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# United States and Global Macroeconomic Projections to 2033

Wendy Zeng, William Johnson, and James Davis





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# United States and Global Macroeconomic Projections to 2033

Wendy Zeng, William Johnson, and James Davis

## Abstract

The U.S. Department of Agriculture (USDA), Economic Research Service (ERS) International Macroeconomic Data Set provides historical and 10-year projected macroeconomic variables for 181 countries, as well as regional and income groupings, which account for more than 99 percent of the world economy. The main macroeconomic variables include the real Gross Domestic Product (real GDP), Consumer Price Index (CPI), exchange rates, and population. These indicators are the benchmark for the annual USDA Baseline agricultural supply and demand projections, providing a 10-year outlook on U.S. and global agricultural variables. These projections also relay information on the overall health of international economies in the near future to the USDA, its stakeholders, and a variety of policymakers and market participants. These projections were completed in August 2023 based on data and expectations at that time. This report details the macroeconomic projections from 2023 to 2033. To help users interpret the projection numbers, this report also provides the state of the global economy and an analysis of the influence of events over the past year in various regions and countries.

**Keywords:** macroeconomics, macroeconomic forecasts, Gross Domestic Product, inflation, Consumer Price Index, exchange rates, population

## About the Authors

Wendy Zeng and William Johnson are research agricultural economists in USDA, ERS's International Trade and Development Branch in the Market and Trade Economics Division. James Davis is an economist at the Federal Reserve Bank of San Francisco.

## Acknowledgments

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# Contents

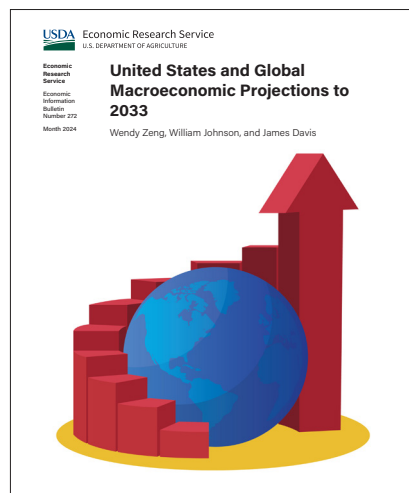
<b>Overview</b> .....	<b>1</b>
<b>Major Economic Trends and Current Events</b> .....	<b>1</b>
General Slowdown in Global Gross Domestic Product Growth .....	1
Global Inflation .....	2
Tighter Monetary Policy, Rising Global Interest Rates .....	3
War in Ukraine and Spillover Effects .....	3
Food Inflation and Commodity Prices .....	3
Environmental Concerns .....	5
Real Estate Crisis and Lockdown Reversal in China .....	5
<b>Regional Projections</b> .....	<b>6</b>
Gross Domestic Product and Per Capita GDP Projections .....	6
United States .....	6
High-Income Economies .....	7
Middle- and Low-Income Economies .....	9
Exchange Rate Projections .....	12
Inflation Projections .....	14
Population Projections .....	16
<b>Conclusion</b> .....	<b>19</b>
<b>References</b> .....	<b>20</b>
<b>Appendix</b> .....	<b>23</b>
Methodology for the International Macroeconomic Data Set .....	23

# United States and Global Macroeconomic Projections to 2033

Wendy Zeng, William Johnson, and James Davis

## What Is the Issue?

The International Macroeconomic Data Set provides annual economic indicators for 181 countries, accounting for nearly 99 percent of the world economy. These indicators include the levels and growth rates for the real Gross Domestic Product (real GDP), Gross Domestic Product deflator, Consumer Price Index (CPI), exchange rates, population, real GDP per capita (real GDPPC), and GDP share values as a fraction of global GDP. These macroeconomic data and projections serve as the underlying benchmark for the USDA Baseline, the annual long-term agricultural projections. The USDA Baseline projections provide a 10-year outlook for supply, demand, and trade for major agricultural commodities in the United States and selected countries, which then inform budget allocation and resource planning processes.



## What Did the Study Find?

The report found that the global economy is projected to recover slowly over the next decade, growing at a faster rate compared to the previous decade but not quite recovering to the levels of growth prior to the Coronavirus (COVID-19) pandemic. Among the major factors contributing to the slow global GDP growth recovery are rising inflation, tighter monetary policy, and the war in Ukraine, the effects of which include a major disruption to trade in grain markets worldwide. The report found:

- Real GDP is projected to grow over the next decade at an average annual rate of 2.8 percent globally and 2.1 percent in the United States.
- In per capita terms, real GDP per capita is projected to grow over the next decade at an average annual rate of 1.9 percent globally and 1.3 percent in the United States.
- Regionally, several environmental concerns and the real estate crisis in China may affect the growth prospects of many countries.

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

- The world economy is projected to grow slowly as countries continue to recover from the COVID-19 pandemic, the Russia-Ukraine war, and other major shocks.

## **How Was the Study Conducted?**

This report describes the data in the USDA Baseline by comparing projections for the upcoming decade with historical data from the previous decade and by comparing annual historical and forecast data for 2021–24. To interpret and support the projections, the authors researched the major economic forces and conflicts that help shape projections for the global economy and analyzed regional factors for individual regions and countries.

The macroeconomic projections draw upon related projections prepared by other U.S. Government agencies and forecasts informed by proprietary data sources. The USDA, ERS macroeconomic team also receives input from USDA, ERS' country and regional trade analysts who contribute to the development of the international component of the long-term Baseline. The macroeconomic projections were completed using data from August 2023 based on expectations at that time.

The USDA Baseline's macroeconomic projections are based on annual growth rates collected and estimated each year. For each country and for regional aggregates, annual historical data cover the period from 1970 to 2022, and each variable is projected from 2023 to 2033. Data are in constant 2015 U.S. dollars where applicable. Macroeconomic variables, both historical and projected values, are reported in annual levels and growth rates.

# United States and Global Macroeconomic Projections to 2033

## Overview

The USDA macroeconomic projections to 2033 reflected worsening economic conditions in 2022 that carried into 2023 before slowly recovering over the next decade, following a global recovery in 2021 from the disruptions of the Coronavirus (COVID-19) pandemic of the previous 2 years. Global economic growth continued to recover slowly as high inflation levels persisted worldwide, and the ramifications of Russia's war on Ukraine materialized into higher food and energy prices and lower global trade and cooperation (IMF, 2023a).

Tighter monetary policies in response to record inflation in 2022, especially in the United States and Europe, continue to depress global economic output (Conference Board, 2023). Europe's growth was expected to be more affected due to its proximity to the Ukraine war and its associated supply chain disruptions and higher input costs (Ollagnier et al., 2022). In addition, as Europe has diverted its oil and natural gas purchases away from Russia to other suppliers, the region is exposed to higher market prices. Labor market uncertainty with elevated youth unemployment, subdued consumer confidence, and further weakness in the property sector crisis, contributed to lower economic growth and higher economic instability in China (IMF, 2023a). Throughout the projection period to 2033, global real GDP growth is projected to stabilize but remains characterized by lower overall growth rates over the next decade compared to prepandemic rates.

The macroeconomic assumptions and analysis underlying the Baseline are compiled from U.S. Government and international agency projections, USDA, Economic Research Service regional and country experts, and private forecast services. The macroeconomic projections were completed using data from August 2023 based on expectations at that time. More information about the methods behind the macroeconomic projections is in the appendix.

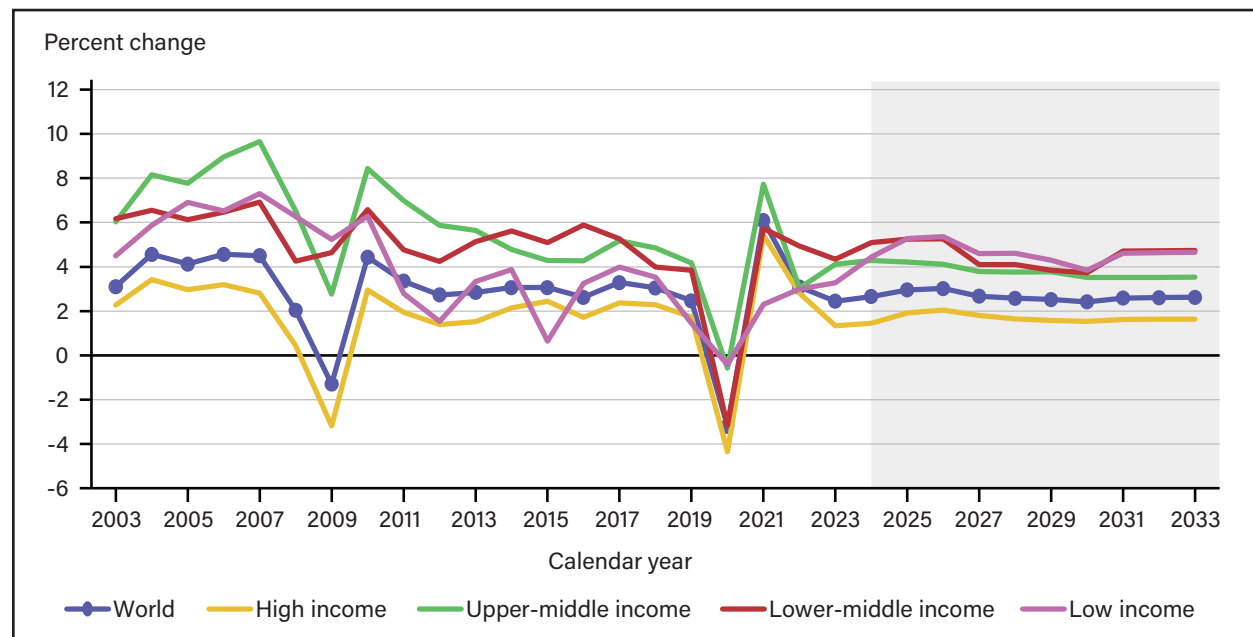
## Major Economic Trends and Current Events

### General Slowdown in Global Gross Domestic Product Growth

The economic recovery of 2021, due in part to the lifting of COVID-19 lockdown restrictions that increased aggregate demand for goods and services, was tempered by reduced growth rates in 2022 that persisted into 2023. Globally, year-to-year growth for the rest of the decade (2024–33) averages 2.8 percent. The authors assessed contributing factors, including inflation (particularly in Europe and the United States), price increases across numerous sectors of the economy following the Russian invasion of Ukraine, and lower than anticipated growth in China following declines in the Chinese real estate market, lower exports, and lower consumption by Chinese consumers. Overall, global real GDP growth projections decreased in 2022 in response to these economic shocks and the resulting tightening of monetary policies across major economies globally (figure 1). It was projected to continue declining in 2023 before recovering slowly over the next decade at 2.8 percent annual average growth, with global per capita real GDP growth following similar trends and recovering over the next decade at 1.9 percent annual average growth.



