

Chapter 3

The U.S. Economy and the Global Pandemic

The COVID-19 pandemic has had repercussions for economies around the globe. Although the U.S. economy suffered one of the sharpest contractions in its history during 2020, the economic damage was even greater in many foreign countries. Bolstered by an early and rapid vaccine rollout as well as by strong fiscal support, the United States' recovery has been robust, outpacing that of most of our major trading partners in 2021. Inflation emerged as a challenge for the United States and nearly all our major trading partners, as strong demand, skewed toward goods and away from services, interacted with the supply chain stresses described in detail in chapter 6 of this *Report*.

As a result of the rapid U.S. recovery relative to the rest of the world, the U.S. trade deficit has widened. The strength of the U.S. recovery has led to increased imports, as goods have flowed in from abroad to satisfy resurgent demand from firms and consumers. Although exports have hit record highs, they have increased at a slower pace than imports because many of the countries that buy U.S. goods have not recovered as fast. At the same time, new waves of infection depressed international travel and weighed on the recovery of some services that are important for U.S. exports, such as tourism.

The pandemic highlighted the need to tackle long-standing economic issues, including those resulting from global economic integration. Due to a lack of supportive public policy in the past, many American workers and communities have borne the costs of shifting production around the world but have not fully shared in its benefits, contributing to widening inequality.

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Addressing these inadequacies requires policies that broaden the gains from trade while leveling the international economic playing field by countering unfair trade practices and putting in place a more equitable global tax system. Implementing such policy changes in a way that reduces uncertainty and engages with the United States' trade and commercial partners can ensure that American consumers, workers, businesses, and investors benefit from global trade.

The first section of this chapter places America's economic experience during the pandemic in the global context by comparing it with that of our largest trading partners: the euro area, the United Kingdom, China, Canada, and Mexico. The next section examines how international trade has recovered from its sharp pandemic decline, discussing the causes of the widening U.S. trade deficit and the effects of supply chain bottlenecks internationally on traded inputs such as auto parts and capital goods. The last section discusses how the Biden-Harris Administration is reorienting U.S. international economic policy to mitigate rather than exacerbate economic inequality and to level the international economic playing field.

Recovery Amid Global Economic Challenges

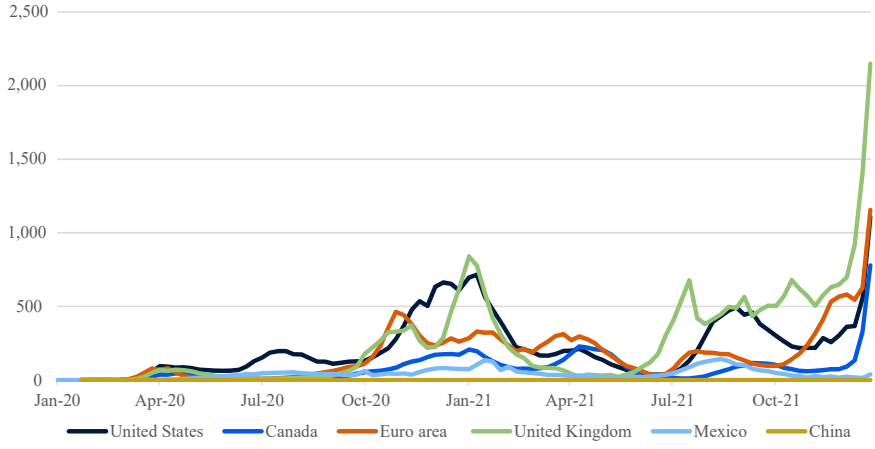
Placing the U.S. recovery from the COVID-19 pandemic in the global context highlights how our robust fiscal support resulted in a faster return to a strong economy. The backdrop to this demand-driven recovery, however, was a tragic loss of human lives and higher inflation.

The Global Pandemic

The path of the global economy over the past year is best understood in the context of the coronavirus pandemic. The starkest measure of the pandemic's effect is the number of deaths attributed to COVID-19. By the end of 2021, reported deaths due to the virus had exceeded 5 million people globally, including more than 827,000 in the United States (OWID 2021). The true global toll is probably much higher, because data collection challenges outside the United States suggest that many other countries may have substantially underreported deaths. For example, some estimates put the true death toll *in India alone* in excess of 4 million (Anand, Sandefur,

Figure 3-1. International COVID Case Rates

Cases per million



Source: Our World in Data.

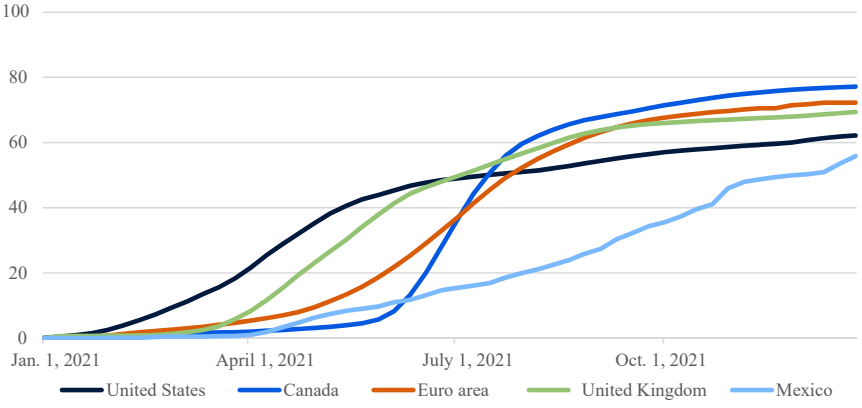
and Subramanian 2021). With deaths measured as a share of the population, many of the hardest-hit countries have been middle-income countries in Latin America and Eastern Europe (Johns Hopkins 2022).

Looking at total deaths can obscure the fact that different countries have been hit by waves of differing severity at different times. Which country is faring worst at any point in time has varied significantly. Official data show that the United States, the United Kingdom, and the euro area have all had the highest recorded cases per capita at some point in time (figure 3-1). Early in the pandemic, the United States led in per capita cases while the United Kingdom led in deaths. In the second half of 2021, the reverse was true. And the euro area reported the highest per capita cases in the spring of 2021. This variation demonstrates how nearly all major economies have been severely affected at some point during the pandemic.

Progress and timeliness in vaccinating populations have also varied across countries. Both the United States and United Kingdom managed rapid vaccine rollouts that made them early leaders in the share of the population vaccinated (figure 3-2). Rollouts in Canada and the euro area accelerated dramatically in the summer of 2021, and vaccination rates in both places have since reached higher levels than in other major U.S. trading partners. During the second half of 2021, vaccination rates in many middle-income countries, such as Mexico, approached that of the United States, while rates in low-income developing countries (not shown) remain substantially lower (OWID 2021).

Figure 3-2. International COVID Vaccination Rates

Percent fully vaccinated



Source: Our World in Data.
Note: "Fully vaccinated" is defined as having received all doses prescribed by the initial vaccination protocol. China does not report statistics on the share of its population that is fully vaccinated.

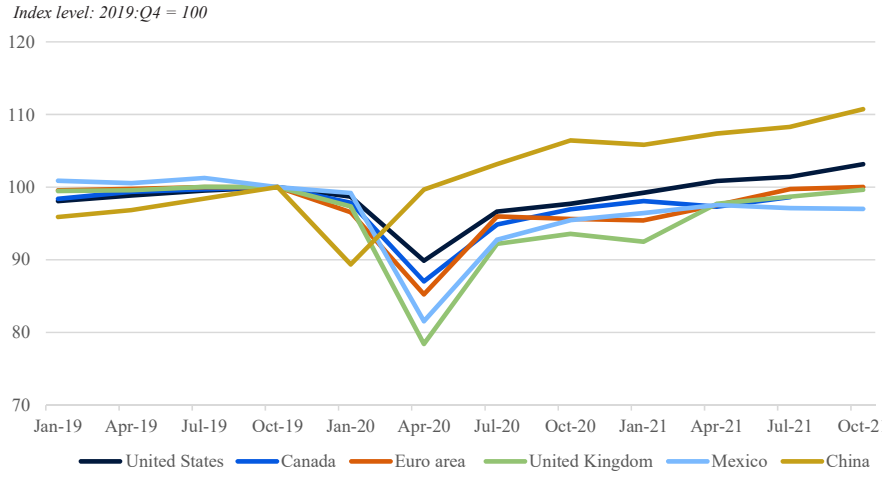
The United States' Economic Recovery in the Global Context

The path of real gross domestic product (GDP) since the onset of the COVID-19 pandemic provides the most basic measure of the virus's economic impact. The pandemic was accompanied by historic drops in output in almost all major economies. U.S. GDP fell by 8.9 percent in the second quarter of 2020 (figure 3-3), the largest single-quarter contraction in more than 70 years (BEA 2021c). Most other major economies fared even worse. The GDP of the United Kingdom in 2020:Q2 was 21.4 percent below its average in 2019 (ONS 2022). In the euro area, output fell by more than 12.4 percent (Eurostat 2022c). Closer to home, Canada's GDP was down 12.4 percent, while Mexico's GDP fell by 19 percent (Statistics Canada 2022; INEGI 2022).

