Global Economic Outlook —— February 2021





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Cut-off date for data

12 February 2021

CF survey date

8 February 2021

GEO publication date

19 February 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

I. Introduction

The global epidemic situation might be past its peak, but there are grave concerns about further mutations of COVID-19 and the efficacy of the current vaccines. The economic impacts of the pandemic will continue to be very palpable this year, due in part to still low vaccination coverage, especially in Europe. This trend is reflected in the European Commission's new macroeconomic forecast, which assumes slower growth of the EU in 2021 than previously expected (3.7% versus 4.1%). According to the Commission, the EU economy will grow by 3.9% next year. Growth in the euro area countries will be slightly lower (3.8%). In addition, the European Parliament passed a EUR 672.5 billion crisis package to help EU countries deal with the impacts of the COVID-19 pandemic. It will also be possible to spend these funds on environmental and digitalisation priorities but not to reduce national budget deficits. In the same vein, albeit with a much

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

GDP	<u>EA</u>	DE	US	UK	_ JP	CN	RU
2021	4.4	3.5	4.7	4.2	2.3	8.4	2.8
2022	4.1	3.8	3.6	5.6	2.3	5.5	2.7
Inflation	EA	DE	US	UK	JP	CN	RU
Inflation 2021	EA 1.2 ■	DE	2.3	1.5 UK	JP -0.2 1		RU 3.7 ♣

Source: Consensus Forecasts (CF)

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

smaller majority, the US Senate passed a budget resolution promising USD 1.9 trillion in coronavirus relief. If it is passed by the House of Representatives, the resolution will further stimulate the US economy in the fight against COVID-19 (for example, through direct payments to US citizens of USD 1,400 per person, and higher federal unemployment benefits and hardship assistance).

The February GDP growth outlooks for next year are more positive (with the exception of the UK), but the outlooks

for growth of the German, British, Japanese and Russian economies this year have deteriorated. The new figures reflect both the current vaccination coverage and the ongoing lockdowns in individual countries. By contrast, the US economy is expected to experience faster growth, as is the Chinese economy. **The consumer inflation outlooks** merely confirmed that (except in the USA) inflation will remain well below the notional 2% ideal in advanced countries in the second year of the pandemic. These outlooks are evidently a great cause for concern for central bankers in euro area countries, where

inflation is expected to be only slightly above 1% in 2021 and 2022. You can read about the unconventional instruments that are being used by central banks in the appendix to this issue.

According to the February CF outlook, the dollar will weaken slightly against sterling, the yen, the renminbi and the rouble at the one-year horizon, and will strengthen very slightly against the euro. The CF outlook for the Brent crude oil price at the one-year horizon moved upwards compared to January, to USD 56.4/bbl (highest estimate USD 65/bbl, lowest estimate USD 44/bbl). The outlook for 3M USD LIBOR market rates is rising slightly, while that for 3M EURIBOR rates is still falling very slowly and remains negative.

The chart in the current issue shows how the price of bitcoin has fluctuated in the medium term and is now rising sharply again. This is largely due to Elon Musk's announcement that his car company Tesla has invested USD 1.5 billion in bitcoin. Demand for bitcoin is growing along with increasing inflation expectations, and the limited number of bitcoins is seen as protection against

Bitcoin (BTC) price and transactions over last six years



Note: The chart shows the 7-day averages. The number of bitcoins traded is calculated as the ratio of the daily volume to the price.

inflation. Another factor is the interest of institutional investors in bitcoin, which is lending increasing legitimacy to this asset. Interestingly, the number of bitcoins traded currently remains stable at around 2 million daily. Volumes peaked last March shortly after the outbreak of the coronavirus pandemic.

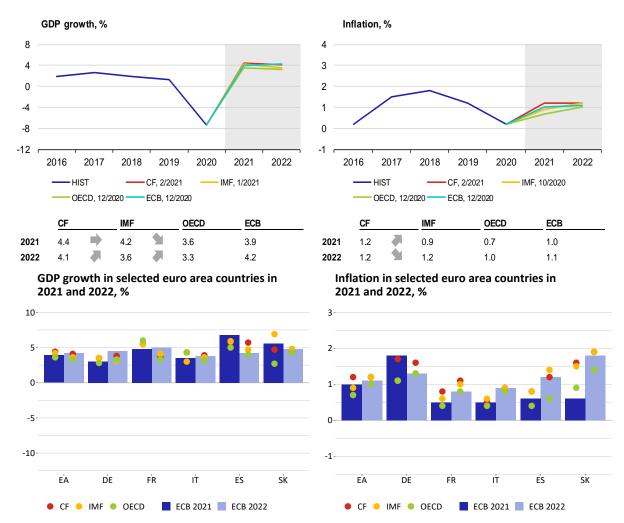
Source: Yahoo Finance

The current issue also contains an analysis: After the BITs: The uncertain future of international investment governance. The article examines international investment and investor protections. The 1990s saw a massive increase in investment agreements, but their number is currently declining. This is due in part to historical experience where foreign investor protection not only led to substantial compensation, but also to the establishment of clear regulations both for domestic and foreign investors.

II.1 Euro area

The euro area economy recorded a quarter-on-quarter decline in 2020 Q4 due to renewed restrictions to combat the second wave of the coronavirus pandemic. However, the decline of 0.7% was smaller than expected. Euro area GDP fell by 5.1% year on year. Despite a gradual improvement in the epidemic situation, government lockdowns have remained in place in many euro area countries in the first few months of this year and are almost sure to have a major effect in Q1. This cannot but have negative economic impacts. The economy is therefore highly likely to contract further at the start of this year, albeit considerably less so than in the first wave of the pandemic. Compared to other territories, the euro area has been slow to roll out vaccination. This has been reflected, among other things, in a weakening euro. Growth will resume as government measures are gradually relaxed in the spring, but it will not accelerate until the second half of 2021.

The favourable trend in industry has continued despite government shutdowns affecting services. Industrial output in December was only 0.8% lower than a year earlier. Manufacture of intermediate goods even increased year on year. Exporting economies did particularly well, mostly owing to demand in Asia. In Slovakia, industrial production (especially of transport equipment) surged at the end of 2020, while German industry, after buoyant growth in previous months, stagnated month on month in December. The Ifo leading indicator fell in January. By contrast, the ZEW economic sentiment indicator improved. The PMI leading indicator clearly shows divergence between industry and services. While the overall indicator fell deeper into the contraction band in January, in manufacturing it stayed in the expansionary band despite declining slightly. This indicates that industry remained resilient at the start of 2021. This is confirmed by weather-adjusted peak-hour electricity consumption, which was only slightly below the previous year's level at the end of January in the main euro area economies. However, companies are reporting delivery delays and rising transport costs, which will be reflected in elevated inflation pressures this year.



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

Renewed economic growth of 4.4% is still expected in the euro area this year, followed by slightly lower growth in 2022. Spain and France, both economies with a high share of services (such as tourism) in value added, are expected to record the fastest growth (5.7% and 5.5% respectively). Germany is expected to show growth of 3.5% amid a much more moderate decline in 2020. According to the outlooks, the German, French and Italian economies will not grow by more than 4% in 2022, while Spain is expected to expand by almost 6%.

The inflation outlook for the euro area was revised upwards for 2021 in response to the surprising pick-up in inflation in January. Following several months of moderate decline, prices increased by 0.9% at the start of this year amid a surge in core inflation to 1.4%. This sharp reversal in consumer price inflation was driven by one-off factors, especially increase in VAT and a carbon tax hike in Germany. The increase in the minimum wage in Germany may also have played a role. With the exception of Slovakia, inflation also rose in other euro area countries in January. Therefore, the higher inflation in January may have been linked with government shutdowns of shops and the resulting absence of traditional seasonal sales, and with consumer basket updates in favour of items with higher inflation. According to the January CF, euro area inflation will reach 1.2% this year and stay at this level in 2022. Among the large euro area countries, consumer prices in Germany will grow by 1.7% in 2021, while subdued inflation is expected in Italy.

At its January meeting, the ECB left its key interest rates and the massive stimulus programme it introduced in December unchanged. President Lagarde reiterated that the coronavirus pandemic still represents a significant risk to the euro area economy. However, even in the event of a further extension of government restrictions beyond Q1, the market expects no changes in the ECB's monetary policy settings. The central bank will not react this year either to an expected temporary rise in inflation related to one-off administrative factors and year-on-year growth in energy prices on the one hand, or to resurging demand in some sectors after the easing of restrictions on the other.



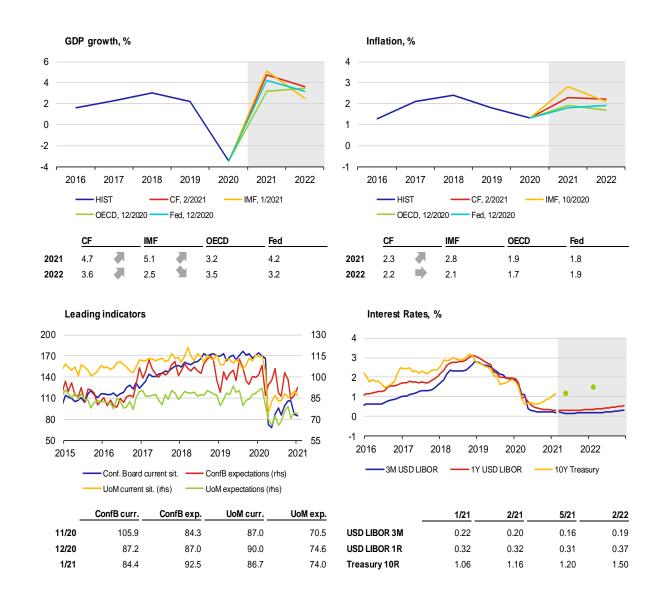
II.2 United States

According to the latest data, the USA is starting to get the coronavirus under control. The daily number of new cases has halved in the past month and is continuing to fall. There are currently 100,000 new cases per day. Another piece of good news is that the USA has been very fast and successful at rolling out the vaccine. According to mid-February statistics, 14 doses had been administered per 100 people, making the US one of the global frontrunners in terms of vaccination speed. The new president Joe Biden announced an increase in fiscal support to USD 1.9 trillion. Unemployment fell to 6.3% and non-farm payrolls rose by 49,000 in January. The forward-looking PMI indicators – both in services (58.3) and in manufacturing (59.2), and thus also the composite index (58.7) – remain in the expansion band and are rising. The consumer economic optimism index also increased, mainly due to the improving pandemic situation.

According to the February CF outlook, the US economy will grow by 4.7% this year, 0.4 pp more than predicted in January. This further increase reflects positive sentiment and, most of all, the good news regarding the handling of the pandemic. CF also improved its GDP forecast for 2022 by 0.2 pp to 3.6%. In its January report, the IMF was even more optimistic for this year, predicting growth of 5.1%.

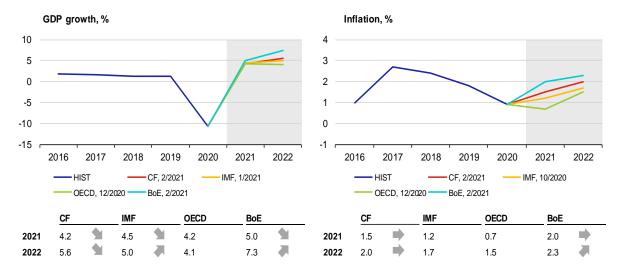
Annual inflation in the USA reached 1.4% year on year in January, due mainly to growth in prices of food (3.8%) and services (1.3%). By contrast, energy prices fell by 3.6%. CF increased its inflation outlook for 2021 by 0.2 pp to 2.3%, and the new outlook for 2022 expects consumer prices to rise by 2.2%, the same as a month ago.

