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Global Economic Effects of COVID-19: Overview

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SUMMARY

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James K. Jackson
Specialist in International Trade and Finance

Global Economic Effects of COVID-19: Overview

The effects of the Coronavirus Disease 2019 (COVID-19) pandemic on the global economy are wide-ranging and difficult to assess precisely. Estimates indicate the COVID-19 pandemic reduced global economic growth in 2020 to an annualized rate of around -3.2%, with a recovery of 4.2% to 6.0% projected for 2021 and a slightly slower rate projected for 2022. Global trade is estimated to have fallen by 5.3% in 2020, but was projected to have grown by 10.8% in 2021, followed by a projected growth rate of 4.7% in 2022. The length of the health crisis is affecting the global economy more than any typical economic recession; repercussions could belong-lasting and far-reaching. These effects are intensified by the interconnected nature of the global economy. Current economic forecasts reflect the risks to a sustained global recovery posed by geopolitical developments, potential changes in monetary policies by central banks, a resurgence of infectious COVID-19 cases, inflationary pressures associated with supply chain and labor market issues, and pent-up consumer demand. Meanwhile, supply shortages reflect lingering disruptions to labor markets, production and supply chain bottlenecks, and shipping and transportation constraints. In particular, disruptions in global energy markets, which raised Brent crude oil prices above $80 per barrel in early October 2021, added to uncertainties in global financial markets that inflationary pressures could mount.

In addition to concerns over the inflationary pressures arising from supply-side issues, central banks and national governments are weighing the impact and timing of tapering off monetary and fiscal support and the likely effect on the pace of recovery. These concerns are compounded by the emergence of new disease variants and rolling COVID-19 hotspots, which challenge national efforts to contain infections and fully restore economic activities. Major advanced economies are projected to operate below their potential output levels through at least 2024. Compared with the synchronized nature of the global economic slowdown in the first half of 2020, the global economy has shown signs of a two-track recovery that began in the third quarter of 2020 and has been marked by a relatively strong recovery in certain developed economies, where rates of vaccinations are high, and by a slower return to growth in numerous lower-income economies, where vaccination rates are low.

Globally, high-income economies have vaccinated growing shares of their populations, which prior to Russia's invasion of Ukraine, had improved the prospects of their sustained economic recovery in 2022. Analysts expected that could in turn spur a recovery in the broader global economy. However, Russia's war on Ukraine, combined with potentially new variants of the COVID-19 virus, a surge in cases in many countries, inequitable global distribution of COVID-19 vaccines, and vaccine hesitancy, all raise questions about the speed and strength of near term economic recovery. The COVID-19 pandemic has had a disparate impact on certain sectors of the economy, particularly the service sector, and these sectors could be at risk of continued labor dislocations. In some cases, workers are reconsidering their career choices and work patterns, which may suggest more varied labor arrangements in post-COVID-19 economies. Urban environments may be altered due to increased offsite work. The human costs in lives lost will affect global economic growth for some time, in addition to the effects of elevated levels of poverty, lives upended, careers derailed, and increased social unrest.

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Overview

Since the beginning of the Coronavirus Disease 2019 (COVID-19) pandemic in early 2020, the emergency has evolved into a global public health and economic crisis that has affected the $100 trillion global economy beyond anything experienced in nearly a century. In this environment, economic policy and health policy have grown intertwined. As the International Monetary Fund (IMF) concluded, "... there is no durable end to the economic crisis without an end to the health crisis. Pandemic policy is thus economic policy. Ending the health crisis is critical to global macro and financial stability.... "[1] As COVID-19 cases rose sharply in late February 2020, many governments took steps in March 2020 to lock down social activities, including restraining air travel, imposing business closures, and closing schools to contain the spread of COVID-19; these measures inadvertently contributed to a global economic recession. Preliminary estimates based on partial data indicate the monetary and fiscal policy costs of the COVID-19 pandemic through 2021 could each approach $17 trillion.[2]

Government responses in March 2020 were extraordinary in terms of the speed with which they took place, the broad scope of the fiscal and monetary policies adopted, and the number of countries involved, often without a formal, coordinated plan.[3] In broad terms, governments adopted monetary policies aimed at stabilizing financial markets and ensuring the flow of credit. As financial markets stabilized toward the middle of 2020, governments directed their attention toward averting a lengthy economic downturn by using fiscal measures geared toward sustaining households, businesses, and economic growth as quarantines and social distancing measures were adopted through 2020 and into 2021. As part of the fiscal measures, many governments shifted resources and policies toward developing, purchasing, and distributing COVID-19 vaccines. As the health and economic effects continued and evolved, governments responded by implementing policies that arguably grew more comprehensive; for instance, efforts to vaccinate populations coincided with additional fiscal measures to sustain household income.

In early 2021, national governments began ordering large quantities of COVID-19 vaccines and national and local governments attempted large-scale adult immunization campaigns with mixed results. On April 15, 2021, the Director-General of the World Trade Organization (WTO) called on WTO members and vaccine manufacturers to increase production, reduce export restrictions, and suspend intellectual property rights on COVID-19 vaccines to increase the supply of COVID-19 vaccines, therapeutics, and other medical countermeasures.

On May 5, 2021, the Biden administration announced it would support international discussions and negotiations in the WTO to waive intellectual property (IP) restrictions on COVID-19 vaccine production for developing economies.[4] Prior to this announcement, high-income economies, including Britain, Switzerland, the European Union (EU), and the United States, had blocked a proposal at the WTO by over 80 countries (many of them low and middle income) to

[1] Agarwal, Ruchir, and Gita Gopinath, *A Proposal to End the COVID-19 Pandemic*, International Monetary Fund, May 2021.

[2] *Fiscal Monitor*, International Monetary Fund, October 2021. p. 1; Wigglesworth, Robin, "Long Live Jay Powell, the New Monarch of the Bond Market," *Financial Times*, June 23, 2020, at https://www.ft.com/content/5db9d0f1-3742-49f0-a6cd-16c471875b5e.

[3] *World Economic Outlook*, International Monetary Fund, April 2020, chapter 1.

[4] Diamond, Dan, Tyler Pager, and Jeff Stein, "Biden Commits to Waiving Vaccine Patents, Driving Wedge With Pharmaceutical Companies," *The Washington Post*, May 5, 2021; CRS InFocus CRS In Focus IF11858, *Potential WTO TRIPS Waiver and COVID-19*, by Shayerah I. Akhtar and Ian F. Fergusson.

suspend intellectual property rights (IPR) restrictions on production of COVID-19 vaccines.[5] The EU announced on June 4, 2021, that it would reject the U.S. proposal to drop IP protections.[6] During the G-7 summit in England on June 11, 2021, the United States and G-7 leaders announced they would provide a combined total of one billion doses of the COVID-19 vaccine in addition to lifesaving medical supplies, oxygen, diagnostics, therapeutics, and personal protective equipment (PPE) to low and middle income countries.[7]

By mid-September 2021, the more virulent Delta variant reportedly had become the dominant strain of the virus globally; this prompted various national leaders to call for additional public health measures. By the end of August 2021, the Delta variant was projected to account for 90% of COVID-19 infections across much of Europe, and it accounted for 97.9% of all cases in the United States in late August 2021, according to the Center for Disease Control (CDC).[8] By January 2022, the Omicron COVID-19 variant reportedly was spreading rapidly and raising concerns it could damage the economic recovery in the United States and elsewhere by exacerbating worker shortages and reducing consumer spending.[9] In some cases, businesses postponed plans to return workers to on-site work, citing worker shortages and other concerns.

In addition to the Omicron COVID-19 variant, financial markets have been monitoring and responding to the announced intentions of the Federal Reserve and other central banks to end pandemic-related large-scale asset purchases and to raise interest rates in stages in 2022; these announcements have added to market volatility.[10] Similarly, the Fed's move to raise interest rates has affected currency markets by placing upward pressure on the dollar as foreign investors seek to acquire U.S. interest-sensitive investments; the dollar appreciated against the yen and the Euro in early January 2022 trading.[11] The combination of risks posed by new variants of the COVID-19 virus, potential central bank actions, weak corporate profits, and geopolitical events together weighed on financial markets in January and early February 2022, particularly on U.S. markets. In some cases, losses in the financial markets represented the worst start to the year since the 2008-2009 global financial crisis. Financial markets similarly lost value in early February 2022 due to lower-than-expected corporate profits and investors' concerns over interest rates and

[5] *Rich, Developing Economies Wrangle Over COVID Patents*, Reuters, March 10, 2021, at https://www.reuters.com/article/us-health-coronavirus-wto/rich-developing-nations-wrangle-over-covid-vaccine-patents-idUSKBN2B21V9.

[6] Blenkinsop, Phillip, "Resisting Patent Waiver, EU Submits Vaccine Plan to WTO," *Reuters*, June 4, 2021 at https://www.reuters.com/world/europe/eu-executive-submits-vaccine-access-proposal-wto-2021-06-04/.

[7] Scott, Eugene, "G-7 Leaders Commit to Making 1 Billion Coronavirus Vaccines Available Starting This Summer," *The Washington Post*, June 11, 2021.

[8] Center for Disease Control, at https://covid.cdc.gov/covid-data-tracker/#variant-proportions.

[9] Lynch, David J., "Mounting Omicron Infections Force Businesses to Scramble, Threatening Economic Recovery," *The Washington Post*, January 6, 2022; Keating, Dan, Madison Dong, and Youjin Shin, "How Fast the Omicron Variant is Spreading in the World," *The Washington Post*, January 6, 2022.

[10] *Federal Reserve Issues FOMC Statement*, Board of Governors of the Federal Reserve System, January 26, 2022; Duguid, Kate and Tommy Stubbington, "Negative-yielding Debt Total Tumbles to $10tn as Bond Prices Drop," *Financial Times*, January 14, 2022; Seigel, Rachel and Abha Bhattarai, "Fed Ready to Tackle Inflation With Interest Rate Increase in March, Pointing to Strong Job Growth Amid Pandemic," *The Washington Post*, January 26, 2022; Arnold, Martin, and Tommy Stubbington, "Christine Lagarde Fuels Investor Bets on ECB Rate Rises With Hawkish Shift," *Financial Times*, February 3, 2022.

[11] Stubbington, Tommy, "Dollar Hits Five-Year High Against Japanese Yen," *Financial Times*, January 6, 2022.

inflation. In other markets, oil prices exceeded $90 per barrel.[12] European financial markets, reportedly, fared slightly better than those in the United States.[13]

At one point, more than 80 countries had closed their borders to certain international arrivals, ordered businesses to close, instructed their populations to self-quarantine, and closed schools to an estimated 1.6 billion children.[14] According to one estimate, school closures could cost the affected children $17 trillion in lifetime earnings in present value terms due to lost educational instruction and advancement.[15] On August 23, 2021, the Food and Drug Administration (FDA) gave full regulatory approval to the Pfizer-BioNTech coronavirus vaccine, leading various institutions and the U.S. military to begin mandating vaccinations for employees and servicemembers.[16]

Background

According to the January 2022 *World Economic Outlook Update* prepared by the International Monetary Fund (IMF), global economic growth fell by an annualized rate of around -3.1% in 2020, with a recovery of 5.9% projected for 2021 and 4.4% for 2022.[17] As indicated in **Table 1**, most economies experienced a negative rate of growth in 2020 as part of the COVID-19–related global economic recession; positive rates are forecast for 2021 and 2022. The IMF also concluded that advanced economies would face continued economic challenges in 2022, due to supply shortages and the fact that low-income developing economies' prospects "had darkened considerably" as a result of disparities in access to vaccines and differences in economic policy support. Because of this, the IMF concluded that the decline in economic activity in 2020 was broader and exceeded the decline experienced during the 2009-2010 global financial crisis (see **Figure 1)**.

Table 1. Change in Gross Domestic Product by Selected Countries

Percentage Change, Year over Year

Period	2019	2020	2021	2022
European Union (EU27)	1.9	-5.9	5.2	4.0
Advanced Economies	1.7	-4.5	5.0	3.9
Canada	1.9	-5.2	4.7	4.1
France	1.8	-8.0	6.7	3.5
Germany	1.1	-4.6	2.7	3.8
Italy	0.3	-8.9	6.2	3.8
Japan	0.0	-4.5	1.6	3.3

[12] Duguid, Kate, Eric Platt, Naomi Rovnick, "US Stocks Record Worst Day in Almost a Year After Downbeat Tech Results," *Financial Times*, February 3, 2022.

[13] Megaw, Nicholas, and George Steer, "US Stock Markets Endure Worst January Since Global Financial Crisis," *Financial Times*, January 31, 2022.

[14] *The State of the Global Education Crisis: A Path to Recovery*, World Bank, International Bank for Reconstruction and Development, UNESCO, UNICEF, 2021, p. 13.

[15] Ibid., p. 14.

[16] Guarino, Ben, Laurie McGinley and Tyler Pager, "Pfizer-BioNTech Coronavirus Vaccine Gets Full FDA Approval, Potentially Persuading the Hesitant to Get a Shot," *The Washington Post*, August 23, 2021.

[17] *World Economic Outlook Update*, International Monetary Fund, January 2022, p. 5.

Mexico	-0.2	-8.2	5.3	2.8
United Kingdom	1.4	-9.4	7.2	4.7
United States	2.3	-3.4	5.6	4.0
China	6.0	2.3	8.1	4.8
India	4.0	-7.3	9.0	9.0

Source: *World Economic Outlook Update*, International Monetary Fund, January 2022. p. 5.

Notes: IMF estimates may differ from estimates published by national authorities, due to lags in data reporting. Quarterly data represent percentage change from previous quarter; some data are provisional and subject to revision.

In its January 2022 forecast, the IMF concluded "The global economy entered 2022 in a weaker position than previously expected. ... [T]he emergence of new COVID-19 variants could prolong the pandemic and induce renewed economic disruptions.... "[18] The IMF also projected that geographic regions of the global economy would recover at different speeds, reflecting differences in the pace of vaccinations, the extent of policy support, and structural conditions like the role of tourism in a country's economy. Given current conditions, the IMF downgraded the 2022 growth forecasts for the United States and China, reflecting the loss of stimulus that had been projected from President Biden's Build Back Better proposal and disruptions in China's housing market.[19] The IMF forecast assumed that many of the impediments to growth arising from the COVID-19 pandemic, including mobility restrictions, border closures, and health effects, would ease by the second quarter of 2022.

In a separate study published in April 2021, the IMF and other organizations estimated that vaccinating at least 40% of the global population by the end of 2021 and 60% by mid-2022 would speed an end to the global health crisis and contribute to improving the macro and financial position of the global economy. The study assessed "multiple dimensions of the fight against the COVID-19 pandemic, including projecting global and cross-country vaccination rates under alternative scenarios."[20] According to this study, the estimated cost of reaching the target vaccination rates could total $50 billion,[21] but could provide $9 trillion in economic benefits to economically advanced countries by bringing about a quicker end to the pandemic and, thereby, aiding in a more robust recovery of the global economy.[22] The estimated cost of increasing vaccinations rates also included the cost of widespread testing and tracing, maintaining adequate stocks of therapeutics, and enforcing public health measures.