The U.S. recovery has outpaced that of all its major trading partners except China. By the second quarter of 2021, U.S. real GDP exceeded its prepandemic level, ahead of most other major economies. Output growth picked up in the euro area and Canada in the third quarter of 2021; but at the end of 2021, output in most major U.S. trading partners had only just reached its prepandemic level, while U.S output was 3 percent higher than before the pandemic (see figure 3-3). Though many effects of the pandemic are not captured by GDP, measured by this most basic indicator, the United States' recovery remained farther along than those of nearly all its peers.

The initial drop in real output in China was of a very similar magnitude to that of the United States (see figure 3-3), but the initial recovery was even faster. By the third quarter of 2020, China's real GDP had not only exceeded its prepandemic level but was also above what would have

Figure 3-3. Real GDP by Country



Sources: National data organizations.
Note: Data are seasonally adjusted.

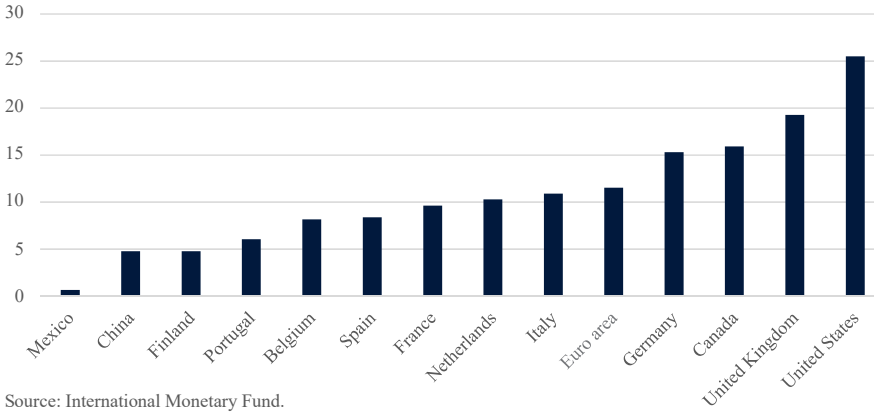
been expected based on its prepandemic trend. The Chinese government did extend substantial support, primarily through infrastructure spending. However, exports have been a key driver of China's recovery, climbing to more than 40 percent above their prepandemic level by the fourth quarter of 2021 (GACC 2021). As a result, the contribution of net exports to China's real GDP growth reached nearly 30 percent in 2020, its highest level in more than 20 years (CNBS 2021a). In this way, China has benefited from the pandemic-induced pivot of global consumption away from services and toward goods, many of which are manufactured in China. Despite continuing support from strong demand for its exports, output growth in China slowed in the second half of 2021 as government support for the economy was withdrawn (CNBS 2021b).

Future research by economists will fully assess what enabled some economies to weather the pandemic shock better or to bounce back more quickly. Based on what we know now, there are two areas of policy where the U.S. response stands out. The first is the speed of our vaccine rollout, discussed above. The fact that more than 40 percent of the U.S. population was fully vaccinated by May 2021, when vaccination rates in most European countries were still less than half that, gave our economic rebound an important head start.

The other area where the United States stands apart is fiscal policy, suggesting that this also played a role in accelerating the recovery beyond those of most of our trading partners. U.S. Federal Government spending to directly support firms and workers, as well as State and local governments,

Figure 3-4. Discretionary Fiscal Response, 2020:Q1–2021:Q3

Percentage of 2020 GDP



Source: International Monetary Fund.

was substantially larger than comparable efforts in other major economies (figure 3-4). As of the third quarter of 2021, the cumulative U.S. discretionary fiscal response (including not only additional spending but also revenue forgone due to discretionary tax cuts) exceeded 25 percent of GDP. By comparison, the U.K. response was under 20 percent of GDP, and average spending in the euro area was 12 percent of GDP. The scale here helped to ensure that, by the end of 2021, U.S. consumption had returned to its precrisis trend, while in the euro area, for example, consumption remained below its precrisis level (Boone 2021).

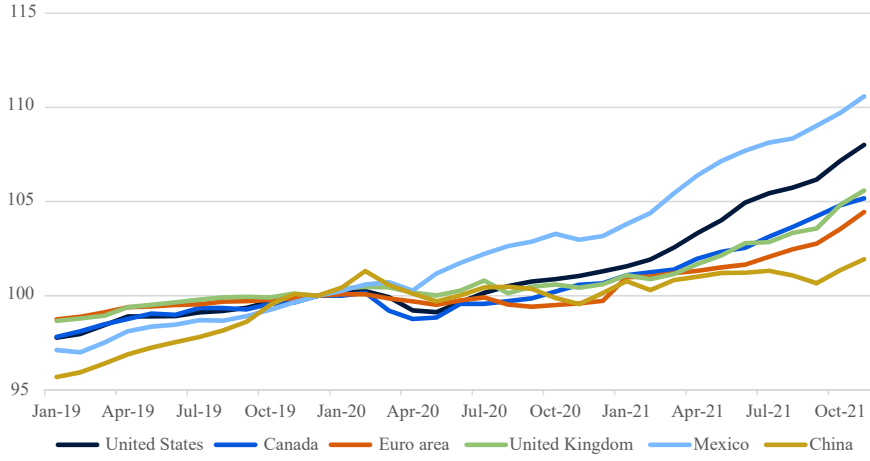
The Challenge of Inflation

Inflation has proved a serious challenge for many countries during the recovery. In the 12-month period ending December 2021, headline consumer price inflation in the euro area was 5.0 percent, well above its average of about 1 percent in the five years before the pandemic (Eurostat 2022a), as shown in figure 3-5. Canada and the United Kingdom have also seen substantially higher inflation than was the case before 2020. Inflation has also risen here; indeed, U.S. inflation has run higher than that of most of its major trading partners, although the gap narrowed in the second half of 2021.

The fact that inflation has accelerated in so many countries underscores its common drivers. Pandemic-induced changes in behavior led to relatively more demand for goods than services. In many countries, the balance of consumption remained unusually tilted toward goods throughout 2021, so demand for goods grew substantially faster than would have been the case in a normal recovery (Bruce 2021; Boone 2022). As a result, the world's economic recovery put stress on the already-vulnerable global

Figure 3-5. Consumer Price Level

Index level: Dec. 2019 = 100



Sources: National data organizations.
Note: Data are seasonally adjusted.

