMF	OECD	ECB
2020	-5.3	-7.5	2.2	2.1
2021	4.9	7.9	2.2	2.0

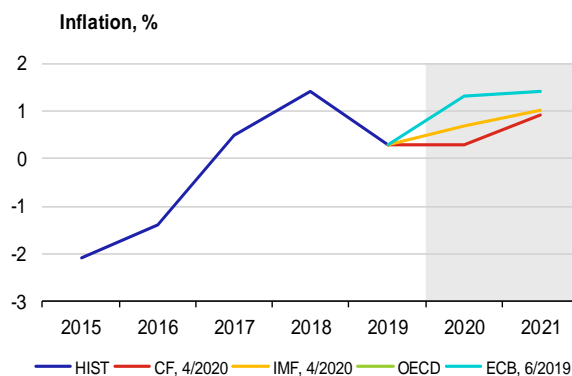


	CF	IMF	OECD	ECB
2020	1.0	1.5	2.3	3.1
2021	1.8	2.0	2.2	2.3

Cyprus

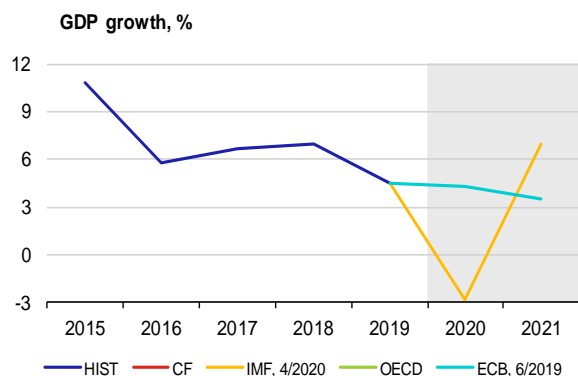


	CF	IMF	OECD	ECB
2020	-3.9	-6.5	n. a.	3.1
2021	4.2	5.6	n. a.	3.2

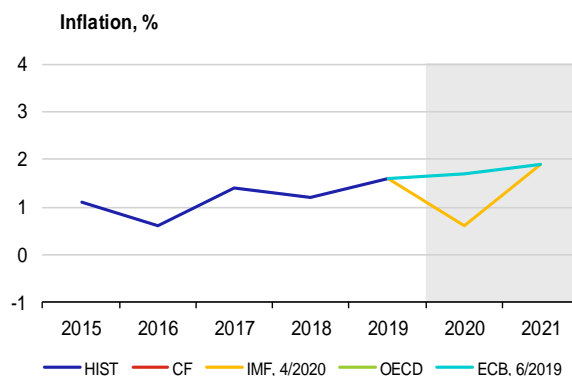


	CF	IMF	OECD	ECB
2020	0.3	0.7	n. a.	1.3
2021	0.9	1.0	n. a.	1.4

Malta



	CF	IMF	OECD	ECB
2020	n. a.	-2.8	n. a.	4.3
2021	n. a.	7.0	n. a.	3.5



	CF	IMF	OECD	ECB
2020	n. a.	0.6	n. a.	1.7
2021	n. a.	1.9	n. a.	1.9

A5. List of abbreviations

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

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