

Trends in U.S. Merchandise Trade, 2022

Part 1

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Introduction

On August 27, 1993, the U.S. International Trade Commission (Commission), on its own motion, instituted Investigation No. 332-345 under authority of section 332(b) of the Tariff Act of 1930 to prepare annual reports entitled *Shifts in U.S. Merchandise Trade* to provide the public with information and data to identify and explain the major trends in U.S. goods trade. However, on March 15, 2023, the Commission decided to suspend production of the report and instead prepare and publish, under the Sec 332(b) statutory authority, interactive data tables and figures on the Commission’s website. These data tables and figures provide the public with the same important trade data that had previously accompanied the annual reports.

This working paper—the first in a series of four papers providing analysis on U.S. merchandise trade in 2022—discusses U.S. and global macroeconomic trends impacting trade in 2022 as well as trends in U.S. trade by industry sector and trading partner. The remaining three working papers will cover ten industry sectors, providing discussion and analysis on U.S. exports, imports, and trade balance by sector (e.g., agriculture), digest (e.g., poultry or oilseeds), and leading U.S. trade partner. The second working paper will cover agricultural products, energy-related products, forestry products, and minerals and metals whereas the third paper will cover chemicals and related products, footwear, and textiles and the fourth paper will cover electronic products, machinery, and transportation equipment. These working papers are intended to be read with the aforementioned interactive data tables and figures that can be found on the USITC website at: https://www.usitc.gov/research_and_analysis/tradeshifts/2022/index.

Box 1.1 Background on the trade data used in this working paper

For the purposes of this paper, trade is divided into ten broad industry sectors (e.g., agriculture). The industry sectors are further divided into digests (e.g., poultry or oilseeds). Each USITC sector digest encompasses various 8-digit subheadings in the Harmonized Tariff Schedule of the United States (HTS). The USITC maintains and publishes the HTS which sets out the tariff rates and statistical categories for all merchandise imported into the United States. The U.S. Census Bureau (Census) collects and compiles export statistics of approximately 8,000 commodity classifications (10-digit classification codes) in Schedule B: Statistical Classification of Domestic and Foreign Commodities Exported from the United States. Schedule B classification codes are concorded to HTS 10-digit statistical reporting numbers based on USITC estimates; therefore, the classification codes for exports are presented using HTS 8-digit subheadings for imports.^a

The trade data presented in this working paper principally rely on three broad categories of trade: “total exports,” “domestic exports,” and “general imports.” Unless otherwise noted, the export data used in tables are for domestic exports; some tables also include data on re-exports.^b The import data used in the tables are for general imports.

Definitions of the five broad categories of trade data gathered by the U.S. Census:

General imports are total physical arrivals of merchandise from foreign countries into the United States, whether such merchandise enters consumption channels immediately or is entered into bonded warehouses or Foreign Trade Zones (FTZs) under Customs custody.

Imports for consumption (sometimes called “special imports”) are merchandise that have physically cleared through Customs, either entering consumption channels immediately or entering for consumption after withdrawal from bonded warehouses or FTZs under Customs custody.

Domestic exports are (1) exported goods that were grown, produced, or manufactured in the United States, and (2) exported commodities of foreign origin that have been changed in the United States (including changes made in a U.S. FTZ) from the form in which they were imported, or that have been enhanced in value or improved in condition by further processing or manufacturing in the United States.

Re-exports (sometimes called foreign exports) are calculated as total exports minus domestic exports of goods of foreign origin that (1) have previously entered the U.S. customs territory, a Customs bonded warehouse, or a U.S. FTZ, and (2) at the time of exportation, have not undergone any substantial change in form or condition or any enhancement in value by further manufacturing in the U.S. customs territory or U.S. FTZs.

Total exports are U.S. domestic exports plus re-exports. This includes all exports of physical merchandise from the United States.^c

^a For a complete list of HTS subheadings classified in a particular sector or digest, see https://www.usitc.gov/system/files/research_and_analysis/tradeshifts/files/sectors_digest_table_2022.html.

^b For more information on trade terminology, please refer to USITC, “Special Topic: Trade Metrics https://www.usitc.gov/research_and_analysis/trade_shifts_2014/trade_metrics.htm, Shifts in U.S. Merchandise Trade, 2014.

^c USDOC, Census webpage, “Trade Definitions,” <https://www.census.gov/foreign-trade/reference/definitions/> USITC, “A Note on U.S. Trade Statistics,” August 22, 2014, <http://www.usitc.gov/publications/research/tradestatsnote.pdf>. Census also notes the following definition for foreign exports: “Exports of foreign merchandise (re-exports) consist of commodities of foreign origin which have entered the United States for consumption, or into Customs bonded warehouses or U.S. Foreign Trade Zones, and which, at the time of exportation, are in substantially the same condition as when imported.” USDOC, Census webpage, “Guide to Foreign Trade Statistics,” <http://www.census.gov/foreign-trade/guide/sec2.html> (accessed September 15, 2018).

Macroeconomic Trends in 2022

This section presents an overview of macroeconomic conditions in 2022 by examining a series of indicators related to U.S. and global gross domestic product (GDP), manufacturing output, labor market conditions, inflation, and exchange rate movements. In 2022, real U.S. GDP increased by 2.1 percent¹ and real global GDP grew 3.2 percent.² Manufacturing output and employment outcomes improved for both the United States and many economies across the globe as the recovery from the COVID-19 pandemic-related downturn continued. Nevertheless, U.S. and global macroeconomic conditions were heavily impacted by economic and political shocks in 2022. Among these shocks were high inflation, interest rate increases by many central banks, and the Russian invasion of Ukraine. Broadly, in 2022, high inflation and rising interest rates caused a slowdown in consumer demand and dampened economic activity compared to more robust figures in 2021.³

Gross Domestic Product

GDP represents an aggregate measure of total economic activity and is often used as an indicator for the overall health of a country's economy. Empirical research demonstrates that a positive relationship exists between GDP growth and merchandise trade.⁴ Estimates from the U.S. Department of Commerce's Bureau of Economic Analysis (BEA) show that U.S. real GDP grew by 2.1 percent in 2022,⁵ substantially less than the 5.9 percent real growth experienced in 2021, a trend reflected in most major subcomponents of U.S. GDP (with exports being a notable exception). For example, real personal consumption expenditures (the largest subcomponent of GDP) grew by 2.8 percent compared to 8.3 percent in 2021.⁶ Real private domestic investment, meanwhile, grew by 3.9 percent compared to 9.0 percent in 2021.⁷ Total imports increased by 8.2 percent (14.1 percent in 2021), which outpaced the 7.2 percent growth in exports (6.1 percent in 2021).⁸ Government expenditures decreased by 0.6 percent during the year.⁹

According to the International Monetary Fund (IMF), real global GDP grew by an estimated 3.4 percent in 2022, a significant decrease from the 6.3 percent expansion experienced in 2021.¹⁰ Economic growth during the year slowed for both "advanced" and "emerging market and developing" economies, with real GDP growth of 2.7 and 4.0 percent, respectively.¹¹ India had the strongest growth among the United States' largest trading partners, experiencing a real GDP growth rate of 6.8 percent.¹² GDP growth in

¹ BEA, "Gross Domestic Product, Fourth Quarter and Year 2022 (Second Estimate)," February 23, 2023.

² IMF, "World Economic Outlook: Countering the Cost-of-Living Crisis," October 2022.

³ Paul, "How Increasing Interest Rates Could Reduce Inflation, but Potentially Cause a Recession," March 27, 2023.

⁴ For more information on historic relationships between international trade and GDP growth, see Ortiz-Ospina, "Does Trade Cause Growth?," October 22, 2018; Constantinescu, Mattoo, and Ruta, "The Global Trade Slowdown," February 2020, 121–42; de Soyres and Gaillard, "Global Trade and GDP Co-Movement," May 2020.

⁵ BEA, "Gross Domestic Product, Fourth Quarter and Year 2022 (Second Estimate)," February 23, 2023.

⁶ BEA, "Gross Domestic Product, Fourth Quarter and Year 2022 (Second Estimate)," February 23, 2023.

⁷ BEA, "Gross Domestic Product, Fourth Quarter and Year 2022 (Second Estimate)," February 23, 2023.

⁸ BEA, "Gross Domestic Product, Fourth Quarter and Year 2022 (Second Estimate)," February 23, 2023.

⁹ BEA, "Gross Domestic Product, Fourth Quarter and Year 2022 (Second Estimate)," February 23, 2023.

¹⁰ IMF, "World Economic Outlook," April 2023.

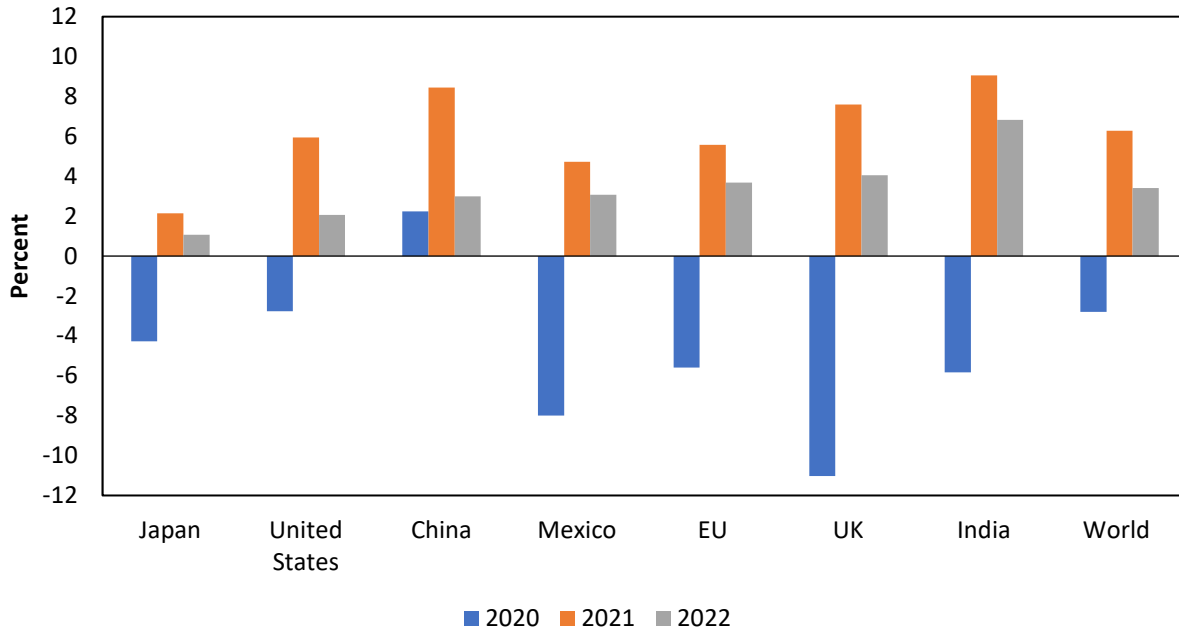
¹¹ IMF, "Country Composition of WEO Groups," accessed April 24, 2023; IMF, "World Economic Outlook," April 2023.

¹² IMF, "World Economic Outlook," April 2023.

Canada, China, the European Union (EU), Mexico, and the United Kingdom (UK) ranged between 1 percent and 4 percent; Japan grew more slowly, by roughly 2 percent (figure 1.1).¹³

Figure 1.1 Real GDP growth of the United States and other major economies 2020–22

In percentages. Underlying data for this figure can be found in appendix table 1.1.



Source: IMF, “World Economic Outlook Database, April 2023, Gross Domestic Product, Constant Prices,” accessed April 24, 2023.

Manufacturing Output

Manufacturing output in the United States expanded by 3.9 percent in real terms in 2022 (figure 1.2),¹⁴ much slower than the 6.4 percent growth rate recorded in 2021.¹⁵ According to the United Nations Industrial Development Organization (UNIDO), total U.S. manufacturing output in most broad industry categories increased, including double-digit expansions in mining as well as in the production of motor vehicles, trailers, and semitrailers. The categories where output declined were textiles, paper and paper products, wood products excluding furniture, and basic metals (figure 1.2).