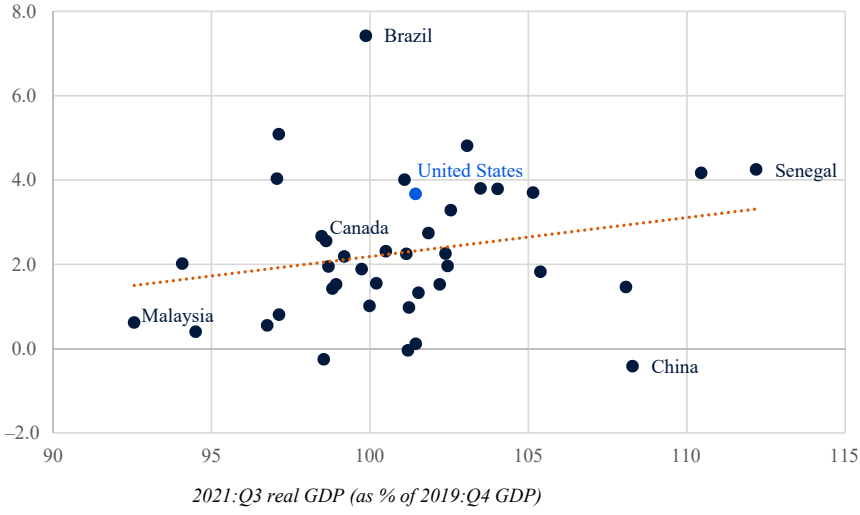
supply chains for consumer goods, as discussed further in chapter 6 of this *Report*. This phenomenon of recovering demand for goods interacting with supply constraints can help to explain the relatively higher inflation in the United States, where the recovery was relatively stronger. Looking across countries, inflation was higher where the gap between the real GDP and its prepandemic level—a main measure of progress toward economic recovery—was smaller (figure 3-6).

Rising prices for motor vehicles were a key driver of U.S. inflation, with prices of new cars nearly 12 percent higher at the end of 2021 than they were a year earlier. Prices of used cars jumped by almost 40 percent during the year (BLS 2022b). Though other countries also saw higher car prices, their rise was not as dramatic. Indeed, the CEA calculates that consumer prices, excluding those of new and used cars, rose by similar magnitudes in the euro area (4.7 percent), for example, as in the United States (5.1 percent).

Globally, factors pushing up car prices included rebounding demand and a shortage of semiconductors (Gross, Miller, and Inagaki 2021). Car manufacturers both in the United States and abroad have faced production challenges due the semiconductor shortage, but during 2021, U.S. auto production outpaced that of many peers. At the end of 2021, U.S. auto production stood at just under 5 percent below its prepandemic level, ahead of the recovery of German, French, and Japanese production (Federal Reserve Board 2022; Eurostat 2022b; METI 2021). Thus, the greater rise in U.S. prices came in spite of a faster recovery in production. The fact that the rise in car prices has been larger here than abroad stems partly from the particularly resilient demand created by the U.S. recovery passing

Figure 3-6. Recovery in Output and Inflation

Annualized CPI growth, Feb. 2020–Sep. 2021



Sources: National data organizations.
Note: CPI = Consumer Price Index. Data are seasonally adjusted, except for Senegal's CPI.

through to the auto sector—real consumer spending on new motor vehicles rose 16 percent in 2021, a level reaching 18 percent above its prepandemic level (BEA 2022b). Though higher vehicle prices do pose challenges for American households and businesses, the strength of the recovery in the U.S. auto sector relative to other major auto-producing countries highlights the important benefits of the U.S. demand-driven recovery for workers and businesses. (See box 3-1.)

International Trade, the Economic Recovery, and Lingering COVID-19 Challenges

In 2021, international trade broadly recovered from the sharp decline that followed the onset of the COVID-19 pandemic, with U.S. exports and imports of goods exceeding prepandemic records. Import growth outpaced export growth, widening the U.S. trade deficit. Though trade in goods broadly recovered in 2021, supply bottlenecks slowed the recovery of both imports and exports of such products as automotive and capital goods that are at the heart of the global value chains that were disrupted by pandemic-related challenges.

In contrast, waves of COVID-19 infections have weighed down the recovery of cross-border trade in services. Although trade in services that are less reliant on personal contact followed a recovery pattern similar to

Box 3-1. Lessons from Abroad for Labor Market Policy

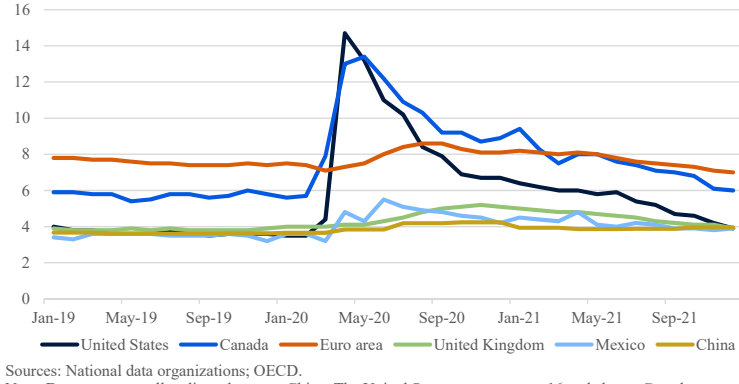
By some measures, the U.S. labor market appears to have recovered rapidly. America's unemployment rate jumped at the onset of the pandemic, but then fell steadily, and by the fourth quarter of 2021 was once again lower than in the euro area, Canada, or the United Kingdom (figure 3-i). However, though the number of people employed at the end of 2021 was above its prepandemic level in most of our trading partners, this is not true here (figure 3-ii). The reason: though labor force participation has increased significantly over the past year, relatively more people left the U.S. labor force early during the pandemic than in many other countries.

The discretionary fiscal response in the United States was larger than that of most of our trading partners when considering the three major pieces of fiscal legislation passed over the course of the pandemic, and the government support associated with that response was delivered to individuals and households in a very different way. As discussed in chapter 2, pandemic support payments were generally received in the form of unemployment insurance or as direct payments. By contrast, governments in the euro area and the United Kingdom adopted or strengthened existing job retention programs, which subsidized employed workers' incomes. (OECD 2020).

These programs come in two forms: short-time work programs, in which the government pays employees for hours not worked; and wage subsidies, in which the government either subsidizes pay for hours the employee actually works or raises employees' pay to a minimum level, regardless of time worked. These programs help explain why unemployment rates increased remarkably little in the euro area and the United

Figure 3-i. Unemployment Rates

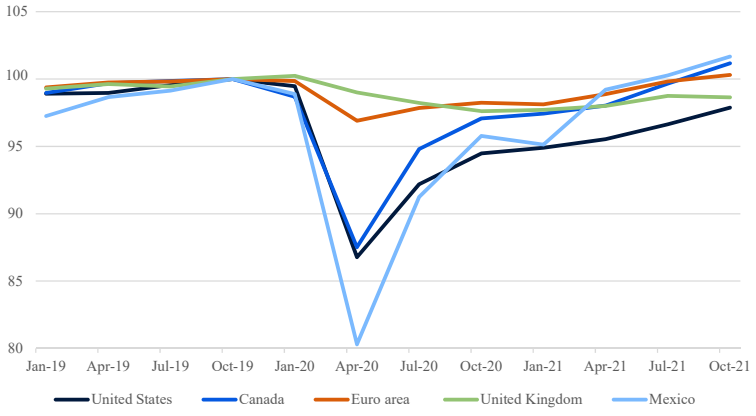
Percent



Sources: National data organizations; OECD.
Note: Data are seasonally adjusted, except China. The United States measures age 16 and above, Canada measures age 15+, and China measures urban area unemployment. Other metrics are total unemployment.

Figure 3-ii. International Employment

Index level: 2019:Q4 = 100



Sources: National data organizations.
Note: Employment metrics vary slightly by source. The United States measures 16 years and above, Canada measures 15 years and above, and the United Kingdom measures a three-month rolling average for employment 16 years and above. The euro area and Mexico measure total employment. All data are seasonally adjusted, except for Mexico.

Kingdom, both in absolute terms and relative to the change in the U.S. unemployment rate. By design, job retention programs ensured that many people working few or no hours remained on the payroll, receiving paychecks from their employer that were almost entirely government funded (OECD 2020).

The difference between the U.S. approach and these job retention programs may seem semantic: workers were on the job dramatically less in the spring and summer of 2020, whether or not they were technically employed, and the magnitude of the drop was similar in the United States and other major economies. However, in the United States, workers were formally separated from their jobs and became unemployed (Boissay et al. 2021). Unemployed workers leave the labor force (meaning they stop looking for a job) at a rate almost 10 times greater than employed workers, who exit the labor force if they leave their job and do not try to find a new one (for details of what constitutes being in the labor force, see BLS 2014). Once they leave the labor force, workers tend to stay out (Hobijn and Şahin 2021). As the U.S. economy has recovered, unemployed workers have found jobs and the unemployment rate has fallen quickly. But unlike countries that adopted job retention programs, in the United States there are also more workers who are no longer in the labor force—meaning that they are neither working nor actively trying to find a job; and this slows the rebound in the number of people employed (BLS 2022a; CRS 2021).