At its January meeting, the Fed left its monetary policy unchanged. Interest rates thus remain close to zero and the Fed is continuing to buy assets totalling USD 120 billion a month. According to Fed Chair Jerome Powell, there has been no fundamental shift so far in achieving the Fed's inflation and employment goals. On the contrary, he said that the pace of recovery would slow and the Fed would therefore continue to support the economy.



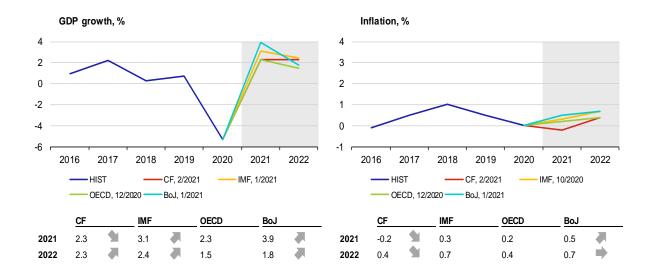
II.3 United Kingdom

The BoE estimates that GDP will decline by about 4% in 2021 Q1 (in contrast to expected growth in the November forecast), although it expects growth to recover rapidly to the pre-pandemic level after 2021. The promising rollout of the UK's vaccination programme is a major prerequisite for economic recovery and could help free up deferred consumer spending later this year. The unemployment rate in the three months to November rose to 5% (its highest level since 2016) and the BoE expects it to increase further over the next few quarters. The key interest rate was left at 0.1% and the asset purchase programme was kept unchanged at GBP 895 billion. BoE Governor Andrew Bailey called on banks to prepare for negative interest rates, but stressed that this should not be seen as a signal that this monetary policy instrument will be adopted. Compared to the BoE, the new CF and IMF forecasts expect a smaller economic downturn this year and a weaker recovery in 2022. The composite PMI was at its lowest level since May 2020, falling into the contraction band in January 2021 at 41.2 due to the sharpest-ever fall in private sector activity.



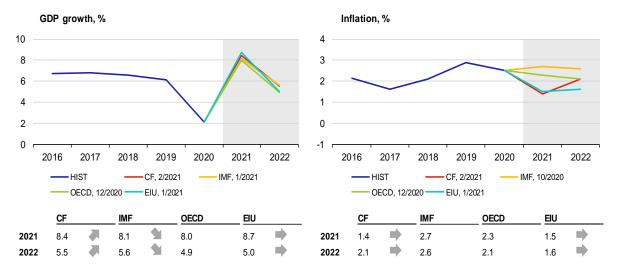
II.4 Japan

Despite worsening economic indicators, Japanese stock market indices rose to record levels. The January PMI in manufacturing stayed at its neutral December level, but the PMI in services dropped, as did consumer confidence. The year-on-year decline in consumer prices deepened further to 1.2% in December. The unemployment rate was flat in December, but wages fell year on year for the ninth month in a row. The December drop in wages of 3.2% was the biggest since June 2015. By contrast, the two main stock exchange indices – the broader Topix and the narrower Nikkei 225 – reached their highest levels in over 30 years. Japan is not starting its vaccine rollout until the second half of February due to a requirement that vaccine clinical trials be conducted there. However, case numbers are stable and much lower than in Europe and North America. This is reflected in relatively moderate economic shutdowns and measures.



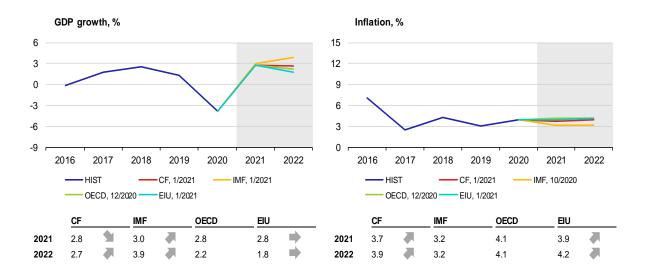
II.5 China

The Chinese economy surpassed expectations in 2020 Q4, growing by 6.5% year on year and recording growth of 2.3% in 2020. Although this is China's slowest annual real GDP growth since 1976, China has handled the coronavirus pandemic better than the other major economies, all of which recorded contractions in 2020. The biggest contributor to last year's growth was massive government investment, which was reflected mainly in solid industrial growth. It also affected consumption, which gradually recovered and was the biggest contributor to GDP growth of all its components at the year-end for the first time since the start of the coronavirus crisis. To a lesser extent, growth in economic activity was also driven by net exports, which benefited, among other things, from growing demand for healthcare products and technology. The CF analysts expect China's economy to grow by 8.4% year on year in 2021 and 5.5% in 2022. According to the February CF outlook, consumer prices in China will rise by 1.4% this year and by 2.1% in 2022.



II.6 Russia

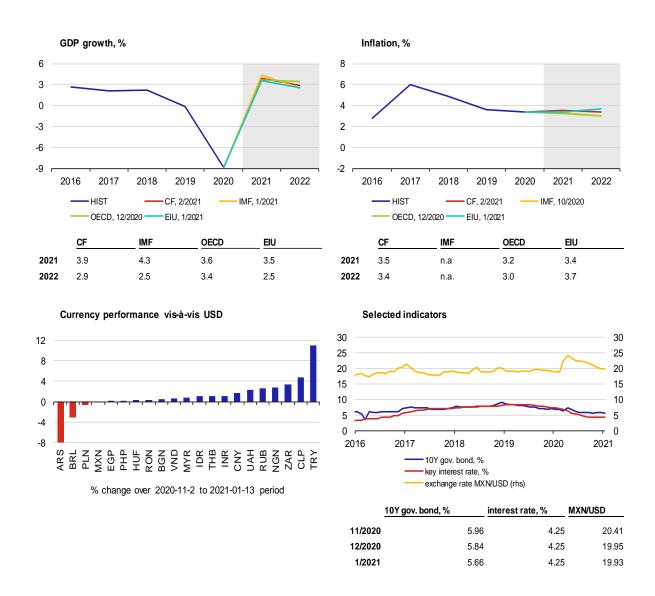
According to Rosstat's initial estimate, GDP slightly exceeded expectations last year. The decline in GDP compared to 2019 was 3.1%. For comparison, the Russian central bank had expected a decline of 3.9% and the December CF a contraction of 3.8%. Industry fared somewhat better than services in Russia, too. At 2.9%, the decline in industrial production in 2020 was more moderate than that in overall GDP. As of 1 January 2021, Russia's population had decreased by over half a million people to 146.2 million relative to the previous year. The number of deaths in 2020 was meanwhile almost 20% higher than in 2019, with about half of this increase due to people who died directly from, or had tested positive for, COVID-19. According to all the institutions monitored, an improvement should be seen this year. The leading indicators suggest the same. The PMI in manufacturing stood above 50 for the second consecutive month and the PMI in services exceeded that level in January for the first time in five months.



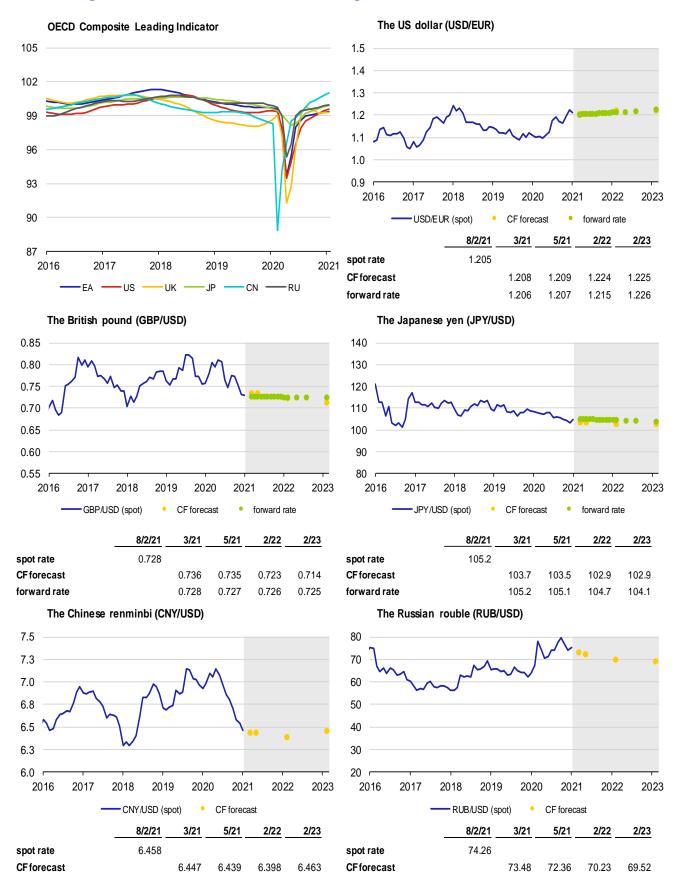
II.7 Countries in the spotlight – Mexico

The Mexican economy contracted by 8.3% year on year in 2020, its deepest decline in several decades. The coronavirus pandemic was reflected most of all in a record decline in economic activity, with a drop of almost 19% recorded in the second quarter. Construction and manufacturing were adversely affected. Worst hit was the services sector, which is the driver of the Mexican economy, accounting for two-thirds of the country's economic activity. The economy started to recover gradually in the second half of the year, and the year-on-year decline in GDP moderated to 4.5% in Q4. This reflected a general improvement across all the main sectors of the economy, including industry, which benefited from recovering external demand, primarily from the USA. On the other hand, fiscal support provided to households and firms has long been at a very low level. The risks to the economy have been rising again recently due to the introduction of new restrictions in response to a rapid rise in new COVID-19 cases. Mexico has the third-highest number of COVID-19-related deaths in the world, after the USA and Brazil. Economic growth will therefore pick up only very gradually from the start of this year, as further restrictions can be expected in manufacturing and especially in services. Compared to 2020, the Mexican economy is expected to grow by 3.9% this year and 2.9% in 2022.

Annual consumer price inflation has been in the upper half of the tolerance band around the inflation target (2%-4%) since June 2020. It remained at 3.5% in January this year. The faster growth in consumer prices since the second half of last year has mainly reflected increasing demand pressures amid a gradual economic recovery and significant easing of monetary policy by the Banco de México since early last year in the form of a reduction of its key interest rate from 7.25% to 4% at its monetary policy meeting on 11 February 2020. Another factor behind the price growth is higher fuel prices and supply shortfalls related to supply chain disruptions caused by the coronavirus pandemic. Average consumer price inflation of around 3.5% is expected this year and the next.