[18] Ibid., p. 1.

[19] Ibid., p. 4.

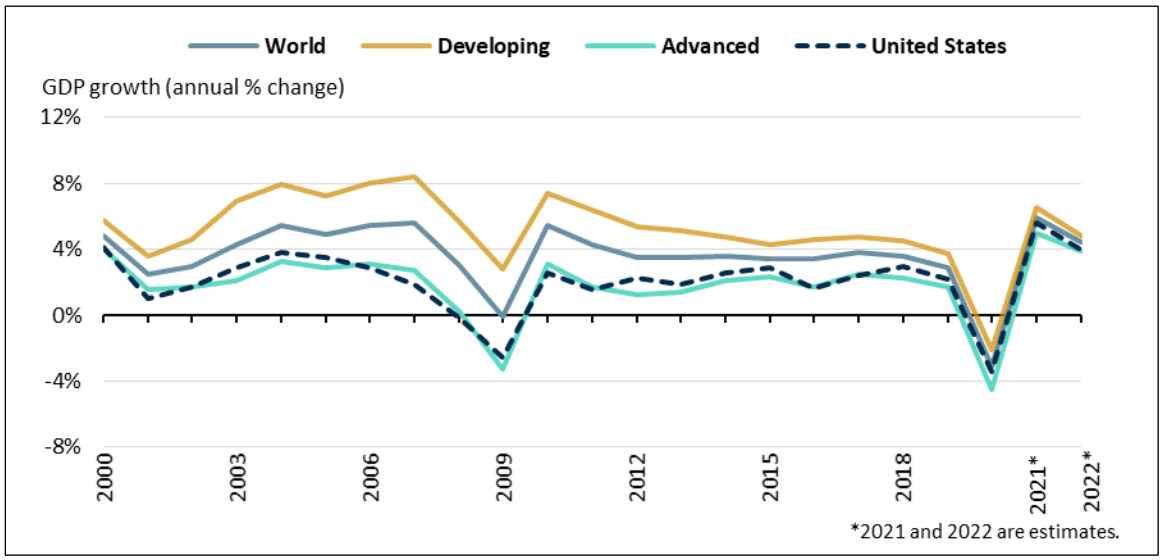
[20] Agarwal and Gopinath, *A Proposal to End the COVID-19 Pandemic*, p. 4; see also: Çakmaklı, Cem, Selva Demiralp, Şebnem Kalemli-Özcan, Sevcan Yeşiltaş, Muhammed A. Yıldırım, *The Economic Case for Global Vaccinations: An Epidemiological Model With International Production Networks*, National Bureau of Economic Research NBERWorking Papers 28395, April 2021.

[21] This amount is based on various assumptions, including an estimation that the cost of fully vaccinating each person at about $3 for purposes of vaccinating 60% of the global population. Agarwal and Gopinath, p. 45.

[22] *World Economic Outlook*, p. 4.

Figure 1. IMF Forecast, Gross Domestic Product

Percentage change



Source: *World Economic Outlook, Update*, International Monetary Fund, January, 2022. Created by CRS.

The IMF forecast indicated that

- Advanced economies as a group experienced an economic contraction in 2020 of -4.5% of gross domestic product (GDP), with a projected rebound of 5.0% in 2021 and 3.9% in 2022;
- The U.S. economic rate of growth declined in 2020 to -3.4%, greater than the rate of decline experienced during the 2009-2010 financial crisis, but was projected to grow by 5.6% in 2021 and 4.0% in 2022.
- The rate of economic growth in the EU declined in 2020 to -5.9%, but was projected to grow by 5.2% in 2021 and 4.0% in 2022.
- Developing and emerging economies as a group experienced a decline in the average rate of economic growth of -2.0% in 2020, reflecting tightening global financial conditions and falling global trade and commodity prices, but also supported by the positive annual rate of growth of China's GDP.
- As a whole, the group of developing and emerging economies were projected to grow at a rate of 6.5% in 2021 and 4.8% in 2022.
- China was projected to experience a small, but positive rate of growth of 2.3% in 2020, but increase by 8.1% in 2021 and 4.8% in 2022.
- India's rate of growth was projected to decline to -7.3% in 2020, but grow by 9.0% in both 2021 and 2022.
- Recovery of the global economy could be weaker than projected due to lingering uncertainty about possible viral contagion effects, lack of confidence in vaccines, the permanent closure of businesses, and shifts in the behavior of firms and households.[23]

[23] Ibid., p. 9.

An August 2020 IMF study concluded that fiscal and monetary actions taken by developed economies in 2020 provided developing and emerging market economies with added policy flexibility that made it possible for them to avoid tightening monetary policy to stem capital outflows. Instead, the countries relied on movements in their exchange rates to carry the brunt of the economic adjustment, while also following developed economies in easing monetary policy, providing liquidity injections, and using unconventional monetary policy measures, such as purchases of government and corporate bonds. At that time, the IMF also indicated that a prolonged health crisis could push developing economies to take such measures as price controls and export restrictions to ease credit and financial regulation.[24]

Through December 2021, various economic and financial indicators had rebounded from the depths of the COVID-19-related economic recession, although not all parts of the global economy had recovered to pre-COVID-19 levels.[25] Late in 2021, concerns over COVID-19 cases and the emergence of new and more virulent strains of the COVID-19 virus caused some institutions to lower their economic growth projections for 2021.[26] Although vaccination rates increased in various developed economies, particularly the United States, developing economies struggled to purchase sufficient COVID-19 vaccine supplies at affordable prices to vaccinate their populations, and consequently, to get their economies operating at or above pre-COVID-19 levels. According to the IMF, supply chain disruptions in high-income economies and concerns over the pandemic continued to challenge a full economic recovery. In general, by mid-2021, global financial market indices had largely recovered from the losses experienced in March and April 2020, international oil prices surpassed the pre-COVID-19 levels, pressures appreciating the dollar had generally eased, and labor markets appeared to be stabilizing, although a full recovery of labor markets in numerous economies generally lagged behind a recovery in output markets.[27]

According to Organization for Economic Cooperation and Development (OECD) data, most OECD countries continued to experience a slow decline in their rate of unemployment through October 2021, although rates in most countries had not returned to their pre-recession levels. As a whole, the October 2021 unemployment rate for the OECD was 5.7%, compared with the January 2020 rate of 5.3%. Despite these overall advances, some countries continued to experience double-digit rates of unemployment, including Colombia (13.0%), Greece (12.9%), and Spain (14.5%).[28]

In the United States, the Bureau of Labor Statistics (BLS) reported on February 1, 2022, that U.S. labor markets continued experiencing a high rate of turnover as workers benefited from tight

[24] Mühleisen, Martin, Tryggvi Gudmundsson, and Hélène Poirson Ward, *COVID-19 Response in Emerging Market Economies: Conventional Policies and Beyond,* International Monetary Fund, August 6, 2020, at https://blogs.imf.org/2020/08/06/covid-19-response-in-emerging-market-economies-conventional-policies-and-beyond/?utm_medium=email&utm_source=govdelivery.

[25] The Global Economy: On Track for Strong But Uneven Growth as COVID-19 Still Weighs, *The World Bank,* June 8, 2021 at https://www.worldbank.org/en/news/feature/2021/06/08/the-global-economy-on-track-for-strong-but-uneven-growth-as-covid-19-still-weighs; *Global Economic Prospects*, World Bank Group, June 2021; *World Economic Outlook*, International Monetary Fund, October 2021; *World Economic Outlook Update*, International Monetary Fund, January 2022.

[26] Platt, Eric and Colby Smith, "Economists Trim Forecasts and Investors Feel Jitters Over Delta Variant," *Financial Times*, August 19, 2021, at https://www.ft.com/content/c21958ff-80d2-4b3b-863c-c492b361b2a4; *World Economic Outlook*, International Monetary Fund, October 2021, p. xiii.

[27] *World Economic Outlook*, International Monetary Fund, p. xiii.

[28] *Short-Term Labor Market Statistics*, Organization for Economic Cooperation and Development, at https://www.oecd.org/sdd/labour-stats/.

labor market conditions that provided opportunities for workers to change jobs to gain higher wages or benefits.[29] The data indicated there were more than 10.9 million job openings in December 2021, compared with 6.3 million individuals listed as unemployed. According to one source, the change in the labor market does not represent a worker who "quits from the labor force, but quits from lower paying jobs to higher paying jobs, from less prestigious jobs to better, more prestigious jobs, from less flexible jobs to more flexible jobs."[30] According to the BLS report, the number of job quits was highest among restaurant and bar workers, retail workers, arts and recreation workers and those in professional and business services.

The Bureau of Economic Analysis (BEA) reported that policy actions to lock down the economy pushed the U.S. GDP growth rate down to -9.0% in the second quarter of 2020 compared with the previous quarter, or at an annualized rate of -31%, the largest quarterly decline in U.S. GDP recorded over the previous 70 years.[31] Subsequently, the U.S. GDP growth rate rebounded in the third quarter by growing by 7.5%, or at an annualized rate of 30%. That growth was driven primarily by gains in personal consumption, reflecting an increase in personal income and monetary support through government transfer payments.[32] On a year-over-year basis, U.S. real GDP declined by -3.4% in 2020 compared with 2019. In the fourth quarter of 2021, preliminary data indicate that U.S. GDP rose at an annual rate 6.9% and that the U.S. economy as a whole reportedly grew at an annual rate of 5.7% in 2021.[33]

In 2021, higher levels of spending by households and businesses raised demand for a broad range of products that were constrained by supply shortages, including housing, food, energy, and new and used cars and trucks. As a consequence of the increase in demand, U.S. consumer and producer prices in November 2021 both rose at monthly rates of 0.8%. On an annual basis, BLS reported that over the December 2020 to December 2021 period, consumer prices rose by 7.0% and producer prices rose by 9.7%.[34] During the same period, BLS reported that U.S. import and export prices rose by 10.4% and 14.7%, respectively, reflecting a 62.7% increase in fuel import prices and a 21.7% increase in agricultural export prices.[35] Over the long run, damage to labor markets could be problematic with a large share of the labor force unable or, in some sectors, unwilling to return to pre-COVID-19 jobs. In some cases, workers who were unemployed during the crisis reportedly have reconsidered returning to their previous jobs and have explored other options, which could affect the pace of the economic recovery.[36]

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[29] *Job Openings and Labor Turnover-December 2021*, Bureau of Labor Statistics, February 1, 2022.

[30] Rosenberg, Eli, A Record 4.5 Million Workers Quit or Changed Jobs in November, *The Washington Post*, January 4, 2022, at https://www.washingtonpost.com/business/2022/01/04/job-quits-november-2021/.

[31] *Gross Domestic Product, 2nd Quarter 2020 (Advance Estimate) and Annual Update*, Bureau of Economic Analysis, July 30, 2020, at https://www.bea.gov/news/2020/gross-domestic-product-2nd-quarter-2020-advance-estimate-and-annual-update.

[32] *Gross Domestic Product, Fourth Quarter and Year 2021 (Advance Estimate)*, Bureau of Economic Analysis, January 27, 2021.

[33] CRS Report R46606, *COVID-19 and the U.S. Economy*, by Lida R. Weinstock.

[34] Consumer Price Index December 2021, Bureau of Labor Statistics, January 12, 2021; Producer Price Index December 2021. Bureau of Labor Statistics, January 13, 2021; CRS Report R46890, *Inflation in the Wake of COVID-19*, by Marc Labonte and Lida R. Weinstock.

[35] *U.S. Import and Export Price Indexes-December 2021*, Bureau of Labor Statistics, January 14, 2021.

[36] Job Openings and Labor Turnover, various issues, Bureau of Labor Statistics; CRS Insight IN11770, *Labor Market Tightness and the Economic Recovery, Part 1*, by Marc Labonte and Lida R. Weinstock, and CRS Insight IN11771, *Labor Market Tightness and the Economic Recovery, Part 2*, by Marc Labonte and Lida R. Weinstock; Dodd, Darren, Businesses Suffer Labor Pains as Economies Reopen, Financial Times, June 21, 2021, at https://www.ft.com/content/e47575aa-b6ec-4635-a0be-f4e623dacbdb; Fisher, Marc, In Liberty County, "Workers Who Quit Feel Liberated, but the

As a result of the various challenges, the IMF qualified its forecast for 2021 and 2022 by arguing that

> A partial recovery is projected for 2021, with above trend growth rates, but the level of GDP will remain below the pre-virus trend, with considerable uncertainty about the strength of the rebound. Much worse growth outcomes are possible and maybe even likely. This would follow if the COVID-19 and containment measures last longer, emerging and developing economies are even more severely hit, tight financial conditions persist, or if widespread scarring effects emerge due to firm closures and extended unemployment.[37]

Within countries, the COVID-19-related economic recession has had a disparate effect on the employment and earnings of youth, women, and relatively lower-skilled workers. The two-track nature of the economic recovery between developed and developing economies, combined with new variants of the virus and viral outbreaks in some major developing economies, has increased the impact of the crisis on the global economy and has complicated economic forecasts. The IMF estimated in April 2021 that the economic fallout from the COVID-19 could have pushed 95 million people in Sub-Saharan Africa and South Asia into extreme poverty, reversing a decades-long trend.[38] However, the IMF also concluded in that analysis that spending on social programs to limit the impact of the COVID-19 could reduce the number of people falling into extreme poverty to 80-90 million.

Economic Policy Challenges

Over the course of the COVID-19 pandemic and related economic crises, policymakers have adjusted their policy responses according to the changing nature of the crises. Broadly, policymakers have attempted to implement targeted policies addressing anticipated short-term supply problems without also creating damaging long-term distortions in their economies. Initially, many policymakers were overwhelmed by the quickly changing nature of the global health crisis and the immediate economic effects, and relied on both conventional and unconventional measures to address the crises. The extended health crisis, however, created wide-ranging spillover effects beyond those usually associated with monetary and fiscal policies. During the initial stages of the COVID-19 pandemic, policymakers weighed the impact of policies that addressed the immediate economic effects at the expense of longer-term considerations, such as central government debt accumulation. In some countries, policymakers were constrained in their ability to respond to the crisis due to limited flexibility for monetary and fiscal support under conventional standards. These policies had started before the pandemic in response to the broad-based 2019 slowdown in global economic growth (especially in manufacturing and trade).

Economic forecasts in early 2020 primarily reflected the impact of short-term supply issues originating in China as factory output there fell due to worker quarantines. The drop in China's GDP growth rate to -9.5% (revised) in the first quarter of 2020 had broad international repercussions that became evident in the second quarter of 2020 as firms experienced delays in supplies of intermediate and finished goods, as indicated in **Table 1**. Concerns grew, however, that COVID-19-related supply shocks had created more prolonged and wide-ranging demand

Community Discovers a Powerful Downside," The Washington Post, December 12, 2021; Fowers, Alyssa, Eli Rosenberg, The Geography of the Great Resignation: First-time Data Shows Where Americans are Quitting the Most, The Washington Post, October 22, 2021.