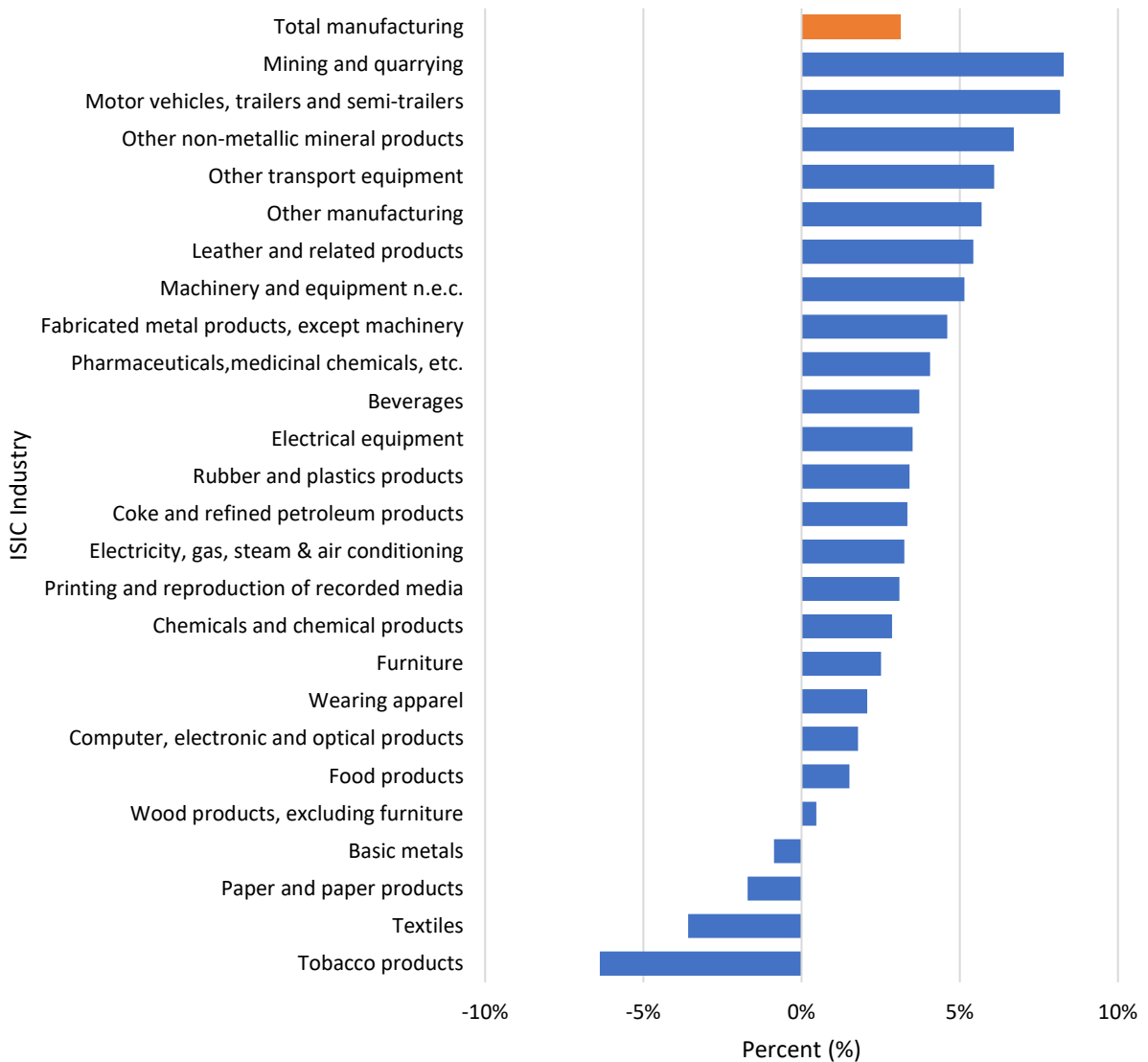
¹³ IMF, “World Economic Outlook,” April 2023.

¹⁴ USITC calculations from UNIDO, “Seasonally Adjusted Quarterly Index of Industrial Production Database.”

¹⁵ USITC calculations from UNIDO, “Seasonally Adjusted Quarterly Index of Industrial Production Database.”

Figure 1.23 Change in U.S. manufacturing output by International Standard of Industrial Classification (ISIC) sector, 2021–22

In percentages. n.e.c. = not elsewhere classified. Underlying data for this figure can be found in appendix table 1.2.



Source: USITC calculations from UNIDO, “Seasonally Adjusted Quarterly Index of Industrial Production Database,” accessed April 5, 2023.

In 2022, global manufacturing output grew by 1.5 percent in real terms¹⁶ compared to a growth rate of 6.4 percent in 2021,¹⁷ with such growth driven by “developing and emerging industrial economies.”¹⁸ For example, manufacturing output in China grew by 2.3 percent; Vietnam and Malaysia grew at rates of 11.2 and 4.0 percent, respectively.¹⁹ Industrialized economies experienced lower levels of

¹⁶ UNIDO, “World Manufacturing Production, Quarter IV 2022,” March 27, 2023, 2.

¹⁷ USITC, “Macroeconomic Conditions in 2021,” *Shifts in U.S. Merchandise Trade, 2021*, June 2022.

¹⁸ UNIDO considers economies with manufacturing value added per capita GDP below \$2,500 international dollars to be developing and emerging industrial economies, see “How does UNIDO group countries by stage of development?,” “UNIDO Statistics Data Portal.”

¹⁹ UNIDO, “World Manufacturing Report, Quarter IV 2022”, March 27, 2023, 8.

manufacturing production growth, with such economies in North America and Europe growing by 0.8 and 1.6 percent, respectively, during the year.²⁰

Labor Market

Outcomes in labor markets can significantly impact consumer demand and, therefore, international merchandise trade. Wages earned from employment represent a large source of global household income and can help determine the amount of goods that households can consume. As labor market conditions improve and employment levels increase, households tend to increase their demand, which includes demand for imported goods. Labor market conditions in the United States continued to improve in 2022 after recovering strongly in 2021 from the COVID-19 pandemic-induced lows of 2020.²¹ The U.S. unemployment rate remained relatively stable in 2022, averaging 3.6 percent (table 1.1) compared to 5.4 percent in 2021. Additionally, the U.S. civilian labor force participation rate and employment-to-population ratio increased by 0.5 and 1.6 percentage points, respectively, in 2022. Although unemployment reached a “historic” low in December 2022²², labor force participation and employment-to-population rates had not returned to pre-pandemic levels as of the end of 2022 (table 1.1).

Table 1.1 U.S. unemployment and labor force participation, 2019–22 and selected quarters in 2022
In percentages. Q = quarter.

Indicator	2019	2020	2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2022
Civilian labor force participation rate	63.1	61.7	61.7	62.3	62.2	62.2	62.2	62.2
Employment-population ratio	60.8	56.8	58.4	59.9	59.9	59.9	60.0	60.0
Unemployment rate	3.7	8.1	5.4	3.8	3.6	3.6	3.6	3.6

Source: USDOL, BLS, “Labor Force Statistics,” accessed March 6, 2023.

Other indicators suggest that, although robust, the U.S. labor market experienced significantly higher-than-normal churn characterized by high rates of job quitting and switching. In December 2022, the U.S. job quit rate—an indicator often considered a measure of workers’ willingness or ability to leave jobs—was 2.7 percent, down from 2.9 percent in December 2021.²³ Also, the job openings rate declined to 6.7 percent in December 2022 from the series high of 7.8 percent set in March 2022—a factor that might limit the ability of workers to leave jobs.²⁴ U.S. average nominal hourly wages increased in 2022 by 4.6 percent, although wages adjusted for inflation actually fell during the year by 1.7 percent.²⁵

Estimates of working hours in 2022 show a continued recovery of the global labor market from pandemic lows recorded in 2020. The UK was the only economy among the United States’ largest trading partners whose working hours remained at 2 percent or more below pre-pandemic levels

²⁰ UNIDO, “World Manufacturing Report, Quarter IV 2022”, March 27, 2023, 3.

²¹ USITC, “Macroeconomic Conditions in 2021,” *Shifts in U.S. Merchandise Trade, 2021*, June 2022.

²² BLS, “Employment Situation News Release - 2022 M13 Results,” January 6, 2023.

²³ BLS, “Job Openings and Labor Turnover - December 2022,” February 1, 2023, 2; USDOL, BLS, “Job Openings and Labor Turnover - December 2021,” February 1, 2022, 2.

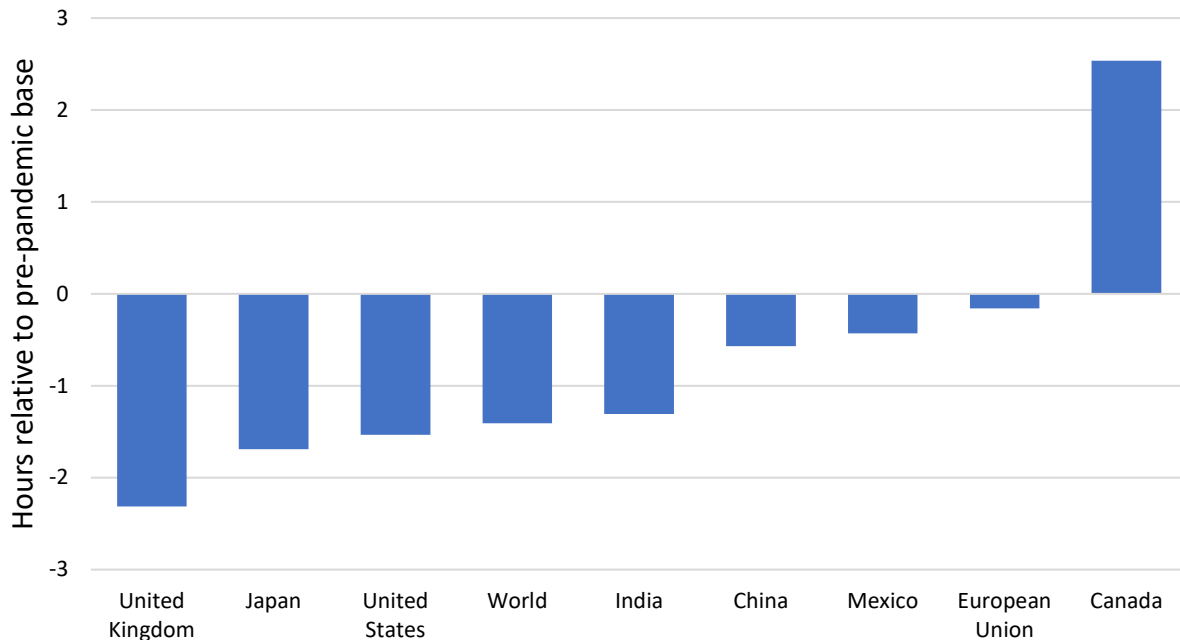
²⁴ BLS, “Job Openings and Labor Turnover - December 2022,” February 1, 2023; Federal Reserve FRED, “Job Openings: Total Private,” April 24, 2023.

²⁵ BLS, “Real Earnings - December 2022,” January 12, 2023, 3.

(defined as annualized estimates of total working hours in the fourth quarter of 2019) (figure 1.3). Conversely, Mexico, the EU, and Canada were estimated to have experienced stronger recoveries in hours worked (figure 1.3). Hours worked in 2022 were 0.4 and 0.2 percent below pre-pandemic levels for Mexico and the EU, respectively; working hours in Canada exceeded pre-pandemic levels by 2.5 percent (figure 1.3).²⁶

Figure 1.3 Change in hours worked by country and world relative to pre-pandemic baseline, 2022

In percentages. The pre-pandemic baseline is calculated as an annualized estimate of total hours worked in Q4 2019. Q = quarter. Underlying data for this figure can be found in appendix table 1.3.



Source: ILOSTAT, “Working Hours Lost due to the COVID-19 Crisis,” accessed January 5, 2023.

Inflation

Inflation is a measure of the purchasing power of money and reflects price levels in an economy. All else being equal, high levels of inflation reduce consumer purchasing power and, as a result, tend to limit consumer demand for imported goods. In 2022, strong consumer demand, lingering supply chain disruptions related to the COVID-19 pandemic, and increases in food and energy prices—partly tied to the Russian invasion of Ukraine—significantly contributed to inflationary pressures in the United States and most economies around the world. In the United States, consumer prices across the broad basket of goods measured in the Consumer Price Index (CPI) grew by 6.5 percent in 2022, which was the smallest year-over-year inflation figure since the 12 months that ended in October 2021 (figure 1.4). Inflation was driven in large part by a 10.4 percent increase in food prices (figure 1.4).²⁷ Most categories increased

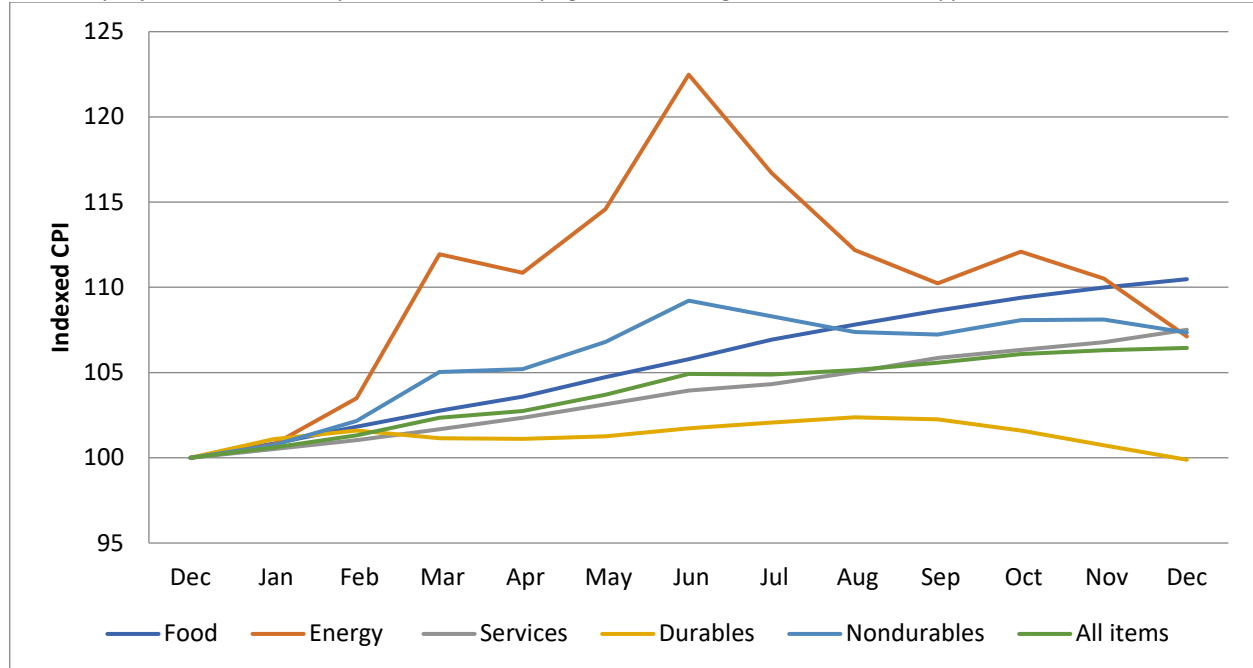
²⁶ “EU 27” was used because the UK officially left the EU on February 1, 2020. ILO, “Working Hours Lost Due to the COVID-19 Crisis,” accessed January 5, 2023.