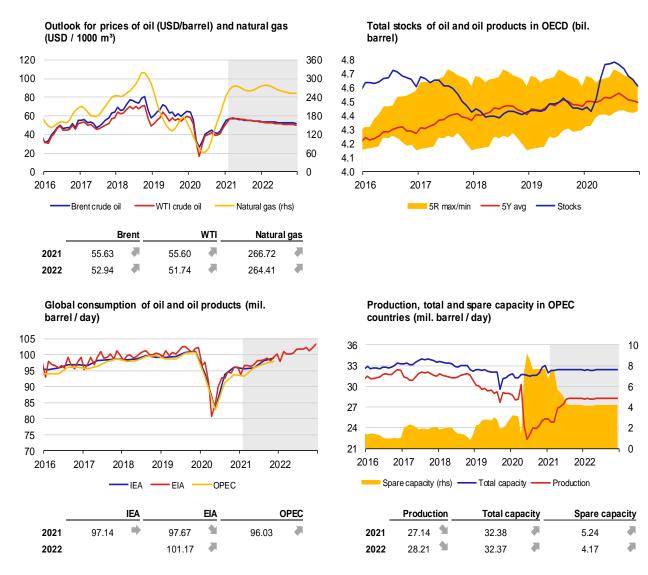
III. Leading indicators and outlook of exchange rates



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 surging in early January, the Brent crude oil price stabilised again, fluctuating just above USD 55/bbl for the rest of the month. At the start of February, it began to rise again, exceeding USD 60/bbl. The Brent price jumped to USD 55/bbl in early January in reaction to Saudi Arabia's surprise decision to unilaterally cut production in February and March beyond previously agreed quotas. The price then settled, with a weak short-term demand outlook continuing to counteract positive sentiment stemming from the vaccine rollout and limited supply from OPEC+ countries. However, the Brent price rose rapidly again at the start of February. One reason for the success of the OPEC+ policy is that this time US oil producers are so far reacting to the rise in oil price by raising production only cautiously, by continuing to rein in investment, and by opting to reduce their massive debts. Global inventories are thus declining faster, with OPEC estimating that stocks in OECD countries could fall to their 5-year average by August. The limited oil supply is also being reflected in a gradual steepening of the negative slope of the oil price futures curve. This is attracting longer-term investors to the market, who can roll over contracts at a profit. Demand for oil in China has now returned to pre-pandemic levels and continues to rise. Demand in India is also back to normal. In the short term, oil prices are being supported by unusually cold weather in the northern hemisphere. The decline in total coronavirus case numbers worldwide and the expected further US fiscal stimulus have also been fuelling optimism since mid-January. The market curve at the start of February is signalling a gradual decline in the Brent price to USD 54/bbl at the close of 2021 and USD 52/bbl at the end of 2022. The current EIA forecast expects the price to average USD 56/bbl in 2021 Q1 and USD 52/bbl over the remainder of the year due to growth in global (and US) production. The Brent price is expected to rise to USD 55/bbl on average in 2022.



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

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

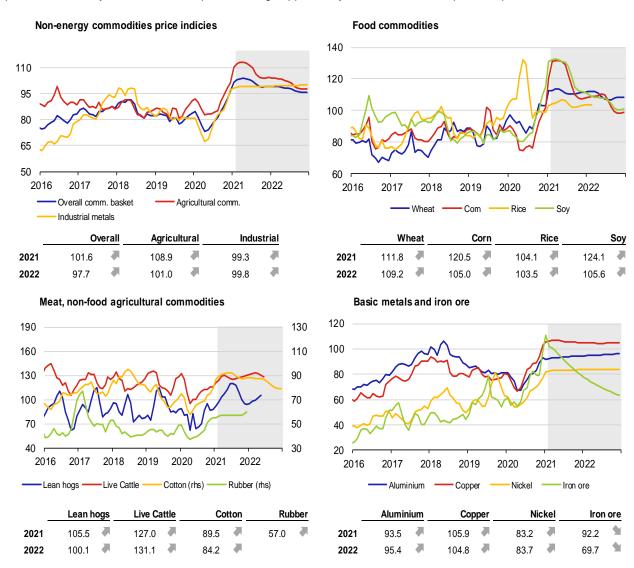
IV.2 Other commodities

The average natural gas price in Europe kept rising sharply in January (by almost 25%) due to below-average temperatures. Gas inventories fell from 74.1% of total capacity at the end of December to 51.5% at the end of January. Last year they stood at 71%. The rapid decline is also due to low LNG imports, as LNG goes mostly to Asia, where prices are more than two times higher. Thermal coal prices rose for the fifth month in a row in January (by almost 5%) due to cold weather in North East Asia and higher imports to China, where electricity generation is surging as the economy recovers.

The average monthly non-energy commodity price index also continued to rise apace in January and the first half of February. The main driver of this growth was the food commodity price sub-index, which gained almost 10% in January. It is also driving the downward outlook for the overall index.

The strong growth in the food commodity price sub-index was due mainly to "energy grains" (corn and soya). Their prices are at their highest levels since 2014 but are projected to show the strongest correction. Wheat prices also reached their highest level in almost seven years. However, their rise halted in January and the outlook is only slightly falling. The price of rice went up in January after a long period of stagnation. Prices of sugar and beef kept rising modestly.

The previous strong price growth in the industrial metals category slowed sharply in January and February due to similar developments in global manufacturing. Aluminium and lead prices have been flat since December, and copper and nickel prices joined them in January. Only tin prices rose markedly, whereas zinc prices dropped. Iron ore prices were flat at their highest level since 2011 in January due to strong demand from China, where steel production rose by 5.2% and imports of iron ore by 9.5% in 2020. Its price is being supported by concerns over disruptions to production in Brazil.



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.

After the BITs: The uncertain future of international investment governance¹

Global economic governance has several pillars, including a monetary system overseen by the IMF and a trading system managed by the WTO. However, there is no equivalent for international investment policy. Cross-border investment is instead governed by thousands of bilateral or regional treaties concluded mostly in the 1990s and early 2000s. In recent years, these agreements have come under challenge and their numbers started declining. This article reviews the evidence on the success of the existing international investment policy regime, before outlining the contours of the ongoing transformation and possible future trajectories. It argues that the push for reform is driven by a perception in many countries that the benefits and costs of signing investment treaties had been misjudged. The reformed treaties reduce the rights granted to foreign investors, rebalancing some power back to nation states, especially in emerging markets. The emphasis on protecting foreign investors from expropriation is being replaced by market access provisions that seek to level the playing field for domestic and foreign investors. Fewer and fewer countries are likely to resist the transformation, as globalisation blurs the distinction between capital exporters and importers. While this improves the prospects for a multilateral agreement – and some progress has been achieved – a global investment regime governed by a "World Investment Organisation" is not in sight.

Past the turning point

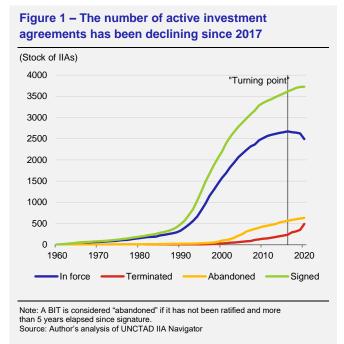
In 1999, Ecuador signed a contract with Occidental Petrolium (OXY) that gave the US energy company a concession to explore and exploit oilfields in the Ecuadorian Amazon. One year later, OXY sold 40% of the production rights to another company, AEC. However, under the terms of the concession agreement, such "farmout" was not allowed without an authorisation from the government. Considering the sale to AEC a breach of contract, Ecuador terminated the concession in 2006 and took control of the operations in the oilfield. In response, OXY commenced an international investment arbitration that sought compensation for what the company saw as expropriation.

OXY was able to seek redress through an arbitration due to a Bilateral Investment Treaty (BIT) between Ecuador and the US from 1993. Like most BITs, the treaty intended to stimulate investment flows between the two countries by safeguarding investors from unfair treatment by the host state. The provisions of the treaty included a mechanism for settling disputes between investors and states under international law.

The arbitration proceedings ended in 2012, concluding that OXY violated the concession agreement, but Ecuador's response was disproportionate and "tantamount to expropriation" (ICSID, 2016). Ecuador was ordered to pay

\$2.3 billion to OXY, reportedly the largest ever award in an investor-state tribunal up to that point. Although estimates suggest that Ecuador's revenues from the seized oilfield had been significantly larger, the fiscal implications were serious. The compensation was equivalent to 9% of Ecuador's 2012 annual budget, 59% of its education budget and 135% of its healthcare budget (ICSID, 2013).²

The episode generated political upheaval in Ecuador. In 2013, the president set up a commission to audit the country's BITs. The body concluded in 2017 that the treaties are not in the country's interest — they hinder Ecuador's development objectives and do not bring additional investment (CAITISA, 2017). Shortly after, the government announced a plan to unilaterally terminate all BITs. Ecuador was not alone to come to this conclusion. Over a similar period, India, South Africa, Indonesia, Venezuela, Bolivia and other developing countries decided for various reasons to renegotiate, terminate, non-renew upon expiry or (in rare cases) not comply with many of their BITs and other International Investment Agreements (IIAs).³



¹ Written by Martin Kábrt. The views expressed in this article are those of the author and do not necessarily reflect the official position of the Czech National Bank. The author would like to thank Jaroslav Kudrna from the Ministry of Finance of the Czech Republic and Petr Polák from the Czech National Bank for their valuable comments.

² The award was reduced in 2016 by 40% after an appeal (known as Annulment Procedure). However, this was not because the merits of the case were reconsidered, but rather because 40% of the oil production rights were owned by the farmout company AEC, which was Chinese and as such not protected by the US-Ecuador BIT (ICSID, 2016).

The controversies were not limited to the developing world. Most notoriously, popular concerns over the fairness and transparency of the arbitration mechanism in the 2016 EU-Canada trade deal (CETA) almost scuppered the treaty's conclusion. In 2018, the US and Canada excluded investor-state arbitrations from the renegotiated North American Free Trade Agreement (NAFTA). More than 140 BITs were scrapped in a single day in 2020 when most EU countries agreed to terminate their mutual BITs and instead rely on national and EU law to settle intra-EU investment disputes.⁴

By 2018, UNCTAD announced a "turning point" in international investment cooperation, as the number of treaty terminations outpaced new treaty conclusions for the first time. The shift is visible in the data. Figure 1 tracks the historical development of the stocks of IIAs. Most IIAs were concluded in the 1990s and early 2000s. The dynamic then slowed, but not just due to saturation. Many new IIAs were not ratified by national parliaments, while existing ones were being terminated. The number of active IIAs eventually started decreasing in 2017 and the decline has continued since.

Economic rationale for IIAs

The main objective of most IIAs is to stimulate foreign direct investment (FDI) flows through enforceable commitments to protect foreign investors from unfair, arbitrary or discriminatory treatment by the host state. Through IIAs, capital-importing countries seek to attract FDI inflows, while capital-exporting countries protect investments of their nationals abroad. Expropriation of foreign investors may seem like a poor decision even without a formal treaty because it discourages future inbound investment. However, IIAs add further credibility by providing legal guarantees to foreign investors, including access to arbitration proceedings known as investor-state dispute settlement (ISDS).⁵ This option liberates investors from reliance on the legislation, administration and judicial systems of host countries, giving them direct access to protection under international law.

Critics object that IIAs merely redirect investment, but do not generate new FDI. Guzman (1998) or Elkins et al (2008), for example, argue that the proliferation of IIAs has been driven by competition for FDI among developing countries. If the pool of funds investors are willing to invest in emerging markets is limited, states engage in a zero-sum race to offer ever more attractive conditions. This can lead to a downward spiral, whereby all countries would be better off if the race never started.

However, at least in principle, the potential of a net gain exists. Over time, IIAs could help define and refine international investment law that reduces barriers to cross-border investment and erects a robust rules-based governance system. Such a regime would not only improve allocative efficiency of FDI, but also increase total global net investment through lower cost of capital. The returns required by investors would decline proportionately to the risk reduction associated with transparent and predictable business conditions worldwide.

Quantifying the benefits

There is little doubt that IIAs are considered by (at least some) investors. Investments of multinational corporations, for example, are often made from a subsidiary in a country that has a BIT with the target country (Schreuer, 2011). There is also evidence of investments delayed until a BIT enters into force (Poulsen, 2011). It is less clear, however, whether IIAs influence not just the legal structure and timing, but also the amount and destination of FDI.

The empirical effort to isolate the impact of IIAs on investment flows is challenging. Besides poor availability of detailed FDI data and considerable differences between individual IIAs, an important problem is the coincidence of BIT conclusions with other measures that propelled the rapid growth of global FDI in the 1990s and 2000s, notably the liberalisation of countries' national FDI regulatory frameworks (Sauvant and Sachs, 2009). There are also concerns about reverse causality, as growth of investment flows can motivate the two countries to sign a BIT (Aisbett, 2007). The treaty may therefore be the consequence rather than the cause of higher capital flows. Empirical studies grapple with these problems with a variety of techniques, which unhelpfully often lead to contradictory results (Pohl, 2018).