[37] *World Economic Outlook*, p. v.

[38] *Fiscal Monitor*, International Monetary Fund, April 2021, p. 31.

shocks as a result of reduced activity by consumers and businesses that, in turn, led to a lower rate of economic growth in most countries and most geographical areas.

Most countries experienced a decline in economic activity in the second quarter of 2020, partly reflecting trade and supply chain issues associated with the contraction in China's economic activity in the first quarter. During the second quarter, however, China experienced a resurgence in its rate of growth by 10% over the previous quarter and was one of a few countries to post an overall positive rate of growth in 2020. In contrast to China's positive rate of growth in the second quarter of 2020, a broad range of countries experienced historic declines in their quarterly rates of growth as the effect of China's abrupt changes in economic activity spread throughout the global economy. India, for instance, experienced a decline in its economic activity in the second quarter of nearly 25%. Similarly, most countries experienced a turnaround in economic growth in the third quarter of 2020, although at rates that generally were lower than the rate of decline in the second quarter. With some exceptions, most countries and areas saw positive rates of growth in the first and second quarters of 2021, but still had GDP rates of growth below their potential.

Reduced demand led to reduced activity and profits and businesses faced the possibility of escalating and binding credit and liquidity constraints. In the United States and elsewhere, firms experienced supply chain shocks and reduced consumer activity as a result of social distancing, with the services sector especially affected; the services sector accounts for two-thirds of annual U.S. economic output. Under these conditions, manufacturing and services firms tend to hoard cash, which affects market liquidity. In response, the Federal Reserve and other central banks lowered interest rates where possible and expanded lending facilities to provide liquidity to financial markets and to firms.

As the effects persisted through the spring and summer of 2020, the economic impact spread to more countries, firms, and households. This increased liquidity constraints and credit market tightening in the global financial markets as firms hoarded cash, with negative fallout effects on economic growth. At the same time, the financial markets appeared to factor in a potential increase in government bond issuance in the United States, Europe, and elsewhere as government debt levels rose to meet spending obligations during an expected economic recession and increased fiscal spending to fight the effects of COVID-19. During the recession, economies experienced reduced demand by consumers, labor market issues, and a lower level of activity among businesses. Unlike the 2008-2009 financial crisis, however, this recession was not characterized by risky trading by global banks, which in the earlier crisis had led to corporate credit issues and potential insolvency. Major equities markets experienced steep losses in March 2020, but government policy actions to stabilize financial markets led to a recovery in most equities markets by year-end 2020 and to subsequent increases through 2021.

In most advanced economies and to some extent in some developing economies, liquidity and credit market issues presented policymakers with a different set of challenges than addressing supply-side constraints. The focus of government policy expanded from a health crisis to macroeconomic and financial market issues that were addressed through a combination of monetary, fiscal, and other policies. At times, governments also closed their borders, instituted quarantines, and restricted social interactions. Essentially, while businesses attempted to address worker and output issues at the firm level, national leaders attempted to implement fiscal policies to prevent economic growth from contracting sharply. As part of these efforts, some governments aimed fiscal policies at assisting workers, families, and businesses that faced financial strains, and central bankers adjusted monetary policies to address mounting credit market issues. These measures proved successful in supporting credit markets and providing liquidity that remained abundant through the summer of 2020.

In the initial stages of the COVID-19 pandemic, households in the United States and various European countries were concerned about a repeat of the loss of wealth they experienced during the 2008-2009 financial crisis when the value of their primary residence dropped sharply. Instead, home prices rose in the United States and Europe as supply bottlenecks raised the cost of construction materials and demand for housing increased due in part to low interest rates. Subsequently, increased demand for housing outside large urban areas by workers shifting to at-home work and an increase in prices for construction materials raised the prices for U.S. housing by an estimated 13.2% in 2020[39] and contributed to an increase in household wealth.[40] Although continuing to rise in the first half of 2021, the value of U.S. household holdings of real estate increased by 6% as real estate market prices slowed from the double-digit increases experienced in many real estate markets in 2020.

Impact on Workers

In a report prepared for a World Economic Forum event held on January 25-29, 2021, the International Labor Organization (ILO) estimated that 93% of the world's workers at that time were living under some form of workplace restrictions as a result of the COVID-19 pandemic. The report also estimated that 8.8% of global working hours were lost in 2020 relative to the fourth quarter of 2019, an amount equivalent to 255 million full-time jobs. The ILO based its estimate of the loss in working hours on (1) workers who were unemployed, but were actively seeking employment, (2) workers who were employed, but had their working hours reduced, and (3) workers who were unemployed and not actively seeking employment. Based on these factors, the ILO estimated that unemployment globally was equivalent to 0.9% of total working hours lost in 2020, while inactivity and reduced hours accounted for 7.9% of total working hours lost, as indicated in **Figure 2**.

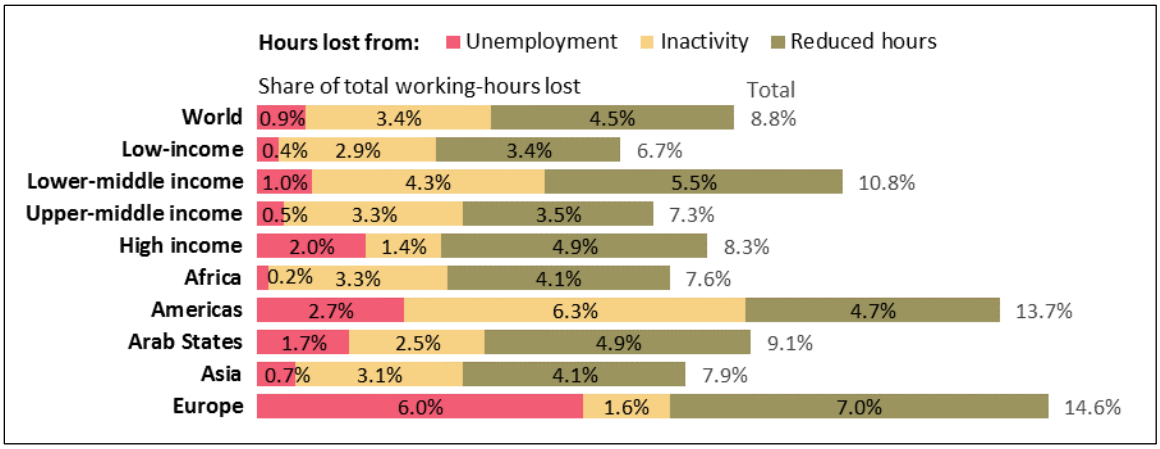
Total working hours lost in 2020 compared with 2019 were highest in Europe (14.6%) and the Americas (13.7%), where quarantines and lockdowns had been extensive, followed by lower-middle-income economies. The ILO also estimated that global job losses totaled 114 million jobs in 2020, relative to 2019. The share of lost worker hours due to workers who were unemployed and not actively seeking employment were highest in Europe (6.0%), the Americas, including the United States (2.7%), and Arab States (1.7%).[41] The ILO also estimated that an increase in global economic activity through part of the fourth quarter of 2020 was equivalent to an increase of 130 million full-time jobs.

[39] Adamczyk, Alicia, *The Typical Home Price is Up a Record 13.2% Compared to Last Year, According to Zillow*, CNBC, June 16, 2021. https://www.cnbc.com/2021/06/16/typical-us-home-price-up-record-13point2percent-compared-to-last-year.html.

[40] According to the Federal Reserve, between Q1 2020 and Q3 2021, the value of U.S. household holdings of real estate increased by over 19%, rising to $40.9 trillion and accounting for 84% of household wealth. Between Q3 2020 and Q3 2021, the value of such holdings increased by 15%. *Financial Accounts of the United States*, Board of Governors of the Federal Reserve System, Third Quarter 2021, December 9, 2021.

[41] *ILO Monitor: COVID-19 and the World of Work, Seventh Edition*, International Labor Organization, January 15, 2021, p. 2.

Figure 2. Composition of Working-Hours Lost by Region, 2020



Source: *ILO Monitor: COVID-19 and the World of Work,* International Labor Organization, 2021.

In June 2021, the ILO published an updated report that estimated employment levels globally remained below pre-COVID-19 levels through the first half of 2021, due to waves of COVID-19 cases. Consequently, the ILO estimated that working hours fell by 4.8% in the first quarter of 2021, and by 4.4% in the second quarter of 2021, or by an amount equivalent to 127 million full-time jobs. The ILO also estimated the loss in total hours worked in the first half of 2021 was equivalent to a 5.3% loss in global worker income, exclusive of government transfer payments and benefits, or an amount equivalent to $1.3 trillion. Despite projecting a rebound in job growth in 2021 and 2022, the ILO estimated that employment levels would fall short by 75 million jobs in 2021, and 25 million in 2022, compared to the number of jobs that had been projected before the coronavirus COVID-19 pandemic.[42]

Similarly, in July 2021, the OECD estimated that the COVID-19 pandemic recession cost 22 million jobs in OECD countries in 2020, and that 114 million jobs had been lost globally, compared with 2019.[43] The OECD estimate concluded that unprecedented government fiscal policies supported workers' incomes, thereby likely limiting the impact of shutdowns and social restrictions on labor markets. Nevertheless, the OECD concluded that the unique nature of the crisis accentuated and deepened economic and social divides by skill levels, education, income, and gender in OECD countries, and amplified longstanding trends toward increasing economic inequalities in many OECD countries.[44]

Impact on U.S. Households

In the United States, labor markets recovered through 2021, assisted in part by government transfer payments. Through November 2021, U.S. job openings and job quits remained high, despite falling rates of unemployment, potentially indicating that labor market conditions had tightened.[45] Still, the overall rate of unemployment remained above pre-COVID-19 pandemic

[42] *World Employment and Social Outlook, Trends 2021,* International Labor Organization, June 2021.

[43] OECD Employment Outlook 2021: Navigating the COVID-19 Crisis and Recovery, Organization for Economic Cooperation and Development, July 2021, p. 4.

[44] Ibid., p. 5.

[45] Bureau of Labor Statistics, Job Openings and Labor Turnover- September 2021, November 12, 2021. CRS Insight IN11770, *Labor Market Tightness and the Economic Recovery, Part 1*, by Marc Labonte and Lida R. Weinstock, and CRS Insight IN11771, *Labor Market Tightness and the Economic Recovery, Part 2*, by Marc Labonte and Lida R.

rates. In its December 15, 2021, report and release of economic projections, the Federal Open Market Committee (FOMC) indicated economic activity and employment had strengthened since the previous report in September 2021, but suggested that the path of the economy "continues to depend on the course of the virus."[46] The Fed noted the rate of unemployment had fallen, but remained elevated compared with pre-COVID-19 rates and that the official U.S. published rate understated the actual shortfall in employment as a result of a workforce participation rate that remained below pre-COVID-19 levels.[47] The Federal Reserve also indicated the COVID-19-related economic recession had disproportionately affected certain groups in the economy, including lower-wage and less-educated workers, racial and ethnic minorities, and women, effects similar to those in other developed economies.[48]

According to the Census Bureau, between March 2020 and February 2021, 115 million Americans experienced a loss in employment income due directly or indirectly to the COVID-19-related economic recession, but 37 million people qualified for and received unemployment insurance and other Americans received COVID-19-related government transfer payments. In addition, an estimated 26 million U.S. households reported receiving Supplemental Nutritional Assistance Program (SNAP) in February 2021, while nearly 12 million U.S. households with children were estimated to have experienced food insecurity.[49]

Government transfer payments played a key role in supporting household consumption and savings rates through the COVID-19 pandemic. In the United States, personal consumption fell during the first four months of 2020 due to business lockdowns and social distancing, but personal transfer receipts increased by 100% in April 2020 over the preceding month, which raised the personal savings rate to 33% of disposable income. During the first half of 2021, wages and salaries to individuals, generally the major source of income for households, increased by 2.9%, compared with a drop in total personal income of 4.0% and a drop in transfer receipts of 26% in 2020.[50] Similar to early 2020 data, transfer payments to households in early 2021 increased personal income and sustained personal consumption. After peaking again in April 2021, the personal savings rate declined steadily as consumers drew down accumulated savings to support consumption as economic activity began recovering. By November 2021, most measures had returned to their first quarter 2019 levels, except for the personal saving rate, which remained slightly elevated compared with data for early 2020, prior to the COVID-19 pandemic.[51]

In a September 2021 report, the Census Bureau credited the American Rescue Plan and the expanded child tax credits with rapidly pushing down hardship cases in the United States by September 2021.[52] Despite the improvements, 19 million adults, about 9% of all adults in the country, reported in early September 2021 living in households that sometimes or often did not

Weinstock.

[46] Federal Reserve Press Release, December 15, 2021.

[47] Powell, Jerome, H., Testimony before the House Financial Services Committee and the Senate Committee on Banking, Housing, and Urban Affairs, July 15, 2021.

[48] Board of Governors of the Federal Reserve System, *Monetary Policy Report,* July 9, 2021.

[49] Monte M., Lindsay, "Historical Look at Unemployment, Sectors Shows Magnitude of COVID-19 Impact on Economy," *Census Bureau,* March 15, 2021, https://www.census.gov/library/stories/2021/03/putting-economic-impact-of-COVID-19-in-context.html.

[50] *Personal Income and Outlays, September 2021,* Bureau of Economic Analysis, October 29, 2021.

[51] *Personal Income and Outlays, November 2021*, Bureau of Economic Analysis, December 23, 2021.

[52] *Tracking the COVID-19 Economy's Effects on Food, Housing, and Employment Hardships*, Census Bureau, November 19, 2021, at https://www.cbpp.org/research/poverty-and-inequality/tracking-the-covid-19-economys-effects-on-food-housing-and

get enough to eat due to lack of funds, down from a peak of 30% reached in mid-December 2020.[53] In addition, around 12 million adult renters, estimated at 16% of adult renters, reported being behind on rent.[54] In a survey conducted between September 1 and 13, 2021, some 61 million adults, around 28% of all adults, reported that they found it somewhat or very difficult to cover their usual expenses (food, rent or mortgage, car payments, medical expenses, or student loans) during the first two weeks of September.