Since 2012, the United States has had a job retention program—the Short-Time Compensation Program—similar to efforts adopted else-

where during the pandemic. Twenty-six States, which are home to 70 percent of the U.S. labor force, have active versions of the Short-Time Compensation Program. However, participation in these local programs is very low, in part due to the associated administrative burdens (Von Wachter 2020). Viewed in light of the data on transitions in and out of the labor force discussed above, the trajectory of U.S. employment during 2021 suggests that reforms aimed at expanding participation in this program could ensure a speedier labor market recovery after future downturns. That said, in considering this policy option, a very important open question is how European-style job retention programs are affecting the reallocation of workers across types of jobs during the economic recovery.

goods, others—particularly travel and transportation services[1]—continue to be impaired by the persistence of the virus. The sharp contraction of trade in travel services was a notable drag on the U.S. trade balance in 2021. Exports of these services in the form of foreign tourists, students, and business travelers are typically a significant contributor to the surplus in the U.S. trade balance in services.

The U.S. Trade Balance

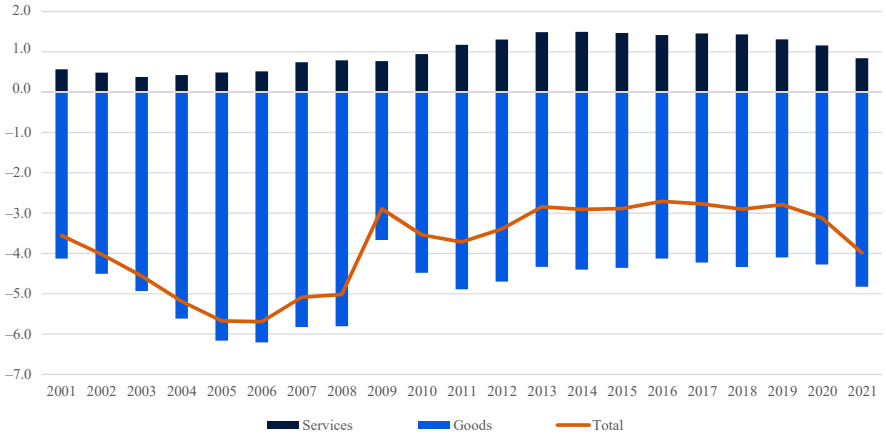
The strong domestic demand for goods that has characterized the economic recovery in 2021 is reflected in the deepening deficit of the U.S. trade balance—defined as the difference between the total value of goods and services that U.S. residents buy from abroad and the value of all the U.S. goods and services sold abroad (BEA 2022a). At 4 percent of GDP, the 2021 trade deficit is the largest since 2008 (measured as a share of GDP) (figure 3-7). Deeper trade deficits in the United States over the past two decades have been correlated with economic growth because they reflect strong demand; 2021 was no exception (BEA 2022b).

Over the past 20 years, the United States has typically maintained a deficit in goods trade that is partially offset by a surplus in services trade. The higher overall trade deficit in 2021 reflected a larger goods trade deficit and a smaller services trade surplus relative to recent years. In particular, the increase in the goods and services trade deficit from 2.8 percent of GDP in 2019 to 4.0 percent in 2021 reflects a 0.5-percentage-point reduction in the services surplus and a 0.7 percentage point increase in the goods trade deficit (figure 3-7). Although both developments can be traced to challenges stemming from COVID-19, the reasons for these outcomes are distinct.

[1] In official U.S. data on services trade, this category is named "transport" rather than "transportation."

Figure 3-7. U.S. Trade Balance, 2001–21

Percentage of GDP



Source: Bureau of Economic Analysis.

The increases in consumption and investment expenditures that drove strong economic growth in 2021 entailed greater expenditures on both domestically produced and imported goods and services. American producers of goods, challenged by pandemic-induced labor and input supply obstacles, strained to keep pace with surging domestic demand for goods, which reduced the available supply for exports (Furman and Powell 2021). The dampening of growth in exports of U.S. goods was amplified by the fact that America's fiscal policy response was larger than most other major economies (see figure 3-4). Though demand here exceeded its prepandemic trend, demand abroad lagged. As a result, American firms and consumers stepped up purchases of imported goods to a greater degree than their foreign counterparts, widening the U.S. trade deficit in goods (Milesi-Ferretti 2021). Also contributing to the widening goods trade deficit was the shift in the balance of trade in oil and petroleum products from surplus to deficit, which is discussed in box 3-2. Further, restrictions on foreign nationals entering the United States and rising costs of maritime freight transportation, a service that is primarily provided by foreign-owned firms, brought down the surplus in services trade (BEA 2022a).

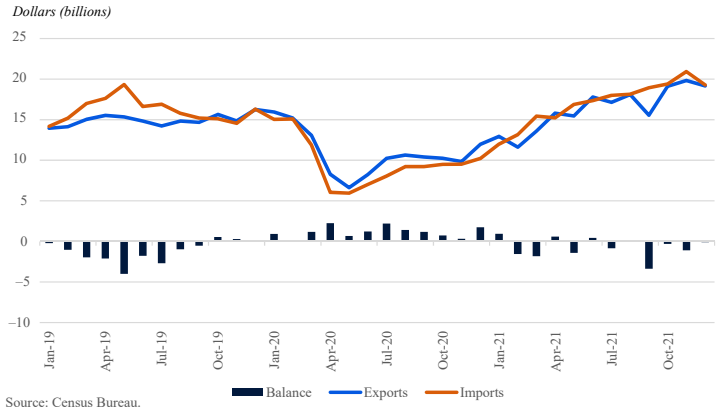
Macroeconomic developments here and abroad have contributed to the widening trade deficit through another channel: exchange rate movements. As the COVID-19 virus spread in early 2020, the U.S. dollar appreciated 9.7 percent from January to late March, reflecting the dollar's status as a safe asset (figure 3-8). In times of heightened economic uncertainty, investors around the world purchase dollar assets, which they view as a reliable store of value (Jiang, Krishnamurthy, and Lustig 2021). From the end of March 2020 through the end of 2020, the dollar depreciated as global

Box 3-2. Trade in Oil and Petroleum Products

The United States is the world's largest oil producer, and both an important exporter and a major importer of petroleum products (EIA 2021a). These products constitute more than 10 percent of U.S. exports and about 7 percent of U.S. imports. Prices of oil and gas rose significantly during the first 10 months of 2021, with West Texas Intermediate Crude prices finishing the year more than 55 percent above its end-2020 level (EIA 2022) and global natural gas prices increasing almost sixfold between November 2019 and November 2021 (IMF 2021). Higher prices, along with rising volumes of imports and exports, meant that the dollar values of U.S. petroleum products exports were almost 50 percent above their 2020 level, while imports were up more than 75 percent (figure 3-iii).

Foreign and domestic factors drove the rise in energy prices in 2021. In China, overall supply was constrained by ambitious government efforts to rein in the burning of coal while manufacturing establishments' energy demand jumped as production surged (Riordan 2021). As a result, natural gas prices in Europe and Asia jumped due to the higher Chinese demand for natural gas as a substitute for coal. Also pushing up global energy prices was the OPEC+ (Organization of the Petroleum Exporting Countries Plus) group of oil producers' reluctance to more rapidly expand oil production (Lawler, Ghaddar, and Astakhova 2021), which they had cut by 10 million barrels per day (about 10 percent of global production) in 2020 in response to the pandemic-induced drop in demand (EIA 2020). In the United States, weak investments in new energy sources during 2020 weighed on energy supply as the economy recovered in 2021 (IEA 2021). Additionally, bad weather, including an unusually cold winter in Texas and hurricanes Ida and Nicholas in the

Figure 3-iii. Trade in Petroleum Products



Source: Census Bureau.
Note: Data are seasonally adjusted.