Figure 1

**Annual real Gross Domestic Product growth by global region, 2003–2033**

Note: The shaded region represents the projected period.

Source: USDA, Economic Research Service (ERS) based on World Bank World Development Indicators, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by USDA, ERS all converted to a 2015 base year.

## Global Inflation

One potential contributing factor to the slow recovery of GDP growth over the next decade is worldwide inflation, which was further impacted by Russia's war in Ukraine and COVID-19 recovery spending.

Inflation, measured by changes to the Consumer Price Index (CPI), was projected to rise to 13.3 percent globally in 2022 compared with 6.6 percent in 2021.

Over the next decade, average annual CPI growth is projected at 7.5 percent, above the previous decade's average of 5.8 percent. The high inflation rates throughout 2022 in many countries led governments, particularly in Europe and the United States, to raise interest rates to curtail rising consumer prices. The combination of slow growth, rising prices, and reduced consumer demand negatively affected Europe's economy, with projected GDP growth over the next decade down to 1.5 percent compared to the 1.6 percent growth rates over the past decade.

Inflation in Europe is projected to gradually cool down to 2.1 percent over the next decade, after having increased to 8.6 percent in 2022, nearly 6 percentage points more than the inflation rate of 2.7 percent in 2021, with the United Kingdom and Spain recording the highest CPI growth rates of the major Western European economies. In the United States, inflation is projected to cool down to 2.3 percent over the next decade, after reaching 8.0 percent in 2022, compared with 4.7 percent in 2021. Due to inflation reducing household purchasing power and slowing consumer spending, real GDP growth for the United States is projected to decrease to 1.9 percent growth over the next decade, compared to 2.1 percent growth from the previous decade.

## Tighter Monetary Policy, Rising Global Interest Rates

Central banks worldwide raised interest rates to curb inflation, a policy move that typically slows growth,<sup>1</sup> potentially contributing to slower global GDP growth over the coming years. The trend of rising interest rates started in emerging economies in 2021, with advanced economies following in 2022. The cycle of monetary policy across advanced economies has increasingly been synchronized (Adrian et al., 2022). The pace of monetary tightening accelerated in 2022 in several countries, particularly the United States, in terms of the frequency and the magnitude of interest rate hikes. Moreover, central banks reduced the size of their balance sheets and decreased the money supply (Albrizio et al., 2022). Controlling inflation is important for sustained economic growth, although some researchers have found that the control measures adopted are only as effective as market perceptions allow them to be (Bauer et al., 2022).

Market expectations about the “stickiness” of this period of inflation remained high in the second half of 2022 while the U.S. Federal Reserve continued to raise interest rates. In economic terms, inflation “stickiness” describes situations in which price changes are slow to adjust to supply and demand changes, resulting in persistent inflation. Expectations at that time were that monetary policy would not fully curb the inflation stemming from bottlenecks in global supply chains or disruptions in commodities markets. Shipping ports in the United States were a primary cause of bottlenecks due to the surge in trade compounded by labor and infrastructure constraints (Mullin, 2022). The U.S. Congress passed the Ocean Shipping Reform Act (OSRA) of 2022, which sought to address discriminatory practices by shippers but provided no budget to revitalize critical port infrastructure. U.S. ports consistently rank near the bottom in independent assessments of their functionality and administration. Los Angeles, the largest port in the United States, ranked number 328 among 351 ports, according to the World Bank’s statistical rankings (World Bank, 2020). The shipping industry also faced labor challenges. For example, in Los Angeles, negotiations with dockworkers and port operators stalled in the fall of 2022 over the issue of port automation (Ostrow, 2022). Moreover, labor shortages continued to pose a challenge to supply chain issues in 2023 (Baertlein, 2023).

## War in Ukraine and Spillover Effects

The Russian invasion of Ukraine increased food insecurity, created policy uncertainty, prompted a realignment of global trade and cooperation, increased commodity prices, disrupted supply, displaced labor, and caused thousands of civilian deaths (U.N., 2022). One policy consequence of the Russian invasion was the decision by European leaders to separate from Russian energy sources, a decision expected to impact inflation and slow growth (Albrizio et al., 2022). Shocks to the remaining energy links (e.g., the September 2022 Nord Stream pipeline explosion in the Baltic Sea) signaled further energy price increases, which was compounded by the announcement in October 2022 by the Organization of Petroleum Exporting Countries (OPEC) of production cuts to reduce crude oil supplies (Tan & Lee, 2022). A similar trend of higher prices due to shipping and supply constraints is impacting fertilizer and food commodity markets due to Russia’s invasion as well (Sowell et al., 2023). As the war is likely to continue throughout 2024, uncertainty remains around further war developments and their potential to negatively affect global economic growth.

## Food Inflation and Commodity Prices

Although energy price inflation is diminishing globally, food price inflation continues to affect consumer households. Higher global food prices reflect several factors, including the war in Ukraine, supply chain disruptions, lower global agricultural output, and higher input costs according to USDA agricultural projec-

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<sup>1</sup> Higher interest rates result in higher lending cost. In an environment of high price inflation, higher cost for loans reduces consumer spending. In advanced economies, where consumption accounts for a large share of GDP growth, lower consumer spending tends to slow economic growth.

tions to 2032 (USDA, 2023). In the United States, food price inflation was up 11.4 percent year over year in August 2022 (BLS, 2022). For the Eurozone, the cost of food increased by 12.7 percent in August 2022 compared to the same month the year prior (Eurostat, 2024). The combination of higher energy and food prices was expected to strongly affect the purchasing power of European households throughout early 2023.

In low-income countries, higher food costs are expected to increase food insecurity rates from their already high levels and the risk of greater social instability (Zereyesus et al., 2022). The number of people experiencing food insecurity has increased in the last 5 years, according to the USDA, ERS International Food Security Assessment (IFSA), with the Sub-Saharan and South Asian countries showing the largest increases (Zereyesus et al., 2022).

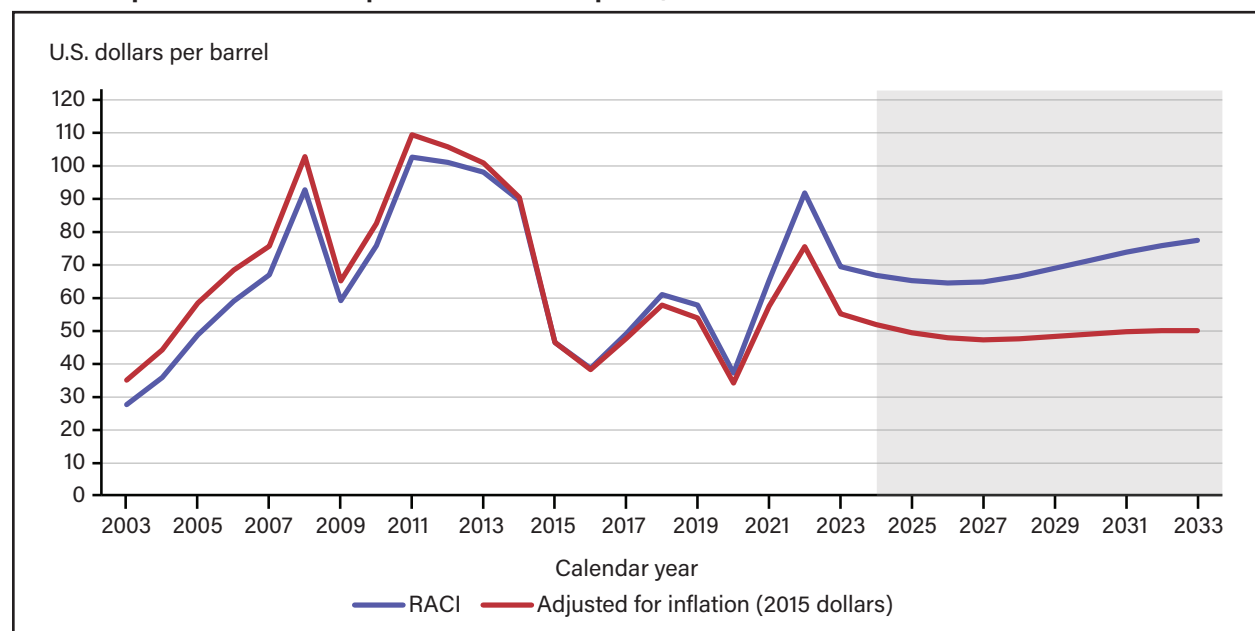
The increase in energy prices has disparate effects on growth in different economies. The growth outlook for many countries in Sub-Saharan Africa and Central Asia remains, on average, unchanged to slightly positive due to higher fossil fuel and metal prices. Overall, especially for the United States and Europe, rising energy prices are expected to hurt consumer confidence and restrict the production of agricultural and general goods (Albrizio et al., 2022).