Economic Policy Responses of Advanced Economies

By the actions Congress and the Federal Reserve adopted in early March 2020, the United States set the tone for policy responses to the pandemic-related economic recession for other governments and central banks. Congress adopted the first of a number of emergency fiscal spending measures in early March and the Fed employed conventional and unconventional monetary policy actions to stabilize financial markets. By mid-March 2020, central banks and monetary authorities in other developed and emerging market economies similarly engaged in an ongoing series of interventions in financial markets, , and national governments adopted an array of fiscal policy initiatives to stimulate their economies.[55]

The Bank for International Settlements (BIS) characterized the COVID-19 pandemic as "truly global," and requiring a fiscal, monetary, and prudential response that surpassed that of the financial crisis of 2008-2009.[56] In addition, the BIS argued that the evolving nature of the pandemic caused the financial crisis to evolve as well, changing from a liquidity crisis in the initial stages to a solvency crisis that could worsen if the economic recovery were delayed. As global economic conditions deteriorated in the first quarter of 2020, large internationally active banks tripled the amount of assets they held as loss provisions, according to BIS.[57] With improving economic conditions in the second quarter, however, banks began reducing their asset holdings and by the end of 2020, loss provisions had returned to pre-COVID-19 levels, where they remained through 2021.[58] As a result of the potential damage to the global economy arising from the pandemic, the BIS stated that future economic historians may describe the COVID-19 as "the defining moment of the 21st century."[59]

Fiscal Measures

Starting in March 2000, central governments in many advanced and emerging economies enhanced existing worker support programs, or adopted new programs to provide financial support to the health sector, households, and firms; the size and scope of the programs varied by

[53] Ibid.

[54] Ibid., p. 1.

[55] For a complete list of actions 193 countries have taken in response to the economic challenge of COVID-19, see the list compiled by the IMF. Fiscal Monitor Database of Country Fiscal Measures in Response to the COVID-19 Pandemic, International Monetary Fund, October 2021, at https://www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19.

[56] *Annual Economic Report 2020*, Bank for International Settlements, June 2020, p. ix.

[57] *BIS Quarterly Review, March 2021*, Bank for International Settlements, p. 10.

[58] Kiarelly, Douglas, Godoy de Araujo, Benjamin H Cohen and Pamela Pogliani, "Bank Loan Loss Provisioning During the COVID Crisis, Bank for International Settlements," *BIS Quarterly Review*, March 2021.

[59] *Annual Economic Report 2020*, Bank for International Settlements, June 2020, p. ix.

country.[60] These measures included tax cuts and tax deferrals for individuals and businesses, wage and income supplements to individuals, including expanded unemployment insurance, and other payments to businesses. International organizations also took steps to provide loans and other financial assistance to countries in need. The U.S. Congress approved historic fiscal spending packages, while other governments abandoned traditional borrowing caps in order to increase fiscal spending to sustain economic growth.[61] In some emerging economies, governments reportedly adopted special programs to provide financial assistance to "informal" workers, or workers outside traditional labor markets, such as family businesses.[62]

Programs in various countries assisted individual firms in retaining workers, with the objective of facilitating a quick return to full activity once COVID-19-related restrictions lift.[63] In some cases, benefits were increased by extending the length of time benefits were available and benefits were extended to workers in nonstandard jobs, such as temporary and self-employed workers. Some OECD members adopted new programs designed to assist some temporary and nonstandard workers to quickly gain access to support funds.[64] Some countries also eased qualification requirements to facilitate access to support funds for workers and businesses.

The OECD estimated the various job retention programs supported 60 million workers in developed economies.[65] As one measure of the extent of the global fiscal and monetary responses by governments, the IMF estimated that government spending and revenue measures to sustain economic activity adopted through September 2021 amounted to $16.9 trillion.[66] The IMF also updated its estimate of the increase in borrowing by governments globally to finance their fiscal responses to increase from 3.6% of GDP in 2019 to 10.2% in 2020, before falling to 7.9% in 2021 and 5.2% in 2022, to date.

In its July 2021 updated employment outlook, the OECD concluded that many workers in OECD countries had not regained full-time employment by mid-2021 and that elevated rates of unemployment could persist on average beyond 2022. In addition, the OECD concluded the longer workers go without regaining employment, the more difficult it could be for them to compete with those whose jobs had been sustained during the recession, and the greater the risks of a rapid increase in long-term unemployment.[67]

Monetary and Prudential Measures

Among central banks, the Federal Reserve initiated unconventional steps not taken since the 2008-2009 global financial crisis to address the economic effects of COVID-19, and it adopted additional measures beyond those created in 2008. According to a March 2021 Bank for International Settlements (BIS) review of the COVID-19-related monetary policies adopted by central banks between February and July 2020, banks in 11 advanced economies and 28 developing economies moved quickly and on a massive scale to address the impact of COVID-

[60] *Annual Economic Report 2020.*

[61] P.L. 116-123, P.L. 116-127, P.L. 116-136, P.L. 116-139, P.L. 116-260, and P.L. 117-2.

[62] *Annual Economic Report 2020*, p. 25.

[63] *Job Retention Schemes During the COVID-19 Lockdown and Beyond*, Organization for Economic Cooperation and Development, October 12, 2020, p. 2.

[64] *OECD Employment Outlook 2021*, pp. 5-6.

[65] Ibid., p. 15.

[66] *Fiscal Monitor*, International Monetary Fund, October 2021. p. 1.

[67] *OECD Employment Outlook 2021*, p. 15.

19.[68] Central banks in advanced economies acted to prevent a financial crisis by purchasing assets and providing liquidity at favorable rates. In contrast, central banks in many emerging economies responded less aggressively. The success of advanced economy central banks in easing global financial pressures may have enabled emerging economies to focus their efforts on supporting domestic demand. BIS grouped the central bank measures into five categories: (1) interest rates; (2) reserve policies; (3) lending operations; (4) asset purchases; and (5) foreign exchange policies, including foreign exchange swaps. In some cases, central banks also relaxed capital buffers and countercyclical capital buffers,[69] adopted after the 2008-2009 financial crisis.[70] Generally, however, banks did not use their capital buffers to supply credit in their respective economies.[71] Some estimates indicate that central banks committed $17 trillion to support their economies to counter COVID-19-related economic effects early in the pandemic.[72]

Since the beginning of the COVID-19 pandemic, central banks often have adopted similar policies, although not always in unison. Most central banks followed the Federal Reserve in cutting interest rates as one of their main policy tools to support economic activity; the European Central Bank (ECB) (Euro Area) and Bank of Japan are notable exceptions, since they had reduced their main interest rates to zero prior to the economic recession. The low interest rates had an additional, although not necessarily intended, impact on currency markets by reducing arbitrage opportunities and, thereby, reducing volatility in exchange rates.[73] According to some analysts, the period from January 2021 through mid-summer 2021 experienced the longest period on record of low volatility between the dollar and the euro.

Throughout the early stages of the pandemic-driven economic crisis, central banks served as lenders of last resort through large purchases of government debt and as buyers or lenders of last resort for private sector securities. In some cases, some central banks engaged in activities they previously had considered off-limits.[74] The BIS argued that these central bank activities constituted effective management of the pandemic-related liquidity crisis, the first of three phases often identified with financial crises. BIS also concluded that central banks successfully managed the second and third phases of financial crises, insolvency and recovery. [75] Banks raised capital buffers at times during the COVID-19-related financial crisis, as in the 2008-2009 financial crisis, in order to help absorb losses and stay solvent. Some governments directed banks to freeze dividend payments and halt pay bonuses. The Financial Stability Board (FSB) argued in its July 13, 2021, report to the G-20 Finance Ministers and Governors that the monetary and fiscal actions

[68] Cantu, Carlos, Paolo Cavalino, Fiorella De Fiore, and James Yetnam, *A Global Database of Central Banks' Monetary Responses to COVID-19,* BIS Working Papers No. 934, Bank for International Settlements, March 2021, p.5.

[69] Countercyclical capital buffers require banks to increase their capital buffers during periods of rapid growth in assets (when they are making a lot of loans), to ensure they have sufficient capital to absorb losses during a recession. *Countercyclical Capital Buffers*, Bank for International Settlements, April 3, 2020. https://www.bis.org/bcbs/ccyb/.

[70] Arnold, Martin, "Regulators Free up $500bn Capital for Lenders to Fight Virus Storm," *Financial Times,* April 7, 2020, at https://www.ft.com/content/9a677506-a44e-4f69-b852-4f34018bc45f.

[71] *Lessons Learnt From the COVID-19 pandemic From a Financial Stability Perspective: Interim Report*, Financial Stability Board, July 13, 2021, p. 9.

[72] Wigglesworth, Robin, "Long Live Jay Powell, the New Monarch of the Bond Market," *Financial Times*, June 23, 2020, at https://www.ft.com/content/5db9d0f1-3742-49f0-a6cd-16c471875b5e.

[73] Duguid, Kate and Tommy Stubbington, "Central Bank Sync Puts Foreign Exchange Market to Sleep," *Financial Times*, September 21, 2021.

[74] For a review of monetary policies of the Federal Reserve, the ECB, the Bank of Japan, and the Bank of England, see Haas, Jacob, Christopher J. Neely, William B. Emmons, "Responses of International Central Banks to the COVID-19 Crisis", *Federal Reserve Bank of St. Louis Review*, Fourth Quarter 2020.

[75] *Annual Economic Report 2020*, Bank for International Settlements, June 2020, p. xiv.

taken by central banks and national governments, in combination with the regulatory and supervisory measures adopted following the 2008-2009 global financial crisis, effectively contained the impact of the COVID-19 crisis, supported the functioning of the global financial system, and facilitated funding to the real economy.[76]

Government Support to Industries

During 2020, some governments also adopted a range of measures, including financial incentives, to increase domestic production of vaccines, to sustain some businesses, and to increase the supply of personal protective equipment (PPE). These included state intervention (through nationalization or through directives) to limit exports and increase output at domestic facilities that produced PPE materials, or to initiate production at other facilities. In the United States, support funds were also directed at small businesses, hotels, airlines, and other travel-related services, among others.

Worker Assistance Programs

As part of their fiscal policy measures, many governments either enhanced existing worker support programs or adopted new programs. The OECD estimated that various job retention programs had supported 60 million workers.[77] Programs to assist workers varied across countries, but the programs generally consisted of increased subsidies for existing programs designed to support workers for work hours lost or extended wage subsidies to maintain pre-COVID-19 employment levels. Other programs assisted individual firms in retaining workers with the objective of facilitating a quick return to full activity once COVID-19-related restrictions were lifted.[78] In some cases, benefits were increased by extending their availability and by extending benefits to workers in nonstandard jobs (like temporary and self-employed workers). New programs adopted by some OECD members were designed to help some workers quickly gain access to support funds.[79] Some countries also eased qualification requirements to help workers or businesses gain access to support funds.

In its July 2021 updated employment outlook, the OECD concluded that many workers in OECD countries had not regained full-time employment by mid-2021 and that, on average, elevated rates of unemployment could persist beyond 2022. In addition, the OECD concluded the longer workers go without regaining employment, the more difficult it could be for them to compete with those whose jobs had been sustained during the recession and the greater the risks of a rapid increase in long-term unemployment.[80] The OECD also indicated that the timing of any withdrawal of government fiscal support could affect the timing and strength of a recovery, and it urged governments to continue supporting families most in need of jobs, while providing incentives for job creation and returning workers. It also concluded that withdrawing support too soon "to the many still in need risks generating mass bankruptcies and job losses in sectors still deeply affected by containment measures, making the recovery more difficult and uncertain."[81]

[76] *Lessons Learnt From the COVID-19 Pandemic*, p. 10.

[77] *OECD Employment Outlook 2021*, p. 15.

[78] *Job Retention Schemes During the COVID-19 Lockdown and Beyond*, Organization for Economic Cooperation and Development, October 12, 2020, p. 2.

[79] *OECD Employment Outlook 2021*, pp. 5-6.

[80] Ibid., p. 15.

[81] Ibid., p. 6.

Economic Forecasts

As the COVID-19 pandemic began, the global economy was struggling to achieve a broad-based recovery. At the beginning of 2020, global economic growth was being challenged by growing trade protectionism, trade disputes among major trading partners, falling commodity and energy prices, and economic uncertainties in Europe over the UK withdrawal from the European Union (or "Brexit"). Individually, each of these issues arguably presented a solvable challenge for the global economy. Collectively, however, they weakened the global economy in 2020 and reduced many national leaders' policy flexibility, especially in leading developed economies where governments face self-imposed limits on deficit spending, which complicated the timing and the strength of their response to the pandemic. The combination of policy responses may continue to have a significant, enduring, and uncertain impact on the way businesses organize their work forces, on global supply chains, and on government responses to a global health crisis.[82] This range of factors and the unpredictable future of the pandemic make forecasting the economic impact of the virus especially challenging.

The IMF, the OECD, and the World Bank regularly issue economic growth forecasts; achieving accuracy with these forecasts has been especially challenging during the pandemic. Each organization has its own proprietary forecasting methodology, so initial forecasts can vary across the organizations. Over time, however, as more data become available, forecasts of growth over previous quarters generally converge, narrowing the differences. Most forecasts were revised downward between late 2019 and mid-2020, reflecting the rapidly deteriorating state of the global economy and a marked decline in projected rates of growth. Between October 2019 and January 2021, for instance, the IMF lowered its global economic growth forecast for 2020 from 3.4% to -3.5%, as indicated in **Figure 3**.

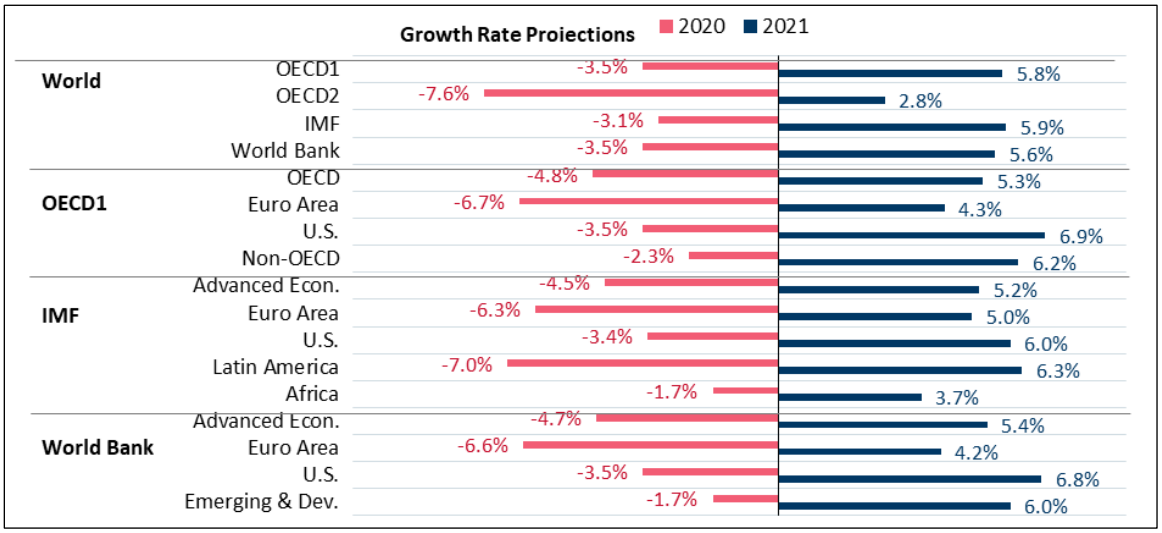
By late 2020 and early 2021, most forecasts were revised upward to reflect assessments the recession would be less severe than had been forecast for 2021**.**

- The OECD estimated in September 2021 that global GDP had declined by -3.4% in 2020, compared with a December forecast of -4.2%, and would experience a stronger recovery in 2021 of 5.7%, instead of a March forecast of 5.6%.[83]
- Between January 2020 and January 2021, the World Bank also lowered its forecast of global growth from 2.5% to -4.3%; in its June 2021 forecast, the growth rate projection was revised up 1.5% to 5.6% for 2021. In most forecasts, advanced economies were projected to experience the steepest declines in economic growth from 2019 to mid-June 2020.