Despite the difficulties and inconsistent results, the available literature generally points toward a positive, but modest effect of IIAs on investment flows. In their reviews of the available econometric studies, both Bonnitcha et al (2017) and UNCTAD (2009) stress the conflicting message of the findings, but acknowledge a broad tendency to identify a positive, albeit relatively small, impact of BITs on FDI flows. This result is also confirmed by contributions that study the impact of BITs on the premium for political risk insurance – a more direct outcome than FDI flows (Poulsen, 2010). Similarly, survey evidence on the views of investors, business associations or investment promotion agencies find that BITs are a relevant consideration for some investors, but rarely a crucial one (Pohl, 2018).

³ According to the UNCTAD IIA Navigator, at the end of 2020, there were 2342 BITs in force and 321 Treaties with Investment Provisions (TIPs). The latter include mostly trade agreements (EPAs, FTAs) with investment chapters, as well as sector-specific multilateral treaties, such as the Energy Charter Treaty (ECT).

⁴ The decision followed a 2018 CJEU judgment, C-284/16, in *Slowakische Republik v Achmea BV* where the court declared the arbitration clause in the BIT between the Netherlands and the Slovak Republic incompatible with EU law.

⁵ Nearly two thirds of disputes follow the arbitral rules of the International Center for Settlement of Investment Disputes (ICSID), affiliated with the World Bank. Little under a third are set up *ad hoc* using the rules of the UN Commission on International Trade Law (UNCITRAL). The others are managed by courts and chambers of commerce in Stockholm, London, Moscow, Paris, Cairo, the Hague, Sydney or Hong Kong.

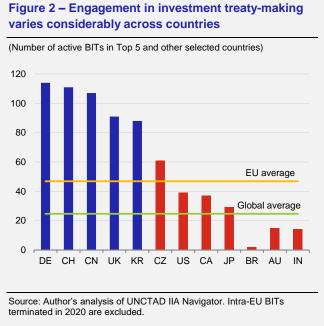
V. —— Focus 14

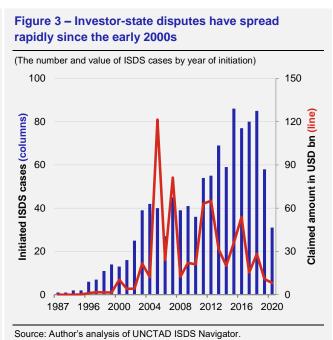
Backlash

To understand the origins of discontent with IIAs, it is important to consider their historical roots. Before IIAs, investor-state disputes were solved through diplomatic channels between states or through litigation in national courts of the host state (Waibel et al, 2010). The key innovation of BITs was the signatories' consent to ISDS, giving foreign investors a direct route to remedy for unlawful actions of the host state without the need for diplomatic protection from their home country (Vandevelde, 2009). From the 1960s until the late 1980s, the early IIAs were typically initiated by developed countries in response to a perceived threat of uncompensated expropriation in developing countries (ibid).⁶ In the 1990s, the number of IIAs exploded under the influence of an emerging consensus that FDI and the associated transfer of technology and know-how is pivotal for development (Schreuer, 2011). In their liberalisation of openness to foreign capital, developing countries were soon joined by the post-socialist transition economies, who saw IIAs as part of the integration process into the world economy. Endorsed by international financial authorities and promoted by economists, IIAs were being concluded at a rapid pace (Waibel et al, 2010).

The adoption of IIAs, however, has always been uneven. Figure 2 shows the number of active BITs in selected countries at the end of 2020. Germany, which signed the world's first BIT in 1959 with Pakistan, continues to be the most enthusiastic advocate with 114 active BITs. It is followed by Switzerland, China, the United Kingdom and South Korea. Meanwhile, other countries – such as Brazil or Ireland – have long resisted signing any BITs. The EU average currently stands at 47 active BITs per country, while the global average is 25.

As ISDS claims soared in the early 2000s, dissatisfaction with IIAs started gaining momentum. Figure 3 shows the number of ISDS cases and compensation claimed by year of initiation. Until 2000, both the number of claims and their value were modest. Since then, the yearly number of new claims doubled every five years, though the most recent figures suggest that the trend may be reversing. Although the large investor compensation claims fuelled much of the political backlash described in the introduction, many criticisms of IIAs have been articulated before.





The first set of objections relates to the perceived institutional and procedural shortcomings of the investor protection regime.⁷ The confidentiality surrounding ISDS has been criticised for inhibiting democratic oversight. Other complaints focus on minimal appeal options, contradictions in the case law of investment tribunals, and interference with the competences of domestic courts. Yet other critics take aim at investors' "forum shopping", which can lead to parallel proceedings in multiple venues or even conflicting decisions. The process of arbitrator appointment is not without controversy either, with critics pointing to conflicts of interest or inherent biases of "private judges" appointed by the

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⁶ After the Second World War, many developing and socialist countries successfully spearheaded an effort to establish recognition of national authority over foreign investments. The Declaration of a New International Economic Order (NIEO) and the Charter of Economic Rights and Duties of States (CERDS), adopted by the UN General Assembly in 1974, asserted national sovereignty over the property rights of foreigners and clarified that expropriation claims would be settled under domestic law, with no mention of international arbitration (Waibel et al, 2010).

⁷ For an overview, see Waibel et al (2010), Schreuer (2011) and Sauvant and Sachs (2009).

investors or the states. While many of these debates originally played out largely in expert legal commentary, they have since resurfaced from obscurity to popular imagination, propelled by civil society groups and the media.⁸

Regulatory space

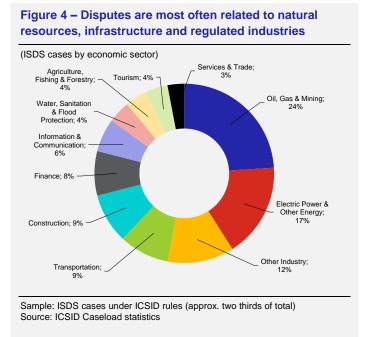
The concern that has grown to most prominence centres around the balance between host state regulatory flexibility and foreign investor protections. Vague definitions of indirect expropriation and unfair treatment in many IIAs open avenues for investors to demand compensation for regulatory interventions on matters of public concern, including national security, public health, labour rights, or the environment. This gives rise to criticism that IIAs subordinate public interest to commercial interests. In a phenomenon known as "regulatory chill", policies that are in the public interest could even end up abandoned for fear of fiscal costs in compensations to foreign investors.

Developing countries were the first to experience the regulatory restrictions imposed by IIAs. Responding to a devastating financial and economic crisis in 2001, Argentina enacted emergency measures, which led to 39 arbitral disputes and substantial investor compensation (UNCTAD, 2007). The situation was extreme, but not unique. ISDS tribunals have consistently made it near-impossible for states to invoke necessity or security exceptions contained in IIAs (Burke-White, 2008). In other cases, policies consistent with the countries' development objectives, such as re-zoning of land for specific uses, intervention in regulated sectors or protection of nascent local industries, led to allegations of BIT violations and arbitral proceedings (Sauvant and Sachs, 2009). Figure 4 provides the sectoral breakdown of ISDS cases, illustrating that most are related to strategically important industries. The pattern is unsurprising, given that these sectors often need substantial and long-term investment for their deveptoment.

Developed countries, however, are also no longer spared the "bite" of IIAs. Famously, the tobacco company Philip Morris demanded compensation for Australia's plain cigarette packaging laws through an ISDS tribunal, after it lost the case

in Australia's domestic courts in 2012. In another example, the Swedish energy company Vattenfall brought a claim against Germany, following the country's decision to phase out nuclear power after the 2011 Fukushima disaster. Unlike the case against Australia, which was dismissed over a legal technicality, the dispute with Germany is still pending, with \$5.1 billion claimed by the investor according to the UNCTAD IIA Navigator.¹⁰

The transition to green energy is particularly likely to attract further arbitration claims. The treaty invoked by Vattenfall against Germany is the Energy Charter Treaty (ECT) of 1994, originally set up to integrate post-communist countries into world energy markets under international treaty law (Beattie, 2020). At over \$50 billion, the largest ever ISDS compensation was awarded under this treaty to shareholders of the former energy giant Yukos, who claimed that Russia's actions led to the company's bankruptcy. 11 More recently, several claims have been brought under the ECT in response to renewable energy policies of European governments, including fossil fuel phaseouts, gas regulations or green energy subsidies



(Beattie, 2020; Politico, 2020). The EU recently signalled it might withdraw from the ECT, if it does not reform (European Commission, 2020).

Geopolitical dimension

A prominent complaint about the IIA network is its geopolitical asymmetry. BIT negotiations traditionally followed a north-south pattern, as advanced capital-exporting economies sought to protect their investments in emerging markets. The

⁸ The former EU trade commissioner Cecilia Malmström once recalled that during her confirmation hearing in 2014, the first Google hit for ISDS was the International Sheep Dog Society (Beattie, 2019). Not long after, she observed that ISDS had become "the most toxic acronym in Europe" (Politico, 2015).

⁹ Almost by definition, this effect is unobservable and as such near-impossible to measure. Although the US never lost any ISDS case, the US Trade Representative Robert Lighthizer used this argument in 2018 in support of removing ISDS from the revised NAFTA: "[W]e've had situations where real regulation which should be in place which is bipartisan, in everybody's interest, has not been put in place because of fears of ISDS." (US Congress hearing, 2018).

¹⁰ Parallel lawsuits over Germany's nuclear phase-out were decided in German courts. In November 2020, the federal constitutional court ruled in favour of Vattenfall, ordering the German government to rework its compensation system (DW, 2020).

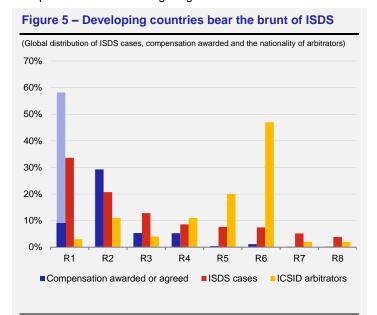
¹¹ The money has not yet been paid, pending an ongoing appeal before the Dutch Supreme Court.

agreement was typically drafted by the developed country and offered to the developing country for signature (Vandevelde, 2009). After the end of the Cold War, this was supplemented by treaties with former communist countries and, more recently, between developing countries. Advanced economies, meanwhile, often have no BIT relations with each other (Schreuer, 2011). Although formally both parties assume the same obligations, BITs have been perceived as nonreciprocal because in practice, the obligations fall almost entirely on the developing country (Vandevelde, 2009).

The data lend some support to this grievance. Figure 5 shows the regional distribution of arbitral awards and ISDS cases. The bulk of all ISDS disputes (55%) and investor compensation awarded (87%) falls on countries in Eastern Europe, Central Asia and South America. Meanwhile, only 15% of disputes have been brought against countries in North America

and Western Europe, representing less than 2% of known arbitral awards to date. At the same time, two thirds of the arbitrators that decide ISDS disputes come from North America or Western Europe.

However, this apparent bias against developing countries can at least partially be explained by their comparatively weaker protection of property rights - the raison d'etre of most BITs. Figure 6 plots the number of ISDS cases faced by a country against the country's property rights score in the WEF Global Competitiveness Index. 12 The size of the bubbles indicates the total amount claimed by investors in the disputes against the country. Intuitively, we would expect that as one moves to the left in the graph (towards weaker property rights), the number of ISDS cases is higher and bubbles larger. This pattern is indeed visible in Figure 7.13 The relationship is even clearer in Figure 7, which uses awarded rather than claimed compensation amounts to scale the bubbles, suggesting that countries with stronger property rights are also more successful when defending themselves in ISDS cases. Behn et al (2018), however, find that developed countries are more likely to win ISDS disputes even when controlling for various democratic governance indicators.