In the United States, crude oil futures rebounded from lows observed in 2020 due to the COVID-19 pandemic, with prices projected to increase to over \$110 per barrel by 2033, potentially due to production falling after 2030 due to well productivity declines (EIA, 2023). In the near term, the increase in prices is aided by measures by the Organization of the Petroleum Exporting Countries (OPEC) and Russia to limit oil production as well as due to persistent fuel demand, despite inflation and energy supply disruptions due to the Russia-Ukraine war. The real price of crude oil in 2022 was more than \$92 per barrel, substantially higher than the previous year's value of \$65 per barrel<sup>2</sup> (figure 2). The real oil price was about \$76 per barrel in 2023, reflecting OPEC policies, lower consumer demand, and diversification away from Russia, particularly in the EU (Razek et al., 2022). Increased fuel prices are expected to significantly increase costs for agricultural producers in the United States and other countries and decrease GDP growth.

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<sup>2</sup> These prices come from forecast data in the macroeconomic dataset published in USDA Agricultural Projections, originally sourced from U.S. Energy Information Administration's (EIA) annual refiner acquisition costs of imports.

Figure 2

**Crude oil price: Refiner's acquisition cost of imports, 2003–2033**

RACI = refiner's acquisition cost of imports.

Note: The shaded region represents the projected period.

Source: USDA, Economic Research Service (ERS) based on data from the International Financial Statistics of the International Monetary Fund, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by the USDA, Economic Research Service.

## Environmental Concerns

Catastrophic flooding and other major simultaneous environmental disasters in 2022 led to devastation, both in terms of lost lives and property damage, damaging growth prospects worldwide. Developing countries, such as Pakistan, the Philippines, Nigeria, Sri Lanka, and Venezuela, were particularly affected, with the latter two experiencing social and political unrest due to catastrophic flooding (IFRC, 2022). In 2022, several countries faced issues with hydroelectric generation and barge navigation due to droughts across several continents. The Mississippi River in the United States, the major rivers of Europe, and the Yangtze River in China were all at or near generationally low levels, significantly affecting trade and consumer prices (Arita et al., 2022; Wallis, 2022). Drought was directly affecting the Great Lakes region of Africa as well, contributing to millions of households facing food insecurity, especially in Kenya, with an estimated 3.1 million people in need of food assistance (IFRC, 2022).

## Real Estate Crisis and Lockdown Reversal in China

China's real GDP growth is projected at 4.5 percent for the rest of the decade from 2024 to 2033, a decrease of 1.5 percentage points compared to its 6.0 percent growth from the previous decade. This is potentially due in large part to developments in China's real estate sector. Since 1998, China has prioritized the housing sector as a key driver of economic growth. As a result, mortgage loans account for almost a quarter of China's GDP, according to an analysis by the National Bureau of Economic Research (Chang & Xiong, 2018). In response to the trend of over-leveraged developers who continue to borrow against unfinished projects, China

passed the “three red lines”<sup>3</sup> in 2020. These regulations capped borrowing and mandated that developers hold enough liquidity to meet short-term debt obligations. Nevertheless, several large developers, such as the Evergrande Group, the second-largest real estate developer in China, did not comply with the new regulations and failed to meet their debt obligations to foreign institutional lenders (Cheng, 2021). The property sector crisis reduced the demand for homes and increased mortgage delinquencies, reducing growth in the real estate sector (Jim, 2022). In addition, the economic effects of China’s “Zero-COVID” policy curtailed consumer demand, reduced tourism, and exacerbated urban unemployment (OECD, 2022). Moreover, major Chinese firms such as Alibaba, Tencent, and Didi reportedly laid off thousands of employees, reflecting rising regulatory pressures and reduced profitability (Kubota, 2022).

## Regional Projections

### Gross Domestic Product and Per Capita GDP Projections

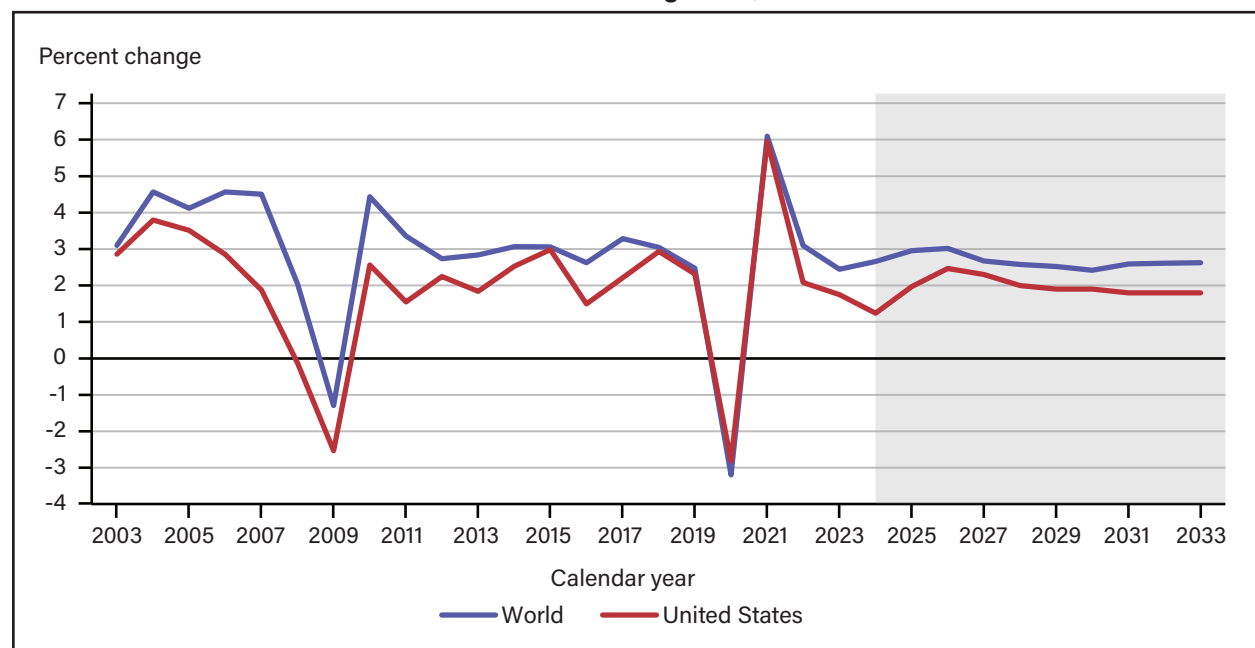
#### *United States*

After an initial strong economic recovery in 2021 (resulting in 6.0 percent growth in real GDP), the United States experienced a decline in real GDP growth to 2.1 percent in 2022 and to 1.7 percent growth in 2023 (figure 3). Among advanced economies, the United States recorded one of the highest GDP growth rates after the pandemic-induced recession. However, supply chain issues across various sectors and high consumer demand resulted in rapid price increases that attenuated further growth in GDP, particularly in 2022 (Leith, 2023). The Consumer Price Index rose by 9.1 percentage points over the year that ended in June 2022, the highest increase in 40 years (BLS, 2022). In 2023, inflation decreased but remained higher than the Federal Reserve’s target of 2 percent. Rising costs for food and energy, as well as rising underlying inflation, continued to erode consumer purchasing power, limit production output, and prompt central bank tightening. Over the next decade, the United States’ real GDP is projected to grow at an average annual rate of 1.9 percent. This is lower than in the previous decade, where growth averaged 2.1 percent annually. GDP per capita similarly slowed from 5.6 percent growth in 2021 to 1.3 percent in 2022 and was projected to further slow to 1.1 percent in 2023. This growth rate is expected to continue to slow over the next 10 years, with a projected average annual growth rate of real GDP per capita of 1.3 percent, compared with the previous decade’s average annual growth rate of 1.5 percent.

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<sup>3</sup> Following the Liquidity Crisis of 2021 in China, the government instituted three specific reforms to rein in over-leveraged firms such as Evergrande. The first capped liabilities to assets at 70 percent; the second mandated that debt should not exceed 100 percent of equity; and the last mandated each firm keep enough liquidity on hand to cover short-term debt obligations.

Figure 3

**Annual U.S. and world real Gross Domestic Product growth, 2003–2033**

Note: The shaded region represents the projected period.

Source: USDA, Economic Research Service (ERS) based on World Bank World Development Indicators, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by USDA, ERS all converted to a 2015 base year.

Beyond total economic output, consumer spending was projected to increase by 2.2 percent in 2023, compared with 2.0 percent growth in 2022. The long-term average for the rest of the decade is similar at 1.9 percent growth. The anticipated growth in consumer spending is supported by the decline in inflation from the peak rates observed in 2022. For example, the U.S. GDP chained price index for 2023 increased by 3.5 percent compared with the 7.0 percent increase in 2022. For the rest of the decade, inflation is projected to stabilize at 2.1 percent. As inflation is anticipated to decline, labor markets are also expected to remain strong in 2023. The workforce in 2023 is estimated to grow by 2.3 percent, following observed growth in 2022 of 4.3 percent. For the rest of the decade, the labor supply is estimated to grow 0.5 percent a year.