[82] Rowland, Christopher and Peter Whoriskey, "U.S. Health System is Showing Why It's Not Ready for a COVID-19 COVID-19," *Washington Post*, March 4, 2020. https://www.washingtonpost.com/business/economy/the-us-health-system-is-showing-why-its-not-ready-for-a-COVID-19-COVID-19/2020/03/04/7c307bb4-5d61-11ea-b29b-9db42f7803a7_story.html.

[83] *OECD Economic Outlook, Interim Report March 2021*, Organization for Economic Cooperation and Development, March, 2021.

Figure 3. Major Economic Forecasts by Region



Source: *OECD Interim Economic Outlook Forecast, September 2021*, Organization for Economic Cooperation and Development. September 2021; *World Economic Outlook,* International Monetary Fund, October, 2021; *Global Economic Prospects*, World Bank Group, January 2022, Created by CRS.

Notes: The OECD estimated rates of growth based on two alternative scenarios, indicated as OECD1 and OECD2. The first scenario estimated GDP rates of growth based on the assumption there would be a single wave of infections and economic impact experienced in spring 2020 from COVID-19, while the second scenario estimated GDP growth rates based on the assumption there would be a second economic recession similar to the contraction in early 2020 as a result of policy responses to a second wave of infections.

In the early stages of the global economic recession, forecasting difficulties were compounded by a historic drop in the price of crude oil. Since then, oil prices have recovered from the low of nearly $20 per barrel in April 2020 to a range of $40 to $45 per barrel by the end of 2020, in part reflecting the decline in global economic activity in 2020. By early June 2021, the international price of Brent crude oil had crossed the $70 per barrel mark, where it closed above $80 per barrel at the beginning of October 2021; on February 3, 2022, the price of oil breached $90 per barrel, with some forecasts projecting prices would rise above $100 per barrel.[84]

Through the first half of 2021, economic forecasts turned positive based on an expected return to pre-COVID-19 pandemic rates of growth. Nevertheless, the international economic situation has remained fluid. Uncertainty about the length and depth of the health crisis-related economic effects continues to influence the perceptions of risk and volatility in financial markets and to affect corporate decisionmaking. At various times, corporations have postponed investment decisions, laid off workers who had been furloughed, and in some cases filed for bankruptcy.

Progress in producing and administering vaccines through the first half of 2021 in advanced economies raised prospects that social distancing could be relaxed, which would improve economic activity. Current indicators suggest that 2021 GDP growth rates for most countries could outpace pre-COVID-19 pandemic forecasts; while economic growth in 2022 could return to more historic rates. However, growth may be dampened by a resurgence in viral cases; such resurgence could move governments to reinstate business and social lockdowns, and could result in continuing shortfalls in supplies.

[84] Gaffen, David, *U.S. Oil Busts Through $90/bbl for First Time Since 2014*, Reuters, February 3, 2022.

Global Trade

After contracting sharply in the first half of 2020, global trade rebounded in the second half of the year and continued to advance in 2021. Disruptions to global supply chains, however, restrained global trade growth, which also hampered global economic growth. The updated forecast also indicated the recovery in global trade in 2021 could be stronger than the WTO had projected in March 2021 (10.8% versus 0.1%), as indicated in **Table 2**, primarily reflecting expectations of a faster recovery in global GDP in 2021 (5.3% compared with 5.1%). The WTO data also indicated that through the third quarter of 2021, global merchandise export and import volumes were up 13% compared with the same period in 2021. Similarly, trade volumes were up 24% over the same period in the previous year and up 5.7% quarter over quarter.[85] The WTO also indicated that trade in services would lag behind the growth in goods trade and that disparities by geographical region would persist through 2021.[86]

According to the WTO's October 4, 2021, forecast update

- Global trade volumes (an average of exports and imports) fell by 5.3% in 2020, about half as much as the drop of 9.2% the WTO had forecasted in October 2020.[87]
- Revised WTO forecast indicates world merchandise trade volumes could increase by 10.8% in 2021, but then rise by 4.7% in 2022.
- Quarterly trade data indicate that in the first half of 2021, global merchandise export and import volumes were up 13% compared with the same period in 2020.
- Trade volumes fell by 0.8% in the third quarter of 2021, reportedly resulting from continuing supply chain disruptions, shortages of production inputs, and rising COVID-19 cases, as indicated in **Figure 4**.[88]
- Lower trade volumes in the third quarter also reflected lower imports for North America and Europe, which reduced exports from Asia. Gains in trade volumes were pronounced for North America, Europe, and Asia, with other regions lagging behind, as indicated in **Table 2**.
- Compared with the lower level of trade volumes in the third quarter of 2021, world merchandise trade values increased in the third quarter of 2021, rising by 24% compared with the same period in 2020. Reportedly, fuel prices, a major component of world merchandise trade values, increased by 137% in November 2021, compared with the same period in the previous year.[89]

The WTO concluded the trade recovery in the first half of 2021was broad-based, with all major goods categories experiencing year-over-year gains, and reflected strong monetary and fiscal policy actions taken by many governments. In particular, the WTO attributed the improved growth performance to fiscal policies that supported personal incomes in advanced economies

[85] Ibid., p. 1.

[86] World Trade Organization Press Release, *Global Trade Rebound Beats Expectations but Marked by Regional Divergences*, October 4, 2021

[87] *Global Trade Rebound Beast Expectations But Marked by Regional Divergences*, World Trade Organization, October 4, 2021.

[88] *Merchandise Trade Volume Declined in Q3 While Trade Values Continued to Rise*, World Trade Organization, January 12, 2022, at https://www.wto.org/english/news_e/news21_e/stat_20dec21_e.htm.

[89] Ibid., p. 1.

that, in turn, supported relatively higher levels of consumption and global trade. The WTO indicated, however, that supply shortages, particularly of semiconductor chips, could dampen the trade recovery in subsequent quarters.[90]

Table 2. WTO Forecast: Merchandise Trade Volume and Real GDP 2020-2022

Annual percentage change

	Forecast scenario (October 2020)		Forecast scenario (March 2021)			Forecast scenario (October 2021)		
	2020	2021	2020	2021	2022	2020	2021	2022
Volume of world merchandise trade	-0.1%	0.1%	-0.1%	0.1%	0.0%	-5.8%	10.8%	4.7%
Exports								
North America	-14.7	10.7	-8.5	7.7	5.1	-8.6	8.1	6.9
South and Central America	-7.7	5.4	-4.5	3.2	2.7	-4.7	7.2	2.0
Europe	-11.7	8.2	-8.0	8.3	3.9	-7.9	9.7	5.6
CIS			-3.9	4.4	1.9	-1.5	0.6	8.5
Africa			-8.1	8.1	3.0	-8.8	7.0	6.0
Middle East			-8.2	12.4	5.0	-11.6	5.0	9.6
Asia	-4.5	5.7	0.3	8.4	3.5	0.3	14.4	2.3
Imports								
North America	-8.7	6.7	-6.1	11.4	4.9	-6.1	12.6	4.5
South and Central America	-13.5	6.5	6.5	-9.3	8.1	-9.9	19.9	2.1
Europe	-10.7	8.7	-7.8	8.4	3.7	-7.6	9.1	6.8
CIS			-4.7	5.7	2.7	-5.6	13.8	-0.8
Africa			-8.8	5.5	4.0	-11.1	11.3	4.1
Middle East			-11.3	7.2	4.5	-13.9	9.3	8.7
Asia	-4.4	6.2	-1.3	5.7	4.4	-1.2	10.7	2.9
World Real GDP at market exchange rates	-4.8	4.9	-3.8	5.1	3.8	-3.5	5.3	4.1
North America	-4.4	3.9	-4.1	5.9	3.8	-4.0	5.6	3.7
South and Central America	-7.5	3.8	-7.8	3.8	3.0	-7.5	4.9	2.9
Europe	-7.3	5.2	-7.1	3.7	2.6	-6.4	4.3	4.0
CIS			-0.5	1.0	1.2	-2.7	3.9	3.4
Africa			-2.9	2.6	3.8	-2.8	3.5	4.1
Middle East			-6.0	2.4	3.5	-4.6	2.9	4.5
Asia	-2.4	5.9	-1.1	6.1	4.1	-0.9	6.1	4.7

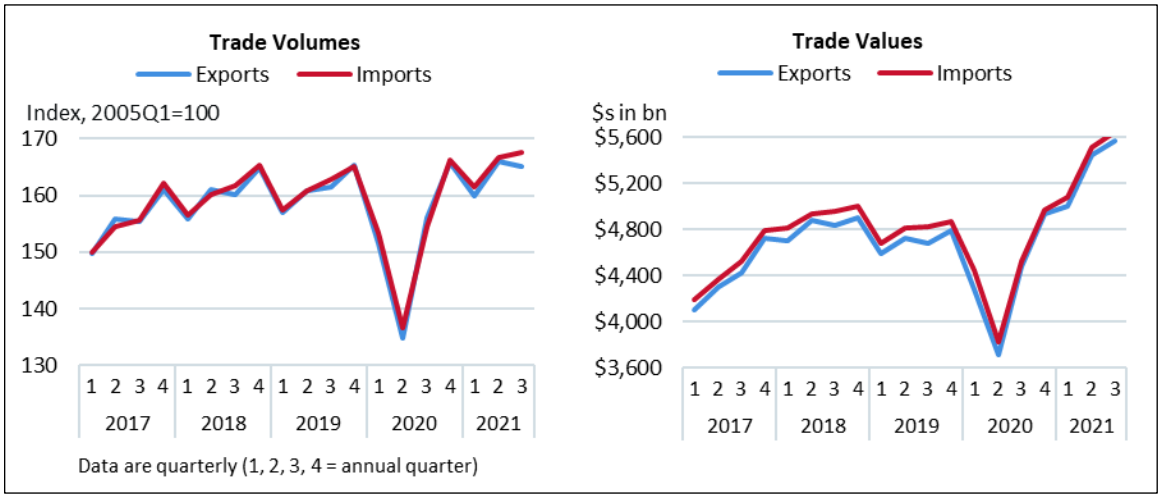
Source: Global Rebound Beats Expectations But Marked by Regional Divergences, World Trade Organization, October 4, 2021.

[90] Ibid., p. 1.

Notes: Data for 2021 and 2022 are projections; GDP projections are based on scenarios simulated with the WTO Global Trade Model. In the April and October forecasts, the CIS countries, Africa, and the Middle East were grouped together as "Other Regions." CIS is the Commonwealth of Independent States: Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan, and Ukraine.

Trade gains were more pronounced for North America, Europe, and Asia, with other regions lagging.

Figure 4. WTO Estimates of Quarterly Global Exports and Imports, Volumes and Values



Source: *Short-Term Trade Statistics*, World Trade Organization, January 2022. Created by CRS.

The COVID-19 pandemic also raised questions about the costs and benefits of the global supply chains developed over the past three decades. Evidence indicates that growth in supply chains had slowed prior to the pandemic, but there is little consensus on the long-term impact of the crisis. According to a December 2020 report by DHL and the New York University Stern School of Business, global interconnectedness comprises four distinct types of transactions: trade, capital, information, and people.[91] This analysis concluded that the COVID-19 affected cross-border movements of people in response to travel restrictions and in trade through a sharp contraction in the global economy. Capital flows also dropped during 2020 as a result of lower corporate earnings, business travel restrictions, negative business prospects, and concerns over global supply chains.[92]

In some cases, businesses reportedly were reassessing their exposure to the risks posed by extensive supply chains vulnerable to numerous points of disruption. Also, some governments were assessing the risks supply chains pose to national supplies of items considered to be important to national security, as a result of firms locating or moving production offshore. For some multinational businesses, changing suppliers and shifting production locations can be especially costly and can introduce additional risks.[93]

[91] Altman, Steven A. and Phillip Bastian, *DHL Global Connectedness Index 2020*.

[92] Ibid., p. 32.

[93] Beattie, Alan, Will Coronavirus COVID-19 Finally Kill Off Global Supply Chains? *Financial Times*, May 28, 2020, at https://www.ft.com/content/4ee0817a-809f-11ea-b0fb-13524ae1056b.

Foreign Investment

According to the United Nations Conference on Trade and Development (UNCTAD), global foreign direct investment (FDI) inflows fell by 35% in 2020 compared with the same period in 2019, with continued weakness expected in 2021.[94] Global inflow totals were driven in large part by the 58% decline in foreign investment inflows to developed economies, which reflects the slowdown in global GDP and trade. Inflows to Europe fell to -$4 billion, compared with inflows in 2019 of $344 billion. In contrast, inflows to developing economies fell by 8% over the period, aided in large part by positive inflows to Asia and China, in particular, where investment inflows increased by 6%. Investment flows to developing Asia, at $535 billion, increased by 4%, compared with 2019 and accounted for about half the total $1 trillion global direct investment inflows in 2020.[95]

During 2020, governments adopted measures to address the health and economic consequences of the COVID-19 pandemic.[96] These measures, along with the steps governments took to control the spread of COVID-19, had a negative impact on global foreign investment flows as well as on foreign trade. In addition, some national governments implemented new or expanded policies in 2020 and 2021 related to national security that limited foreign investment in certain health-related sectors and encouraged firms to relocate production from abroad. According to UNCTAD, these policies and measures included incentives and subsidies to increase domestic production of vaccines and PPE and direct state intervention through nationalization or through directives to increase output at facilities that currently produced PPE materials and at other facilities. EU members moved independently to amend existing legislation or adopt new rules to expand their review of foreign investments for national security reasons, particularly rules related to acquisitions of firms involved in the production of medical care and health. Australia, Canada, and Japan also expanded the range of foreign investments they screen. In some cases, policy changes included enhanced screening of foreign investment for "public interest" reasons that may remain after the pandemic.[97]

Financial Markets

As in the 2008-2009 global financial crisis, central banks responded to the pandemic by implementing a series of monetary operations to provide liquidity to their economies. The Dow Jones Industrial Average (DJIA) lost about one-third of its value between February 14, 2020, and March 23, 2020, reflecting in part investors' uncertainties concerning the impact of the pandemic. Investors were also affected by expectations the U.S. Congress would adopt a $1.7 trillion spending package and the Federal Reserve would create emergency lending facilities; these actions helped move the DJIA up by more than 11% on March 24, 2020. From March 23 to April 15, 2020, the DJIA rose by 18%, paring its initial losses in February and March 2020 by half. Since April 2020, the DJIA has trended upward, but has moved erratically at times as investors weighed news about monetary and fiscal policies, the human cost and economic impact of the COVID-19, and the prospects of various medical treatments. On Monday, November 9, 2020, the DJIA gained over 800 points, or nearly three percentage points, as markets responded positively to press reports that an effective COVID-19 vaccine had been developed. On November 10, 2020,

[94] *World Investment Report 2021*, United Nations Conference on Trade and Development, June, 2021. Investment Policy Instruments Adopted at the National and International level to Address the COVID-19 pandemic.