Note: 1061known treaty-based ISDS cases. R1 = Eastern Europe & Central Asia, R2 = South America, R3 = Middle East & North Africa, R4 = South & East Asia & the Pacific, R5 = North America (Canada, Mexico & U.S.), R6 = Western Europe, R7 = Sub-Saharan Africa, R8 = Central America & the Carribean. The dispute Yukos shareholders v. Russia is shown in a light blue fill to separate its influence on the total.

Source: Author's analysis of UNCTAD ISDS Navigator and ICSID Caseload statistics



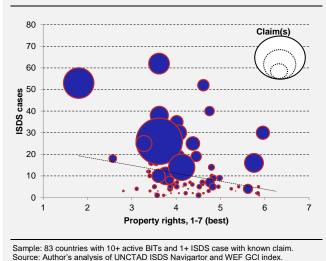
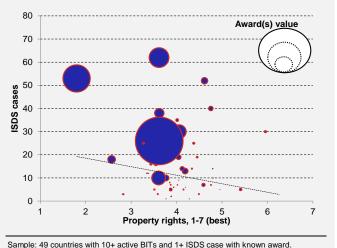


Figure 7 - ...and tend to pay less in compensation to investors as a result of these disputes.



12 Only countries with at least 10 active BITs are included, to eliminate countries that do not face arbitration disputes simply because there is no legal basis for the ISDS mechanism.

¹³ Freeman (2013) and Dupont, Schultz and Angin (2016) find a similar relationship between the number of ISDS claims and the country's institutional capacity and governance quality.

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Fiscal cost

Unlike most other concerns associated with IIAs, the fiscal price paid by states to compensate investors is readily quantifiable. Of the 707 ISDS cases in UNCTAD database that concluded before the end of 2020, the tribunal decided in favour of the state in 38% instances. The investor was successful in 29% cases, while a further 20% ended in a settlement. This means that investors were able to obtain some form of compensation in about half of the concluded disputes. The total nominal amount awarded by tribunals or agreed in settlements stands at just over \$100 billion, excluding interest. However, the final amount was not disclosed in more than a third of the known cases, especially among those that ended in a settlement. The final value is therefore likely to be considerably higher.

In most cases, the damages awarded to investors are only a fraction of the claimed amount. Figure 8 splits all known treaty-based ISDS cases by outcome. The vertical position of each bubble depicts the frequency of each outcome, while the size of the bubble shows the total amount claimed by investors. Across the two outcomes where the investor receives compensation – either award by tribunal or a settlement – the value is on average lower than a third of the claimed amount. Figure 9 shows the high variability of this fraction, with each dot representing one dispute. While some investors received the full amount they requested (or even more in rare cases), others were left with less than one percent. The majority of successful claimants receive between half and one tenth of the claimed amount.

Most of the total compensation awards are borne by a small number of states. The five countries that were ordered to pay the most by arbitral tribunals – Russia, Venezuela, Argentina, Poland and Pakistan – together account for 85% of the total known awards and settlements. While most countries in the world are party to at least one IIA, only 60 ever had to pay some compensation in known ISDS cases. At \$586 million (excluding interest), the Czech Republic is the 15th most affected country. The largest claim against the Czech Republic was won by the Dutch media company CME in 2003; at \$353 million (including interest), it was comparable to the country's annual higher education budget (MFČR, 2004).

Figure 8 – Investors won or reached a settlement in about half of the concluded ISDS cases...

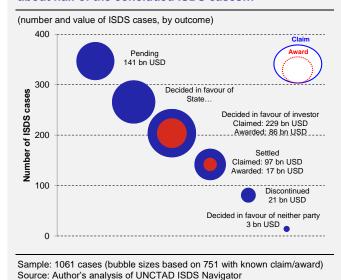
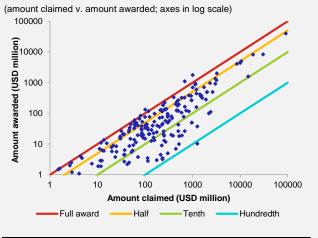


Figure 9 – ...but they usually receive less than they claimed even if the case is decided in their favour



Sample: 211 cases settled or decided in favour of investor. Source: Author's analysis of UNCTAD ISDS Navigator

Reform efforts

The backlash to IIAs has led to attempts to reform the system, with a mixed record of success. First, the content of IIAs evolves. Already in 2007, UNCTAD noted that the experience with investor-state disputes had influenced the development of "next generation" IIAs. Observing how the previous IIAs were interpreted by arbitral tribunals, states were careful to provide in their new treaties a narrower definition of "investment" or more circumscribed standards of investor protection (UNCTAD, 2007). In addition, transparency provisions were enhanced and new clauses added that clarified the state's right to pursue key public policy objectives (ibid.). More recent treaties also include a sustainable development orientation, emphasis on preservation of regulatory space and restrictions to or omissions of ISDS (UNCTAD, 2018).¹⁵

Most existing IIAs, however, still belong to the "old generation". While the recently concluded IIAs address many of the concerns with the old treaties, the progress in modernising the existing stock is slow. Aside from administrative obstacles

¹⁴ Moreover, some settlements may occur even before any formal arbitration claim is filed. However, note that a settlement does not necessarily result in monetary compensation. For example, a settlement might take the form of continutiation of a disputed concession rather than any payout by the state.

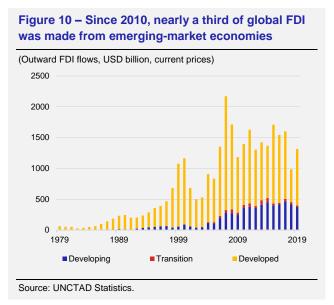
¹⁵ For its part, Ecuador also decided to cautiously initiate new BIT negotiations after the country's wholesale rejection of the agreements in 2017. Ecuador's new model BIT, however, significantly curtails the rights granted to foreign investors (Jaramillo, 2018).

and capacity constraints, an important hindrance has been the opposition of the treaty partner (UNCTAD, 2018). The unwillingness of capital-exporting countries to rewrite the rules that are favourable to them is understandable. However, as the backlash continues to gather momentum, a reform may be the only way to prevent a widespread breakdown of the IIA network.

Another trend is a relative shift of focus in IIAs from investor protection to market access. The old-generation BITs tend to be concise documents that provide broad rights to use ISDS and none or minimal commitments by the signatories to open up their markets to foreign investors. By contrast, many modern IIAs restrict or omit ISDS, while providing detailed measures for easing mutual market access. For example, the 2019 EU–Viet Nam trade and investment agreement replaces the 21 BITs EU member states have with Viet Nam. The new treaty safeguards the right to regulate and substitutes ISDS with a more transparent permanent investment court. Meanwhile, unlike the BITs, the new treaty removes barriers to investment by facilitating mutual access to goods and services markets, liberalising access to public procurement or establishing rules on state subsidies and non-discrimination. A similar shift in focus can be identified with the EU's other recent investment agreements. The US and Canada have been including liberalisation clauses and restricting ISDS in their BITs for even longer (Lavranos, 2013).

A key catalyst for the changing nature of investment treaties has been the blurring of traditional divisions between capital exporters and importers. As Figure 10 shows, outward FDI is no longer the domain of developed countries. The emerging economies' share of global outward FDI quickly rose from 10% in 2003 to 34% a decade later. This is linked to an emergence of globally successful multinational corporates in many developing countries. The disappearance of traditional FDI patterns has put pressure on outdated investment treaties. For example, after the US became a major recipient of FDI, the country revised its model BIT to soften investor protection (Schreuer, 2011). The new economic reality feeds the impulse to re-imagine IIAs as a vehicle of economic integration while weakening the rights to remedy granted to foreign investors that are not enjoyed by domestic companies (Vandevelde, 2009).

Despite the gradual convergence in interests, a multilateral agreement that integrates the vast IIA network has been elusive. The most notable attempt to negotiate a Multilateral Agreement on Investment (MAI) by OECD countries in the 1990s could not find consensus even among countries that tended to use similar provisions in their model BITs (Vandevelde, 2009). The existing multilateral provisions are therefore limited to a small number of WTO rules that have implications for investment as well as trade.¹⁶ Nevertheless, negotiations are currently underway on a multilateral reform of ISDS. Within a UNCITRAL platform known as Working Group III, more than 130 countries participate in discussing alternatives, including a standing multilateral investment court (MIC) with permanent judges to replace the arbitral tribunals.17 The EU is the most vocal advocate of this option, having implemented a similar mechanism in some of its recent treaties.¹⁸



What next?

The "adapt or perish" pressure on early IIAs is likely to intensify. The recent backlash shows that the benefits may have been overestimated and costs underestimated when countries signed IIAs. The interpretations of IIAs by ISDS tribunals exposed the uncomfortable trade-offs states can confront between regulatory constrains and fiscal costs of compensations. The old-generation IIAs may simply be perceived as too costly for the modest FDI gains they deliver. The new generation of IIAs reduces the rights granted to foreign investors, rebalancing some power back to nation states. This development is most significant in emerging markets that have so far been most affected by the investor protection clauses in the early IIAs. However, with the distinction between capital-exporters and capital-importers disappearing in a globalised world, even developed countries are unlikely to resist the modernisation of IIAs and their shifting focus from investor protection to market access. If outdated IIAs stand in the way of regulatory action in politically sensitive areas, such as the environment or labour rights, it is the IIAs rather than the regulations that are likely to be abandoned.

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¹⁶ For example, exporting services sometimes involves establishing of an office or subsidiary in the territory of the target country. Such investment may then fall under the General Agreement on Trade in Services (GATS). Similarly, the Agreement on Trade Related Investment Measures or the Agreement on Trade-Related Intellectual Property Rights may also establish WTO jurisdiction over some narrowly specified investments (Vandevelde, 2009).

¹⁷ The talks address also other concerns with ISDS, including appellate mechanisms, third-party funding, procedures for arbitrator selection or a code of conduct for arbitrators and judges. The last round of negotiations took place in October 2020.

¹⁸ For example, the EU's trade and investment agreement with Canada (2016), Singapore (2018) or Vietnam (2019).

In the revamped IIAs, ISDS will not survive unless the fairness and transparency concerns are addressed. Many recent IIAs already significantly reduced the scope of ISDS or omitted it entirely. The EU designed an alternative that avoids some of the criticisms by more closely resembling national courts. Although ISDS is not currently a major topic in the public sphere, if more disputes like *Philip Morris v. Australia* emerge – that pit popular policy initiatives against corporate interests – public anger towards secretive tribunals of private arbitrators may resurface with vigour. The recent rush of ISDS claims associated with the green transition in the EU is one potential igniter.

Finally, meaningful progress towards multilateral investment governance – whether through WTO, UNCTAD, UNCITRAL or a new "World Investment Organisation" – will continue to be slow, despite the benefits over a fragmented regime. At present, the chances of integrating at least the ISDS system look most promising, but not all countries are as enthusiastic about a multilateral investment court as the EU. The recent replacements of many BITs by comprehensive bilateral and regional agreements that liberalise trade and investment hint at the most probable near to medium-term trend in international investment policy.