### *High-Income Economies*

Overall, for high-income economies<sup>4</sup> (excluding the United States), over the next decade, GDP growth is projected to average 1.6 percent annually for these economies, unchanged from the previous decade's average. Contributing to the unchanged long-term growth prospects are the continued economic consequences of the COVID-19 pandemic on the economy, enduring economic disruption to business activity, and stressors from inflation and war. With no significant changes in population, per capita GDP growth follows similar trends to total GDP growth and is projected to continue to slow.

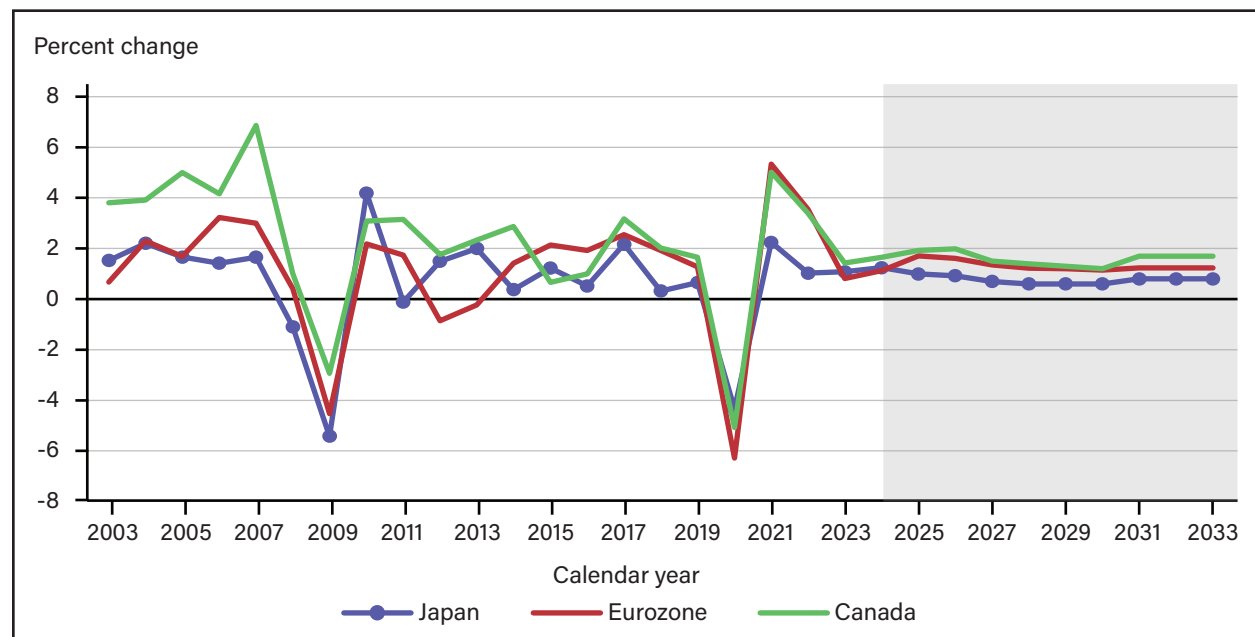
For the European Union (EU-27, post-Brexit), real GDP growth in 2023 was 0.7 percent compared with 3.6 percent in 2022 and 5.4 percent in 2021 (figure 4). GDP growth is projected to average 1.5 percent over the next decade, lower than the 1.6 percent annual average from the previous decade. Per capita GDP growth is

<sup>4</sup> The World Bank Country Classification provides a detailed description of the countries included in each income categorization (World Bank, 2023).

expected to average 1.5 percent over the next decade, a decrease compared with the 1.6 percent average of the previous decade.

Figure 4

**Annual Japan, Eurozone, and Canada real Gross Domestic Product growth, 2003–2033**



Note: The shaded region represents the projected period. Eurozone includes Austria, Belgium, Croatia, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain.

Source: USDA, Economic Research Service (ERS) based on World Bank World Development Indicators, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by USDA, ERS all converted to a 2015 base year.

For the United Kingdom (UK), growth is projected at 1.3 percent annually over the next 10 years. The primary drivers for the UK's low growth are the policy and trade uncertainties that persist post-Brexit. The United Kingdom's Office for Budget Responsibility estimated that the long-term cost of Brexit is 4.0 percentage points of GDP per year (UKOBR, 2022). Per capita GDP growth is estimated at a 0.8 percent annual average over the next decade, similar to the 0.7 percent annual average from 2014–23.

In Canada, GDP growth in 2023 was estimated at 1.4 percent, a decrease from 2022's estimate of 3.4 percent, and is projected to fall to 1.8 percent growth over the next decade. Despite the anticipated decrease, the 1.8 percent annual average over the next decade shows an improvement over the previous 10-year average of 1.6 percent. The Canadian economy is linked closely with the United States and Europe; both are forecast to experience GDP growth declines due in part to rising food and energy prices. Over the next 10 years, per capita GDP growth for Canada is projected to average 1.1 percent annually, an increase compared with the 0.8-percent annual average over the previous decade.

For Japan, GDP growth was estimated at 1.1 percent in 2023. Unlike other major East Asian economies, Japan's GDP growth in 2022 declined less compared with its growth in 2021 (1.0 percent, compared with 2.2 percent). This smaller decline is attributable to robust policy support from the Japanese government, which transferred cash to low-income households as the COVID-19 Omicron variant wave hit (Kotera et al., 2022). The government also subsidized fuel wholesalers to mitigate the effect of energy price inflation in Japan (Nagata, 2023). As a result, inflationary pressures are expected to be less of a concern for Japanese growth prospects relative to other developed economies.



Over the next decade, economic growth in Japan is projected to be at 0.9 percent annually. This is higher than Japan's average growth of 0.5 percent in the previous decade. However, Japan is projected to grow at the slowest rate of any advanced economy. The estimated GDP growth trends reflect an aging labor force that leads to reduced productivity (Edmond et al., 2023). Real GDP per capita in Japan is estimated to be 1.4 percent over the next 10 years, larger than the previous decade's annual average growth of 0.8 percent.

### *Middle- and Low-Income Economies*

Real GDP growth in middle- and low-income countries is projected to continue to grow more rapidly than in high-income economies over the next decade. Most major economies are expected to follow the trend of reduced growth, with only slight inflationary pressure. Commodity exporters are finding growth opportunities from higher energy prices, which have seen upward pressure from the war in Ukraine in addition to OPEC's efforts to reduce supply. For noncommodity exporters, drags on growth include negative spillovers<sup>5</sup> from the Russian invasion of Ukraine, trade disruptions, and tightening global financial conditions, especially with borrowing costs increasing. In the long term, real GDP growth for upper middle and lower middle economies is expected to average 3.9 and 5.0 percent, respectively, over the next decade. This growth remains a key factor in the global outlook for demand for agricultural products. For low-income countries, GDP growth is expected to rise steadily to a 4.9 average over the next 10 years, an increase over the previous decade's 2.5 percent growth average.

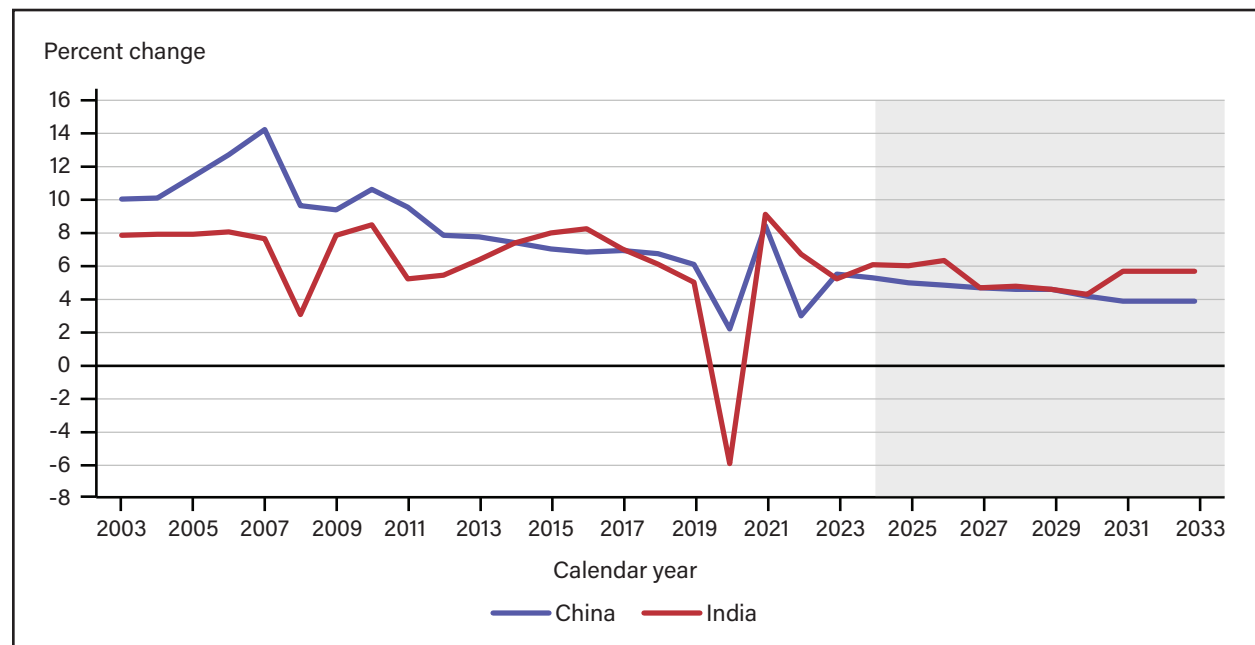
The economies of East Asia were estimated to grow by 2.5 percent in 2022 and 4.3 percent in 2023, compared with 6.8 percent in 2021. This was driven by contracted growth in South Korea, Taiwan, and Hong Kong. China's growth in real GDP declined to 3.0 percent in 2022, due to efforts to control COVID-19, fiscal spending, and exports (figure 5). China's lower export prospects, coupled with higher inflationary pressures in finished product markets, will keep growth rates lower than prepandemic levels for the rest of the decade. Political and trade conflicts over myriad foreign policy issues (e.g., Taiwan tensions, the Russian-Ukraine war) will have uncertain effects on China's continued recovery (Kusa, 2022). Hence, China's real GDP growth is projected to remain below 5.0 percent toward the end of the decade, compared with its 6.0-percent average growth rate for the previous 10 years. China's real per capita GDP growth was estimated at 2.8 percent in 2022, compared with 8.2 percent in 2021 (figure 5). China's real per capita GDP growth was anticipated to rebound to 5.3 percent in 2023. Other major Asian economies, such as India, Indonesia, the Philippines, and Vietnam, will average higher rates of 4–7 percent real GDP growth during 2024–33.