²⁷ BLS, “Consumer Price Index News Release - 2022 M12 Results,” January 12, 2023.

faster than the overall CPI. Inflation for durable goods²⁸ was less than the overall inflation rate (figure 1.4).²⁹

Figure 1.4 Monthly, seasonally adjusted U.S. consumer price index, December 2021–December 2022

Seasonally adjusted index, January 2022 = 100. Underlying data for this figure can be found in appendix table 1.4.



Source: USDOL, BLS, “Archived Consumer Price Index Supplemental Files, December 2022,” accessed February 5, 2023.

Most central banks responded to inflationary pressures by increasing interest rates. During 2022, for example, roughly 90 percent of central banks around the world increased rates. In the United States, the Federal Reserve Open Market Committee increased the federal funds rate at the fastest pace in 40 years, increasing from 0.07 percent at yearend 2021 to 4.33 percent by the end of 2022.³⁰ Increased interest rates tend to dampen economic activity by increasing borrowing costs for businesses and consumers—which can decrease demand for imports.³¹ Rising interest rates can also impact international trade because the value of the dollar tends to rise vis-à-vis other currencies. This, in turn, has a tendency to stimulate imports and depress exports.³² Throughout much of 2022, the Central Bank of Japan did not raise interest rates—a notable exception among central banks—but changed course in late 2022 by lifting its cap on the 10-year Japanese government bond to 0.5 percent from 0.25 percent.³³

High inflation also affected many of the United States’ major trading partners in 2022. For example, prices in the EU grew by 9.2 percent between December 2021 and December 2022 because the bloc’s

²⁸ Durables are defined as goods not for immediate consumption and able to be kept for a period of time.

Examples of durable goods include washers, refrigerators, and air conditioners.

²⁹ “Consumer Price Index News Release - 2022 M12 Results,” January 12, 2023.

³⁰ Gillum, Roach, “Historic Year for Central Bank Activity and Rate Hikes,” December 19, 2022; Federal Reserve Bank of New York, “Effective Federal Funds Rate,” accessed February 25, 2023.

³¹ Mathai, “Monetary Policy,” accessed February 25, 2023; Griswold, “Interest Rates, the Dollar, and US Trade Flows | Mercatus Center,” December 13, 2016.

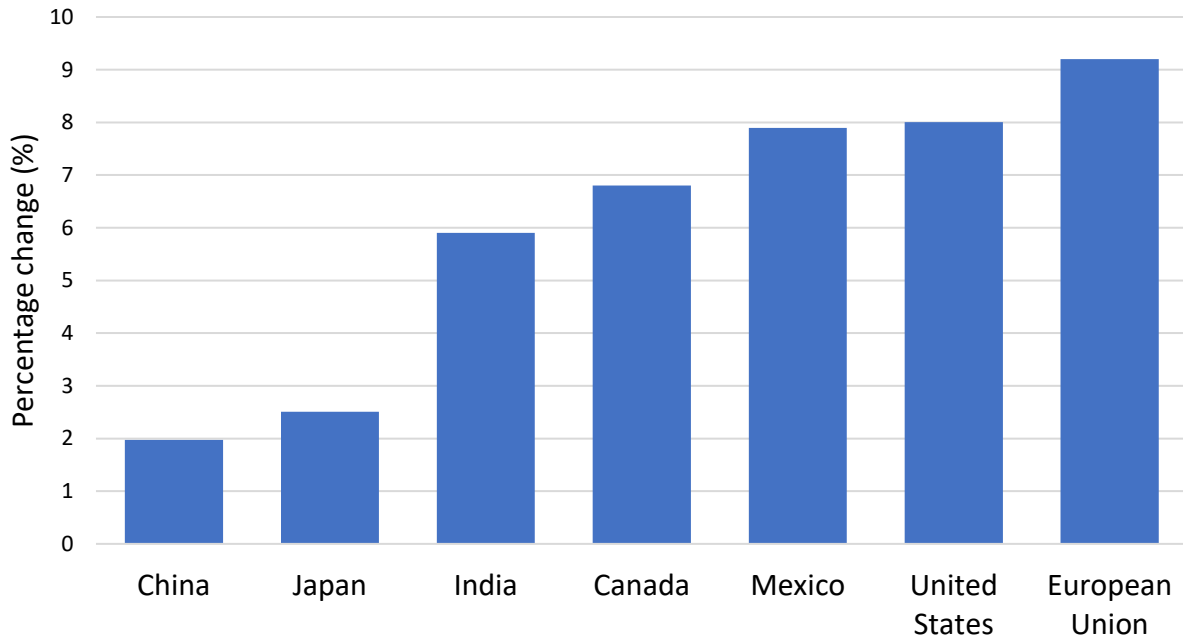
³² Griswold, “Interest Rates, the Dollar, and US Trade Flows | Mercatus Center,” December 13, 2016.

³³ Irwin, “What the Bank of Japan’s Surprise Means for the World,” December 20, 2022.

response to the Russian invasion of Ukraine reportedly impacted prices across the continent (figure 1.5). Consumer prices in Mexico, Canada, and India also grew significantly, each with growth of at least 5.9 percent during the year. China and Japan, however, remained relatively insulated from rising prices, each only increasing around 2.0 percent.³⁴

Figure 1.5 Consumer Price Index (CPI) growth for U.S. and selected global economies, 2022

CPI percentage change in 2022. Underlying data for this figure can be found in appendix table 1.5.



Source: OECD, "Consumer Prices," accessed January 5, 2022.

Exchange Rate Trends

Like inflation, exchange rates can impact purchasing power. Exchange rates determine the amount of goods or services denominated in one currency that can be purchased by holders of another currency. All else being equal, an appreciation of a currency increases that currency's purchasing power for imported goods and services and generally leads to increased imports from abroad, making exports more expensive for consumers abroad.³⁵

The U.S. dollar appreciated throughout 2022 against most currencies, growing 5.3 percent across the Federal Reserve's broad index of global currencies.³⁶ Such appreciation was likely the result of interest rate increases in the United States during 2022 as well as a more favorable terms of trade related to the

³⁴ OECD, "Main Economic Indicators Database: Consumer Prices," accessed January 6, 2023.

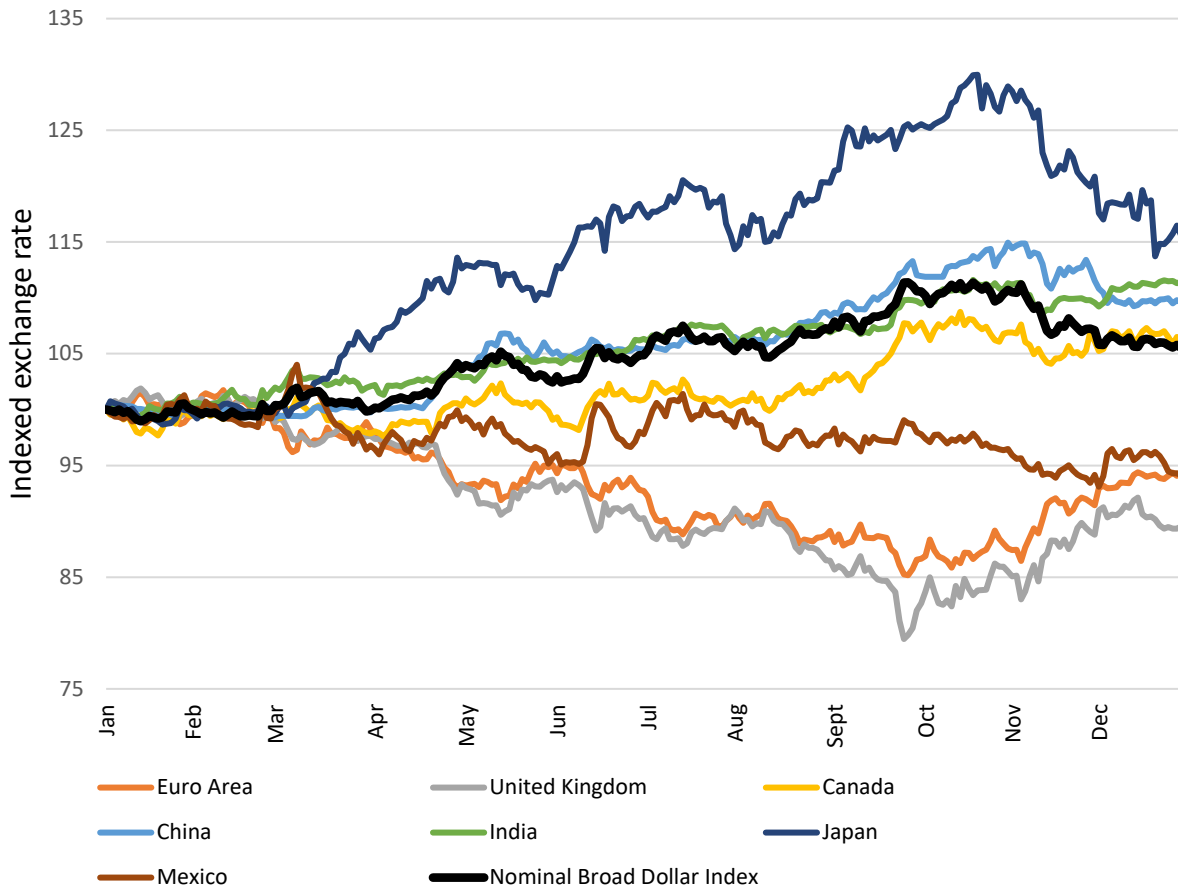
³⁵ Alderman, "How Currency Appreciation Can Impact Prices," March 2023.

³⁶ The broad dollar index is a weighted average of the foreign exchange values of the U.S. dollar against the currencies of a large group of major U.S. trading partners. The Federal Reserve Board of Governors, "Federal Reserve Board - Foreign Exchange Rates - H.10," accessed January 6, 2023.

energy crisis.³⁷ In particular, the U.S. dollar experienced significant gains of 14.3 percent and 11.3 percent against the Japanese yen and the Indian rupee, respectively (figure 1.6). The value of the U.S. dollar against the currencies of several major trading partners also experienced significant volatility during 2022. For example, the U.S. dollar appreciated as much as 20.5 percent against the Japanese yen in mid-2022 but fell in value against the British pound and the euro for most of the year, before partially recovering by the end of 2022.

Figure 1.6 Indices of U.S. dollar exchange rates for major foreign currencies, daily, 2022

Seasonally adjusted index, January 2022 = 100. Underlying data for this figure can be found in appendix table 1.6.



Source: Federal Reserve Board of Governors, “Foreign Exchange Rates,” accessed January 15, 2023.

Box 1.2 The Russian Invasion of Ukraine and its Implications for the Global Economy

The Russian Federation (Russia) launched an invasion of Ukraine on February 24, 2022.^a In response, the United States and many EU countries immediately enacted sanctions on large Russian financial institutions and several Russian oligarchs and elites.^b The United States and its allies continued to impose sanctions on Russia throughout 2022, including barring select Russian banks from the Society for

³⁷ Terms-of-trade refers to the ratio of an economy’s export prices to its import prices. A “more favorable” terms-of-trade indicates that the prices of U.S. exports increased relative to the price of its imports. Gopinath, Gourinchas, “How Countries Should Respond to the Strong Dollar,” October 14, 2022.

World Wide Interbank Financial Telecommunication, blocking transactions with the Russian Central Bank, various bans on the import of Russian energy products, several export restrictions related to advanced technology,^c and a price cap on Russian oil.^d These sanctions not only had a negative effect on Russia's economy in 2022 but likely contributed to slower global economic growth and likely resulted in increased commodity prices and supply chain disruptions.^e

In response to these sanctions, Russia reduced the flow of natural gas to Europe via several pipelines and global prices for oil, natural gas, and coal increased significantly.^f During 2022, the amount of natural gas that Russia supplied to Europe fell by more than 80 percent.^g The disruption of oil and natural gas exports to Europe caused by the sanctions and the Russian response also realigned some global energy supply chains. Many European countries are now sourcing energy products from other countries, including the United States, which increased shipments of liquefied natural gas (LNG) to Europe by more than 141 percent in 2022.^h Similarly, China and India have increased imports of oil from Russia, reportedly at a discount compared to global benchmark prices.ⁱ Furthermore, China and India reportedly are reselling oil purchased from Russia to Europe at a large markup.^j

The Russian invasion of Ukraine has also contributed to a global food shortage, particularly in some developing countries, because Ukraine and Russia are among the world's top exporters of agricultural products.^k Initially, the activities surrounding the invasion interfered with exports of Ukrainian grain, much of which is used to support the United Nations World Food Programme. The Black Sea Grain Initiative, brokered by the United Nations, Turkey, Russia, and Ukraine in July 2022, however, allowed most grain exports to resume, although some disruption reportedly continued. The initiative was initially negotiated for four months and was renewed for another four months in November 2022, a process that likely contributed to uncertainty in the global food market and, therefore, higher food prices.^l

^a Treasury, "U.S. Treasury Announces Unprecedented & Expansive Sanctions Against Russia, Imposing Swift and Severe Economic Costs," January 23, 2023.

^b Treasury, "U.S. Treasury Announces Unprecedented & Expansive Sanctions Against Russia, Imposing Swift and Severe Economic Costs," January 23, 2023.

^c For example, U.S. sanctions on chipmakers, exporters of microelectronics, and supercomputer firms, see "Sanctions against Russia – a Timeline," April 13, 2023.

^d "Sanctions against Russia – a Timeline," April 13, 2023.

^e *The Economic Impact of Russia Sanctions*, December 13, 2022.

^f IEA, "Natural Gas Markets Expected to Remain Tight into 2023 as Russia Further Reduces Supplies to Europe - News," October 3, 2022.

^g IMF, "Beating the European Energy Crisis," December 2022.

^h USEIA, "Europe Was the Main Destination for U.S. LNG Exports in 2022," March 22, 2023.

ⁱ Menon, "Ukraine Crisis," December 6, 2022.