[95] Ibid., Investment Policy Monitor Investment Policy Responses to the COVID-19 Pandemic, International Monetary Fund, May 4, 2020.

[96] *World Investment Report 2020,* United Nations Conference on Trade and Development, 2020, p. 93.

[97] Ibid., p. 96.

the DJIA rose above 29,400 for the first time since the index fell in February 2020. Between January 1, 2021, and February 4, 2021, the DJIA increased by about 3.0%, continuing a rise in the index of 17% since the end of October 2020. On July 23, 2021, the DJIA crossed the 35,000 mark, nearly doubling the value of the index since March 23, 2020. In September 2021, trading sessions closing lower outnumbered sessions closing higher, with the index as a whole falling by 4.4% in value, the largest decline since October 2020.

In January 2022, financial markets experienced their worst monthly opening since the 2008-2009 global financial crisis. Reportedly, the decline in financial market valuations reflected ongoing concerns over the impact of the COVID-19 pandemic, geopolitical events (particularly tensions over Ukraine), and lower-than-expected corporate profits. Investors also remain concerned over the impact on market volatility of actions by the Fed and other central banks as they raise interest rates and shift to a less accommodative monetary stance to address concerns over rising inflation and potentially increased risk taking by financial institutions and investors.[98]

International Role of the Dollar

The dollar emerged as the preferred currency by investors once the pandemic started, as it had during the 2008-2009 financial crisis, reinforcing its role as the dominant global reserve currency.[99] The dollar appreciated more than 3.0% during the period between March 3 and March 13, 2020, reflecting increased international demand for the dollar and dollar-denominated assets. After the highs reached on March 23, 2020, the exchange value of the dollar dropped between 1% and 2% per month in a slow decline through December 2020, as financial strains eased and demand for the dollar in international financial markets lessened.

By the end of January 2021, the dollar had depreciated by more than 11% from the highest value it reached in March 2020. Between January 4, 2021, and mid-November 2021, the dollar appreciated 3% on a broad-dollar index basis. The development of COVID-19 vaccines likely affected the value of the dollar in various ways, including factors that tend to appreciate the dollar as a result of renewed economic growth in the United States and opposing forces that tend to depreciate the dollar if demand declines for the dollar as a safe-haven currency. As previously noted, central bank policies that kept key interest rates low also affected movements in the foreign exchange value of the dollar in 2021 by reducing arbitrage opportunities and curtailing volatility.[100] The Fed's announcement in January 2022 that it would engage in a series of interest rate increases in 2022 to address concerns over inflationary pressures increased demand by currency traders and others for dollar-denominated assets, which pushed the value of the dollar in late January 2022 to its highest level in 18 months.[101]

[98] According to the Federal Reserve, "monetary policy is considered to be 'accommodative' when it aims to make interest rates sufficiently low to spur strong enough economic growth to reduce unemployment or to prevent unemployment from rising." Board of Governors of the Federal Reserve System, "What does the Federal Reserve mean when it says monetary policy remains 'accommodative'?" FAQs, Money, Interest Rates, and Monetary Policy. Megaw and Steer, "US Stock Markets Endure Worst January Since Global Financial Crisis," Arnold, Martin, "Eurozone Inflation Hits Record 5.1% in January," *Financial Times*, February 2, 2022.

[99] Aldasoro, Iñaki, Egemen Eren, Wenqian Huang, "Dollar Funding of Non-US Banks Through COVID-19," *BIS Quarterly Revi*ew, Bank for International Settlements, March 2021.

[100] Currency arbitrage is the simultaneous buying and selling of currencies in two or more foreign exchange markets to exploit short-term differences in currency prices.

[101] Stubbington, Tommy, Dollar Hits Highest Level Since 2020 as Traders Brace for Fed Rate Rises, *Financial Times*, January 27, 2022.

As a result of the role of the dollar as a global reserve currency, disruptions in the smooth functioning of the global dollar market can have far-reaching repercussions on international trade and financial transactions. A June 2020 report by BIS stressed the central role of the dollar in the global economy by concluding that dollar funding activities are highly complex, geographically dispersed, and interconnected in ways that provide benefits to the stability of the global financial system. This also means, however, that strains in the system can easily spread across different financial markets and regions.[102]

According to IMF analysis in July 2020, the importance of the dollar in international trade pricing and trade financing means the dollar plays a key role in the global economic recovery.[103] The international role of the dollar also increases pressure on the Federal Reserve to take the lead as the global lender of last resort during crises. As in the 2008-2009 financial crisis, the global economy experienced a period of dollar shortage during the initial stages of the COVID-19 crisis in 2020 that required the Federal Reserve to act to ensure the supply of dollars to the U.S. and global economies. This included activating existing currency swap arrangements, establishing swap arrangements with additional central banks, and creating new financial facilities to provide liquidity to central banks and monetary authorities.[104]

Country Policy Responses

As the COVID-19 pandemic unfolded, most central banks followed the actions of Federal Reserve in providing liquidity to the financial system. This section focuses on actions the United States, the European Union, the United Kingdom, and Japan took. These economies collectively account for a large share of global output and trade and play a large role in influencing global financial and currency markets. During the spring of 2020 and subsequently, national governments adopted various fiscal measures to sustain economic activity. In response to growing concerns over the global economic impact of the COVID-19, G-7 finance ministers and central bankers released a statement on March 3, 2020, indicating they would "use all appropriate policy tools" to sustain economic growth.[105] The Finance Ministers also pledged fiscal support to ensure health systems can sustain efforts to fight the outbreak.[106] Many countries pursued individual strategies, with some banning exports of medical equipment. Following the G-7 statement, the U.S. Federal Reserve lowered its federal funds rate by 50 basis points, or 0.5%, to a range of 1.0% to 1.25% citing concerns about the "evolving risks to economic activity of the COVID-19."[107] The cut in interest rates stands as the largest one-time reduction in the interest rate by the Fed since the 2008-2009 global financial crisis.

As new cases emerged and governments renewed social and business lockdowns in late 2020, the IMF argued that advanced economies needed to sustain fiscal support for consumers and

[102] Bank for International Settlements, *U.S, Dollar Funding: An International Perspective*, CGFS Papers, No. 65, June 2020, p. 52.

[103] *Dominant Currencies and External Adjustment*, IMF Staff Discussion Note 20/05, International Monetary Fund, July 2020.

[104] Politi, James, Brendan Greeley, and Colby Smith, "Fed Sets Up Scheme to Meet Booming Foreign Demand for Dollars," *Financial Times*, March 31, 2020, at https://www.ft.com/content/6c976586-a6ea-42ec-a369-9353186c05bb.

[105] *Statement of G-7 Finance Ministers and Central Bank Governors*, March 3, 2020; Long, Heather, "G-7 Leaders Promise to Help Economy as COVID-19 Spreads, But They Don't Announce Any New Action," *Washington Post*, March 3, 2020.

[106] Giles et al., "Finance Ministers Ready to Take Action."

[107] *Federal Reserve Releases FOMC Statement*, March 3, 2020.

businesses as the most effective means of stimulating their economies. According to the IMF, in 60% of the global economy, central banks had pushed key interest rates below 1% and in one-fifth of the global economy, interest rates were below zero. In such circumstances, economists generally argue that adjusting fiscal policy, or government taxing and spending, is the more effective policy tool for raising the rate of economic growth.[108] The IMF concluded, "Fiscal policy must play a leading role in the recovery."[109]

The United States

Recognizing the growing impact COVID-19 was having on financial markets and economic growth, the Fed took a number of steps in 2020 to promote economic and financial stability involving the Fed's monetary policy and "lender of last resort" roles.[110] Some of these actions were intended to stimulate economic activity by reducing interest rates; others were intended to provide liquidity to financial markets so firms would have access to needed funding. Fiscal stimulus measures included the following congressional actions:

- Adopted the Coronavirus Preparedness and Response Supplemental Appropriations Act on March 5, 2020 (H.R. 6074, (P.L. 116-123), to appropriate $8.3 billion in emergency funding to support efforts to fight COVID-19; President Trump signed the measure on March 6, 2020.
- President Trump also signed on March 18, H.R. 6201 (P.L. 116-127), the Families First Coronavirus Response Act, that provided paid sick leave and free COVID-19 testing, expanded food assistance and unemployment benefits, and required employers to provide additional protections for health care workers.
- On March 25, 2020, the Senate adopted the Coronavirus Aid, Relief, and Economic Security Act (S. 3548) to formally implement President Trump's proposal by providing direct payments to taxpayers, loans and guarantees to airlines and other industries, and assistance for small businesses. The House adopted the measure as H.R. 748 on March 27, and President Trump signed the measure (P.L. 116-136) on March 27.
- On April 23, 2020, the House of Representatives passed H.R. 266 (P.L. 116-139), the Paycheck Protection Program and Health Care Enhancement Act, following similar actions by the Senate the previous day. The measure provided $484 billion for small business loans, health care providers, and COVID-19 testing.
- On December 27, 2020, President Trump signed the Consolidated Appropriations Act of 2021 (P.L. 116-260) that provided funding for government operations and $900 billion in additional funding for COVID-19 related programs and a $1.4 trillion budget that comprised 12 appropriations bills.
- The U.S. Congress passed a $1.9 trillion economic stimulus bill, designated the American Rescue Plan Act of 2021 (P.L. 117-2). It was signed by President Biden on March 11, 2021.

[108] Gopinath, Gita, Global Liquidity Trap Requires a Big Fiscal Response, *Financial Times*, November 3, 2020, at https://www.ft.com/content/2e1c0555-d65b-48d1-9af3-825d187eec58.

[109] Ibid.

[110] CRS Report R46606, *COVID-19 and the U.S. Economy*, by Lida R. Weinstock.

On May 5, 2021, the Biden administration announced it would support international discussions to waive intellectual property restrictions on COVID-19 vaccine production for developing economies.[111] Prior to this announcement, developed economies, including Britain, Switzerland, the EU, and the United States, had blocked a proposal by over 80 developing countries at the WTO to suspend intellectual property rights restrictions on production of COVID-19 vaccines and other products.[112] The EU rejected the U.S. proposal to drop IP protections and offered a three-point plan of its own that included (1) maintaining export restrictions; (2) encouraging vaccine manufacturers to negotiate agreements with producers in developing economies and increasing vaccine supplies to vulnerable countries; and (3) using existing WTO rules to grant licenses to producers without the consent of the patent holder.[113] During the G-7 summit in England on June 11, 2021, the United States and the other G-7 leaders announced they would provide a combined total of one billion doses of the COVID-19 vaccine, in addition to lifesaving medical supplies, oxygen, diagnostics, therapeutics, and PPE, to low and middle income countries.[114]

In 2021, the U.S. economy grew at above historical rates in all but the third quarter and posted an above average annual rate of growth. On January 27, 2022, BEA released estimated fourth quarter and annual 2021 GDP data. The data indicate the U.S. economy grew at an annual rate of 5.7% in 2021, sharply higher than the -3.4% rate posted in 2020. The acceleration in the annual rate of growth was led by increased spending by consumers on goods and services, an increase in business investment spending and exports, and a small increase in government spending. In contrast, U.S. GDP fell at an annualized rate of 31.4% in the second quarter of 2020, after falling by 5.0% at an annualized rate in the first quarter.[115]

On February 4, 2022, BLS reported that nonfarm employment rose by 467,000 in January to reach 149.6 million, rising by less than the previous month's increase of 510,000; the total number of unemployed Americans was 6.5 million, up from the previous month's total of 6.3 million;[116] the unemployment rate stayed steady at 4.0%, again with some caveats.[117] The data also indicated that 3.1 million persons reported in December they did not work at all or worked fewer hours at some point in the previous four weeks because their employer closed or lost business due to the COVID-19 pandemic.

[111] Diamond, Dan, Tyler Pager, and Jeff Stein, Biden Commits to Waiving Vaccine Patents, Driving Wedge With Pharmaceutical Companies, *The Washington Post,* May 5, 2021.

[112] *Rich, Developing Economies Wrangle Over COVID Patents*, Reuters, March 10, 2021, at https://www.reuters.com/article/us-health-coronavirus-wto/rich-developing-nations-wrangle-over-covid-vaccine-patents-idUSKBN2B21V9; CRS InFocus 11858, *Potential WTO TRIPS and COVID-19,* Shayerah Akhtar.

[113] Blenkinsop, Phillip, Resisting Patent Waiver, EU Submits Vaccine Plan to WTO, *Reuters*, June 4, 2021, at https://www.reuters.com/world/europe/eu-executive-submits-vaccine-access-proposal-wto-2021-06-04/.

[114] Scott, Eugene, G-7 Leaders Commit to Making 1 Billion Coronavirus Vaccines Available Starting This Summer, *The Washington Post*, June 11, 2021.

[115] *Gross Domestic Product, Fourth Quarter and Year 2021, (Advance Estimate)*, Bureau of Economic Analysis, January 27, 2022.

[116] This total does not include 3.7 million workers who were working part time not by choice and 5.7 million individuals who were seeking employment.

[117] *The Employment Situation-January 2022*, Bureau of Labor Statistics, February 4, 2022. BLS indicated that some individuals had been misclassified in previous months. Instead of being classified as unemployed, they were misclassified as employed, but absent from work due to coronavirus-related business closures. If such individuals had been classified as unemployed, the unemployment rate would have been 5 percentage points higher in April 2020.

GDP Output "Gap"

Another measure of the economic impact of the COVID-19 pandemic on the global economy is represented by the difference between actual economic performance, measured by GDP, and potential output, or the maximum amount an economy can produce at full employment, referred to as the output gap.[118] The IMF estimated that the loss in economic output represented by the GDP output gap among major advanced economies, which as a group accounts for about 60% of global GDP, would be -3.6% of potential GDP in 2020, or that the economies operated at a rate that was 3.6% below their combined potential.[119] According to the IMF's assessment, not only would the major advanced economies as a group operate below their full potential through 2025, but none of the individual economies was projected to operate above potential during the 2020-2025 forecasting period. The Euro area as a whole, and France and Italy in particular, were projected to experience the largest output gap through 2022. At 3.2%, the U.S. output gap was among the smallest of the major advanced economies.