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<sup>5</sup> A spillover occurs when an event or situation in a country has a ripple effect (either positive or negative) on the economy of another country.



Figure 5

**Annual China and India real Gross Domestic Product growth, 2003–2033**

Note: The shaded region represents the projected period.

Source: USDA, Economic Research Service (ERS) based on World Bank World Development Indicators, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by USDA, ERS all converted to a 2015 base year.

Southeast Asia is projected to grow at an average rate of 4.4 percent during 2024–33, a decrease from 2022’s growth rate of 5.5 percent. Overall, this is an increase compared with the previous decade’s average annual growth rate of 3.8 percent.

During 2024–33, South Asian economies collectively are projected to average 5.8 percent real GDP growth compared with the previous decade’s 5.4 percent growth, with India and Bangladesh as the region’s lead drivers of economic growth.

In Latin America, growth outlooks are characterized by policy uncertainty and growing foreign direct investment. In particular, Chinese investment in physical infrastructure projects throughout Latin America grew in 2022 and is expected to increase GDP growth over the next decade. As a result, Latin American real GDP is projected to grow, on average, 2.8 percent per year during 2024–33. While this projected growth rate is lower than the average for low- and middle-income countries, it is still higher than Latin America’s growth rate over the previous decade, which averaged 1.2 percent. The major economies of Latin America (e.g., Mexico, Argentina, Brazil, and Colombia) were expected to slow in 2023 due to the costs associated with social and policy uncertainties and rising inflation in product markets. Rising inflation, the Russian invasion of Ukraine, and tighter financial conditions have eroded economic confidence and purchasing power, which dented domestic demand in the first half of 2022. The war in particular increased international commodity prices for fertilizers and energy prices at the beginning of the conflict.

Argentina’s economy grew by 10.4 percent in 2021 and by 5.2 percent in 2022 but was expected to only grow by 0.7 percent in 2023 as chronic inflation persisted. Argentina’s CPI grew by 73 percent in 2022 (and was anticipated to grow by 118 percent in 2023), following 47 percent inflation in 2021. Argentina’s growth in real GDP is projected to average 2.2 percent over the next decade, compared with the 0.3 percent growth from the previous decade. Chile’s strong pandemic recovery cooled in 2022 as inflation increased. Policy uncertainty surrounding the drafting of a new constitution was also likely a factor in Chile’s moderating

growth (Bartlett, 2022). Colombia's real GDP is expected to average 3.4 percent per year for 2024–33. Private consumption is the main driver behind this expected growth, spurred by a gradual employment increase (IMF, 2023b). In addition, strong commodity prices have improved trade balances amid the background of rising external demand. Inflation rose to 10.2 percent in 2022 and to 11.5 percent in 2023, initially driven by food and energy prices, which particularly affected low-income households.

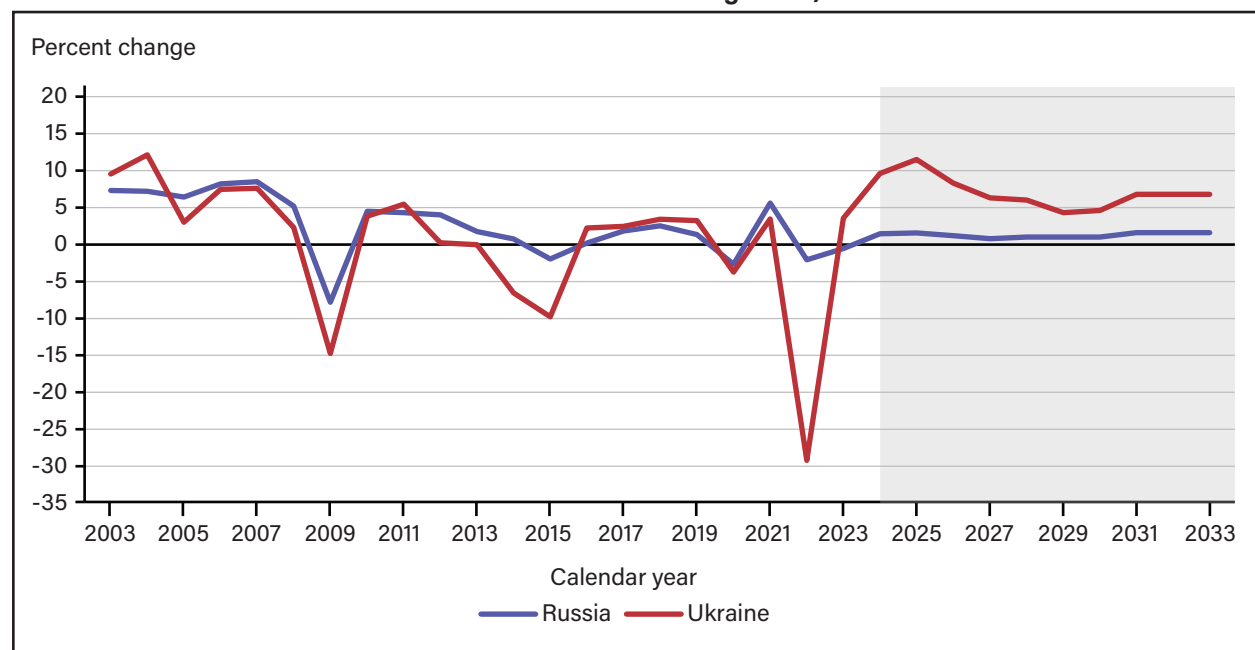
In 2015, Exxon-Mobile discovered significant oil reserves off Guyana's coast. As a result, Guyana's real GDP growth peaked at nearly 61 percent in 2022 due to surging oil production and strong oil prices, the largest single annual increase in the world for 2022. This surge continued a growth trend since 2020 as Guyana transformed into an emerging oil power. In 2023, growth was estimated to be lower but at 27 percent, which is still higher than the historical (5-year) average.

Real GDP in Sub-Saharan Africa, the poorest region in the world, continued to grow from the pandemic shock, with 3.5 percent growth in 2022 and 3.1 percent estimated growth in 2023. Growth is projected to average 3.8 percent per year during 2024–33, above the previous decade's average of 2.6 percent. In contrast, Nigeria and South Africa (the continent's two largest economies) were anticipated to experience lower growth in 2023 of 2.9 and 0.5 percent, respectively (3.1 and 2.0 percent in 2022, respectively). Nigeria's growth prospects lag behind those of the rest of Sub-Saharan Africa, likely due in part to issues in Nigeria's oil sector including underinvestment, theft of crude oil, and vandalism of pipelines (Eboh, 2023). In South Africa, structural constraints such as an unreliable electricity supply combined with climate shocks continue to constrain growth (IMF, 2023a). The Economic Community of West African States (ECOWAS) outside of Nigeria is expected to have strong long-term economic growth and continue to outperform its neighbors, with an average 4.8 percent growth projected for 2024–33.

The North Africa and Middle East region economies were estimated to grow 1.8 percent over the next decade. North Africa's economic growth is projected at 3.7 percent, similar to that of Sub-Saharan Africa, for the next decade. This is more than the 3.1 percent rate during the previous decade. Countries that export energy will likely see benefits from the higher energy prices. Resource rich but developing economies in the Middle East, such as Saudi Arabia, Qatar, Oman, and the United Arab Emirates, grew more in 2022 compared with 2021, but as energy price inflation declined in 2023, growth for these countries was expected to decline as well.

The largest revisions from previous years' projections for middle-income countries are for Russia and Ukraine because of the ongoing war that began in February 2022. The war disrupted global markets, increased geopolitical tensions, and exacerbated other conflicts around the world. Specifically, the blockade of Ukrainian ports from exporting essential grains and oilseeds had disastrous consequences for the world's poor and food insecure who rely on Ukrainian wheat and corn for meaningful assistance (Zereyesus et al., 2023). In terms of direct effects, Ukraine's economic output contracted by 29 percent in 2022, eliminating almost half of the wealth gains of the last two decades (figure 6). Long-term growth projections for Ukraine are more optimistic with an average growth rate of 8.0 percent from 2024–33. Per capita GDP growth over the next 10 years is projected at 8.5 percent for Ukraine. This increased rate of growth is likely attributable to rebuilding from the war, with the help of international support and financial aid (Peleschuk, 2024).

Figure 6

**Annual Russia and Ukraine real Gross Domestic Product growth, 2003–33**

Note: The shaded region represents the projected period.