^j Kimani, "China Is Reselling U.S. LNG To Europe For Big Profits," accessed January 28, 2023; Habershon, "India

^k USDA, ERS, "- Agricultural Markets in Russia and Ukraine," April 18, 2023.

^l Wong and Swanson, "How Russia's War on Ukraine Is Worsening Global Starvation," January 2, 2023.

U.S. Trade by Industry Sectors and Selected Trading Partners

Changes in 2022 from 2021:

- U.S. total exports increased by \$308.6 billion (17.6 percent) to \$2.1 trillion
- U.S. general imports increased by \$415.3 billion (14.7 percent) to \$3.2 trillion
- U.S. merchandise trade deficit increased by \$106.7 billion to \$1.2 trillion³⁸

U.S. Exports

U.S. total exports increased by \$308.6 billion (17.6 percent) to \$2.1 trillion in 2022 ([table US.1](#)).³⁹

Generally, the growth in total exports, which increased for the second year in a row, resulted from the continued recovery of the global economy following the COVID-19 pandemic. Rising prices also boosted export growth for many sectors.⁴⁰ During the past few years, U.S. export growth has increasingly been driven by energy-related products, with the trend continuing in 2022 as exports of petroleum products, crude petroleum, and natural gas increased because of both higher prices and increased volumes, in part resulting from Russia's invasion of Ukraine.⁴¹

³⁸ Calculations are based upon rounded numbers for total exports and general imports.

³⁹ The export data used in this section are total exports except where noted. For more information on trade terminology, please refer to USITC, "Special Topic: Trade Metrics," *Shifts in U.S. Merchandise Trade 2014*.

⁴⁰ Swanson, "America's Trade Deficit Surged in 2022," February 7, 2023; Carter, "The Year in Trade," February 16, 2023.

⁴¹ Roberts, "In 2022, U.S. Exports Could Top \$2,000,000,000,000," November 30, 2022; Torry, "U.S. Deficit Hit Record in 2022," February 7, 2022; Swanson, "America's Trade Deficit Surged in 2022," February 7, 2022; Carter, "The Year in Trade," February 16, 2023.

Table US.1 U.S. total exports by major industry/commodity sectors, 2018–22

Value in billions of dollars and share of total in percentages.

Sector	2018	2019	2020	2021	2022
Electronic products (billion \$)	198.5	205.8	156.8	248.1	388.1
Chemicals and related products (billion \$)	243.3	242.8	229.2	289.6	326.2
Transportation equipment (billion \$)	338.7	340.3	244.0	273.4	307.2
Energy-related products (billion \$)	277.3	275.6	255.6	286.1	302.8
Agricultural products (billion \$)	154.7	150.3	157.2	184.8	205.0
Minerals and metals (billion \$)	146.5	137.7	128.3	170.0	188.1
Machinery (billion \$)	143.5	137.6	127.1	147.8	163.5
Special provisions (billion \$)	46.2	46.7	41.0	49.1	63.0
All other sectors (billion \$)	117.2	109.0	89.4	105.3	119.0
All sectors (billion \$)	1,665.8	1,645.9	1,428.5	1,754.3	2,062.9
Electronic products (%)	11.9	12.5	11.0	14.1	18.8
Chemicals and related products (%)	14.6	14.8	16.0	16.5	15.8
Transportation equipment (%)	20.3	20.7	17.1	15.6	14.9
Energy-related products (%)	16.6	16.7	17.9	16.3	14.7
Agricultural products (%)	9.3	9.1	11.0	10.5	9.9
Minerals and metals (%)	8.8	8.4	9.0	9.7	9.1
Machinery (%)	8.6	8.4	8.9	8.4	7.9
Special provisions (%)	2.8	2.8	2.9	2.8	3.1
All other sectors (%)	7.0	6.6	6.3	6.0	5.8
All sectors (%)	100.0	100.0	100.0	100.0	100.0

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Import values are based on customs value; export values are based on free alongside ship value, U.S. port of export. Calculations are based on unrounded data. Sectors are groups of digests, which are classifications that correspond to groups of HTS 8-digit subheadings in the Harmonized Tariff Schedule of the United States (HTS).

The value of U.S. exports increased for all merchandise sectors discussed in this paper.⁴² The sectors with the largest increases in absolute value terms were electronic products, up \$140.0 billion (56.4 percent) to \$388.1 billion; chemicals and related products, up \$36.6 billion (12.6 percent) to \$326.2 billion; and transportation equipment, up \$33.8 billion (12.4 percent) to \$307.2 billion.

U.S. Imports

In 2022, the value of U.S. general imports increased by \$415.3 billion (14.7 percent) to \$3.2 trillion, marking the second consecutive year of increased general imports ([table US.2](#)). The rise in U.S. imports during this year was driven by the ongoing recovery of the U.S. economy in the aftermath of the COVID-19 pandemic, which resulted in a surge of imports early in 2022 as U.S. retailers and other companies imported elevated quantities of goods to meet anticipated demand.⁴³ Higher prices were also a factor.

⁴² The USITC divides merchandise industries into 12 sectors; 10 of these 12 are covered in this paper. The 2 sectors that are not covered—Miscellaneous Manufactures and Special Provisions—are broad categories of products that are not assigned to any of the 10 specific sectors.

⁴³ Swanson, “America’s Trade Deficit Surged in 2022,” February 7, 2023; Carter, “The Year in Trade,” February 16, 2023; Saraiva, “U.S. Trade Gap Widened to Record in 2022 on Imports Surge,” February 7, 2023.

In particular, an unexpected spike in oil and gas prices resulting from the Russian invasion of Ukraine led to higher costs for imported energy-related products.⁴⁴

Table US.2 U.S. general imports, by major industry/commodity sectors, 2018–22

Value in billions of dollars and share of total in percentages.

Sector	2018	2019	2020	2021	2022
Electronic products (billion \$)	504.8	483.4	482.7	571.5	629.9
Transportation equipment (billion \$)	458.3	470.7	380.7	426.5	499.0
Chemicals and related products (billion \$)	309.8	319.8	328.6	383.6	442.1
Energy-related products (billion \$)	236.6	204.6	125.8	220.3	316.5
Minerals and metals (billion \$)	214.6	197.7	203.6	261.3	290.1
Machinery (billion \$)	213.7	212.0	204.2	247.8	280.9
Agricultural products (billion \$)	156.4	159.7	163.3	193.8	222.0
Miscellaneous manufactures (billion \$)	138.5	132.6	148.2	174.4	193.7
All other sectors (billion \$)	303.3	311.1	293.7	351.9	372.3
All sectors (billion \$)	2,536.1	2,491.7	2,330.8	2,831.1	3,246.4
Electronic products (%)	19.9	19.4	20.7	20.2	19.4
Transportation equipment (%)	18.1	18.9	16.3	15.1	15.4
Chemicals and related products (%)	12.2	12.8	14.1	13.6	13.6
Energy-related products (%)	8.5	7.9	8.7	9.2	8.9
Minerals and metals (%)	9.3	8.2	5.4	7.8	9.8
Machinery (%)	8.4	8.5	8.8	8.8	8.7
Agricultural products (%)	6.2	6.4	7.0	6.8	6.8
Miscellaneous manufactures (%)	5.5	5.3	6.4	6.2	6.0
All other sectors (%)	12.0	12.5	12.6	12.4	11.5
All sectors (%)	100.0	100.0	100.0	100.0	100.0

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Import values are based on customs value; export values are based on free alongside ship value, U.S. port of export. Calculations are based on unrounded data. Sectors are groups of digests, which are classifications that correspond to groups of HTS 8-digit subheadings in the Harmonized Tariff Schedule of the United States (HTS).

The value of U.S. general imports rose for all manufacturing sectors discussed in this paper. Energy-related products experienced the largest absolute increase by value and the largest percentage increase, rising by \$96.2 billion (43.7 percent) to \$316.5 billion. Transportation equipment recorded the second-largest absolute increase, by value, rising \$72.5 billion (17 percent) to \$499 billion, followed by chemicals and related products, which rose by \$58.5 billion (15.2 percent) to \$442.1 billion.

Trade with Major Partners

The two largest destinations for U.S. total exports continued to be the trading partners in the United States-Mexico-Canada Agreement (USMCA). Combined, U.S. exports to Canada and Mexico accounted for 32.9 percent of total U.S. merchandise exports in 2022. China was the third-largest destination for U.S. total exports in 2022 and continued to be the leading supplier of U.S. imports. Mexico and Canada were the second- and third-largest suppliers of U.S. imports, respectively. Japan and the United Kingdom ranked fourth and fifth, respectively, as destinations for U.S. exports, whereas Japan and Germany ranked fourth and fifth, respectively, as suppliers of U.S. imports.

⁴⁴ Swanson, “America’s Trade Deficit Surged in 2022,” February 7, 2023; Carter, “The Year in Trade,” February 16, 2023.

The value of U.S. total exports of merchandise goods rose to the five largest export destination markets—Canada, Mexico, China, Japan, and the United Kingdom—in 2022. The growth in exports from these countries accounted for 38.6 percent of the \$308.6 billion increase in U.S. exports during that year ([table US.3](#)). The largest absolute increase in U.S. exports by value was to Mexico, which rose by \$47.9 billion (17.3 percent) to \$324.4 billion. Canada remained the largest market for U.S. exports at \$355.0 billion, having risen by \$47.2 billion (15.3 percent) in 2022.

Table US.1 U.S. total exports by selected trading partners, 2018–22

Value in billions of dollars and share of total in percentages.

Destination market	2018	2019	2020	2021	2022
Canada (billion \$)	299.7	292.8	256.2	307.8	355.0
Mexico (billion \$)	266.0	256.7	211.4	276.5	324.4
China (billion \$)	120.3	106.5	124.5	151.4	153.8
Japan (billion \$)	75.2	74.5	64.0	74.6	80.3
United Kingdom (billion \$)	66.5	69.1	58.5	61.4	77.3
Germany (billion \$)	57.8	60.4	58.0	65.3	72.9
Netherlands (billion \$)	48.6	50.7	44.7	53.1	72.9
South Korea (billion \$)	56.3	56.5	51.0	65.9	71.5
All other destination markets (billion \$)	675.5	678.8	560.1	698.3	854.8
All destination markets (billion \$)	1,665.8	1,645.9	1,428.5	1,754.3	2,062.9
Canada (%)	18.0	17.8	17.9	17.5	17.2
Mexico (%)	16.0	15.6	14.8	15.8	15.7
China (%)	7.2	6.5	8.7	8.6	7.5
Japan (%)	4.5	4.5	4.5	4.3	3.9
South Korea (%)	4.0	4.2	4.1	3.5	3.7
Germany (%)	3.5	3.7	4.1	3.7	3.5
United Kingdom (%)	2.9	3.1	3.1	3.0	3.5
Netherlands (%)	3.4	3.4	3.6	3.8	3.5
All other destination markets (%)	40.6	41.2	39.2	39.8	41.4
All destination markets (%)	100.0	100.0	100.0	100.0	100.0

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Import values are based on U.S. customs value; export values are based on free alongside ship value, U.S. port of export. Calculations are based on unrounded data.

In 2022, U.S. exports to Canada rose for all merchandise sectors. The sectors exhibiting the largest absolute increase in exports were energy-related products (up by \$12.2 billion or 51.1 percent) and transportation equipment (up by \$12.1 billion or 17.7). Similarly, exports to Mexico grew across all sectors in 2022 and were also led by energy-related products, which grew by 32.4 percent (\$14 billion). Electronic products represented the second-largest absolute increase in U.S. exports to Mexico, growing by 15.2 percent, or \$8.1 billion.

The value of U.S. general imports of merchandise goods rose for each of the five largest trading partners—China, Mexico, Canada, Japan, and Germany—in 2022. The growth in imports from these countries accounted for roughly 50 percent of the \$415.3 billion net increase in U.S. imports. As in the previous year, the largest absolute increase in U.S. imports, by value, was supplied by Canada, which rose by \$79.9 billion (22.3 percent) to \$437.7 billion ([table US.4](#)). China remained the largest source of imports overall, supplying \$536.8 billion in 2022, up by \$31.8 billion (6.3 percent) in 2022.

Table US.2 U.S. general imports by selected trading partners, 2018–22

Value in billions of dollars and share of total in percentages.

Sources	2018	2019	2020	2021	2022
China (billion \$)	538.5	449.1	432.7	504.9	536.8
Mexico (billion \$)	343.7	356.1	323.5	384.6	454.9
Canada (billion \$)	318.6	318.6	270.0	357.8	437.7
Japan (billion \$)	142.2	143.6	119.5	134.9	148.3
Germany (billion \$)	125.7	127.5	114.9	135.2	146.6
Vietnam (billion \$)	49.1	66.4	79.5	101.9	127.5
South Korea (billion \$)	74.2	77.5	76.0	94.9	115.3
Taiwan (billion \$)	45.7	54.2	60.4	77.1	91.8
All other sources (billion \$)	898.3	898.7	854.2	1,039.8	1,187.4
All sources (billion \$)	2,536.1	2,491.7	2,330.8	2,831.1	3,246.4
China (%)	21.2	18.0	18.6	17.8	16.5
Mexico (%)	13.6	14.3	13.9	13.6	14.0
Canada (%)	12.6	12.8	11.6	12.6	13.5
Germany (%)	5.6	5.8	5.1	4.8	4.6
Japan (%)	5.0	5.1	4.9	4.8	4.5
Vietnam (%)	1.9	2.7	3.4	3.6	3.9
South Korea (%)	2.9	3.1	3.3	3.4	3.6
Taiwan (%)	1.8	2.2	2.6	2.7	2.8
All other sources (%)	35.4	36.1	36.6	36.7	36.6
All sources (%)	100.0	100.0	100.0	100.0	100.0

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Import values are based on U.S. customs value; export values are based on free alongside ship value, U.S. port of export. Calculations are based on unrounded data.