On July 2, 2021, the Congressional Budget Office (CBO) issued an updated estimate of the impact of the COVID-19 pandemic on the U.S. GDP output gap and on other major indicators.[120] In the forecast, the U.S. output gap in 2020 was shown at 3.3%, similar to the size of the gap estimated by the IMF. This would represent the largest difference between the actual and potential output in the U.S. economy since the period following the 2008-2009 financial crisis, as indicated in **Figure 5**. The CBO also suggested that the output gap following the financial crisis persisted from 2009-2016, reflecting the lengthy period of the recovery. In the current context, the CBO estimates that

- a rise in vaccinations would lead to reductions in social distancing and an economic recovery;
- real GDP would expand in 2021 and reach its pre-COVID-19 peak in mid-2021;
- the labor force participation rate would recover, but lag behind the pre-COVID-19 rate through the estimation period.[121]

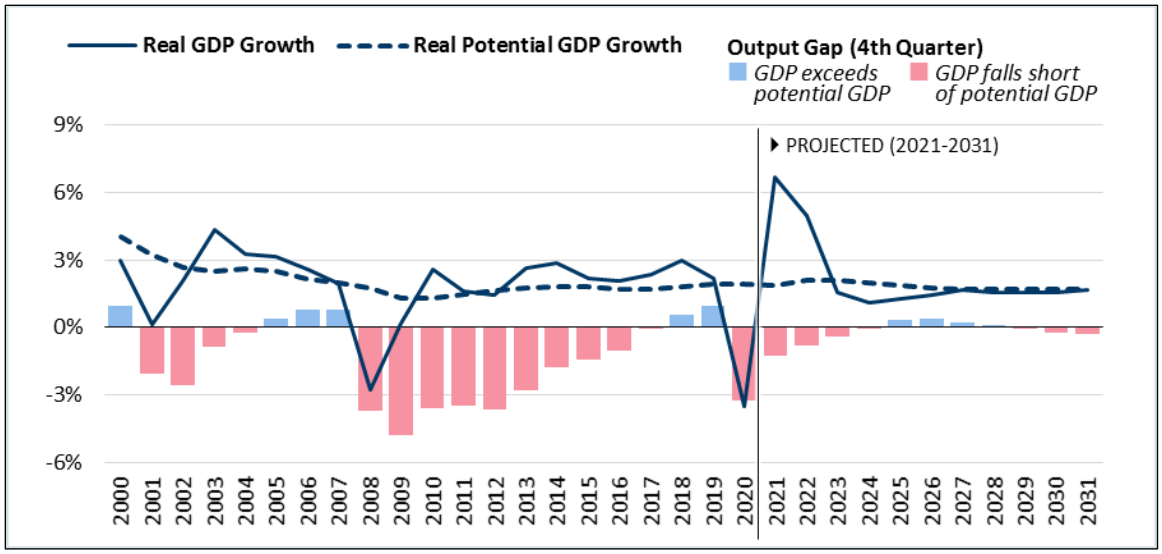
[118] According to the Congressional Budget Office, the output gap is the difference between GDP and potential GDP, expressed as a percentage of potential GDP. A positive value indicates that GDP exceeds potential GDP; a negative value indicates that GDP falls short of potential GDP. Values for the output gap are for the fourth quarter of each year; *CBO's Method for Estimating Potential Output: An Update*, Congressional Budget Office, August,2001.

[119] *World Economic Outlook*, International Monetary Fund, October, 2020, Table A.8.

[120] *An Update to the Budget and Economic Outlook: 2021 to 2031*, Congressional Budget Office, July 2021.

[121] Ibid., p. 1.

Figure 5. Real and Real Potential (Adjusted for Inflation) U.S. GDP and the Output Gap



Source: Congressional Budget Office, July 2021. Created by CRS.

Notes: The output gap is the difference between GDP and potential GDP, expressed as a percentage of potential GDP. A positive value indicates that GDP exceeds potential GDP; a negative value indicates that GDP falls short of potential GDP. Values for the output gap are for the fourth quarter of each year.

Europe

In the early stages of the COVID-19 pandemic, European countries did not adopt a synchronized fiscal policy response similar to the one they developed during the 2008-2009 global financial crisis. For the most part, EU members used a combination of national fiscal policies and bond buying by the European Central Bank (ECB) to address the economic impact of COVID-19. Individual countries adopted quarantines, required business closures, travel and border restrictions, tax holidays for businesses, extensions of certain payments and loan guarantees, and subsidies for workers and businesses. The European Commission advocated for greater coordination among the EU members in developing and implementing monetary and fiscal policies to address the COVID-19 economic fallout.

After protracted talks, on July 21, 2020, European leaders agreed to an unprecedented common economic recovery program, estimated at €750 billion (about $859 billion), to provide a COVID-19 economic assistance package to support European economies. On December 11, 2020, EU members finalized the agreement, which took effect in February 2021. The package represents the first EU-wide debt-financed deficit spending facility in EU history; it consisted of a Recovery and Resilience Facility (RRF) that provided up to €312.5 billion in grants and €360 billion in loans and support and funds for existing budget priorities to speed up Europe's recovery from the economic impact of COVID-19. The EU described the Facility as the centerpiece of its NextGenerationEU program, a temporary recovery instrument that allows the EC to raise funds issued jointly by EU members to address the economic and social impact of the COVID-19 pandemic.[122] Individual EU members developed their own recovery and resilience plans through 2020 and 2021 to support clean technologies and renewable energy, energy efficiency, sustainable

[122] European Commission, *The Recovery and Resilience Facility*. https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en#the-recovery-and-resilience-task-force.

transportation and recharging stations, broadband services, green transition, digital transformation, and education and skills training, among other areas.

Over the summer of 2020, European governments attempted a phased reopening of businesses.[123] These efforts generated a 12.4% increase in GDP in the Eurozone in the third quarter of 2020. Initial estimates indicated the EU economic rate of growth nearly stalled in the fourth quarter, falling by 0.5% due to a resumption of lockdown measures. Such lockdowns became more widespread in September and October of 2020, as infectious cases began rising in Germany, France, the United Kingdom, the Czech Republic, the Netherlands, Spain, and Poland.[124] By mid-October 2020, Greece and Belgium also had begun implementing business lockdowns and social distancing measures. Germany reportedly closed bars, restaurants, and most public entertainment, France closed bars and restaurants and imposed travel restrictions, and on October 31, 2020, UK Prime Minister Boris Johnson announced a month-long lockdown across the UK.[125]

The WHO indicated in early January 2021, that 230 million Europeans were living under lockdown restrictions at that time and that 26 million Europeans had contracted COVID-19 in 2020.[126] As of October 6, 2021, the WHO estimated that 1.3 million Europeans had died from the disease, nearly twice as many as in the United States during the same period. In an attempt to stop the spread of new variant strains of the virus, the UK, Ireland, Germany, Denmark, and some northern Italian regions closed schools in January 2021 for several weeks.[127] Reportedly, disputes over COVID-19 vaccine distribution within and among European countries and with Britain and the spread of more virulent strains of the COVID-19 virus increased public criticism of government leaders in some EU countries and prompted renewed business lockdowns and school closures.[128]

According to the European Commission (EC), the EU experienced quarterly rates of growth in the second (14.2%) and third (4.2%) quarters of 2021that exceeded earlier forecasts and indicated the EU economy was rebounding "faster than expected."[129] Based on these data, the EC estimated the EU would grow by 5.0% in 2021 and 4.3% in 2022. This growth projection, however was based on the assessment that increases in COVID-19 vaccinations would continue, which it

[123] Stott, Michael, Coronavirus Set to Push 29m Latin Americans Into Poverty, *Financial Times*, April 24, 2020. at https://www.ft.com/content/3bf48b80-8fba-410c-9bb8-31e33fffc3b8; Hall, Benjamin, Coronavirus COVID-19 Threatens Livelihoods of 59m European Workers, *Financial Times*, April 19, 2020, at https://www.ft.com/content/36239c82-84ae-4cc9-89bc-8e71e53d6649, Romei, Valentina and Martin Arnold, Eurozone Economy Shrinks by Fastest Rate on Record, *Financial Times*, April 30, 2020, at https://www.ft.com/content/dd6cfafa-a56d-48f3-a9fd-aa71d17d49a8.

[124] "Lockdown 2.0: Europe Imposes Painful Curbs as Infections Surge," *Financial Times*, October 16, 2020, at https://www.ft.com/content/b1a7d1e8-4bb9-41cf-be5b-2f7f04bdb9bb.

[125] Peel, Michael, "European Countries Impose Shutdowns as Covid-19 Cases Rise," *Financial Times*, October 30, 2020. https://www.ft.com/content/a89f89ba-08be-44e2-8d21-3e9ada605e17; Packard, Jim, "Boris Johnson Announces Second Lockdown for England," *Financial Times*, October 31, 2020, https://www.ft.com/content/8c2ede22-9dcf-4d31-81ef-82ae4ee76e10.

[126] Clarfelt, Harriet, "COVID-19 at 'tipping point', Says WHO Europe Official," *Financial Times*, January 7, 2021. https://www.ft.com/content/9b42e8fa-dde1-3663-a4ad-7d6605121866.

[127] Hall, Ben, Bethan Staton, Joshua Chaffin, Guy Chazan, "European Capitals Follow UK With School Closures as Virus Surges," *Financial Times*, January 7, 2021. https://www.ft.com/content/8121ca0a-4d96-4cf5-b5df-a73adc16a606.

[128] Chazan, Guy, "We Are a Laughing Stock': Covid-19 and Germany's Political Malaise," *Financial Times*, April 1, 2021. https://www.ft.com/content/bc5a3b02-a90d-4206-a441-1bada29feba2.

[129] *European Economic Forecast Autumn 2021*, European Commission, November 2021, p.1.

assessed as being "crucial to a sustained recovery."[130] The European economy faces other challenges that could affect the pace and strength of the recovery in 2022. These challenges include shortages of raw materials and microprocessors and high energy prices. On the other hand, the European economy benefitted from an increase in household consumption; increased levels of mobility, business investment spending, and government consumption.[131] The IMF estimated that European economies would regain their pre-pandemic output levels by the end of 2021.[132]

The United Kingdom

The United Kingdom initiated a number of monetary and fiscal policy actions in 2020 and 2021 to support economic activity and to limit the damage to the UK economy due to the COVID-19 pandemic-related global economic recession. In 2020 the UK economy contracted by -9.7%.[133] This decline was driven by lower levels of household activity, business investment (gross fixed capital formation): primarily manufacturing, and construction and a contraction in both exports and imports.[134] In contrast, an expansion in the third and fourth quarters occurred in services, industrial production, and construction.

In February 2022, the Bank of England forecasted that the UK economy would expand by 7.8% in 2022, but grow at a rate of 1.8% in 2023 as it scales back the monetary and fiscal stimulus it has provided to the economy.[135] The Bank of England indicated in February 2022 it would raise its base interest rate by 0.25% to 0.5% and begin reducing its bond purchases.[136]

Japan

As a countermeasure to the COVID-19-related economic crisis, the Bank of Japan (BOJ) injected $4.6 billion in liquidity into Japanese banks in March 2020, to provide short-term loans for purchases of corporate bonds and commercial paper and twice that amount into exchange-traded funds to aid Japanese businesses. The Japanese government also provided wage subsidies for parents forced to take time off due to school closures.[137] In March 2020, Japan also adopted an emergency fiscal package of about $1.1 trillion, roughly equivalent to 10% of Japan's annual GDP. On April 27, 2020, the BOJ announced it would purchase unlimited amounts of government bonds and quadruple its purchases of corporate debt to keep interest rates low and stimulate the Japanese economy.[138]

In May 2020, the Japanese Cabinet proposed a second supplemental appropriation measure that included $296 billion in spending and a total value of about $1.1 trillion in loans and guarantees, funded through new bonds. This and a previous set of spending measures reportedly were

[130] Ibid., p. xi.

[131] *Eurostat, Euroindicators*, September 7, 2021.

[132] *Regional Economic Outlook: Europe*, International Monetary Fund, October 2021.

[133] *European Economic Forecast, Autumn 2021*, European Commission, November 2021, p. 137.

[134] *GDP Quarterly National Accounts, UK: October to December 2020*, Office for National Statistics, March 31, 2021.

[135] *Monetary Policy Report*, Bank of England, February 2022, p. 3.

[136] Ibid., Summary I.

[137] Harding, Robin and Hudson Lockett, "BOJ Spurs Asia Markets Rebound With Vow to Fight Covid-19," *Financial Times*, March 2, 2020. https://www.ft.com/content/9fa91e06-5c3b-11ea-b0ab-339c2307bcd4.

[138] Harding, Robin, Bank of Japan Steps up Coronavirus Stimulus With Bond-buying Pledge, *Financial Times*, April 27, 2020. https://www.ft.com/content/7ba5c507-df9e-4107-87eb-73afa2c13e91.

comparable to 40% of Japan's GDP and included grants for businesses to pay rents through the Development Bank of Japan; funds to small and medium-sized businesses through the Regional Economy Vitalization Corporation of Japan; payments to assist furloughed workers; and a reserve fund to provide capital injections to struggling firms through the Japan Investment Corporation.[139]

In terms of monetary policy in 2020, the Bank of Japan (BOJ) maintained its low interest rates policy of -0.1%, even as it increased its coronavirus lending facility from $700 billion to $1 trillion and stated it would continue purchasing commercial paper, corporate bonds, and exchange-traded funds at the rate of ¥12 trillion a year.[140] The COVID-19 lending facility assisted banks in providing zero interest rate loans to businesses. In a separate program, the BOJ provided about ¥110 trillion to buy commercial paper and corporate bonds and provided dollars through swap arrangements with the U.S. Federal Reserve. Japan reported on August 17 that its economy had contracted by 7.8% in the second quarter of 2020, compared with the previous quarter, or at an annual a rate of 27.8%. This drop in economic activity was precipitated by a drop in exports of 18.5% from the preceding quarter (56.0% at an annual rate) and a decline in personal consumption of 8.6% (30.1% at an annual rate).[141]

On January 19, 2022, the BOJ issued a revised forecast that indicated Japan's GDP had contracted by 2.8% in Japan's 2021 and projected the economy would grow by 3.8% in 2022 and by 1.1% the following year. However, the Bank remained "highly uncertain," because its forecast faced large downside risks that were based on the assumption the COVID-19 pandemic would begin to wane in 2021 as a result of an increase in vaccinations.[142] The Bank also indicated its forecast assumed that global trade would grow as other economies began reviving, that domestic consumer spending and business investment would strengthen, and that financial conditions would remain accommodative.[143]

Asian Development Bank 2021 Forecast

According to the Asian Development Bank's (ADB) December 2021 outlook supplement,[144] developing Asia GDP was projected to grow by 7.2% in 2021 and 5.3% in 2022, reportedly due to the emergence of new strains of the COVID-19 virus, a slowdown in global trade and national quarantines.[145] Similar to those of other groups, the ADB's forecasts indicate progressively more positive rates of growth in East Asia in 2022, although the rate of growth in China, projected to be 8.0% in 2022, lowers the overall rate of growth of the region. For East Asia as a region, the ADB lowered its forecast for 2021 from 7.6% to 7.5% and from 5.1% to 5.0% for 2022. Hong Kong, which experienced a slowing rate of growth in 2020 due to preexisting trade issues between the United States and China that were exacerbated by the COVID-19 pandemic and domestic political turmoil, was projected to experience a 4.5% rate of growth in 2021 and a 3.5% rate in 2022.[146] Hong Kong's economy is expected to sustain an economic recovery in 2022 based on increased consumption, higher levels of business spending, and increased levels of trade.