Source: USDA, Economic Research Service (ERS) based on World Bank World Development Indicators, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by USDA, ERS all converted to a 2015 base year.

The response from the rest of the world to Russia's invasion of Ukraine left the Russian economy mostly isolated with lower growth prospects (Lyngaas, 2023). Russia's long-term growth from 2024–33 is projected at 1.5 percent due to a continued lack of access to international banking, credit, and product markets. As a comparison, Russia's economy grew by 0.5 percent per year over the previous decade. Factors that likely contributed to this low growth include economic fallout from the 2014 Crimean Annexation and the COVID-19 pandemic. Over the next 10 years, growth in real per capita GDP is expected to resume at 1.8 percent in Russia, compared with the 0.6 percent growth of the previous decade. However, these numbers are uncertain and depend on how the war between the two countries progresses.

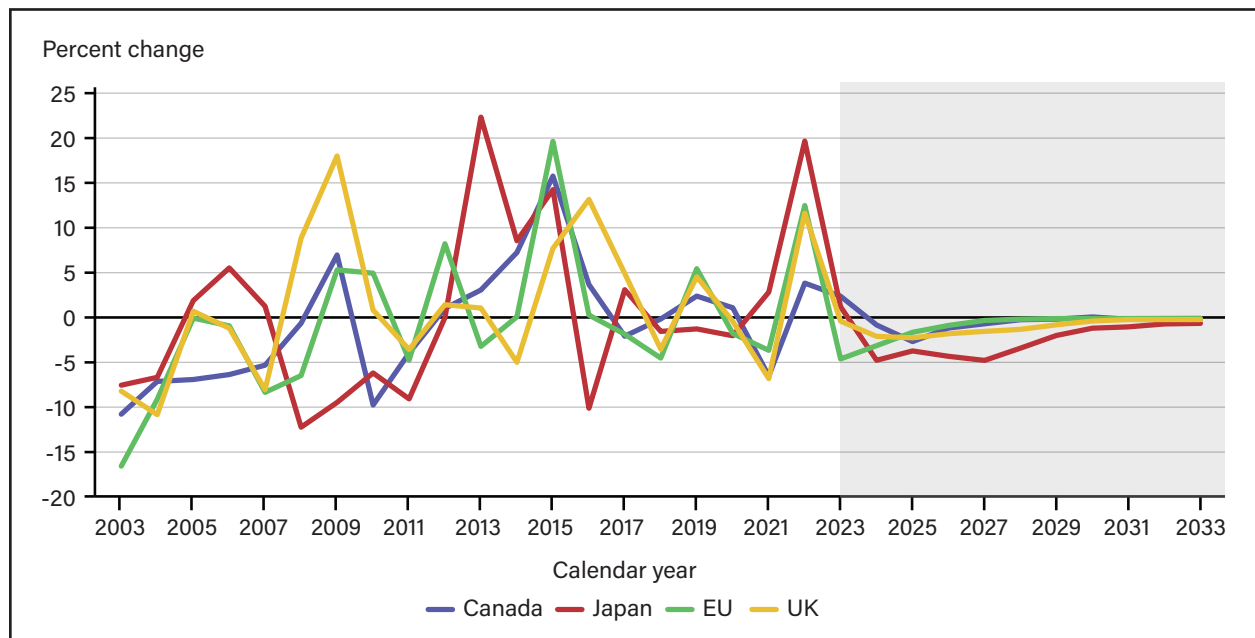
## Exchange Rate Projections

Compared to the currencies of most other major economies, the value of the U.S. dollar (USD) increased during 2022. The rise in the dollar's value can be attributed largely to the Federal Reserve raising interest rates faster than most other countries' central banks did, especially Japan, whose central bank was not faced with the same inflation surge for non-imported goods as other developed economies (Dooley, 2022). Exchange rates were also significantly affected by Russia's invasion of Ukraine. Given Europe's dependence on Russian oil and gas, the war's resulting energy price increase created a negative terms-of-trade shock for Europe, which lowered the Euro's value.

Relative to the Canadian dollar, the USD appreciated by 3.8 percent in 2022 (projected for 2.4 percent in 2023); relative to the euro, by 12.5 percent (projected for -4.6 percent in 2023); relative to the British pound, by 11.6 percent (projected for -0.4 percent in 2023); against the Japanese yen, by 19.7 percent (projected for 1.2 percent in 2023); relative to the Russian ruble, by -6.7 percent (projected for 14.9 percent in 2023); compared to the Ukrainian hryvnia, by 18.4 percent (projected for 13.2 percent in 2023); and against the Chinese renminbi, by 4.4 percent (projected for 0.9 percent in 2023) (figure 7).

Figure 7

**Select high-income countries, annual percent change in nominal exchange rates with the United States, 2003–2033**



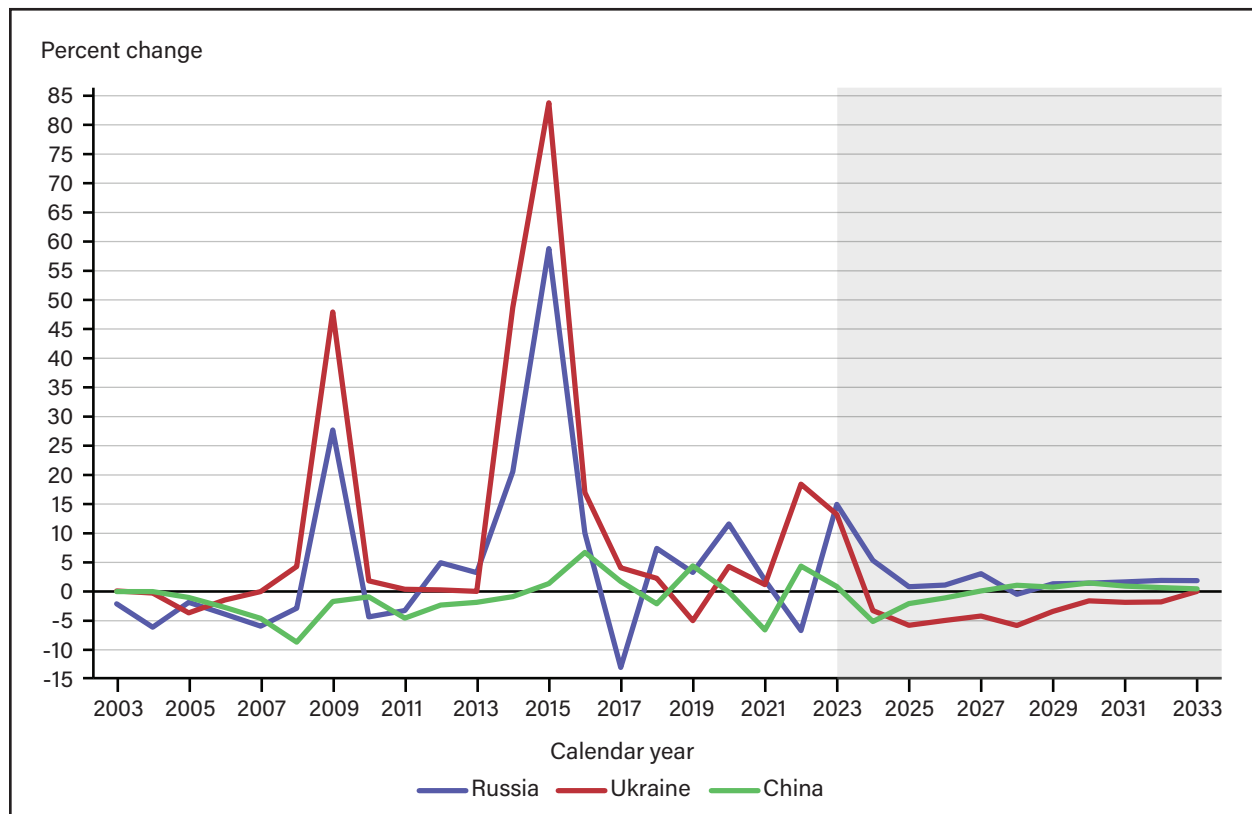
Note: The shaded region represents the projected period. EU refers to the European Union, and UK refers to the United Kingdom.

Source: USDA, Economic Research Service (ERS) based on International Financial Statistics of the International Monetary Fund, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by USDA, ERS.

After the initial shock of the war, the value of the Ukrainian hryvnia is expected to appreciate, rising in value relative to the U.S. dollar by an average of 3.3 percent per year from 2024 to 2033 (figure 8). However, Russia's currency is expected to lower in value relative to the dollar until 2033 at an average annual rate of 1.8 percent. The U.S. dollar is expected to fall in value relative to China for the next 10 years at an average annual rate of 0.3 percent.

Figure 8

### Select medium-income countries, annual percent change in nominal exchange rates with the United States, 2003–2033



Note: The shaded region represents the projected period.

Source: USDA, Economic Research Service (ERS) based on International Financial Statistics of the International Monetary Fund, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by USDA, ERS.