U.S. imports from Canada increased in 9 of 10 merchandise sectors, with the only exception being forest products, which declined by a modest 2.4 percent. The sectors experiencing the largest absolute increase in imports from Canada were energy-related products (up by \$53.8 billion or 51 percent) and transportation equipment (up by \$8.3 billion or 15.5 percent). The growth in imports from China grew in 8 of 10 sectors, led by chemicals and related products, which increased by \$15.3 billion, or 35.3 percent. The expansion of U.S. imports from Mexico grew for all sectors, with the largest absolute increase being transportation equipment, which grew by 17.2 percent or \$21.8 billion.

The sectors⁴⁵ experiencing the largest absolute increases in total exports in 2022 were energy-related products, followed by chemicals and related products and transportation equipment. Domestic exports of energy and related products increased, in absolute terms, in 5 of 6 digests, led by petroleum products (up by \$54.5 billion or 58.6 percent), crude petroleum (up by \$47.0 billion or 70.6 percent), and natural gas and components (up by \$29.6 billion or 41.7 percent). The increase in exports of U.S. energy-related products was driven by higher prices—as Russia’s invasion of Ukraine contributed to a spike of oil and gas prices on global markets—and increased volumes—as sanctions on Russian oil and gas products diverted demand to U.S. suppliers.⁴⁶

⁴⁵ The USITC divides most of the 10 merchandise sectors into digests. Each USITC sector digest encompasses various 8-digit subheadings in the Harmonized Tariff Schedule of the United States (HTS), which classifies tradeable goods. For a complete list of HTS subheadings classified in a particular digest or sector, see https://www.usitc.gov/system/files/research_and_analysis/tradeshifts/files/sectors_digest_table_2022.html.

⁴⁶ Swanson, “America’s Trade Deficit Surged in 2022,” February 7, 2023.

U.S. domestic exports of chemicals and related products increased, in absolute terms, in nearly all 36 constituent digests in 2022. The digests recording the three largest absolute increases in exports were miscellaneous inorganic chemicals (up by \$5.5 billion or 36.0 percent), fertilizers (up by \$3.9 billion or 103.4 percent), and polyethylene resins in primary forms (up by \$3.4 billion or 25.8 percent). The increased export values in chemicals and related products were mainly attributable to the ongoing recovery from the negative impact of the COVID-19 pandemic. Growth in many foreign industries created demand for U.S. chemicals as industrial inputs, including for plastic used to package products for shipment and sale.

In 2022, U.S. domestic exports of transportation equipment increased, in absolute terms, in all but 1 of the 14 constituent digests. The digests recording the three largest absolute increases were aircraft, spacecraft, and related equipment (up by \$11.2 billion or 14.9 percent); motor vehicles (up by \$4.6 billion or 6.5 percent); and certain motor vehicle parts (up by \$3.7 billion or 11.8 percent). The increase in U.S. transportation exports during 2022 was due in part to increased shipments of aircraft by Boeing.⁴⁷

This rise in U.S. merchandise imports in 2022 was led by energy-related products, transportation equipment, and chemicals and related products. Such imports were dominated by crude petroleum and petroleum products, which grew by \$65.2 billion (49.0 percent) and 19.4 billion (29.5 percent), respectively. Overall, imports of energy-related products were predominantly sourced from Canada (\$158.4 billion), with significant imports also coming from Mexico (\$26.2 billion), Saudi Arabia (\$20.8 billion), and Iraq (\$10.0 billion). Together, imports from these countries accounted for 68.1 percent of total imports in this sector.

U.S. imports of transportation equipment increased, in absolute terms, in all constituent digests in 2022. The two digests exhibiting the largest absolute increases in exports were motor vehicles and certain motor vehicle parts, which increased by \$26.1 billion (14.4 percent) and \$13.7 billion (14.9 percent), respectively. These increases in imports were mostly driven by post-pandemic demand for vehicles and higher average vehicle prices, which were 20 percent greater, on average, compared to 2019.⁴⁸ Imports of transportation equipment were primarily sourced from Mexico (\$148.6 billion), Japan (\$64.4 billion), Canada (\$62.2 billion), China (\$40.4 billion), and Germany (\$39.3 billion), which together accounted for 71.1 percent of total imports in the sector.

U.S. imports of chemicals and related products increased for all but 5 of the 36 constituent digests. The digests recording the three largest absolute increases in imports in 2022 were medicinal chemicals, miscellaneous products, and miscellaneous plastic products, which grew by \$21.8 billion (12.4 percent), \$6.1 billion (46.1 percent), and \$5.9 billion (11.4 percent), respectively. Overall, imports of chemicals and related products were sourced from a broad array of countries, with the five largest supplying markets (Ireland, China, Canada, Germany, and Switzerland) accounting for 49.2 percent of total imports in this digest. The growth in imports in this sector is largely due to strong demand in the U.S. medical

⁴⁷ Gates, "Year-end Surge Boosts Boeing, but Airbus Still No. 1 in 2022," January 10, 2023.

⁴⁸ Goodkind, "Auto sales are falling — but profits are surging," January 12, 2023.

industry for products, including immunological products, diagnostic reagents, and vaccines, used to prevent, diagnose, or treat COVID-19 infections.⁴⁹

U.S. Merchandise Trade Balance

In 2022, U.S. total exports increased by 17.6 percent and general imports increased by 14.7 percent. Because the growth of U.S. imports in absolute terms exceeded that of exports, however, the overall merchandise trade deficit grew by \$106.7 billion (9.9 percent) to \$1.2 trillion in 2022 ([table US.5](#)).⁵⁰ As mentioned above, U.S. imports surged in 2022 because U.S. retailers and other companies scrambled to import goods to meet anticipated consumer demand as the U.S. economy continued to recover in the aftermath of the COVID-19 pandemic.⁵¹ The appreciation of the U.S. dollar vis-à-vis the currencies of important trade partners simultaneously increased the cost of U.S. goods—depressing U.S. exports—and reduced the costs of foreign goods—driving up U.S. imports.⁵²

Table US.3 U.S. merchandise trade balance by selected trading partners, 2018–22

In millions of dollars.

Country	2018	2019	2020	2021	2022
China	-418,233	-342,629	-308,140	-353,493	-382,917
Mexico	-77,713	-99,417	-112,078	-108,158	-130,552
Vietnam	-39,464	-55,615	-69,625	-90,885	-116,123
Canada	-18,843	-25,769	-13,813	-50,029	-82,735
Germany	-67,957	-67,051	-56,903	-69,883	-73,686
Japan	-67,064	-69,111	-55,487	-60,296	-68,013
Ireland	-46,701	-52,088	-55,370	-59,913	-66,066
Taiwan	-15,231	-23,027	-30,218	-40,226	-48,132
South Korea	-17,921	-20,972	-25,043	-28,976	-43,868
Thailand	-19,348	-20,162	-26,279	-34,698	-43,143
Italy	-31,824	-33,571	-29,488	-39,290	-41,713
India	-21,073	-23,656	-24,122	-33,120	-38,339
Malaysia	-26,389	-27,317	-31,809	-40,943	-36,645
Indonesia	-12,654	-12,373	-12,822	-17,674	-24,581
Switzerland	-18,912	-26,665	-56,593	-39,543	-22,584
All other countries	28,967	53,665	5,472	-9,683	35,602
All countries	-870,358	-845,759	-902,318	-1,076,810	-1,183,494

Source: USITC DataWeb/Census, accessed February 16, 2023.

Notes: Merchandise trade balance is calculated as U.S. total exports minus U.S. general imports. Calculations are based on unrounded data.

In 2022, the five countries with which the United States exhibited the largest trade deficits were China (–\$382.9 billion), Mexico (–\$130.6 billion), Vietnam (–\$116.1 billion), Canada (–\$82.7 billion), and Germany (–\$73.7 billion). The U.S. trade deficit with Canada grew the most during this year (up \$32.7

⁴⁹ WTO-IMF, *WTO-IMF COVID-19 Vaccine Trade Tracker*, May 31, 2022; Bown, *The WTO and Vaccine Supply Chain Resilience During a Pandemic*, January 2023; WTO, *Trade in Medical Goods in the Context of Tackling Covid-19*, July 19, 2022.

⁵⁰ The standard calculation for a merchandise trade balance is to subtract general imports from total exports.

⁵¹ Saraiva, “U.S. Trade Gap Widened to Record in 2022 on Imports Surge,” February 7, 2023; Swanson, “America’s Trade Deficit Surged in 2022,” February 7, 2023.

⁵² Carter, “The Year in Trade,” February 16, 2023; Swanson, “America’s Trade Deficit Surged in 2022,” February 7, 2023.

billion) followed closely by China (up \$29.4 billion). The U.S. trade deficit with Canada also experienced the largest increase in relative terms (65.4 percent), followed by South Korea (51.4 percent). In 2022, the U.S. trade deficit with China grew by 8.3 percent.

In 2022, the United States recorded a trade deficit in all but one of the 10 merchandise sectors. The exception was the energy-related products sector, which has exhibited a trade surplus since 2019, rising from \$1.2 billion during that year to \$71.5 billion by the end of 2022. In 2022, U.S. exports of energy-related products increased substantially as a result of increased shipments to Europe because U.S. suppliers filled latent demand resulting from sanctions on oil and gas products from Russia. Rising global prices for energy-related products—in response to market uncertainty and sanctions stemming from Russia’s invasion of Ukraine—also significantly boosted the value of U.S. exports in 2022.⁵³

All nine merchandise sectors that exhibited a U.S. trade deficit in 2022 grew in size compared to the previous year. The trade deficit associated with the electronic products digest grew by the largest absolute amount, or \$41.7 billion, whereas that of the agricultural products digest experienced the largest increase in percentage terms (89.8 percent). Increased U.S. imports of electronic products were driven by rising demand for telecommunications networking equipment in response to ongoing 5G network construction. A key contributor to increased agricultural product imports was food price inflation.⁵⁴

⁵³ Troderman, “Crude oil prices increased in first-half 2022,” January 4, 2023; IEA, *Oil Market Report - January 2023*, accessed January 23, 2023; Carter, “The Year in Trade,” February 16, 2023; Swanson, “America’s Trade Deficit Surged in 2022,” February 7, 2023.

⁵⁴ FAO. “FAO Food Price Index,” accessed January 23, 2023.

Bibliography

- Alderman, Camp, and Erin Mandiak. “How currency appreciation can impact prices: the rise of the U.S. dollar.” *Beyond the Numbers* 12, no. 6, March 2023. <https://www.bls.gov/opub/btn/volume-12/how-currency-appreciation-can-impact-prices-the-rise-of-the-us-dollar.htm>.
- Bown, Chad P. *The WTO and Vaccine Supply Chain Resilience During a Pandemic*. *Petersen Institute for International Economics*, January 2023. <https://www.piie.com/sites/default/files/2022-09/wp22-15.pdf>.
- Bureau of Economic Analysis (BEA). “Gross Domestic Product, Fourth Quarter and Year 2022 (Second Estimate).” Press release, February 23, 2023. <https://www.bea.gov/news/2023/gross-domestic-product-fourth-quarter-and-year-2022-second-estimate>.
- Carter, Mary Kate. “The Year in Trade: Diving into the 2022 Numbers.” *U.S. Chamber of Commerce*, February 16, 2023. <https://www.uschamber.com/international/trade-agreements/the-year-in-trade-diving-into-the-2021-numbers>.
- Constantinescu, Cristina, Mattoo, and Michele Ruta. “The Global Trade Slowdown: Cyclical or Structural?” *World Bank Economic Review* 34, no. 1, February 2020, 121–42. <https://doi.org/10.1093/wber/lhx027>.
- Federal Reserve Board of Governors. “Federal Reserve Board - Foreign Exchange Rates - H.10.” accessed January 6, 2023. <https://www.federalreserve.gov/releases/h10/current/>.
- Federal Reserve Bank of New York. “Effective Federal Funds Rate.” accessed February 25, 2023. <https://www.newyorkfed.org/markets/reference-rates/effr>.
- Federal Reserve Bank of St. Louis. Federal Reserve Economic Data (FRED). “Job Openings: Total Private.” Federal Reserve Economic Data, April 24, 2023. <https://fred.stlouisfed.org/series/JTS1000JOR>.
- Food and Agricultural Organization of the United Nations (FAO). *FAO Food Price Index*, June 2, 2023. <https://www.fao.org/worldfoodsituation/foodpricesindex/en/>.
- Gates, Dominic. “Year-end Surge Boosts Boeing, but Airbus Still No. 1 in 2022.” *Seattle Times*, Jan 10, 2023. <https://www.seattletimes.com/business/boeing-aerospace/year-end-surge-boosts-boeing-2022-jet-orders-and-deliveries/>.
- Gillum, Lawrence, and Jeffrey Roach. “Historic Year for Central Bank Activity and Rate Hikes.” *LPL Financial*, December 19, 2022. <https://www.lpl.com/newsroom/read/weekly-market-commentary-2022-a-historic-year-for-central-banks-rate-hikes.html>.
- Goodkind, Nicole. “Auto sales are falling — but profits are surging. Welcome to the new normal.” *CNN*, Jan 12, 2023. <https://www.cnn.com/2023/01/12/investing/premarket-stocks-trading/index.html>.

Gopinath, Gita, and Pierre-Olivier Gourinchas. "How Countries Should Respond to the Strong Dollar." International Monetary Fund. October 14, 2022.

<https://www.imf.org/en/Blogs/Articles/2022/10/14/how-countries-should-respond-to-the-strong-dollar>.

Griswold, Daniel. "Interest Rates, the Dollar, and US Trade Flows | Mercatus Center." December 13, 2016. <https://www.mercatus.org/research/research-papers/interest-rates-dollar-and-us-trade-flows>.

Habershon, Alfie. "India Likely Selling Refined Russian Oil to West, Study Says." Asia Financial (blog). September 5, 2022. <https://www.asiafinancial.com/india-is-likely-reselling-russian-oil-to-west-claims-study>.