Gulf of Mexico, also affected America's oil production (EIA 2021b, 2021c).

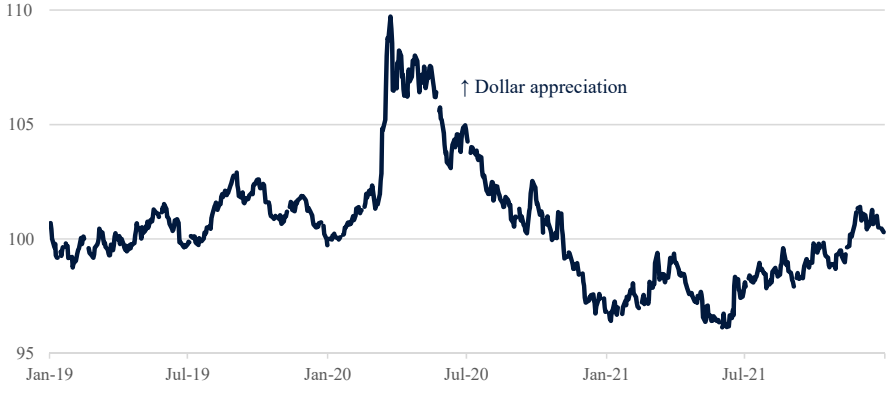
On the demand side, the widespread availability of vaccines starting in the spring of 2021 meant the resumption of travel and some commuting, pushing up gasoline demand (EIA 2021d). Pandemic-induced shifts in the modes of transportation used for travel and commuting further boosted gasoline demand, as many opted to drive rather than use mass transit or travel by plane (Bair, Guerra Luz, and Bradham 2021).

financial conditions began to normalize and the earlier flight to safety was reversed. That depreciation also reflected the very aggressive action of the Federal Reserve to support the U.S. economy by keeping interest rates low (*Economist* 2021). This benefits American businesses and households that borrow to purchase equipment or homes, but it makes U.S. financial assets less attractive to global investors. Lower foreign demand for U.S. assets, in turn, resulted in dollar depreciation from April through December 2020, as seen in figure 3-8.

In 2021, the dollar resumed appreciating and ended the year up 3.6 percent against the currencies of its major trading partners, as measured by a Federal Reserve Board index (figure 3-8). Expectations were that the Federal Reserve would begin to tighten policy earlier than other central banks, and that contributed to the rise in the dollar's value (Rovnick, Rennison, and Platt 2021). Such expectations reflected two aspects of America's macroeconomic performance relative to our trading partners: the more rapid recovery in U.S. output, and the relatively larger rise in inflation. A strengthening

Figure 3-8. Nominal Broad Dollar Index

Index level: Jan. 2, 2020 = 100



Source: Federal Reserve Board.

dollar tends to widen the trade deficit by making imported goods cheaper for American consumers, which boosts imports, and U.S. exports become more expensive for foreign buyers, depressing exports (Gruber, McCallum, and Vigfusson 2016).

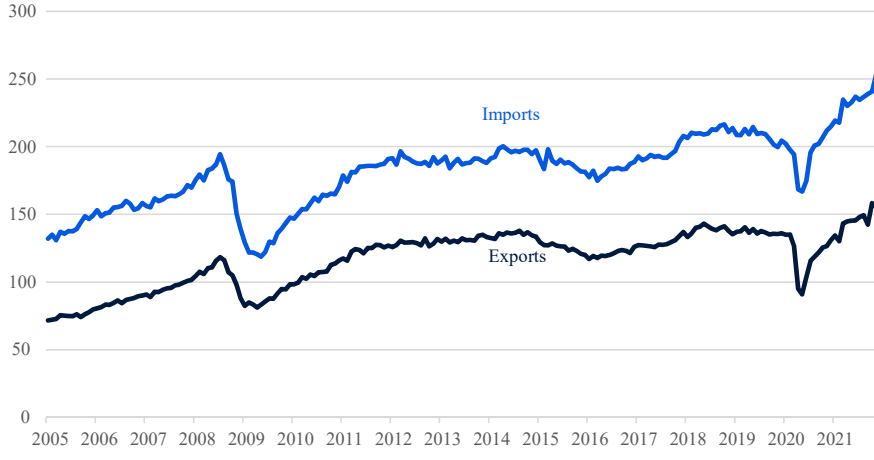
International Trade in Goods

U.S. trade in goods rebounded relatively quickly after the sharp drop at the onset of the COVID-19 pandemic in 2020, and continued to rise through 2021. Both exports and imports of goods broke nominal records set in 2018. Goods imports breached record levels in real terms as well. This swift and robust rebound stands in sharp contrast to the stagnation in trade that followed the Great Recession, beginning in 2008 (figure 3-9). From the start of the Great Recession, goods exports did not recover from their precrisis peak for more than two years, and goods imports did not systematically rise above their precrisis peak for nearly 10 years.

As discussed in the previous section, 2021 growth in imports generally outpaced that of exports. This has been true throughout the economic recovery. Even though goods imports had fully recovered in real terms to prepandemic levels by November 2020, U.S. exports did not achieve that feat until more than a year later, in October 2021 (Census Bureau 2022b). The faster recovery of imports relative to exports is a direct consequence of the broader macroeconomic context discussed earlier in this chapter. However, the effects of pandemic-related disruptions inhibited export recovery for some products more than others.

Figure 3-9. U.S. Trade in Goods

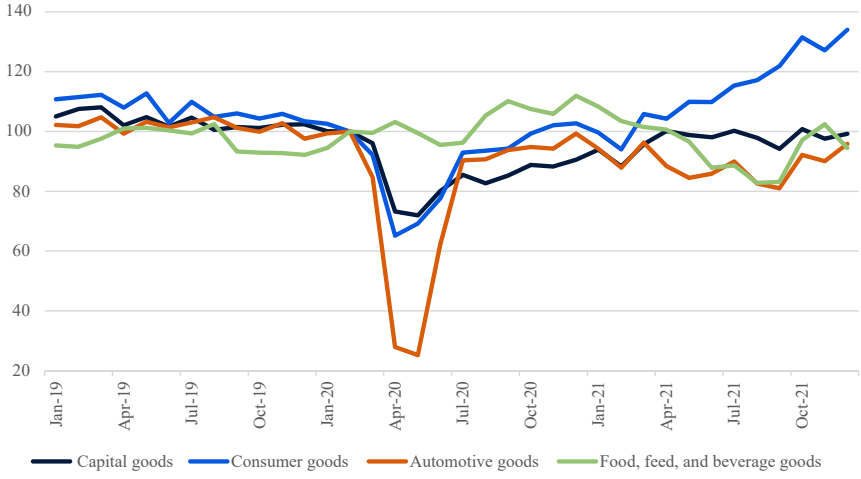
Dollars (billions)



Source: Census Bureau.
Note: Data are seasonally adjusted.

Figure 3-10. Real Exports, Selected End-Use Categories

Index level: Feb. 2020 = 100



Source: Census Bureau.
Note: Data are seasonally adjusted.

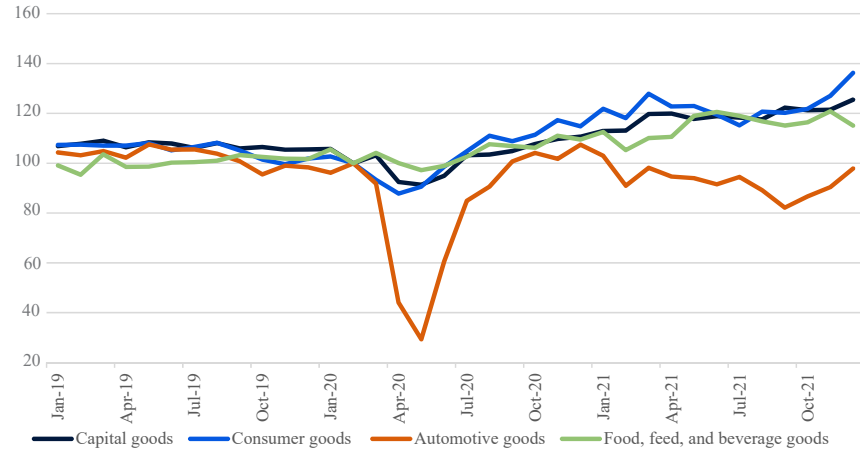
In real terms, U.S. exports of food, feed, and beverages were little affected and exceeded their February 2020 levels for most of the second half of that year. U.S. exports of consumer goods surpassed their prepandemic level in November 2020 (figure 3-10).[2] By contrast, exports of capital goods did not exceed their prepandemic value until April 2021, and remained at about that level for the rest of the year. Exports of autos and parts were more than 10 percent below their prepandemic level for most of the year.