[139] Harding, Robin, "Japan's Cabinet Approves Extra $1.1 Trillion Budget to Counter Recession," *Financial Times*, May 27, 2020. https://www.ft.com/content/ce7f3564-c997-339c-ad3d-c6d092fb7f1e.

[140] Harding, "Bank of Japan Pledges $1Trillion in Coronavirus Lending," *Financial Times*, June 16, 2020.

[141] *Quarterly Estimates of GDP for April - June 2020 (First Preliminary Estimates)*, Cabinet Office, August 17, 2020.

[142] *Outlook for Economic Activity and Prices (January 2022)*, Bank of Japan, January 19, 2022.

[143] Ibid., p. 1.

[144] *Asian Development Outlook Supplement*, Asian Development Bank, December 2021.

[145] Ibid.

[146] Ibid., p. 1.

ADB sub-regional forecasts indicate that South Asia is projected to experience a rate of growth of 8.6% in 2021 and 7.0% in 2022. India, the major economy in the region, is projected grow at a rate of 7.5% in 2022, downgraded from the previous forecast of 9.7%. Countries in the region have implemented different measures to contain the spread of the virus, reflecting differences in the extent of viral infections. Across governments in the region, total fiscal support totaled $3.6 trillion by the end of August 2020, divided between income support measures and measures intended to support liquidity. As in other regions and countries, growth prospects in developing Asia depend on the length and depth of the health crisis and the trade tensions between the United States and China.

In Southeast Asia, mobility restrictions to reduce the spread of COVID-19 negatively affected economic growth. The growth rate for 2021 was lowered from 3.1% to 3.0%, but raised for 2022 to 5.1%.[147]

Multilateral Response[148]

International Monetary Fund

The COVID-19 pandemic resulted in very high demand for IMF financial assistance. By April 2020, more than 100 of the IMF's 189 member countries had requested IMF programs,[149] although not all requestors had received assistance. In March 2020, IMF Managing Director Kristalina Georgieva stated the IMF stood ready to deploy the entirety of its current lending capacity—approximately $1 trillion—in response to the COVID-19 and resulting economic crises.[150] The IMF approved several COVID-related programs, including for Bolivia, Chad, the Democratic Republic of Congo, Kyrgyz Republic, Nigeria, Niger, Rwanda, Madagascar, Mozambique, Pakistan, and Togo, among others, and additional programs are expected.[151]

In addition to loans, the IMF tapped its Catastrophe Containment and Relief Trust (CCRT), a donor country trust fund at the IMF, to cover six months of debt payments owed to the IMF by 29 low-income countries. The IMF created a new Short-term Liquidity Line, a revolving and renewable backstop for member countries with very strong economic policies in need of short-term and moderate financial support.[152] The IMF also adopted proposals to accelerate board consideration of member financing requests for emergency financing and doubled (to about $100 billion) access to IMF emergency assistance. In previous crises, the IMF provided funding to poor and emerging market economies that were short on financial resources.[153] If the economic effects

[147] Ibid., p. 1.

[148] For more information, see CRS Report R46342, *COVID-19: Role of the International Financial Institutions*, by Rebecca M. Nelson and Martin A. Weiss.

[149] Remarks by IMF Managing Director Kristalina Georgieva During the G20 Finance Ministers and Central Bank Governors Meeting, International Monetary Fund, April 15, 2020.

[150] IMF Managing Director Kristalina Georgieva's Statement Following a G20 Ministerial Call on the Coronavirus Emergency, March 23, 2020. Some policy experts estimate the IMF's current maximum lending capacity is about $787 billion.

[151] IMF Lending Tracker, https://www.imf.org/en/Topics/imf-and-covid19/COVID-Lending-Tracker.

[152] "IMF Adds Liquidity Line to Strengthen COVID-19 Response," International Monetary Fund, April 15, 2020.

[153] Politi, James, "IMF Sets Aside $50bn for Covid-19-Hit Countries," *Financial Times*, March 4, 2020, https://www.ft.com/content/83c07594-5e3a-11ea-b0ab-339c2307bcd4.

of the virus persist, countries may need to coordinate fiscal and monetary policy responses, as did the G-20 following the 2008-2009 global financial crisis.

In August 2021, the IMF announced it was supporting low- and middle-income countries in their response to the COVID-19 crisis through a $650 billion allocation in special drawing rights (SDRs): reportedly the largest increase on record. The SDR allocation is intended to supplement the existing financial reserves to reduce their need to turn to domestic or external sources of funds. About $275 billion of the funds is to be allocated to emerging and developing economies, with the rest for developed economies.[154] Despite the IMF's various announcements and pledges of support for heavily indebted countries, through October 2021 it had not played a leading role in alleviating the economic impact of COVID-19[155]

In addition to the IMF, the G-20 in cooperation with the Paris Club initiated efforts to provide assistance through a Common Framework for Debt Treatments to support countries with unsustainable levels of debt.[156] In part due to opposition by China, the initiative had not progressed through October 2021. In late October, the Biden Administration was pressing the G-20 to speed up its response.[157] As a percentage share of GDP, multilateral developments banks (MDBs) provided commitments of funds that were much smaller than that of highly developed economies; nevertheless through May 2021, the MDBs reportedly increased their financial commitments by 39% to about $145 billion, with the World Bank providing about half of that amount.[158]

The World Bank

The World Bank, which, among other activities, finances economic development projects in low- and middle-income countries mobilized its resources to support these countries during the COVID-19 pandemic.[159] By June 1, 2020, the World Bank had approved, or was in the process of approving, 150 COVID-19 projects, totaling $15 billion, in 99 countries.[160] Examples of approved projects include $47 million for the Democratic Republic of Congo to support containment strategies, train medical staff, and provide equipment for diagnostic testing to ensure rapid case detection; $11.3 million for Tajikistan to expand intensive care capacity; $20 million for Haiti to support diagnostic testing, rapid response teams, and outbreak containment; and $1 billion for India to support screening, contract tracing, and laboratory diagnostics, procure personal protective equipment, and set up new isolation wards, among other projects.[161]

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[154] Jonathan Wheatley in London and Colby Smith, IMF Allocates $650bn to Boost COVID-19-hit Economies, *Financial Times,* August 2, 2021.

[155] How Has the IMF Fared During the COVID-19? *Economist.* April 3, 2021. https://www.economist.com/finance-and-economics/2021/04/03/how-has-the-imf-fared-during-the-COVID-19?

[156] The Paris Club is an informal group of official creditors whose role is to find coordinated and sustainable solutions to the payment difficulties experienced by debtor countries.

[157] U.S. Pushing to Speed up G20 Common Debt Restructuring Process, Reuters, October 21, 2021. https://www.reuters.com/world/us/us-pushing-speed-up-g20-common-debt-restructuring-process-2021-10-27/.

[158] Lee, Nancy and Rakan Aboneaaj, MDBs to the Rescue? The Evidence on COVID-19 Response, Center for Global Development, May 2021. https://www.cgdev.org/publication/mdbs-rescue-evidence-covid-19-response.

[159] Remarks by World Bank Group President David Malpass on G20 Finance Ministers Conference Call on COVID-19, March 23, 2020.

[160] https://maps.worldbank.org/. Accessed on February 9, 2022.

[161] World Bank, "World Bank Group Launches First Operations for COVID-19 (Coronavirus) Emergency Health Support, Strengthening Developing Country Response," Press Release, April 2, 2020.

In its January 2022 forecast update,[162] the World Bank concluded that

- Global growth in 2021 was 5.5%, but projected to fall in 2022 to 4.1%, which would constitute the sharpest slowdown after an initial rebound from a global recession since the 1970 due to an increase in COVID-19 infections and persistent supply bottlenecks.
- Among developed economies, high vaccination rates and sizable fiscal support helped limit some of the adverse economic impacts of the COVID-19 pandemic; the rate of growth for the group of countries as a whole was projected to decline from 5.0% in 2021 to 3.8% in 2022.
- In developing economies, the pace of recovery has been slowed by reduced levels of policy support and tightened financing conditions; the growth rate was projected to fall from 6.3% in 2021 to 4.6% in 2022.[163]

Potential Debt Crises and Debt Relief Efforts

COVID-19 could trigger a wave of defaults around the world if advanced economies begin tapering off monetary support measures in ways that increase interest rates and, therefore, raise borrowing costs for developing economies.[164] In the third quarter of 2019—before the outbreak of COVID-19—global debt levels reached an all-time high of nearly $253 trillion, about 320% of global GDP.[165] About 70% of global debt is held by advanced economies and about 30% is held by emerging markets. Globally, most debt is held by nonfinancial corporations (29%), governments (27%) and financial corporations (24%), followed by households (19%). Debt in emerging markets has nearly doubled since 2010, primarily driven by borrowing from state-owned enterprises.

High debt levels make borrowers vulnerable to shocks that disrupt revenue and inflows of new financing. The disruption in economic activity associated with COVID-19 is a wide-scale exogenous shock that may make it significantly more difficult for many private borrowers (corporations and households) and public borrowers (governments) around the world to repay their debts. COVID-19 initially hit the revenue of corporations in a range of industries: some factories ceased production, brick-and-mortar retail stores and restaurants closed, commodity prices plunged (Bloomberg commodity price index—a basket of oil, metals, and food prices—initially dropped 27% to its lowest level since 1986), and overseas and in some cases domestic travel was curtailed.[166] In 2021, commodity prices in various markets began from the lows experienced in 2020; Brent crude oil, for example, rose from $51 per barrel in January 2021 to nearly $85 per barrel in November 2021. Some governments, including those of Argentina and Lebanon, were already experiencing debt pressures, which were intensified by COVID-19. Other

[162] *Global Economic Prospects,* World Bank Group, January 2022,

[163] Ibid., pp. 4-5.

[164] John Plender, "The Seeds of the Next Debt Crisis," *Financial Times*, March 4, 2020; Guterres' Antonio, Lasting Damage of Pandemic, Debt Burdens Preventing Developing Countries from Investing in Recovery, Secretary-General Tells Financing Meeting, press release, United Nations, September 28, 2021.

[165] Emre Tiftik, Khadija Mahmood, Jadranka Poljak, and Sonja Gibbs, "Global Debt Monitor: Sustainability Matters," Institute for International Finance, January 13, 2020.This includes debt held by governments, financial institutions, nonfinancial institutions, and households.

[166] "Covid-19 Worsens Debt Crisis in Poor Countries," Jubilee Debt Campaign, March 22, 2020.

countries have faced new debt pressures created by COVID-19, while some countries, such as Abu Dhabi and Egypt, completed successful sovereign bond sales in 2020.[167]

Issues for Congress

According to many indicators, significant parts of the global economy appear to have weathered the worst of the economic recession resulting from the COVID-19-related social distancing and business lockdowns in early 2020. However, rolling epidemic hotspots and the emergence of new variants of the COVID-19 virus continue to add to the overall economic and human costs and to uncertainties about the timing of a sustained recovery. Governments adopted policies to curtail the virus's spread that inadvertently caused an economic recession and temporarily altered the daily patterns of peoples' lives. After two years, it remains unclear how quickly and to what extent people will return to their pre-COVID-19 patterns.

For Members of Congress, the COVID-19-related economic and social costs could influence public policy debates for some time. Areas for Congress to address could include the following.

- During the pandemic, segments of the labor force have shifted from working onsite to working at home. After a prolonged period of working offsite, some workers question the need to return to pre-pandemic labor arrangements. Should new labor arrangements and work patterns become commonplace, questions arise about the impact on housing, traffic patterns, public transportation, labor force participation rates, and child care arrangements. What role might Congress play in assessing and addressing such changes?
- The COVID-19 pandemic highlighted weaknesses in supply chains and the production of certain types of equipment, including PPE, that had not previously featured prominently in national security discussions. Arguably, the pandemic raised the profile of public health as a national security issue. It also highlighted the importance of improving domestic health care-related supply chains. This shift in raises questions about the manner and extent to which government policy should alter existing private-sector production and supplier arrangements. Congress could consider the costs and benefits of policies that attempt to reallocate resources within the economy toward developing domestic production of goods currently being imported. Alternatively, Congress could reinforce U.S. support for global trade arrangements and agreements, while also supporting the global presence of U.S. firms and encouraging U.S. firms to utilize a greater diversity of foreign suppliers.
- The COVID-19 pandemic emphasized the interconnected nature of the global economy. Typically, these global connections facilitate a flow of goods and services to the broadest number of people. However, during the COVID-19-related recession, these global supply channels were disrupted, and their vulnerabilities were exposed. Congress could consider whether and to what extent it should engage in a direct role in reallocating resources in the economy to strengthen domestic industrial activities.
- The COVID-19 pandemic disproportionately affected women, minority populations, and workers in less skilled jobs; certain sectors were hit harder than others, including the leisure, hospitality, travel, and other service sectors. The

[167] Trieu Pham, "EM Sovereign Debt Issuance: Encouraging Signs but Not Yet Back to Business as Usual," *ING*, May 26, 2020.

depth and duration of the recession also challenged the effectiveness of customary worker assistance programs. This difference was clear between the U.S. Paycheck Protection Program, which provided short-term unemployment benefits to sustain workers' incomes in response to the pandemic, and European job retention programs, which attempted to maintain pre-crisis levels of employment. Congress may consider reviewing these programs to determine if changes may be necessary.

- Global trade activity fell sharply as a result of the global economic recession, which added to the depth and extent of the economic disruption. The impact on global trade raised questions concerning what actions, if any, Congress could initiate through U.S. trade policies to strengthen the role of international trade and consultative bodies such as the WTO, the IMF, and the OECD, in facilitating a return to pre-crisis levels of activity during similar international crises.
- The economic recession increased pressure on developed and developing economies who used deficit spending to stimulate their economies. While the fiscal spending likely lessened the impact of the crisis, it sharply increased the debt burden of developing countries, in particular. This debt burden could constrain the ability of developing economies to provide additional fiscal stimulus should the health crisis persist, which could delay a global economic recovery, with spillover effects on developed economies. Developing economies could also face rising costs for refinancing their accumulated debts if developed economies begin tapering off low-interest rate monetary policies. Congress could consider examining the performance and the adequacy of resources of international financial institutions in addressing the financial and debt servicing needs of developing economies.
- During the initial stages of the economic crisis, global financial markets were severely disrupted, requiring central banks to take unprecedented actions. Following the 2008-2009 global financial crisis, central banks and other financial market participants adopted wide-ranging reforms to strengthen the ability of financial institutions to withstand an economic crisis. The COVID-19-related global economic crisis presents Congress with an opportunity to assess the effectiveness of these reforms.

Author Information

James K. Jackson
Specialist in International Trade and Finance

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