International Energy Agency (IEA). "Natural Gas Markets Expected to Remain Tight into 2023 as Russia Further Reduces Supplies to Europe." Press release, October 3, 2022.

<https://www.iea.org/news/natural-gas-markets-expected-to-remain-tight-into-2023-as-russia-further-reduces-supplies-to-europe>.

International Energy Agency (IEA). *Oil Market Report - January 2023 – Analysis*. January 23, 2023.

<https://www.iea.org/reports/oil-market-report-january-2023>.

International Labor Organization (ILO). "Working Hours Lost Due to the COVID-19 Crisis." ILOSTAT, accessed January 5, 2023. <https://ilostat.ilo.org/topics/covid-19/#>.

International Monetary Fund (IMF). "Beating the European Energy Crisis." December 2022.

<https://www.imf.org/en/Publications/fandd/issues/2022/12/ beating-the-european-energy-crisis-Zettelmeyer>.

International Monetary Fund (IMF). "Country Composition of WEO Groups." accessed April 24, 2023.

<https://www.imf.org/en/Publications/WEO/weo-database/2023/April/groups-and-aggregates>.

International Monetary Fund. "World Economic Outlook: Countering the Cost-of-Living Crisis." *World Economic Outlook* October 2022.

<https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022>.

Irwin, Neil. "What the Bank of Japan's Surprise Means for the World." Axios. December 20, 2022.

<https://www.axios.com/2022/12/20/what-the-bank-japans-surprise-means-for-the-world>.

Kimani, Alex. "China Is Reselling U.S. LNG To Europe For Big Profits." *OilPrice.com*. accessed January 28, 2023.

<https://oilprice.com/Latest-Energy-News/World-News/China-Is-Reselling-US-LNG-To-Europe-For-Big-Profits.html>.

Mathai, Koshy. "Monetary Policy: Stabilizing Prices and Output." International Monetary Fund. accessed February 25, 2023.

<https://www.imf.org/en/Publications/fandd/issues/Series/Back-to-Basics/Monetary-Policy>.

Menon, Shruti. "Ukraine Crisis: Who Is Buying Russian Oil and Gas?" *BBC News*, December 6, 2022.

<https://www.bbc.com/news/world-asia-india-60783874>.

Ortiz-Ospina, Esteban. "Does Trade Cause Growth?" Our World in Data. October 22, 2018.

<https://ourworldindata.org/trade-and-econ-growth>.

Paul, Trina. "How Increasing Interest Rates Could Reduce Inflation, but Potentially Cause a Recession." CNBC. March 27, 2023. <https://www.cnbc.com/select/how-do-increasing-interest-rates-affect-inflation/>.

Roberts, Ken. "In 2022, U.S. Exports Could Top \$2,000,000,000,000 For First Time." *Forbes*, November 30, 2022. <https://www.forbes.com/sites/kenroberts/2022/11/30/in-2022-us-exports-could-top-200000000000-for-first-time/?sh=60c24dd22527>.

Saraiva, Augusta. "US Trade Gap Widened to Record in 2022 on Imports Surge." *Bloomberg*, February 7, 2023. <https://www.bloomberg.com/news/articles/2023-02-07/us-trade-deficit-widened-to-record-in-2022-on-surge-in-imports#xj4y7vzkg> (subscription required).

Soyres, François de, and Alexandre Gaillard. "Global Trade and GDP Co-Movement." International Finance Discussion Paper 2020, no. 1282, May 2020. <https://doi.org/10.17016/ifdp.2020.1282>.

S&P Global. "Sanctions against Russia – a Timeline." *S&P Global*. April 13, 2023. <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/sanctions-against-russia-8211-a-timeline-69602559>.

Swanson, Ana. "America's Trade Deficit Surged in 2022, Nearing \$1 Trillion." *New York Times*, February 7, 2023. <https://www.nytimes.com/2023/02/07/business/economy/us-trade-deficit.html>.

Torry, Harriet, and Jason Douglas. "U.S. Trade Deficit Hit Record in 2022." *Wall Street Journal*, February 7, 2023. <https://www.wsj.com/articles/u-s-imports-rose-in-december-partially-offsetting-weakening-global-trade-11675778079> (subscription required).

Troderman, Jimmy. "Crude Oil Prices Increased in First-Half 2022 and Declined in Second-Half 2022." *U.S. Energy Information Administration (EIA)*, January 4, 2023. <https://www.eia.gov/todayinenergy/detail.php?id=55079>.

U.S. Congressional Research Service (CRS), The Economic Impact of Russia Sanctions, by Rebecca M. Nelson CRS Report IF12092. U.S. Congressional Research Service, December 13, 2022. <https://crsreports.congress.gov/product/pdf/IF/IF12092>.

U.S. Department of Agriculture (USDA). Economic Research Service (ERS). "Agricultural Markets in Russia and Ukraine." April 18, 2023. <https://www.ers.usda.gov/newsroom/trending-topics/agricultural-markets-in-russia-and-ukraine/>.

U.S. Department of Labor (USDOL), Bureau of Labor Statistics (BLS). "Consumer Price Index News Release - 2022 M12 Results." Press release, January 12, 2023. https://www.bls.gov/news.release/archives/cpi_01122023.htm.

U.S. Department of Labor (USDOL), Bureau of Labor Statistics (BLS). "Job Openings and Labor Turnover - December 2022." Press release, February 1, 2023. https://www.bls.gov/news.release/archives/jolts_02012023.pdf.

- U.S. Department of Labor (USDOL), Bureau of Labor Statistics (BLS). "Real Earnings Summary - 2023 M01 Results." Press release, March 6, 2023. <https://www.bls.gov/news.release/realer.nr0.htm>.
- U.S. Department of Labor (USDOL). "December 2022 Jobs Report: A Strong End to 2022." U.S. Department of Labor (Blog), January 6, 2023. <http://blog.dol.gov/2023/01/06/december-2022-jobs-report-a-strong-end-to-2022>.
- U.S. Department of the Treasury (Treasury). "U.S. Treasury Announces Unprecedented & Expansive Sanctions Against Russia, Imposing Swift and Severe Economic Costs." Press release, January 23, 2023. <https://home.treasury.gov/news/press-releases/jy0608>.
- U.S. Energy Information Administration (USEIA). "Europe Was the Main Destination for U.S. LNG Exports in 2022." March 22, 2023. <https://www.eia.gov/todayinenergy/detail.php?id=55920>.
- U.S. International Trade Commission (USITC). "Macroeconomic Conditions in 2021." *Shifts in Merchandise Trade 2021*, Publication 5332, June 2022. International Monetary Fund IMF. World Economic Outlook Database. April 2023. <https://www.imf.org/en/Publications/WEO/weo-database/2023/April>.
- United Nations Industrial Development Organization (UNIDO), "How does UNIDO group countries by stage of development?" *UNIDO Statistics Data Portal*. accessed February 25, 2023. <https://stat.unido.org/content/learning-center/how-unido-groups-the-countries-by-stage-of-development%253f>.
- United Nations Industrial Development Organization (UNIDO). *World Manufacturing Report, Quarter IV 2022. Q4 2022*. UNIDO, March 27, 2023. <https://stat.unido.org/content/publications/world-manufacturing-production---quarterly-report;jsessionid=8AAF359829A741C267770D9349871CD1>.
- World Trade Organization (WTO) and International Monetary Fund (IMF). *WTO-IMF COVID-19 Vaccine Trade Tracker*. May 31, 2022. https://www.wto.org/spanish/tratop_s/covid19_s/vaccine_trade_tracker_s.htm.
- World Trade Organization (WTO). *Trade in Medical Goods in the Context of Tackling Covid-19: Developments in 2019-2021*. July 19, 2022. https://www.wto.org/english/tratop_e/covid19_e/med_goods_2019_21_e.pdf.
- Wong, Edward, and Ana Swanson. "How Russia's War on Ukraine Is Worsening Global Starvation." *The New York Times*, January 2, 2023. <https://www.nytimes.com/2023/01/02/us/politics/russia-ukraine-food-crisis.html>.
- Yarysh, Ostap, and Myroslava Gongadze. "US, Ukraine Scrutinize Russian Troop Buildup as Moscow Dismisses Invasion Fears." *VOA*. November 22, 2021. <https://www.voanews.com/a/us-ukraine-scrutinize-russian-troop-buildup-as-moscow-dismisses-invasion-fears/6323280.html>.

Appendix - Data Tables for Figures in Macroeconomic Trends in 2022 Section

Table 1.4 Real GDP growth of the United States and other major economies 2020–22

In percentages, corresponds to figure 1.1.

Economy	2020	2021	2022
Japan	-4.279	2.145	1.075
United States	-2.768	5.947	2.068
China	2.242	8.45	2.988
Mexico	-7.988	4.721	3.066
World	-2.805	6.275	3.416
EU	-6.103	5.37	3.473
United Kingdom	-11.031	7.597	4.045
India	-5.831	9.05	6.831

Source: IMF, "World Economic Outlook Database, April 2023, Gross Domestic Product, Constant Prices," accessed April 24, 2023.

Table 1.5 Change in U.S. manufacturing output by International Standard of Industrial Classification sector, 2021–22

In percentages. n.e.c. = not elsewhere classified, corresponds to figure 1.2.

Sector	Percentage Change
Tobacco products	-6.4
Textiles	-3.6
Paper and paper products	-1.7
Basic metals	-0.9
Wood products, excluding furniture	0.5
Food products	1.5
Computer, electronic, and optical products	1.8
Wearing apparel	2.1
Furniture	2.5
Chemicals and chemical products	2.9
Printing and reproduction of recorded media	3.1
Electricity, gas, steam, and air-conditioning	3.2
Coke and refined petroleum products	3.3
Rubber and plastics products	3.4
Electrical equipment	3.5
Beverages	3.7
Pharmaceuticals, medicinal chemicals, etc.	4.1
Fabricated metal products, except machinery	4.6
Machinery and equipment n.e.c.	5.1
Leather and related products	5.4
Other manufacturing	5.7
Other transport equipment	6.1
Other nonmetallic mineral products	6.7
Motor vehicles, trailers, and semitrailers	8.2
Mining and quarrying	8.3
Total manufacturing	3.1

Source: USITC calculations from UNIDO, "Seasonally Adjusted Quarterly Index of Industrial Production Database," accessed April 5, 2023.

Table 1.6 Change in hours worked by country and world relative to pre-pandemic baseline, 2022.
In percentages. The pre-pandemic baseline is calculated as an annualized estimate of total hours worked in Q4 2019. Q = quarter, corresponds to figure 1.3.

Economy	Hours relative to pre-pandemic base
UK	-2.314
Japan	-1.691
United States	-1.535
World	-1.408
India	-1.306
China	-0.568
Mexico	-0.429
EU	-0.158
Canada	2.535

Source: ILOSTAT, "Working Hours Lost due to the COVID-19 Crisis," accessed January 5, 2023.

Table 1.7 Monthly, seasonally adjusted U.S. consumer price index, 2022

Seasonally adjusted index, January 2022 = 100, corresponds to figure 1.4.

Month	Nondurables	Food	Energy	Services	Durables	All Items
Jan.	100	100	100	100	100	100
Feb.	101.4	101.0	102.7	100.5	100.5	100.7
Mar.	104.3	101.9	111.1	101.2	100.0	101.7
Apr.	104.4	102.7	110.0	101.8	100.0	102.1
May	106.0	103.9	113.7	102.6	100.2	103.1
Jun.	108.4	104.9	121.5	103.4	100.6	104.3
Jul.	107.5	106.0	115.8	103.8	101.0	104.3
Aug.	106.6	106.9	111.3	104.5	101.3	104.5
Sep.	106.5	107.8	109.4	105.3	101.1	104.9
Oct.	107.3	108.5	111.2	105.8	100.5	105.4
Nov.	107.3	109.1	109.7	106.2	99.6	105.7
Dec.	106.6	109.6	106.3	107.0	98.8	105.8

Source: USDOL, BLS, "Archived Consumer Price Index Supplemental Files, December 2022," accessed February 5, 2023.

Table 1.8 Consumer Price Index (CPI) growth for U.S. and selected global economies, 2022

CPI percentage change in 2022, corresponds to figure 1.5.

Economy	Percent Change
China	1.97507725
Japan	2.508333
India	5.90043
Canada	6.802801
Mexico	7.896276
United States	8.0028
EU	9.2

Source: OECD, "Consumer Prices," accessed January 5, 2022.

Appendix - Data Tables for Figures in Macroeconomic Trends in 2022 Section

Table 1.9 Indices of U.S. dollar exchange rates for major foreign currencies, daily, 2022

Seasonally adjusted index, January 2022 = 100, corresponds to figure 1.6.