The relatively swift rebound in exports of consumer goods highlights the global nature of the pandemic-induced switch from services to goods consumption. The softer performance of capital goods and auto exports reflects the flip side of the strong demand unleashed by the economic recovery. Supply challenges for critical inputs disrupted the global value chains that characterize production in the automotive and other capital goods industries, inhibiting their ability to meet surging domestic and foreign demand (see chapter 6 for a full discussion of supply chain challenges). The final goods produced and exported by American businesses in these industries are complex. Automotive exports often rely on semiconductors, the global supply of which was notably stressed in 2021 (McKinsey & Company 2021; Ewing and Boudette 2021). Civilian aircraft, engines, and parts represented the largest share of the decline in exports of capital goods relative to 2019, reflecting diminished demand by airlines after COVID-19 dramatically reduced air traffic (Census Bureau 2022a; Kuzmanovic and Rassineux n.d.).

[2] The BEA end-use category "food, feed, and beverages" consists of agricultural commodities, including those used for animal feed, as well as fish and shellfish, prepared foods, and alcoholic and nonalcoholic beverages.

Figure 3-11. Real Imports, Selected End-Use Categories

Index level: Feb. 2020 = 100



Source: Census Bureau.
Note: Data are seasonally adjusted.

The composition of U.S. imports growth in 2021 highlights the strength with which U.S. demand has recovered and the challenges economies around the world continue to face. U.S. goods imports dipped across the board during the initial months of the pandemic, but to a lesser extent than exports, and then rapidly exceeded their pre-COVID-19 level (figure 3-11). Consistent with the increased consumption of goods relative to services, imports of consumer goods showed a striking increase in 2021, rising to 16.6 percent above their 2019 level. Imports of capital goods, such as machinery used in factories, also rose notably in 2021, to 11.3 percent in real terms above their 2019 level, as domestic American firms expanded to satisfy booming U.S. demand.

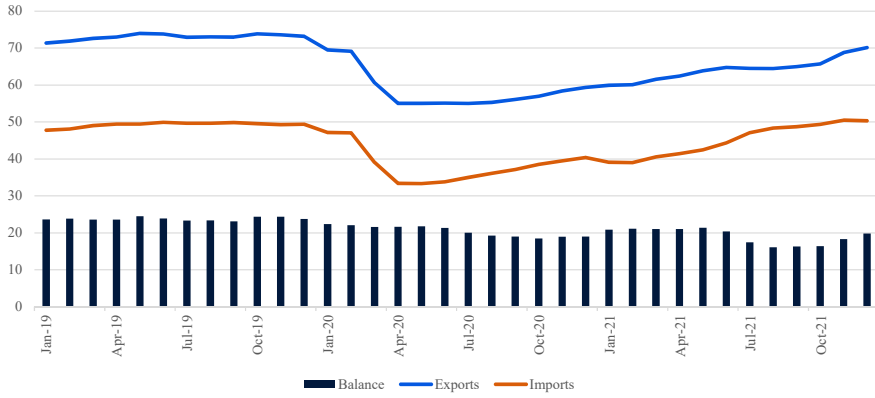
The trajectory of automotive imports illustrates the global nature of the supply chain stresses that emerged during 2021. Though automotive imports initially rebounded, they subsequently declined as global supply chains were disrupted (Ewing and Boudette 2021). Imports in this category were 9.6 percent below their 2019 level in 2021. This category includes both motor vehicles and parts, but the decline was entirely due to falling imports of finished vehicles, while parts were slightly above their 2019 level (Census Bureau 2022a). As discussed previously in this chapter, the recovery of the U.S. automotive sector outpaced that of other major auto-manufacturing countries in 2021.

International Trade in Services

In contrast to the relatively swift recovery of trade in goods, the exigencies of containing the spread of COVID-19 continue to suppress global demand

Figure 3-12. Trade in Services

Dollars (billions)



Source: Bureau of Economic Analysis.
Note: Data are seasonally adjusted.

for services. The overall decline in both exports and imports of services at the onset of the pandemic (figure 3-12) is primarily due to a steep drop in trade in travel services (figure 3-13). Total exports and imports of services other than travel and transportation services—which covers finance, insurance, maintenance, construction, information, personal and government services, intellectual property, and other services—exceeded their 2019 value in 2021.

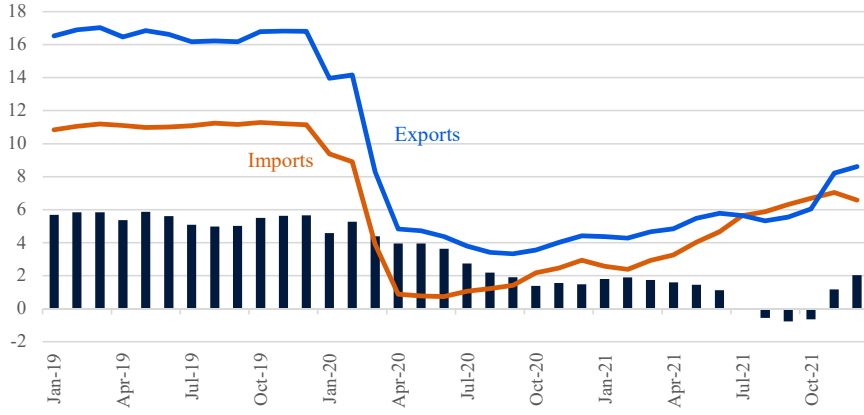
Figure 3-13 illustrates that neither imports nor exports of travel services have approached their prepandemic levels. However, while imports of travel services have increased relatively steadily since the pandemic first hit the United States, exports saw only a minimal increase until November 2021, when the Biden-Harris Administration eased travel restrictions that had prevented many foreign tourists, students, and business travelers from traveling to the United States, resuming revenue from travel exports (White House 2021c).[3] By contrast, most other countries were open to U.S. travelers for much of 2021 (Schengen Visa Info 2021; Ponczuk 2021).

Trade in transportation services has likewise been shaped by the exigencies of the pandemic and economic recovery. The dramatic increase in the deficit for the transportation services balance depicted in figure 3-14 directly reflects the challenges faced by shippers of goods in 2021. The rise in maritime freight services imports largely drove the increased value of imported transportation services (BEA 2022a). The skyrocketing cost of moving goods from abroad to the United States meant that U.S. importers paid dramatically more to shipping companies (Harper Petersen 2022).

[3] Exports of travel services include goods and services acquired by foreign visitors, including foreign students, while visiting the United States. Similarly, imports of travel services cover goods and services acquired by U.S. residents visiting foreign countries.

Figure 3-13. Trade in Travel Services

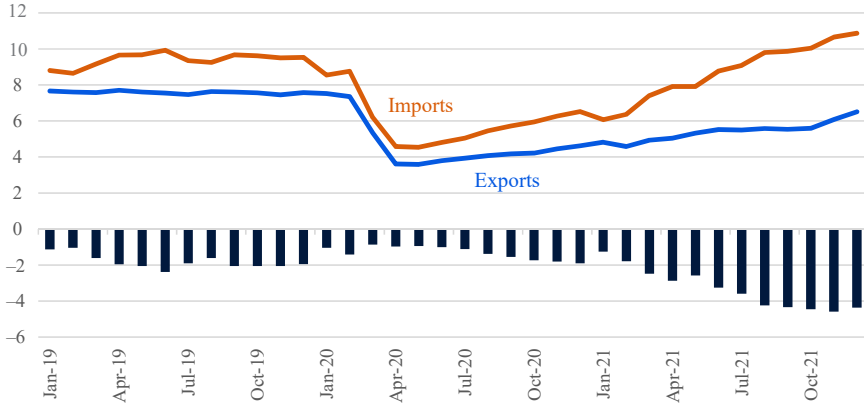
Dollars (billions)



Source: Bureau of Economic Analysis.
Note: Data are seasonally adjusted.