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Keywords

JEL classification

A1. Change in predictions for 2021

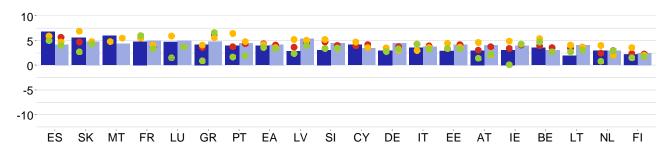
	GDP (rowth, %							Inflati	on, %						
		CF		IMF	(DECD	C	B / EIU		CF		IMF		DECD	C	B / EIU
EA	0	2021/2 2021/1	-1.0	2021/1 2020/10	-1.5	2020/12 2020/9	-1.1	2020/12 2020/9	+0.3	2021/2 2021/1	-0.1	2020/10 2020/4	+0.2	2020/12 2020/6	0	2020/12 2020/9
US	+0.3	2021/2 2021/1	+2.0	2021/1 2020/10	-0.8	2020/12 2020/9	+0.2	2020/12 2020/9	+0.2	2021/2 2021/1	+0.6	2020/10 2020/4	+0.4	2020/12 2020/6	+0.1	2020/12 2020/9
UK	-0.1	2021/2 2021/1	-1.4	2021/1 2020/10	-3.4	2020/12 2020/9	-2.3	2021/2 2020/11	0	2021/2 2021/1	-0.3	2020/10 2020/4	+0.1	2020/12 2020/6	0	2021/2 2020/11
JP	-0.1	2021/2 2021/1	+0.8	2021/1 2020/10	+0.8	2020/12 2020/9	+0.3	2021/1 2020/10	-0.1	2021/2 2021/1	-0.1	2020/10 2020/4	+0.3	2020/12 2020/6	+0.1	2021/1 2020/10
CN	+0.1	2021/2 2021/1	-0.1	2021/1 2020/10	0	2020/12 2020/9	0	2021/1 2021/1	0	2021/2 2021/1	+0.1	2020/10 2020/4	+0.4	2020/12 2020/6	0	2021/1 2021/1
RU	-0.2	2021/1 2021/1	+0.2	2021/1 2020/10	-2.2	2020/12 2020/9	0	2021/1 2020/12	+0.1	2021/1 2021/1	+0.2	2020/10 2020/4	+0.1	2020/12 2020/6	+0.1	2021/1 2020/12

A2. Change in predictions for 2022

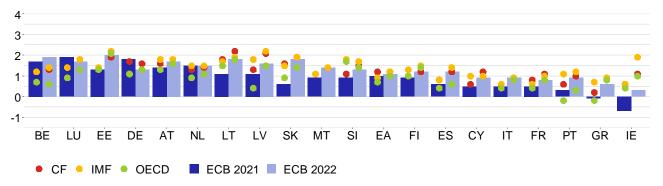
	GDP growth, %				Inflation, %			
	CF	IMF	OECD	CB / EIU	CF	IMF	OECD	CB / EIU
EA	+0.1 2021/2 2021/1	+0.5 2021/1 2020/10	2020/12	+1.0 2020/12 2020/9	-0.1 2021/2 2021/1	2020/10	2020/12	-0.2 2020/12 2020/9
US	+0.2 2021/2 2021/1	-0.4 2021/1 2020/10	2020/12	+0.2 2020/12 2020/9	0 2021/2 2021/1	2020/10	2020/12	+0.1 2020/12 2020/9
UK	-0.2 2021/2 2021/1	+1.8 2021/1 2020/10	2020/12	+1.0 2021/2 2020/11	0 2021/2 2021/1	2020/10	2020/12	+0.3 2021/2 2020/11
JP	+0.1 2021/2 2021/1	+0.7 2021/1 2020/10	2020/12	+0.2 2021/1 2020/10	-0.1 2021/2 2021/1	2020/10	2020/12	o 2021/1 2020/10
CN	+0.1 2021/2 2021/1	-0.2 2021/1 2020/10	2020/12	0 2021/1 2021/1	0 2021/2 2021/1	2020/10	2020/12	o 2021/1 2021/1
RU	+0.3 2021/1 2021/1	+1.6 2021/1 2020/10	2020/12	0 2021/1 2020/12	+0.1 2021/1 2021/1	2020/10	2020/12	+0.2 2021/1 2020/12

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

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



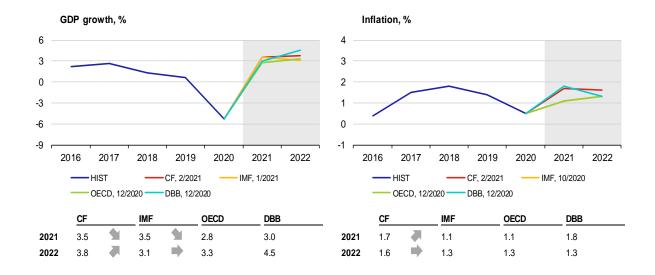
Inflation in the euro area countries in 2021 and 2022, %



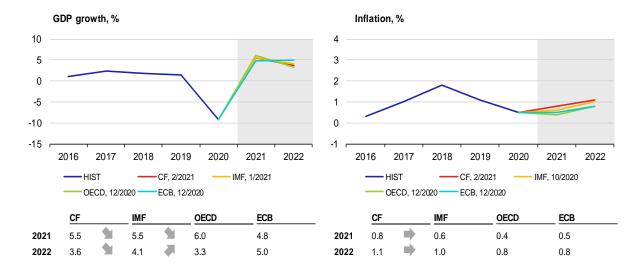
Note: Charts show institutions' latest available outlooks of for the given country.