Day	Euro Area	United Kingdom	Canada	China	India	Japan	Mexico	Nominal broad dollar index
Jan-03	100	100	100	100	100	100	100	100
Jan-04	100.0531	100.5568	99.52967	100.2691	100.2691	100.7374	99.66456	99.92766
Jan-05	100.3986	100.7721	99.55319	100.1416	99.98654	100.5552	99.36315	99.7823
Jan-06	100.1506	100.5197	99.74916	100.428	100.1076	100.4424	99.3437	100.0144
Jan-07	100.6023	100.8464	99.10637	100.3446	99.93272	100.295	99.15897	99.70589
Jan-10	100.3366	100.7276	99.38857	100.3242	99.65016	99.88722	99.44093	99.85186
Jan-11	100.6466	101.1359	98.75363	100.2911	99.31378	100.0954	98.94507	99.52752
Jan-12	101.2489	101.7002	97.99326	100.0472	99.25996	99.54021	99.01313	99.11066
Jan-13	101.5412	101.8932	97.84432	100.0708	99.51561	98.95029	98.9791	98.95776
Jan-14	101.0983	101.4923	98.36952	99.95909	99.67707	98.80281	98.76519	99.12946
Jan-18	100.4074	100.8835	98.25978	99.96066	100.3229	99.41876	99.0666	99.43552
Jan-19	100.496	101.1582	97.97758	99.83792	100.0942	99.14115	99.51386	99.32403
Jan-20	100.4074	101.2844	97.68754	99.77341	100	98.96764	99.28537	99.20136
Jan-21	100.496	100.6905	98.31465	99.74036	99.94618	98.65533	99.50413	99.32343
Jan-24	100.1771	99.83666	99.45912	99.6129	100.5382	98.74208	100.4327	99.82085
Jan-25	99.938	100.193	99.05934	99.53895	100.5517	98.79414	100.5202	99.78888
Jan-26	99.90257	100.3489	98.74579	99.45869	100.74	99.18452	100.3792	99.73318
Jan-27	98.68025	99.37635	99.62374	100.1998	101.1572	100.1735	100.9237	100.501
Jan-28	98.84854	99.61393	99.96864	100.0865	100.915	99.94795	101.2834	100.5452
Jan-31	99.30912	99.77727	99.50615	100.0944	100.3767	99.95662	100.3257	100.153
Feb-01	99.54827	100.2673	99.45912	100.0944	100.6189	99.56624	99.99514	99.97869
Feb-02	100.0797	100.7127	99.46696	100.0944	100.6055	99.21055	100.0963	99.78975
Feb-03	101.1957	100.9875	99.38857	100.0944	100.5248	99.66166	99.92222	99.58045
Feb-04	101.4615	100.5494	100.0157	100.0944	100.3902	99.95662	100.7195	99.77372
Feb-07	101.2755	100.4752	99.4356	100.0944	100.4844	99.84384	100.3597	99.66656
Feb-08	101.116	100.6162	99.62374	100.1731	100.5248	100.3036	100.3209	99.73777
Feb-09	101.2843	100.5271	99.35722	100.1086	100.6459	100.1475	99.6597	99.51271
Feb-10	101.7449	101.2399	99.13773	99.96223	101.0091	100.4945	99.33398	99.2847
Feb-11	101.0097	100.98	99.38073	99.98426	101.3724	100.5552	99.20272	99.53393
Feb-14	100.1417	100.3489	99.80403	100.0268	101.7626	100.3904	99.18328	99.83402
Feb-15	100.6466	100.5197	99.88242	99.74036	101.1841	100.321	98.99368	99.60497
Feb-16	100.806	100.8612	99.45128	99.71046	100.9553	100.1215	98.74575	99.39793
Feb-17	100.6554	101.1508	99.52183	99.73407	100.9419	99.79179	98.61449	99.38684
Feb-18	100.3277	100.8612	99.92945	99.5295	100.4171	99.83517	98.68255	99.49261
Feb-22	100.4606	100.9503	99.83538	99.54367	100.444	99.71372	98.5999	99.41387
Feb-23	100.2303	100.6385	99.68645	99.3454	100.3767	99.86987	98.42003	99.38892
Feb-24	98.79539	99.19073	100.6506	99.57986	101.7357	100.1562	100.3549	100.4787
Feb-25	99.74314	99.53968	99.86674	99.40047	101.0361	100.3036	99.24648	99.89648
Feb-28	99.41541	99.62878	99.25531	99.26672	101.5743	99.8612	99.18814	99.89483
Mar-01	98.34367	98.87891	99.62374	99.31707	101.9779	99.65299	100.0438	100.3975
Mar-02	98.33481	99.22786	99.21612	99.46499	101.7357	100.2776	100.2382	100.3599
Mar-03	97.9008	98.9383	99.35722	99.44138	102.1798	100.347	100.7	100.5263
Mar-04	96.6519	98.10676	100.0235	99.43037	102.8256	99.46213	101.7793	101.1235
Mar-07	96.19132	97.37174	100.1176	99.43981	103.4849	100.1215	103.2377	101.7393
Mar-08	96.37733	97.2678	101.0661	99.41463	103.7002	100.321	104.0156	101.9538
Mar-09	98.04252	97.70584	100.4311	99.40834	102.7449	100.5205	101.8571	101.1102

Trends in U.S. Merchandise Trade, 2022

Day	Euro Area	United Kingdom	Canada	China	India	Japan	Mexico	Nominal broad dollar index
Mar-10	97.49336	97.31977	100.1176	99.46814	102.7583	100.6767	101.964	101.232
Mar-11	96.87334	96.98567	99.73348	99.74666	102.9064	101.5702	101.9154	101.4788
Mar-14	97.24535	96.84461	100.1333	100.1495	102.866	102.3684	101.6334	101.5885
Mar-15	97.20106	97.00052	100.3841	100.2297	102.8122	102.5332	101.5314	101.6479
Mar-16	97.39593	97.23068	99.88242	99.93706	102.4892	102.7848	100.7681	101.2773
Mar-17	98.40567	97.69842	99.05934	99.85681	102.1798	102.7587	99.90763	100.6301
Mar-18	97.82108	97.77266	99.02798	100.0928	102.3009	103.3834	99.193	100.7243
Mar-21	97.85651	98.01025	98.61253	100.0031	102.5161	103.366	98.61935	100.5588
Mar-22	97.62622	98.43344	98.80066	100.1731	102.3412	104.676	98.51726	100.6898
Mar-23	97.44021	98.09191	98.41656	100.2675	102.8794	104.9883	98.05542	100.617
Mar-24	97.4845	97.87661	98.23626	100.1888	102.5027	105.9079	97.81235	100.5901
Mar-25	97.29849	97.95085	98.07949	100.1699	102.5969	105.8211	96.93729	100.4536
Mar-28	97.22764	97.19356	98.37736	100.2581	102.3412	106.9229	97.90958	100.788
Mar-29	98.35252	97.44599	98.08732	100.1338	101.6954	106.3677	97.28731	100.2446
Mar-30	98.87511	97.62417	97.94623	99.87411	101.9376	105.8124	96.41711	99.81817
Mar-31	98.25509	97.64645	97.84432	99.75295	102.0856	105.3527	96.79631	99.92307
Apr-01	97.81222	97.36432	98.04029	100.118	102.2067	106.359	96.43656	100.1652
Apr-04	97.3605	97.37917	97.91487	100.1086	101.4801	106.4457	95.9893	100.1157
Apr-05	96.73162	97.2678	97.60916	100.1086	101.3321	107.1224	96.8984	100.3815
Apr-06	96.66076	97.12674	98.0011	100.0629	102.1529	107.3133	97.44774	100.6074
Apr-07	96.54562	96.9634	98.70659	100.0787	102.1259	107.4	98.00681	100.8907
Apr-08	96.31532	96.75551	98.58901	100.1463	102.1663	107.8425	97.60331	100.9537
Apr-11	96.32418	96.76294	98.94176	100.2234	102.0587	108.9182	97.27759	101.0782
Apr-12	96.12046	96.74809	98.83985	100.1589	102.2874	108.6579	96.456	100.9495
Apr-13	96.31532	97.05249	98.73011	100.2014	102.4489	108.8835	96.26641	100.8572
Apr-14	95.62445	96.904	98.98879	100.3541	102.5161	109.2392	97.18036	101.2624
Apr-15	95.76616	97.00794	98.87121	100.2439	102.6911	109.5775	97.00049	101.2212
Apr-18	95.52702	96.65899	98.92608	100.1259	102.5565	109.9766	96.89402	101.3463
Apr-19	95.56244	96.58475	98.9104	100.598	102.7853	111.5208	97.47205	101.6039
Apr-20	96.16475	96.92628	97.90703	101.0039	102.5834	110.8354	97.22411	101.2695
Apr-21	96.00531	96.82976	98.18923	101.4949	102.57	111.5815	98.03111	101.6264
Apr-22	95.5713	95.38941	99.67861	102.2974	102.9198	111.7203	98.74575	102.3729
Apr-25	94.80071	94.27574	100.1411	103.2022	103.2293	110.7487	98.47351	102.8881
Apr-26	94.4287	93.67436	100.3057	103.1503	103.0813	110.4971	99.33884	103.1685
Apr-27	93.43667	93.15465	100.5722	103.2179	103.0813	111.4253	99.4069	103.6091
Apr-28	93.00266	92.38251	100.5801	104.2376	103.1485	113.5942	99.95625	104.1409
Apr-29	93.33038	93.28829	100.3527	103.9811	102.9064	112.6399	98.97423	103.6451
May-02	93.18866	92.97646	100.9955	103.9795	102.9198	112.9348	99.32426	103.975
May-03	93.28609	92.87995	100.6271	103.9795	102.9198	112.8568	98.91104	103.8196
May-04	93.3481	92.70918	100.4703	103.9795	102.5834	112.7527	98.32766	103.6897
May-05	93.06466	91.57324	100.7212	104.6971	102.9871	113.1344	98.64366	104.0755
May-06	93.64039	91.64749	101.0426	104.8796	103.4715	113.0823	97.7686	103.9689
May-09	93.52524	91.58067	101.607	105.893	104.2115	113.0997	98.69713	104.5204
May-10	93.27724	91.41733	102.14	105.9685	104.0231	112.9609	99.18814	104.7594
May-11	93.33038	91.44703	101.458	105.7215	103.9828	112.9522	98.46378	104.4214
May-12	91.90434	90.56352	102.336	106.7821	104.1308	111.1304	98.71658	105.1783
May-13	92.20549	90.89019	101.3483	106.8135	104.1712	112.1107	97.84638	104.8213
May-16	92.29407	91.09808	100.9877	106.7695	104.7094	112.0413	97.50608	104.6879

Appendix - Data Tables for Figures in Macroeconomic Trends in 2022 Section

Day	Euro Area	United Kingdom	Canada	China	India	Japan	Mexico	Nominal broad dollar index
May-17	93.28609	92.56812	100.6428	105.9969	104.225	112.1801	97.09772	103.9986
May-18	92.94951	92.03356	100.6349	106.2785	104.5614	111.2345	97.19494	104.1111
May-19	93.77325	92.8354	100.5017	105.6003	104.2115	110.714	96.86437	103.5757
May-20	93.52524	92.74631	100.6271	105.3045	104.669	110.9222	96.56296	103.5237
May-23	94.4907	93.33284	100.2116	104.6263	104.2922	110.8528	96.39281	102.9486
May-24	95.16386	93.13238	100.6506	104.6892	104.2788	109.7944	96.64074	102.8513
May-25	94.40213	93.09526	100.6271	105.2966	104.3864	110.445	96.43656	103.1649
May-26	94.99557	93.41451	100.243	106.0268	104.4941	110.3756	96.26155	103.0259
May-27	94.85385	93.64467	99.86674	105.3973	104.3864	110.2976	95.16286	102.6163
May-31	95.04872	93.72633	99.07502	104.9803	104.3999	111.5034	95.67331	102.433
Jun-01	94.29584	92.59782	99.31802	105.2054	104.3999	112.8568	96.01361	102.9817
Jun-02	95.06643	93.2289	98.6674	104.7931	104.1577	112.6312	95.06563	102.4418
Jun-03	94.96014	92.776	98.62037	104.7915	104.3999	113.3946	95.28926	102.5748
Jun-06	94.76528	93.13238	98.53414	104.6955	104.7228	114.1234	95.25523	102.6442
Jun-07	94.74756	93.5036	98.37736	104.9174	104.4941	114.9735	95.28926	102.769
Jun-08	95.12843	93.2289	98.17355	105.1534	104.4806	116.3009	95.13855	102.7433
Jun-09	94.38441	92.88737	99.16908	105.295	104.7363	116.3009	95.34273	103.1808
Jun-10	93.18866	91.54354	100.196	105.5563	105.0592	116.4136	96.81089	104.0958
Jun-13	92.43578	90.35563	100.7369	106.2628	105.0592	116.3529	99.22703	105.0707
Jun-14	92.25864	89.17514	101.3796	106.0504	104.965	117.0209	100.491	105.5121
Jun-15	92.01063	89.51667	101.6697	105.6302	105.113	116.6826	100.4424	105.4751
Jun-16	93.27724	91.62521	101.3169	105.476	104.9516	114.2101	99.85902	104.6182
Jun-17	92.76351	90.58579	102.3281	105.6806	104.9516	117.2378	99.31454	105.1234
Jun-21	93.42781	91.15005	101.3326	105.24	105.0592	118.2007	98.17696	104.6041
Jun-22	93.73782	91.17232	101.3718	105.402	105.2341	118.0272	97.45746	104.5038
Jun-23	93.02923	90.87534	101.7402	105.3973	105.1399	116.8734	97.28731	104.7009
Jun-24	93.3481	91.12035	101.2699	105.2368	105.2879	117.3072	96.772	104.4614
Jun-27	93.89725	91.35793	100.8858	105.2699	105.5571	117.3419	96.64074	104.1955
Jun-28	93.30381	90.57837	100.9799	105.5389	106.2567	118.1487	97.14633	104.5795
Jun-29	92.79894	90.21457	100.8152	105.4241	106.176	118.4176	98.02139	104.8631
Jun-30	92.72808	90.29624	100.8936	105.3989	106.324	117.7149	97.80263	104.8682
Jul-01	92.19663	89.44985	101.2385	105.4288	106.1491	117.1944	98.77491	105.3221
Jul-05	90.82374	88.58861	102.4065	105.7309	106.6604	117.741	99.90763	106.2933
Jul-06	90.10629	88.403	102.3125	105.5389	106.324	117.6889	100.6028	106.6113
Jul-07	89.98229	89.04893	101.8108	105.4367	106.4586	117.9752	100.141	106.3817
Jul-08	90.15058	89.36075	101.4894	105.3423	106.6335	118.1227	99.38746	106.1645
Jul-11	89.35341	88.403	101.7402	105.7042	106.916	119.103	100.8021	106.8726
Jul-12	89.18512	88.38815	101.9284	105.797	106.9026	118.5738	100.8702	106.9832
Jul-13	89.29141	88.49209	101.5599	105.7042	107.2121	119.1464	100.7535	106.8441
Jul-14	88.82197	87.80904	102.6887	106.2817	107.5619	120.5344	101.4001	107.5179
Jul-15	89.36227	88.03178	102.2262	106.3179	107.2928	120.2134	100.0389	107.0265
Jul-18	89.99114	89.0118	101.2699	106.0897	107.6292	119.9185	99.12008	106.4277
Jul-19	90.68202	89.25681	101.019	106.1054	107.4812	119.6669	99.48469	106.1703
Jul-20	90.49601	89.0118	100.925	106.2785	107.5888	119.8577	99.50899	106.2733
Jul-21	90.31887	88.85589	101.0034	106.4595	107.4408	119.6669	100.4521	106.5316
Jul-22	90.56687	89.23454	100.8152	106.2156	107.4139	118.088	99.66942	106.1309
Jul-25	90.44287	89.4053	100.6898	106.214	107.3601	118.6085	99.48469	106.1428
Jul-26	89.60142	89.36075	101.0504	106.3981	107.4004	118.5217	99.52358	106.4087