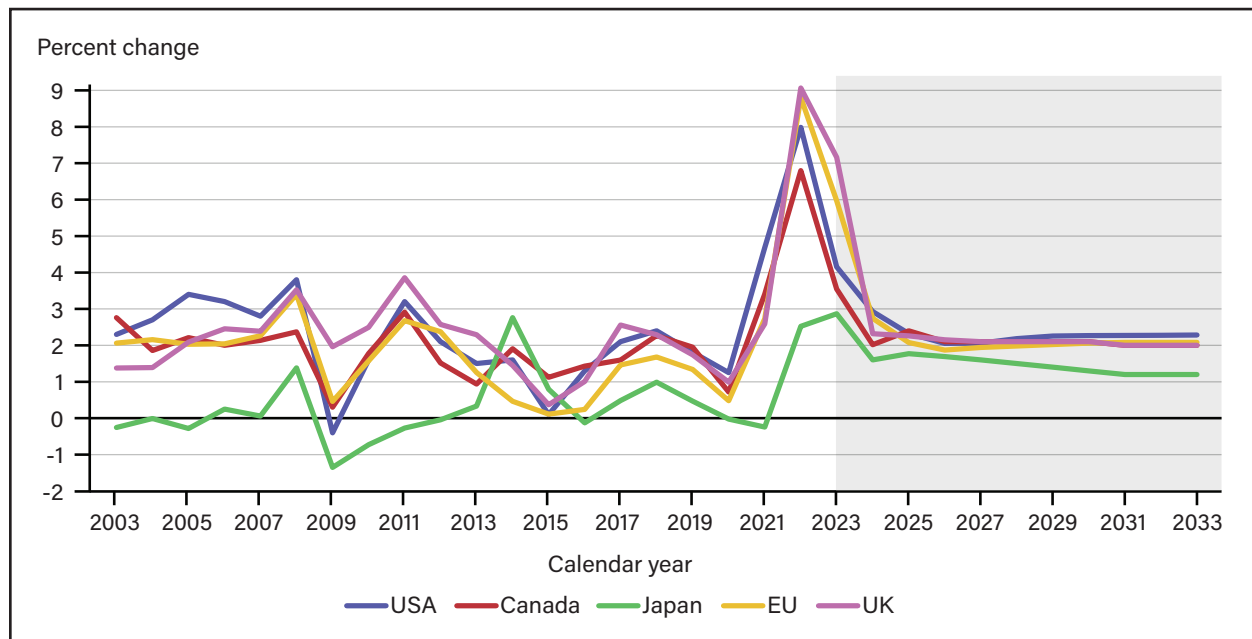
The increases in 2022 to 2023 to U.S. inflation and increased interest rates are expected to be temporary; consequently, the value of the U.S. dollar is expected to fall relative to other major economies over the next 10 years. Relative to the euro, the USD is forecast to decrease in value at an average annual rate of 0.7 percent until 2033; relative to the British pound, at an average annual rate of 1.1 percent; against the Canadian dollar, 0.6 percent; and against the Japanese yen, 2.7 percent.

## Inflation Projections

Many countries across the world experienced remarkably high inflation in 2022. Contributing factors were fiscal policy (one-time pandemic relief spending in many countries); monetary policy (quantitative easing in multiple countries in 2020); and the easing of COVID-19 lockdowns, which released pent-up demand for consumer goods (Santacreu & LaBelle, 2022; Labonte & Weinstock, 2022). Russia's invasion of Ukraine further exacerbated inflation, causing sharp increases in food and energy prices since Russia is a major exporter of oil and gas and Ukraine is a major exporter of wheat and other coarse grains (Cascaldi-Garcia et al., 2023).

By the end of 2022, consumer prices increased by 8.0 percent in the United States, 6.8 percent in Canada, 8.8 percent in the European Union, 9.1 percent in the United Kingdom, 13.7 percent in Russia, and 20.2 percent in Ukraine (figures 9 and 10).

Figure 9

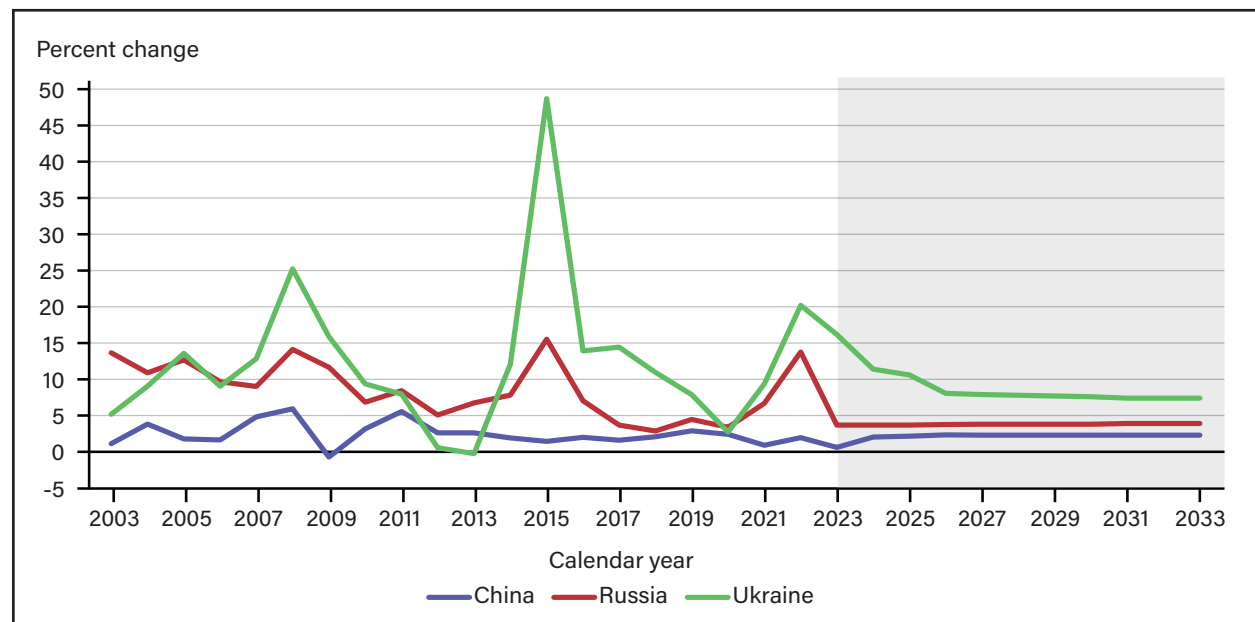
**Select high-income countries, annual Consumer Price Index growth, 2003–2033**

Note: The shaded region represents the projected period. USA refers to United States of America, EU to European Union, UK to United Kingdom.

Source: USDA, Economic Research Service (ERS) based on International Financial Statistics of the International Monetary Fund, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by USDA, ERS.

Some countries in East Asia showed lower inflation rates in comparison to global rates. In Japan, consumer prices increased by 2.5 percent over the course of 2022; in China, by 2.0 percent. Both Japan and China maintained strict COVID-19 lockdown policies, which depressed aggregate demand. Moreover, China's large reserves of oil and grains mitigated the effects of rising world energy and food prices. Japan's government addressed bottlenecks in supply chains, for example, by investing in domestic semiconductor capacity (Shivakumar et al, 2023).

Figure 10

**Select middle-income countries, annual Consumer Price Index growth, 2003–2033**

Note: The shaded region represents the projected period.

Source: USDA, Economic Research Service (ERS) based on International Financial Statistics of the International Monetary Fund, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by USDA, ERS.

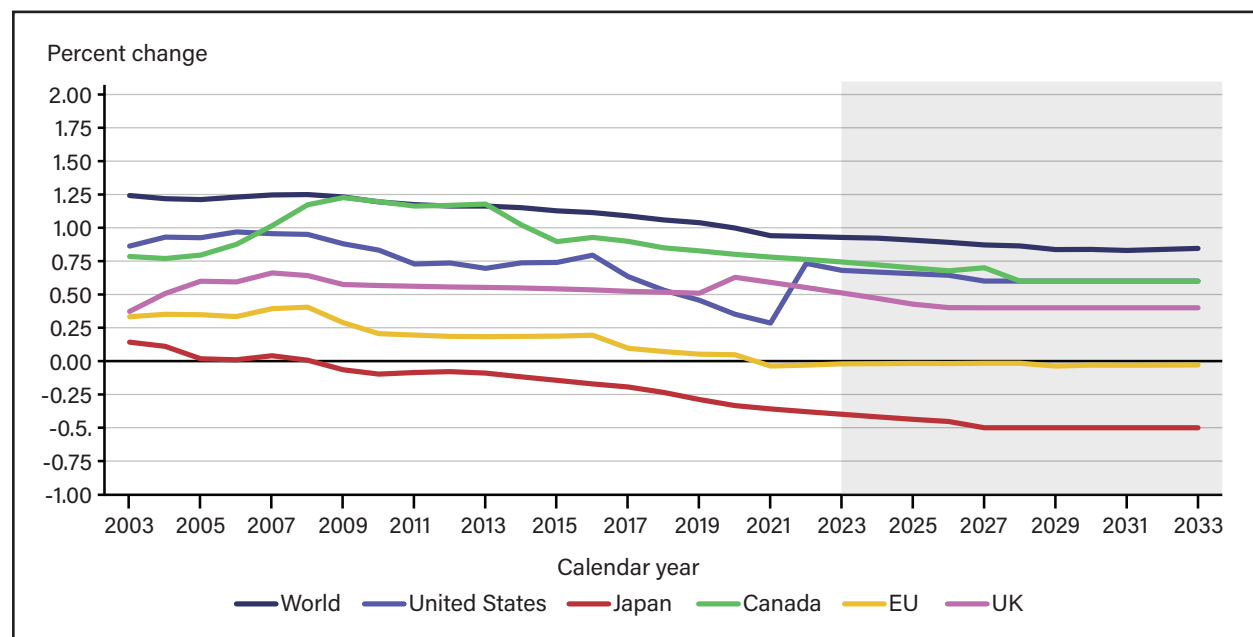
Because COVID-19 was likely a one-time shock, the high inflation of 2022 was projected to be temporary for most countries, although the extent to which the Russia-Ukraine war continues to inflate food and energy prices is difficult to predict. In the United States, the rate of consumer price inflation was expected to drop to an average of 2.3 percent over the next decade. In comparison, from 2014 to 2023, the inflation rate in the United States averaged 2.7 percent. The return to the previous decade's rate of inflation suggests the transitory nature of the high inflation in 2022 and the efficacy of the Federal Reserve monetary response. Similar reductions in inflation are expected for most other major economies: for Canada, an average inflation rate of 2.1 percent over the next decade; the European Union, 2.1 percent; the United Kingdom, 2.1 percent; Japan, 1.4 percent; China, 2.3 percent; Russia, 3.8 percent; and Ukraine, 8.3 percent.