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

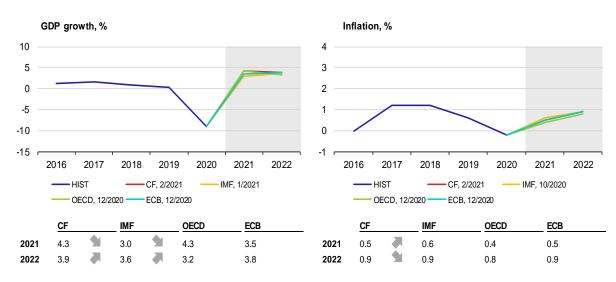
Germany



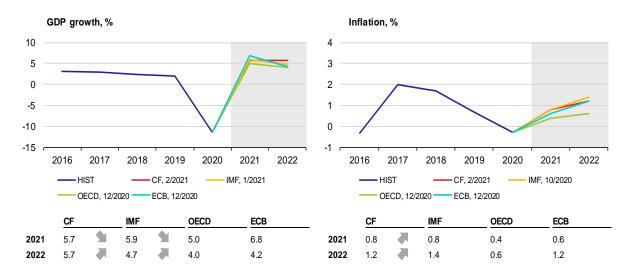
France



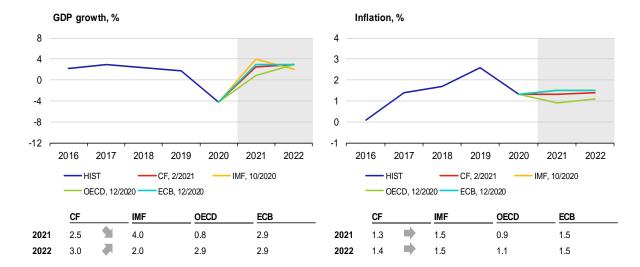
Italy



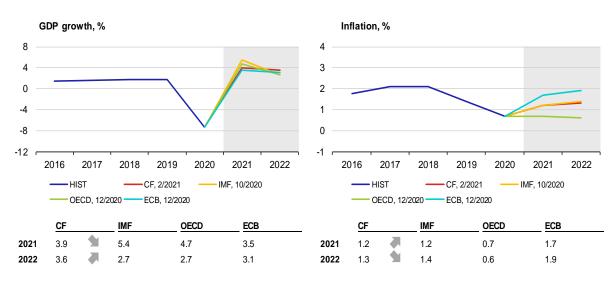
Spain



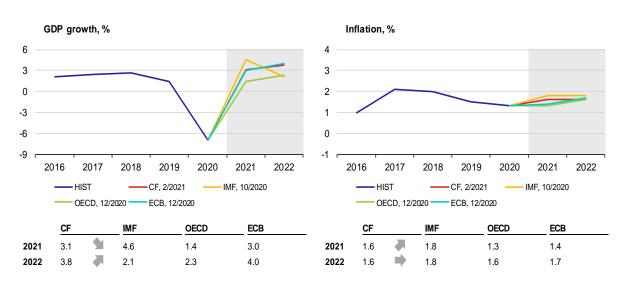
Netherlands



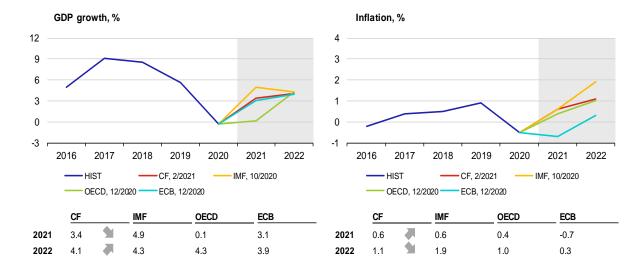
Belgium



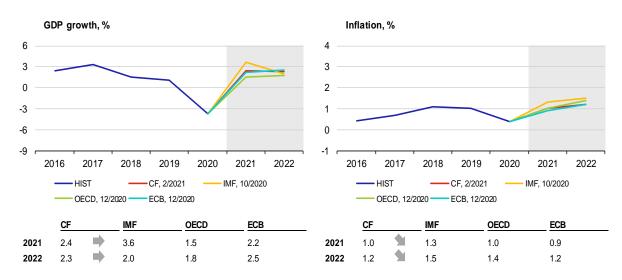
Austria



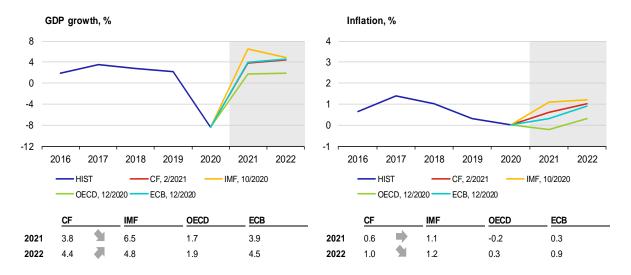
Ireland



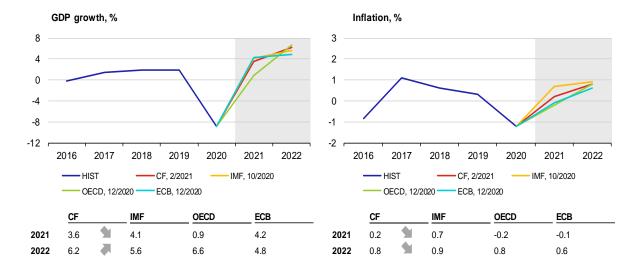
Finland



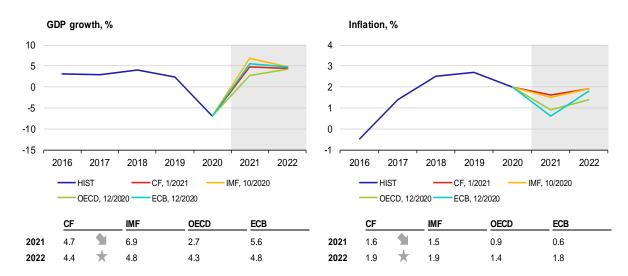
Portugal



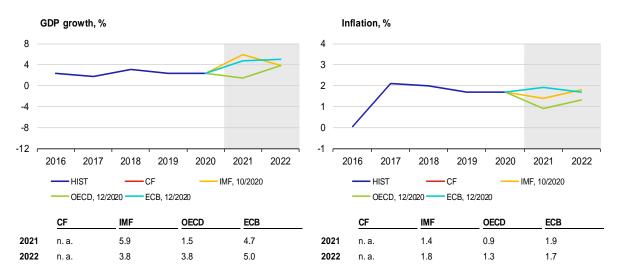
Greece



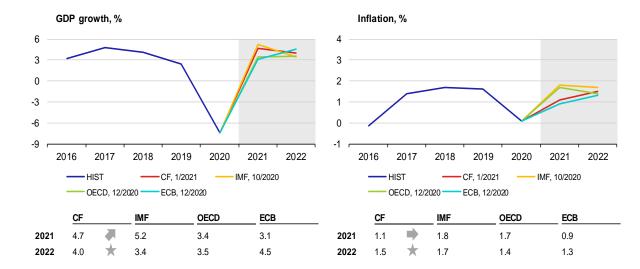
Slovakia



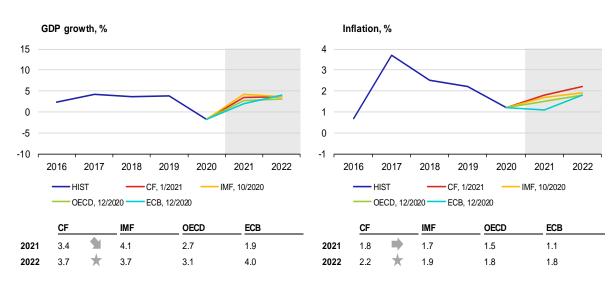
Luxembourg



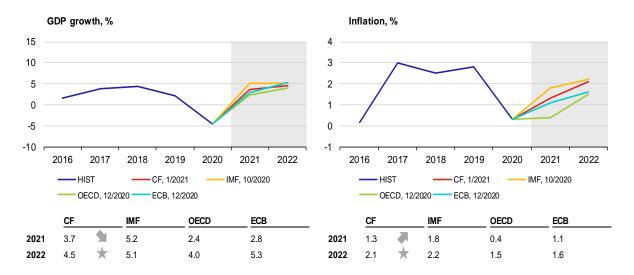
Slovenia



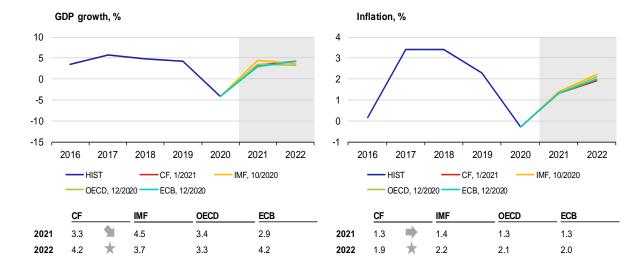
Lithuania



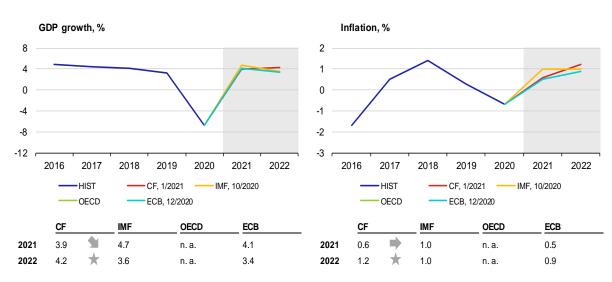
Latvia



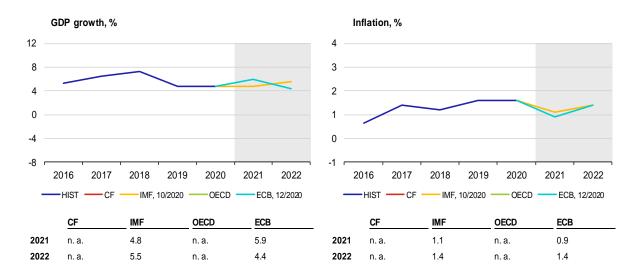
Estonia



Cyprus



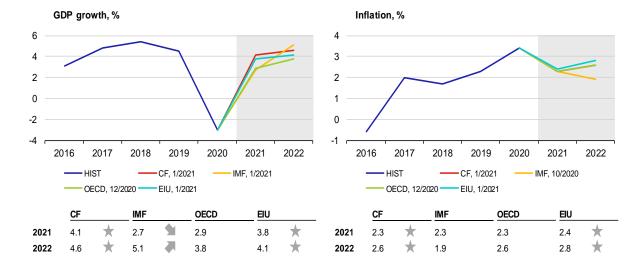
Malta



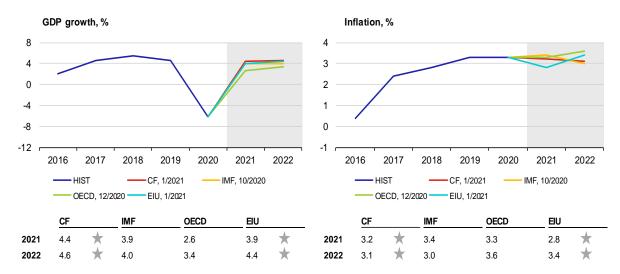
Ddd

A5. GDP growth and inflation in other selected countries

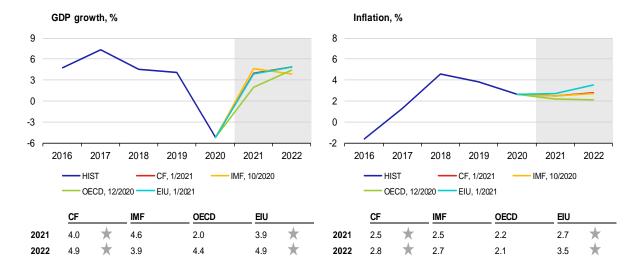
Poland



Hungary



Romania



A6. Central banks unconventional monetary policy measures

	Quantitative easing (QE)	Yield curve control/targetting (YCC/YCT)	Funding for lending (FfL)	Negative interest rate	Exchange rate commitment
ECB (Euro area)	Under the Asset Purchase Programme (APP, ongoing since 2015), the Eurosystem purchases (mainly) sovereign and corporate bonds to ease financial conditions at the ZLB. In Jan 2021, the total APP holdings stood at €2.9tn. In response to COVID-19, the Pandemic Emergency Purchase Programme (PEPP, ongoing since 2020) flexibly expands QE with additional purchases of up to €1.9tn, with broader asset eligibility.	Bank of Spain Governor Pablo Hernandez de Cos said in Jan 2021 that YCC is "an option worth exploring". However, the option has not been discussed by the Governing Council and there is no indication that it is being actively considered.	accommodative monetary policy and strengthen its transmission by linking long-term cheap funding for banks to their loans to the real economy (except mortgages).	until it reached -0.5% in Sep	There is no indication that the ECB is considering any exchange rate commitment.
Fed (USA)	In 2008–2014, the Fed conducted three rounds of QE to ease monetary policy, purchasing US Treasuries and mortgage-backed securities (MBS). In Oct 2017, it started reducing its more than \$4th holdings to normalise its balance sheet. QE was relaunched in response to COVID-19 with no limit on Treasury bonds and MBS, along with purchases of new and existing corporate bonds for the first time (PMCCF, SMCCF), increasing the Fed's security holdings from \$3.9th to \$6.8th (as of the end of Jan 2021).	YCC is being actively considered by the Fed, according to public statements made by FOMC members in 2020. Some suggested that YCC can strengthen the Fed's forward guidance but the minutes of the Jun 2020 FOMC meeting indicate that YCC is unlikely to be adopted if forward guidance remains credible on its own.	In response to COVID-19, (i) under the Main Street Lending Program, the Fed committed to purchase up to \$600bn of eligible new loans to SMEs (with less than 10,000 employees), but the take-up was only \$16.5bn; (ii) under the Term Asset-Backed Securities Loan Facility (TALF), the Fed was ready to provide credit (of up to \$100bn) to holders of securities backed by new consumer and small business loans; the take-up was \$3.6bn; (iii) the Paycheck Protection Program Liquidity Facility (PPPLF) provides Fed funding to eligible financial institutions that originate PPP loans to small businesses, taking the loans as collateral. At the end of 2020, the advances totalled \$50.4bn.	The Fed is not considering negative interest rates, according to remarks made by Fed Chair Jerome Powell in May 2020.	There is no indication that the Fed is considering any exchange rate commitment.
BoE (United Kingdom)	The first QE programme was introduced in Nov 2009 after the BoE reached the ZLB in the financial crisis. New rounds were launched in response to Brexit and COVID-19, totalling £875bn (\$1,210bn) of UK government bonds (APF) and, since Mar 2020, also £20bn (\$28bn) of non-financial corporate bonds (CCFF) as additional help against COVID-19.	YCC is in the BoE's toolkit for the future, but the bank sees no need to use it now, according to Nov 2020 remarks made by Governor Andrew Bailey.	The Funding for Lending Scheme (FLS, 2012–2018) provided £70bn (\$97bn) of BoE financing to banks on terms that incentivised lending to the real economy. In 2014, FLS was modified to exclude mortgages and to focus on lending to SMEs. Responding to COVID-19, the Term Funding Scheme with additional incentives for SMEs (TFSME, 2020–2021) provides banks (from Mar 2020) with BoE funding at (or near) the policy rate, with the amounts linked to their stock of lending to the real economy. In Dec 2020 the BoE announced a sixmonth extension of the scheme, which will cover both the drawdown period and the reference period.	Negative interest rates are in the BoE's toolkit, but the UK is not yet ready to implement them, according to Governor Andrew Bailey (Oct 2020). In Feb 2021 Bailey called on British financial firms to prepare for negative interest rates, but stressed that this is not a signal that the instrument will be adopted.	There is no indication that the BoE is considering any exchange rate commitment.

	Quantitative easing (QE)	Yield curve control/targetting (YCC/YCT)	Funding for lending (FfL)	Negative interest rate	Exchange rate commitment
SNB (Switzerland)	In 2009, alongside purchasing foreign assets to weaken the exchange rate, the SNB announced the purchase of CHF bonds issued by Swiss private sector borrowers (without any quantitative target). The programme was relatively small and short-lived.	There is no indication that the SNB is considering YCC.	There is no indication that the SNB is considering an FfL programme.	To cushion the impact of abandoning the exchange rate commitment, the SNB introduced negative rates in Jan 2015 and has kept them unchanged since then. The target range for the CHF Libor was set at -0.25% to -1.25%, and the deposit rate at -0.75%. The share of excess deposits subject to the negative rate has since been reduced to strengthen the banking system, most recently in Mar 2020 in response to COVID-19.	To combat deflationary pressures associated with an overvalued CHF, the SNB committed in 2011–2015 to unlimited FX purchases to keep a minimum exchange rate of CHF 1.2 per EUR. Since 2008, the SNB has frequently intervened in FX markets on a large scale even without an explicit target, most recently in 2020 in response to "safe haven" appreciation pressures due to COVID-19.
RBA (Australia)	In Nov 2020, the RBA launched its first QE, purchasing 5- to 10-year government bonds worth A\$100bn (\$77bn) by mid-2021, with an additional A\$100bn follow-up programme announced in Feb 2021. The QE is taking place alongside unlimited purchases of 3-year bonds in YCC. When announcing the further easing, the Governor stressed high unemployment as a key consideration.	In response to COVID-19, the RBA committed in Mar 2020 to buy unlimited quantities of government bonds to hold down the 3-year yield at 0.25% and, since Nov 2020, at 0.1%.	Since Mar 2020, the Term Funding Facility (TFF) has been providing low-cost 3-year funding for banks, linking the available amounts to banks' lending to businesses, especially SMEs. The facility was expanded in Sep 2020 and the interest rate further cut in Nov 2020. By Feb 2021, A\$86bn (\$66.5bn) had been drawn by banks.	According to Governor Philip Lowe, the RBA Board continues to view negative rates as "extraordinarily unlikely" (Nov 2020).	FX intervention to ease monetary conditions was listed as a policy option (without endorsement) in a Sep 2020 speech by board member Guy Debelle.
RBNZ (New Zealand)	In Mar 2020, the RBNZ launched its Large-Scale Asset Purchase Programme (LSAP) , under which it plans to buy government bonds until June 2022. The agreed ceiling was gradually raised, climbing to NZ\$100bn (\$72bn) in Aug 2020.	There is no indication that the RBNZ is considering YCC.	In Apr 2020, the RBNZ announced a Term Lending Facility (TLF), a longer-term bank funding scheme designed to support the government's Business Finance Guarantee Scheme (BFGS) until Feb 2021. In Nov 2020, the RBNZ added a funding for lending programme (FLP), under which commercial banks will be able to access 3-year funding at the policy rate (0.25%). The amount is linked to the banks' outstanding and new loans to households and businesses.	Negative interest rates are under consideration by the RBNZ, according to the summary of the latest (Nov 2020) monetary policy statement. Preparations to ensure operational readiness are under way.	FX purchases to ease monetary conditions are under consideration by the RBNZ, according to the summary of the latest (Nov 2020) monetary policy statement. To a limited extent, the RBNZ used FX interventions to weaken the currency in the early 2010s.
BoC (Canada)	In response to COVID-19, the BoC launched several long-term asset purchase programmes, covering government bonds (GBPP, at least C\$5bn (\$4bn) per week), sovereign provincial bonds (PBPP, up to C\$50bn) and corporate bonds (CBPP, up to C\$10bn). In Oct 2020, the GBPP was scaled down to C\$4bn per week.	YCC is not explicitly mentioned in the BoC's toolkit, but BoC Governor Tiff Macklem said in July 2020 that yield curve control had been discussed by the board.	Funding for lending is in the BoC's toolkit.	Negative interest rates are in the BoC's toolkit, but the policy is not being actively discussed at the moment, according to BoC Governor Tiff Macklem (Oct 2020).	Exchange rate commitments are not in the BoC's toolkit and there is no indication that the board members are considering the instrument.
BoJ (Japan)	The BoJ pioneered QE in 2001–2006. In 2010, QE resumed in a "comprehensive easing policy" that included both sovereign bond purchases (to depress long-term rates) and corporate bonds, ETFs and real estate funds (to compress risk premia). In 2013, the "QQE policy" substantially expanded the purchases. In response to COVID-19, the BoJ lifted its quantitative target for government bonds in Apr 2020 and significantly extended the targets for corporate bonds, commercial paper and ETFs.	Since Sep 2016, the BoJ has been purchasing domestic government bonds to keep 10-year yields around zero. A soft target for the volume of annual purchases, at ¥80tn (\$740bn), was abandoned in Apr 2020 in response to COVID-19.	Responding to COVID-19, the BoJ set up a special FfL facility (SFSOFF) in Mar 2020 that provides zero interest loans to banks against corporate and household debt as collateral.	Since Jan 2016, the BoJ as been applying an interest rate of -0.1% on a small portion of excess reserves held at the central bank (approx. 5%). The tiered system was introduced to protect the profitability of financial institutions while keeping the benchmark short-term interbank rate below zero. The share of reserves that are charged at a negative rate has been reduced over time.	There is no indication that the BoJ is considering any exchange rate commitment.