Figure 3-14. Trade in Transportation Services

Dollars (billions)



Source: Bureau of Economic Analysis.
Note: Data are seasonally adjusted. In official U.S. data on services trade, this category is named "transport" rather than "transportation."

Because nearly all major shipping firms are foreign-owned (Marine Digital 2021), these costs register as U.S. service imports. In contrast, U.S. exports of transportation services are dominated by passenger air transportation, which, like travel services, were suppressed by restrictions on foreign travel to the United States until the end of 2021 (BEA 2022a).

Categories of services that saw a robust recovery included finance and insurance trade and other business services imports. Because they do not rely as heavily on in-person interaction, both imports and exports increased

year-on-year relative to their 2019 levels throughout the pandemic and recovery. Similarly, trade in intellectual property, telecommunications, and other business services recovered quickly and is now above 2019 levels.

Policies to Build an Equitable International Economy

U.S. participation in the global economy has yielded important benefits, including lower prices for consumers, lower costs for American manufacturing inputs, and access to a greater variety of products as well as larger markets for American-made goods and services. However, global economic integration has also increased the exposure of American businesses and their workforces to import competition, which has meant loss of livelihoods for some American workers, thus contributing to the troubling rise in inequality documented in chapter 1 of this *Report* (Clausing 2019; Autor, Dorn, and Hanson 2013, 2016, 2021). Other factors have also pushed up inequality, ranging from the declining progressivity of the tax system (Antràs, de Gortari, and Itskhoki 2017) to increased automation in manufacturing production (Moll, Rachel, and Restrepo 2021). Nonetheless, the effects of U.S. international trade and investment policies on American workers and communities, and thus on economic inequality, have also played a role.

The COVID-19 pandemic provided an opportunity to refocus domestic and international policies to alleviate the disruptions that participation in the global economy can inflict on American workers and increase the opportunities that it can offer them. This means seeking a better balance between, on one hand, reducing costs for American businesses and lowering prices for consumer products and, on the other hand, ensuring that workers whose livelihoods are at risk from global competition are not disproportionately harmed. Ensuring that U.S. participation in the global economy supports the Biden-Harris Administration's goal of a more equitable economy at home also requires policies that level the international economic playing field by improving labor standards abroad, confronting unfair practices by our trading partners, and making the international tax system fairer. Trade policy can also support another fundamental policy goal, the reduction in greenhouse gas emissions; box 3-3 describes how this can be accomplished.

Broadening the Gains from Trade

The uneven effects of the COVID-19 pandemic demonstrated inequalities within American society, showcasing how negative economic shocks can be disproportionately concentrated among individuals who are more economically vulnerable.[4] Similarly, the job and income losses that have accompanied rising import competition have often fallen disproportionately

[4] See, e.g., Mongey et al. 2021; Chetty et al. 2020; Liu and May 2020; and Hardy and Logan 2020.

Box 3-3. Greenhouse Gas Emissions and Trade

As an example of how trade policy can support a broader set of goals, consider international trade policy oriented toward incentivizing the reduction of greenhouse gas emissions. Effectively combating climate change requires policies that reduce global emissions of greenhouse gases and increase resilience to the climate changes that have already happened. However, those very policies can put domestic production at a competitive disadvantage relative to production in countries with less stringent mitigation policies (Dechezlepretre and Sato 2017). Further, local policies that reduce emissions by producers in one country are ineffective—from a global perspective—if their primary effect is to shift emissions elsewhere.

To create a level playing field in domestic markets with strong climate policies and ensure maximal decarbonization from those policies, scholars and policymakers have suggested introducing trade rules based on the carbon content of traded goods and services. Such a policy could, for example, impose a carbon fee on goods imported from countries with less ambitious climate policies that offsets the climate regulatory costs that producers face in the domestic market. Research suggests that these policies can help accelerate decarbonization globally and protect the domestic industry in the countries enacting them (Campbell, McDarris, and Pizer 2021). For example, the United States and European Union reached an agreement in late 2021 to negotiate a global arrangement for trade in steel and aluminum that takes the carbon intensity of these industries into account and that aims to drive industrial decarbonization around the globe (White House 2021b).

These emissions-based trade policies need not favor any one mechanism for incentivizing decarbonization, recognizing that domestic mitigation policies can take many forms—from regulations to tax incentives to a carbon price. Instead, these trade tools can retain the flexibility for countries to enact a range of climate policy tools, as long as emissions are decreasing. As discussed in chapter 7 of this *Report*, policies that encourage domestic industries to shift toward clean energy could, for example, take the form of regulations, tax incentives, and other similar provisions.

on low-skilled workers, exacerbating inequality (Clausing 2019). A large body of economic research focused on the effects of the dramatic increase in import competition from China in the early 2000s, the so-called China Shock, has demonstrated that, though the gains from international trade have been substantial, the costs have outweighed these gains for some U.S. communities. Increased import competition from China has had adverse effects on employment and incomes in labor markets that are more exposed

to competition from China, and these adverse effects have persisted long after the initial shock (Autor, Dorn, and Hanson 2013, 2016, 2021).

In the future, U.S. policy should aim to mitigate and indeed reverse the effects that greater exposure to import competition has had on inequality in America. This requires rebalancing the objectives of trade policy to give greater weight to its impact on individuals and communities that are negatively affected. To effectively incorporate these interests, policymaking must become more inclusive, and thus must be informed not only by the views of American firms directly engaged in international trade and workers competing with imports but also by the views of affected communities and other stakeholders.

In addition, economic scholarship has consistently called for complementary domestic policies to increase American workers' competitiveness and address the disruptions experienced by those affected by negative trade shocks. Basic economic policies focused on workers would better equip them to adapt to changes in the economy, including those that are transmitted through international trade (Clausing 2019; Rodrik 1996; Hanson 2021; Dixit and Norman 1986). The investments in transportation infrastructure that have been made possible by the Bipartisan Infrastructure Law will make it easier for U.S. goods exports to reach markets overseas. Greater exports, in turn, promote economic growth and support well-paying jobs, especially for blue-collar workers (Riker 2015). Along with the other policy proposals to fortify America's supply chains discussed in chapter 6 of this *Report*, these investments will also bolster U.S. competitiveness both at home and abroad, and more broadly distribute the gains from the country's participation in the global economy. Looking ahead, the investments in human capital outlined in chapter 4 of this *Report* would equip American workers with skills and education that would enlarge their share in the benefits of international trade and investment.

Leveling the International Economic Playing Field

Key to broadening the gains from trade is ensuring that American workers are competing on a level playing field. Too often, the competitiveness of American workers and firms has been eroded by other countries' inadequate labor standards and unfair trade policies and practices, and also by international tax competition.[5] Economic analyses that ignore the negative effects of these practices provide only a narrow and potentially misleading view of the gains from trade and how they are distributed domestically and internationally.

Labor standards. An important component of modern trade agreements between countries are provisions to improve labor conditions. These

[5] Chapter 5 of this *Report* discusses the importance of fair competition in domestic markets.

are intended to ensure that workers are appropriately compensated and protected during their work, and that relative competitiveness is not driven by differences in labor standards between the countries. Twice in 2021, the United States invoked the rapid response mechanism included in the United States–Mexico–Canada Agreement to respond to allegations that workers in Mexico were being denied the rights of free association and collective bargaining. The first time was in response to corruption uncovered during a worker vote on a collective bargaining agreement at an automotive plant, which resulted in the United States and Mexico negotiating a plan to address the violations and provide for a free and fair vote on the agreement (USTR 2021b). The second responded to a petition filed by the AFL-CIO and others alleging violations during a union organizing campaign at an auto parts company (USTR 2021a). The resulting agreement with the company in question not only secured compensation for the adversely affected workers but also put in place mechanisms to protect workers' rights.