## Population Projections

The total world population is expected to grow at an average annual rate of 0.9 percent over the next decade. This is lower compared to the previous decade in which the world population grew by 1.0 percent on average.

The population of the United States was expected to increase in 2023 by 0.7 percent, which matches the 2022 growth rate. This is significantly faster growth than the 0.3 percent in 2020 and 2021, partly due to fewer deaths in 2022 and 2023 from COVID-19 but primarily due to immigration. Immigration declined from 2017 to 2021, but pent-up immigration occurred after COVID-19 in 2022. More specifically, net immigration was higher by 600,000 people in 2022, compared to what the Congressional Budget Office had projected in 2021 (Congressional Budget Office, 2023). Recent research found that the pandemic had a negative effect on fertility in the United States (Kearney et al., 2022), but this was due to a decrease in travel to the United States among foreign-born mothers. U.S.-born mothers experienced a modest increase in fertility (Bailey et al., 2022). The projected average rate of growth in the U.S. population from 2024–33 is 0.6 percent (figure 11). This projected rate of population growth matches the growth from 2014 to 2023.

Figure 11

**World and select high-income countries, annual population growth, 2003–2033**

Note: The shaded region represents the projected period. EU refers to European Union, UK to United Kingdom.

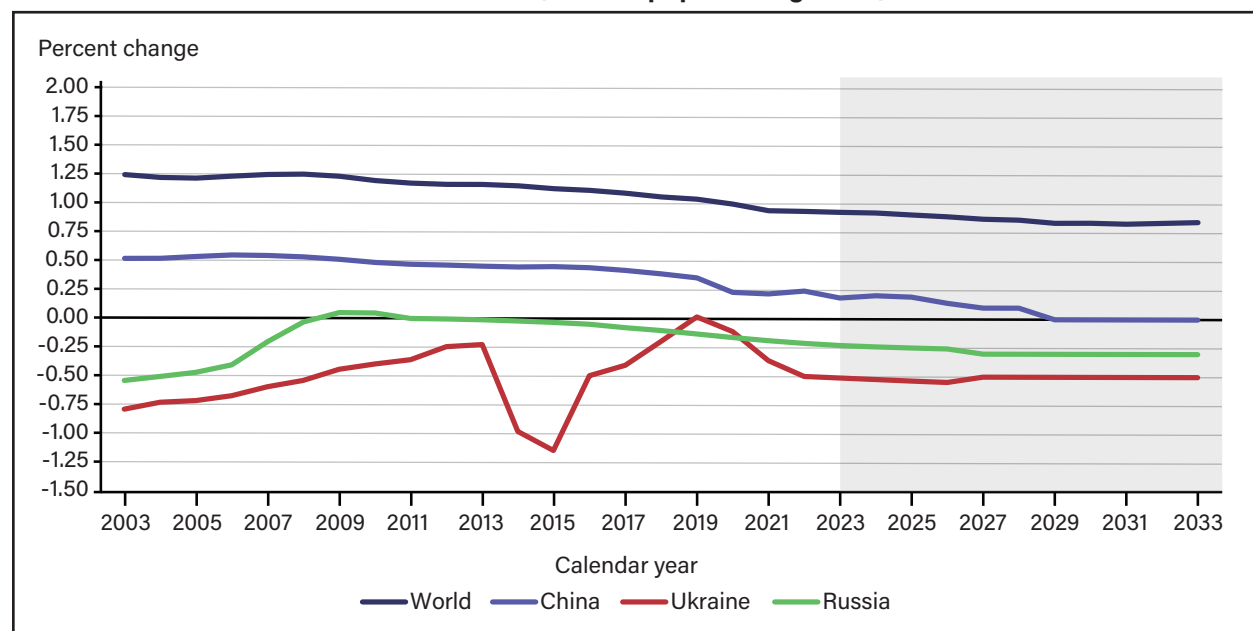
Source: USDA, Economic Research Service (ERS) based on International Financial Statistics of the International Monetary Fund, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by USDA, ERS.

Canada's population grew by 0.9 percent per year on average in the preceding decade and is expected to drop to 0.7 percent over the next decade. The population of the United Kingdom is expected to slow over the next 10 years to an average annual rate of 0.4 percent, lower than the 0.6 percent annual average of the previous decade. The European Union's (EU-27) population recorded a negative growth rate for the first time in its history—negative 0.04 percent in 2021. This decline continued in 2022 at a rate of negative 0.03 percent. The EU-27's population was projected to fall 0.02 percent in 2023, and this rate is expected to continue over the next decade. This is driven largely by population declines in Germany, Greece, Italy, and Portugal. Finally, Japan's population is expected to shrink by 0.4 percent in 2023 and 2024, continuing a more than 10-year trend of falling population due to low fertility rates. The population of Japan is expected to continue to decline over the next 10 years at an average rate of 0.5 percent, almost twice the rate of the previous decade.

China's population was expected to grow in 2023 and 2024 by 0.2 percent, the same rate as in 2022 (figure 12). Population growth is expected to slow in China over the next decade at an average annual rate of 0.1 percent, lower than 0.3 percent of the previous 10 years.



Figure 12

**World and select middle-income countries, annual population growth, 2003–2033**

Note: The shaded region represents the projected period.

Source: USDA, Economic Research Service (ERS) based on International Financial Statistics of the International Monetary Fund, IHS Global Insight, Oxford Economics Forecasting, as well as estimated and projected values developed by USDA, ERS.

Ukraine's population is projected to fall until 2033 by 0.5 percent per year. This is a continuation of a trend of a decreasing Ukraine population spanning two decades. These population projections, sourced from the Census Bureau as described in the USDA macroeconomic projections source notes, do not yet incorporate the effects of the Russia-Ukraine war, which is expected to decrease population even more due to casualties and outward migration.

The population of Russia was also projected to fall in 2023 and 2024 by 0.2 percent per year. Over the next 10 years, Russia's expected average annual population growth rate is negative 0.3 percent, a faster rate of contraction than the negative 0.1 percent of the previous decade. This is part of a broader trend of falling population in many former Soviet States. As with the projections for Ukraine, the population projections for Russia do not account for the war, meaning that the Russian population can be expected to decrease more than these numbers suggest.

## Conclusion

The United States economy grew, on average, by 2.1 percent over the last decade and is projected to increase, on average, by 1.9 percent over the next 10 years. The reversal of growth prospects in these projections reflects greater uncertainty in the domestic and global macroeconomy. As the world emerged from the COVID-19 pandemic and faced multiple global challenges, the economic outlook for 2023 was less favorable than in 2022. Rising inflation, along with numerous other global crises from 2022, reversed expectations for increased growth in economic output in 2023. This trend was present throughout the major economies, in particular the United States and the European Union.

Climate change is a growing concern as governments and economic planners consider whether to mitigate or adapt to climate challenges over the next decade. Environmental disasters have impacted countries around the world, producing real costs in terms of lives as well as money. Moreover, Russia's war in Ukraine has contributed to food inflation, with the loss of grain exports from Ukraine particularly affecting Sub-Saharan Africa. The war also contributed to energy inflation as Western economies have transitioned away from Russian energy sources.

However, as the world adjusts to COVID-19, the Russia-Ukraine war, and other recent shocks, economic growth is expected to return to its longer term trend. Real Gross Domestic Product is expected to grow at an annual average rate of 2.8 percent per year globally, and 1.9 percent for the United States over the next decade. Furthermore, real Gross Domestic Product per capita is projected to grow over the next decade at an average annual rate of 1.9 percent for the world and 1.3 percent for the United States.

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## Appendix

### Methodology for the International Macroeconomic Data Set

The International Macroeconomic Data Set provides annual economic indicators for 181 countries that account for nearly 99 percent of the world economy. The data set includes both historical and 10-year projected data for population, Gross Domestic Product (GDP), GDP per capita, Consumer Price Index (CPI)—a measure of inflation—and exchange rates. Macroeconomic variables are presented for individual countries, plus the European Union (EU), and various other regional and economic aggregations. Data are in constant 2015 U.S. dollars.

The macroeconomic projections are calculated by the USDA, Economic Research Service (ERS) macroeconomic team based on data compiled from multiple private forecast subscription services, the U.S. Government, international agencies' projections, and the USDA, ERS, Market and Trade Economics Division's regional and country experts. A comprehensive list of sources is available on the documentation section of the international macroeconomic data webpage. These projections are compiled annually in August.

USDA, ERS does not independently project macroeconomic variables. The macroeconomic team bases the projections on forecasts prepared by other U.S. Government agencies and forecasts informed by proprietary data sources. In addition, the USDA, ERS macroeconomic team receives input from USDA, ERS country and regional trade analysts working on the development of the international component of the long-term Baseline. USDA, ERS country analysts adjust the first 3–4 annual data points of the projections based on their knowledge of the current situation in each country. Macroeconomic analysts define a smooth transition to the long-run growth rate for the final 4 years of the projections.