	Quantitative easing (QE)	Yield curve control/targetting (YCC/YCT)	Funding for lending (FfL)	Negative interest rate	Exchange rate commitment
NB (Norway)	The NB is not considering QE , according to a speech made by NB Governor Øystein Olsen in Oct 2020. The reasons are that Norway's government bond market is much thinner than in other countries, and the share of fixed-rate loans is relatively low. The NB's analysis suggests that the costs of such an instrument could outweigh the benefits.	There is no indication that the NB is considering yield curve control.	There is no indication that the NB is considering funding for lending.	The NB would be willing to contemplate negative interest rates if financial markets are hit by a renewed wave of turmoil, but according to a speech made by NB Governor Øystein Olsen in Oct 2020 negative interest rates are not the best tool for supporting Norway's economy. The reason is that in a situation with a very low interest rate, it would be natural for fiscal policy to take a more active role.	According to speech made by NB Governor Øystein Olsen in Oct 2019, foreign exchange market intervention is not applicable in a normal situation. However, the NB made interventions in the foreign exchange markets to prevent excessive volatility of the domestic currency in Mar
Riksbank (Sweden)	Since Feb 2015, the Riksbank has been easing monetary policy by purchasing government bonds. To mitigate the effects of COVID-19, the Riksbank also intends to purchase government, mortgage, municipal and corporate bonds in an amount of up to Kr500bn (\$60.2bn) up to Jun 2021. The purchases are aimed at keeping interest rates in general at a low level and contributing to an efficient supply of credit. In Nov 2020 the Riksbank announced a six-month extension (until Dec 2021), broader asset eligibility, and a boost to QE of Kr200bn (\$24.1bn).	There is no indication that the Riksbank is considering YCC.	In response to COVID-19, the Riksbank launched a corporate loan programme offering banks loans of up to Kr500bn (\$60.2bn) against collateral to stimulate banks' onward lending to non-financial companies operating in Sweden.	Riksbank announced in Sep 2020	There is no indication that the Riksbank is considering any exchange rate commitment.
MNB (Hungary)	The MNB joined QE in Jan 2018 by buying mortgage-backed securities with the aim to boost growth, which was lagging behind other CEE economies. In Jul 2019, it launched a Bond Funding for Growth Scheme (BGS) of Ft450bn (\$1.5bn) with the aim of beefing up Hungary's relatively small corporate bond market. In response to COVID-19, QE was expanded in May 2020 to include government and mortgage bond purchases to restore the liquidity of the market and to relaunch the mortgage bond purchase programme to improve the long-term supply of funding to the banking sector. The total purchases reached Ft1.1tn (\$3.7bn) on Jan 2021, but the MNB did not set a total amount of purchases for either programme.	There is no indication that the MNB is considering YCC.	The Funding for Growth Scheme (FGS, ongoing since 2013) aims to reverse the decline of the SME loan market, promote growth and strengthen financial stability. In response to COVID-19, the MNB decided to launch a new FGS Go! Programme in Apr 2020 to provide further credit support to SMEs, increasing the total amount of funds available by F11tn (\$3.4bn) to a total of Ft1.5tn (\$5bn). By the end of 2020, loans or leasing contracts had been concluded with more than 21,000 enterprises.	There is no indication that the MNB is considering negative interest rates.	

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	Quantitative easing (QE)	Yield curve control/targetting (YCC/YCT)	Funding for lending (FfL)	Negative interest rate	Exchange rate commitment
,	In Mar 2020, the NBP introduced its first QE asset purchase programme after the outbreak of COVID-19. The NBP decided to start purchasing government securities and government-guaranteed debt securities on the secondary market as part of its structural open market operations. As of Jun 2020, the NBP had bought bonds worth about ZI94bn (\$25.4bn). On Jan 2021, the NBP stated that the timing and scale of QE will depend on market conditions.	There is no indication that the NBP is considering YCC.	Responding to COVID-19, a Bill Discount Credit programme was launched in Mar 2020 in an effort to refinance loans granted to businesses by banks. The NBP will repurchase (discount) bills of exchange, which banks will obtain as collateral for loans provided to non-financial corporations, and thus de facto refinance these loans to banks. On the basis of the situation in the corporate credit market and the demand for bill discount credit, the NBP will take decisions regarding the duration and amounts of bill discount credit offered.	NBP is considering negative	
Bol (Israel)	The Bol conducted QE between Mar and Aug 2009 to soften the contractionary impact of the global crisis on domestic demand. Responding to the COVID-19 pandemic, the Bol relaunched government bond purchases in the secondary market of up to \$14.8bn in Mar 2020 to ease credit conditions and support activity. The Bol increased the QE programme by \$10.4bn on Oct 2020, citing the growing effects of the COVID-19 pandemic on the economy.	There is no indication that the Bol is considering YCC.	In response to COVID-19, the Bol launched a programme of targeted lending operations in Apr 2020 . The Bol is offering 3-year fixed-rate loans to banks at 0.1% interest to increase the supply of bank credit to SMEs. The plan was renewed in Jul 2020 without any limit on the total amount of loans. A new programme was also launched in Oct 2020 to extend credit to banks at -0.1% against eligible loans to SMEs. Eligibility requires that the interest on the SME loans does not exceed 1.3%. In Dec 2020, Governor Amir Yaron also revealed that the Bol will enable lenders from outside the banking system as well to receive credit at very convenient terms, with the aim to provide inexpensive credit to SMEs.	The Bol has in the past signalled a willingness to consider negative rates if warranted by the economic outlook. Despite the COVID-19 pandemic, the Bol expressed (in Nov 2020) its reluctance to lower the key rate from an all-time low into negative territory, preferring instead to use measures such as buying currency and government and corporate bonds. Bol Governor Amir Yaron noted in a speech in Jan 2021 that there may be a need to reduce the interest rate during the coming year.	To reinforce the stability and resilience of the financial system and the economy, the Bol in Mar 2008 implemented a plan to increase foreign exchange reserves through interventions in the FX market. In Aug 2009, it discontinued its programme of daily purchases of \$100m, which had increased its FX reserves to \$56.4bn. FX purchases resumed in 2020 should combat the appreciation pressures on the shekel due to the COVID-19 crisis. As a result, the FX reserves reached a new record high of \$173.3bn in Dec 2020. In Jan 2021, the Bol announced the size of its FX interventions in advance for the first time. It said it would purchase \$30bn in 2021 and would carry out FX interventions as long as they do not put the price stability objective at risk.

Legend

The instrument is used by the CB or was used in the past.

The instrument is being actively considered by the CB (based on e.g. statements of Board members).

The instrument is not being considered by the CB (it was ruled out by Board members or there is no evidence that it is being considered).

A7. List of abbreviations

A7. LIST 0	A7. LIST OF ADDIEVIATIONS							
AT	Austria	IE	Ireland					
bbl	barrel	IEA	International Energy Agency					
BE	Belgium	IFO	Leibniz Institute for Economic Research at					
BoE	Bank of England (the UK central bank)		the University of Munich					
BoJ	Bank of Japan (the central bank of Japan)	IMF	International Monetary Fund					
bp	basis point (one hundredth of a percentage	IRS	Interest Rate swap					
	point)	ISM	Institute for Supply Management					
СВ	central bank	IT	Italy					
CBR	Central Bank of Russia	JP	Japan					
CF	Consensus Forecasts	JPY	Japanese yen					
CN	China	LIBOR	London Interbank Offered Rate					
CNB	Czech National Bank	LME	London Metal Exchange					
CNY	Chinese renminbi	LT	Lithuania					
ConfB	Conference Board Consumer Confidence Index	LU	Luxembourg					
CVN		LV	Latvia					
CXN	Caixin	MKT	Markit					
CY	Cyprus Particle Boundard and (the control bould of	MT	Malta					
DBB	Deutsche Bundesbank (the central bank of Germany)	NIESR	National Institute of Economic and Social Research (UK)					
DE	Germany	NKI	Nikkei					
EA	euro area	NL	Netherlands					
ECB	European Central Bank	OECD	Organisation for Economic					
EE	Estonia		Co-operation and Development					
EIA	Energy Information Administration	OECD-CLI	OECD Composite Leading Indicator					
EIU	Economist Intelligence Unit	OPEC+	member countries of OPEC oil cartel and 1					
ES	Spain		other oil-exporting countries (the most important of which are Russia, Mexico and					
ESI	Economic Sentiment Indicator of the		Kazakhstan)					
- 11	European Commission	PMI	Purchasing Managers' Index					
EU	European Union	рр	percentage point					
EUR	euro	PT	Portugal					
EURIBOR	Euro Interbank Offered Rate	QE	quantitative easing					
Fed	Federal Reserve System (the US central bank)	RU	Russia					
FI	Finland	RUB	Russian rouble					
FOMC	Federal Open Market Committee	SI	Slovenia					
FR	France	SK	Slovakia					
FRA	forward rate agreement	UK	United Kingdom					
FY	fiscal year	UoM	University of Michigan Consumer Sentiment Index - present situation					
GBP	pound sterling	US	United States					
GDP	gross domestic product	USD	US dollar					
GR	Greece	USDA	United States Department of Agriculture					
ICE	Intercontinental Exchange	WEO	World Economic Outlook					
		****	VVOIIG ECONOMIC OULIOUR					

WTI West Texas Intermediate (crude oil used as a benchmark in oil pricing)

ZEW

Centre for European Economic Research

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