Trends in U.S. Merchandise Trade, 2022

Day	Euro Area	United Kingdom	Canada	China	India	Japan	Mexico	Nominal broad dollar index
Jul-27	89.53056	89.29393	100.972	106.3257	107.535	119.1203	99.69373	106.4622
Jul-28	90.01771	90.02896	100.6114	106.1605	107.1582	116.6392	99.09091	105.8518
Jul-29	90.36315	90.45215	100.3449	106.1101	106.7411	115.5982	98.99368	105.56
Aug-01	90.96546	91.15747	100.5722	106.4894	106.2029	114.3402	98.4492	105.2547
Aug-02	90.29229	90.71201	100.7682	106.214	105.6109	114.7914	99.75693	105.6982
Aug-03	89.86714	90.0735	100.8779	106.3179	106.472	116.405	99.91736	106.0853
Aug-04	90.53144	90.14032	100.7447	106.192	106.6066	115.6242	98.82353	105.615
Aug-05	90.07972	89.54637	101.4502	106.3839	106.7815	117.4026	99.14439	106.044
Aug-08	90.40744	89.82107	100.7604	106.2234	107.0775	116.8821	98.64463	105.6595
Aug-09	90.57573	89.75425	100.9642	106.2549	107.1717	117.073	98.59504	105.6492
Aug-10	91.5589	90.91247	100.1254	105.7907	106.3913	115.0169	97.05396	104.6938
Aug-11	91.56776	90.8011	99.8981	106.129	107.0237	115.0863	96.84978	104.6665
Aug-12	90.85031	90.0735	100.2038	106.0976	107.1717	115.8758	96.59212	104.9346
Aug-15	90.22143	89.76167	101.0504	106.5539	106.9429	115.4941	96.45114	105.2931
Aug-16	90.11515	89.76167	100.9171	106.8057	106.7142	116.5785	96.83034	105.5164
Aug-17	90.02657	89.31621	101.3718	106.6955	106.8488	117.4633	97.55469	105.8439
Aug-18	89.5837	88.87074	101.4737	106.7742	107.1851	117.3679	97.6422	106.0865
Aug-19	88.9194	87.68283	101.8578	107.2604	107.4946	118.8601	98.1332	106.6875
Aug-22	88.00709	87.25221	102.2027	107.7514	107.4543	119.3459	98.02139	107.1748
Aug-23	88.36138	87.93526	101.4737	107.7514	107.387	118.2962	97.31162	106.703
Aug-24	88.28167	87.62343	101.6618	107.9166	107.4004	118.782	96.72338	106.7606
Aug-25	88.21081	87.63086	101.4659	107.753	107.5081	118.7039	96.95673	106.7131
Aug-26	88.55624	87.44524	101.9519	108.1275	107.4677	118.9121	96.80603	106.7289
Aug-29	88.57396	86.99978	101.9127	108.6814	107.5888	120.3609	97.3019	107.0898
Aug-30	88.73339	86.50234	102.6103	108.7333	107.1044	120.3522	97.69081	107.276
Aug-31	89.14969	86.47264	102.6182	108.4028	106.9026	120.3175	97.64706	107.1386
Sep-01	88.13109	85.68565	103.159	108.6798	107.1717	121.3933	98.29849	107.885
Sep-02	88.83968	85.99005	102.6025	108.5523	107.239	121.48	96.87409	107.3563
Sep-06	87.81222	85.74504	102.8612	109.4131	107.4543	124.0132	97.75887	108.227
Sep-07	88.06023	85.18079	103.2061	109.5987	107.4004	125.2624	97.35537	108.3026
Sep-08	88.18423	85.29958	102.8298	109.4603	107.2524	124.9675	97.15605	108.0752
Sep-09	88.9814	86.12369	102.187	108.9536	107.1179	123.5707	96.67963	107.3814
Sep-12	89.71656	86.87356	101.7167	108.9929	106.768	123.5447	96.25668	106.9944
Sep-13	88.54739	85.57428	102.869	108.9614	106.9564	125.1843	97.54983	107.9261
Sep-14	88.51196	85.85641	103.1277	109.5389	106.8488	123.9958	97.00049	107.9507
Sep-15	88.49424	85.17336	103.504	110.0456	107.4004	124.5511	97.55469	108.3246
Sep-16	88.68911	84.77986	104.0448	109.8332	107.1851	124.0913	97.31162	108.3159
Sep-19	88.60053	84.66107	104.1546	110.2282	107.2524	124.3515	97.22897	108.4373
Sep-20	88.52081	84.67592	104.5622	110.4264	107.2659	124.6118	97.20467	108.5397
Sep-21	87.51107	84.11909	105.0169	110.9032	107.5888	125.0455	97.20467	109.0735
Sep-22	87.16563	83.6662	105.8164	111.3643	108.9882	123.3278	97.05396	109.4257
Sep-23	86.08503	81.08249	106.4592	112.1416	109.1362	124.2127	98.08459	110.3858
Sep-26	85.23472	79.46395	107.7448	112.3273	109.7955	125.3145	99.04229	111.3856
Sep-27	85.17272	79.83518	107.6899	112.919	109.8358	125.54	98.76519	111.3879
Sep-28	85.74845	80.42171	106.9844	113.2809	109.8089	125.0542	98.71172	111.084
Sep-29	86.57219	82.02539	107.392	112.0315	109.7147	125.3145	97.95819	110.5933
Sep-30	86.6519	82.66389	107.7996	111.9355	109.486	125.54	97.78804	110.5748
Oct-03	86.8822	83.68847	107.0079	111.8851	109.7417	125.3579	97.3894	110.2099

Appendix - Data Tables for Figures in Macroeconomic Trends in 2022 Section

Day	Euro Area	United Kingdom	Canada	China	India	Japan	Mexico	Nominal broad dollar index
Oct-04	88.37024	84.98033	106.224	111.8851	109.5936	125.2017	97.08313	109.4466
Oct-05	87.38707	83.71074	107.0941	111.8851	109.6609	125.5574	97.74915	110.0312
Oct-06	86.85562	82.65647	107.6429	111.8851	110.4144	125.7396	97.7686	110.3629
Oct-07	86.66962	82.53025	107.3293	111.8851	110.7643	125.9565	97.37482	110.4201
Oct-11	86.42161	82.91633	107.6821	112.7286	110.6297	126.2688	96.97132	110.7441
Oct-12	85.84588	82.38177	108.1524	112.856	110.6701	127.4139	97.35051	111.163
Oct-13	86.62533	84.22303	107.7369	112.8245	110.7104	127.6568	97.19008	110.7995
Oct-14	86.26218	83.2133	108.7481	113.1314	110.7104	128.7933	97.55955	111.3163
Oct-17	87.18335	84.83926	107.5723	113.2116	110.549	129.0102	97.12202	110.7263
Oct-18	87.17449	83.94833	108.0975	113.2982	110.7239	129.4613	97.42343	110.9573
Oct-19	86.62533	83.39149	108.0426	113.7372	111.6119	129.9297	97.84152	111.3754
Oct-20	87.0062	83.80726	107.5096	113.4996	111.2217	129.9731	97.37968	111.0368
Oct-21	87.28964	83.83696	107.1804	113.9245	111.1141	126.9628	96.73311	110.7414
Oct-24	87.45793	83.85923	107.4234	114.2864	111.2487	129.0535	96.96159	111.0567
Oct-25	88.21081	85.15109	106.7336	114.3792	110.9257	128.2641	96.5824	110.4964
Oct-26	89.17626	86.23506	106.224	112.8403	111.3159	127.0929	96.57754	109.6902
Oct-27	88.4411	85.93066	106.0751	113.6727	110.8181	126.6765	96.44142	109.9061
Oct-28	87.98937	85.92323	106.7806	114.0818	110.7777	128.1166	96.37336	110.3564
Oct-31	87.55536	85.49261	106.9139	114.9457	111.3159	128.9407	96.49003	110.7231
Nov-01	87.43136	85.08427	106.9139	114.4453	111.1679	128.4896	95.94069	110.5269
Nov-02	87.46678	85.13624	106.8276	114.6971	111.3025	127.6221	95.60039	110.4521
Nov-03	86.43933	83.02769	107.6193	114.8702	111.3563	128.5504	95.649	111.2023
Nov-04	87.64393	83.74044	106.0437	114.8639	110.3741	127.7175	94.95382	110.3229
Nov-07	88.54739	85.10654	105.8007	113.7152	110.2664	127.2144	94.63782	109.5815
Nov-08	89.36227	86.08657	104.9541	114.0598	109.3515	126.1213	94.62324	109.0108
Nov-09	88.90168	84.6091	105.4558	113.9276	109.3245	126.7893	95.14341	109.3184
Nov-10	90.13286	86.69537	104.7425	113.0448	108.6114	122.9982	94.16626	108.1842
Nov-14	91.5589	87.07402	104.2173	111.2667	108.9612	121.827	94.27321	107.0554
Nov-15	91.86891	88.27678	104.0997	110.8419	108.9074	120.8988	94.21974	106.7064
Nov-16	92.07263	88.26936	104.5936	111.6664	109.6071	121.0983	93.89402	106.916
Nov-17	91.59433	87.69768	104.5936	112.5901	109.9166	121.8444	94.50656	107.5268
Nov-18	91.66519	88.36588	104.8758	112.0252	110.0108	121.48	94.73505	107.4054
Nov-21	90.68202	87.49722	105.691	112.7301	109.9031	123.1457	95.00243	108.1522
Nov-22	91.0186	88.20254	105.0482	112.3336	109.9166	122.5731	94.56004	107.7475
Nov-23	91.79805	89.39045	105.1658	112.6357	109.9435	121.2458	94.18085	107.3326
Nov-25	92.13463	89.85077	104.8052	112.7333	109.9704	120.7686	93.98639	106.9753
Nov-28	91.99291	89.39788	105.2991	113.4131	109.8089	120.3002	93.86485	107.2118
Nov-29	91.72719	89.06378	106.8903	112.6168	109.8089	119.9618	93.43704	107.253
Nov-30	91.4349	88.81134	106.1221	111.5327	109.5667	120.8554	94.14682	107.1173
Dec-01	92.98494	90.96444	105.252	110.8167	109.2169	117.5935	93.09674	105.8024
Dec-02	93.18866	91.26142	105.4166	110.4485	109.5398	117.0209	94.03014	105.7961
Dec-05	92.94951	90.34821	106.3808	109.5358	110.0242	118.461	96.06223	106.3175
Dec-06	92.97609	90.59321	107.0158	110.0472	110.8988	118.5651	96.47545	106.6433
Dec-07	93.04694	90.53382	106.9217	109.6806	110.7508	118.4784	95.78026	106.421
Dec-08	93.46324	90.83822	106.4043	109.5972	110.7239	118.3743	95.63928	106.1294
Dec-09	93.44553	91.40248	106.6395	109.4555	110.9526	118.3309	96.2421	106.125
Dec-12	93.40124	91.20944	107.0314	109.7923	111.2352	119.2591	96.35877	106.4324
Dec-13	94.15412	91.87764	106.0594	109.2526	110.993	117.2378	95.48371	105.6325

Trends in U.S. Merchandise Trade, 2022

Day	Euro Area	United Kingdom	Canada	China	India	Japan	Mexico	Nominal broad dollar index
Dec-14	94.37555	92.12265	106.3495	109.3596	111.0065	117.073	95.76082	105.6107
Dec-15	94.22498	90.62291	106.9922	109.7026	111.3428	119.6495	96.18862	106.2537
Dec-16	93.97697	90.34078	107.3136	109.69	111.289	118.461	96.19349	106.3304
Dec-19	94.10097	90.42988	106.906	109.7907	111.2083	118.7386	95.89694	106.2393
Dec-20	94.19841	90.17744	106.7492	109.5201	111.1141	113.7156	96.23238	105.8716
Dec-21	93.87954	89.62803	106.7806	109.8505	111.4236	114.8261	95.84346	106.0179
Dec-22	93.78211	89.33106	107.0236	109.8804	111.585	114.8087	95.2455	105.9794
Dec-23	94.0744	89.49439	106.5062	109.9607	111.4909	115.1904	94.45795	105.7647
Dec-27	94.3667	89.33106	105.8556	109.5201	111.5178	115.7543	94.31211	105.571
Dec-28	94.08326	89.34591	106.5141	109.7939	111.3294	116.483	94.30238	105.8004
Dec-29	94.4907	89.53894	106.1848	109.5594	111.4505	115.5201	94.10306	105.495
Dec-30	94.75642	89.66516	106.0751	108.5319	111.3025	114.3489	94.7788	105.2673

Source: Federal Reserve Board of Governors, "Foreign Exchange Rates," accessed January 15, 2023.