Labor standards are also crucial when some producers resort to practices that are not only unfair but also inhumane, in that they rely on forced labor. The International Labor Organization (ILO) estimates that 25 million individuals on any given day are subjected to forced labor (ILO 2017), and that this forced labor generates large profits for the firms involved (ILO 2014). Though some have argued that market forces on their own will drive coercive employers out of the labor market, recent theoretical modeling calls this result into question (Acemoglu and Wolitzky 2011). Indeed, the tragic persistence of forced labor suggests that policy actions are needed to combat the practice. To this end, Group of Seven leaders, including the United States, made combating forced labor a priority starting at their June 2021 meeting (Group of Seven 2021). After discussions of conditions in China's Xinjiang Uyghur Autonomous Region (White House 2021a), the Group of Seven called for strengthened cooperation and collective efforts to eradicate the use of all forms of forced labor in global supply chains.

Responding to unfair trade policies and practices. One of the most significant challenges for the United States' ability to realize broadly distributed gains from trade is the direct and indirect support for targeted industries used by some foreign governments to promote their own domestic producers at the expense of other producers, including the United States. Foreign governments implement such policies using a variety of tools, including taxes, subsidies, preferential regulatory treatment for domestic enterprises, broad support for state-owned enterprises or other state-affiliated entities, and formal and informal restrictions on the ability of foreign enterprises to compete in the domestic market. At a minimum, these interventions create economic distortions that disadvantage foreign producers in the domestic market and often in third-country markets as well, diminishing the benefits of the commitments they have made under multilateral and preferential trade

agreements. In more egregious circumstances, they can concentrate market power in the country that uses them, stifling global competition, limiting innovation, and creating opportunities for economic coercion (Sykes 2003; Hart 2020; Autor et al. 2020; Bown 2022).

Global markets for industries such as steel, aluminum, and solar panels bear the hallmarks of government policies designed to secure market power. Over time, China's array of government support and policy directives, which experts have argued amount to sizable subsidies, have led China to become the dominant global supplier in each of these industries (Bown and Hillman 2019). Public statements of policy suggest that China is using continued, targeted government support for specific high-tech manufacturing industries aimed at promoting its dominance at the expense of its trading partners (CRS 2020; Creemers et al. 2021). Unchecked, the effects of China's capture of these industries can be expected to give Chinese firms substantial market power, further concentrating crucial aspects of global manufacturing in a single country, at the expense of producers of competing goods in the United States (Bown and Hillman 2019). Such policies can also hinder the adoption of critical innovations, because the subsidies that facilitate market dominance are not necessarily directed toward the best technology available (Hart 2020). Importantly, the burdens associated with China's system of targeted industrial policies fall not only on the United States but on all countries whose producers compete with China in global markets (McBride and Chatzky 2019). As such, efforts to counter the use of these policies are most effective when pursued collaboratively and in concert with U.S. allies and partners (Mattoo and Staiger 2020).

Reform of the international corporate tax system. Leveling the playing field for American workers and businesses requires reform of the international corporate taxation system to curtail a race to the bottom in corporate taxation, whereby countries lower their tax rates to attract mobile multinational activities (Azemar et al. 2020). This practice distorts businesses' decisionmaking, including production decisions, while also generating less tax revenue than could be obtained if countries engaged with one another cooperatively (Cobham and Jansky 2018). Large multinational firms have taken advantage of this tax competition among countries by shifting profits and economic activities to minimize their tax burdens (Guvenen et al. 2019).

In 2021, world leaders reached a historic agreement that will address these challenges and stabilize the international tax system. The plan to reform international tax practices was agreed to by the overwhelming majority of the world's economies—representing over 90 percent of world GDP. The agreement includes a global minimum tax of 15 percent that would apply to profits of multinational firms that have more than €750 million (about $822 million) in sales globally. It also includes provisions that would reallocate some taxing rights over certain residual profits of multinational

firms to the markets where products are consumed, regardless of whether these firms have a physical presence in these markets (OECD 2021).

These reforms respond to concerns that businesses generate value from profits in certain jurisdictions while paying minimal taxes there. As such, the agreement addresses existing international tax tensions by incorporating commitments from several countries to withdraw digital services taxes that would have fallen disproportionately on multinationals headquartered in the United States (Giles 2021). The reforms would generate additional revenue that could help countries address the myriad challenges they face, including rising inequality.

A Collaborative, Transparent Policymaking Process

Reorienting policy to ensure that the United States' participation in the global economy does not exacerbate rising inequality requires important changes, but experience shows that the benefits of such policy shifts are greater when they happen after consultation with our trading partners and through a process that is transparent for those affected. Through trade agreements and through entities such as the World Trade Organization, the United States has long cooperated with its trading partners to establish and enforce global trade rules (Bagwell, Bown, and Staiger 2016). In addition to providing reliable market access for U.S. exporters, such institutions limit the use of beggar-thy-neighbor policies, which advance one country's targeted economic outcomes at the expense of those of other countries (Ossa 2014). An approach to addressing the flaws in current U.S. trade policy and in global trade rules that ignores the commitments the United States has made weakens these institutions and diminishes the benefits that they bring to American firms and workers. This is exemplified by the retaliatory measures taken by many of our trading partners in response to U.S. trade policy actions in 2018 and 2019 that they judged to be in violation of commitments made by the United States under the World Trade Organization's rules (Mattoo and Staiger 2020). These retaliatory measures cost U.S. manufacturing jobs (Flaaen and Pierce 2019), exports (Morgan et al. 2022), incomes, and more broadly economic welfare in the period immediately after their imposition (Amiti, Redding, and Weinstein 2019; Cavallo et al. 2021).

Fundamentally, the global system of trade rules benefits not only domestic producers directly engaged in international trade as importers or exporters but also buyers of goods and services for which prices are influenced by global markets. A large body of research has established that uncertainty negatively affects economic outcomes (Bloom 2014), and more recent work makes clear that this is also true of trade policy uncertainty (Caldara et al. 2020; Heise et al. 2021). Global trade rules limit uncertainty about future changes in tariffs or the imposition of other trade restrictions,

which can in turn foster investment and employment. Although changes to U.S. trade policy are needed, elevated uncertainty about how trade policy might alter prices and availability along global value chains pose a particular challenge in the wake of the COVID-19 pandemic's supply chain disruption (Miroudot 2020).

Making the necessary changes to U.S. international economic policy to ensure the benefits from trade are more broadly distributed and that competition takes place on a level playing field demands rethinking some of the existing rules and norms governing international economic relations. The practical difficulties of making changes within existing institutions creates a complex challenge for governments seeking to develop sustainable international economic policy. However, implementing changes noncooperatively could ultimately leave the United States worse off if its trading partners no longer feel constrained to respect their own commitments (Mattoo and Staiger 2020; Bown and Hillman 2019). Trade policy that is long on combative rhetoric and indifference to trade partners' interests, but short on substance and consistency, puts American firms at a disadvantage. It dissuades our partners and allies from working with the United States to tackle common challenges. Importantly, it cannot deliver on creating jobs, reducing inequality, or promoting economic growth more generally. Since 2021, the Biden-Harris Administration has been renewing strong relationships with our trading partners, working to resolve outstanding trade issues and to establish cooperative frameworks to address emerging challenges.

Conclusion

Comparing the performance of the United States' economy during 2021 with that of our trading partners demonstrates this country's resilience at a time of daunting challenges. Supported by a strong fiscal response and a rapid vaccine rollout, the GDP of the United States exceeded its prepandemic level before those of other major advanced economies. However, as the recovery got under way, demand continued to tilt toward goods and away from services. This shift in global consumption patterns interacted with stressed supply chains to generate inflation in the United States and most of our major trading partners, although this effect was particularly pronounced here due to the relative strength of our recovery. The faster pace of the U.S. economic recovery has also resulted in a widening trade deficit.

Openness to international commerce provides substantial benefits to the U.S. economy. However, these benefits have at times come at the cost of wider domestic inequality. We must engage with our partners and allies to make international economic engagement work for all Americans, by ensuring that the global rules are aligned with domestic objectives and values, and that these rules are rigorously enforced.