

## Disinflation amid Economic Resilience

Economic activity was surprisingly resilient during the global disinflation of 2022–23. Growth in employment and incomes has held steady as favorable demand and supply developments have supported major economies, despite rising central bank interest rates aimed at restoring price stability. As inflation converges toward target levels and central banks pivot toward policy easing, a tightening of fiscal policies aimed at curbing high government debt levels, with higher taxes and lower government spending, is expected to weigh on growth. The pace of expansion is also expected to remain low by historical standards as a result of factors including the long-term consequences of the COVID-19 pandemic, Russia's invasion of Ukraine, weak growth in productivity, and increasing geoeconomic fragmentation.

In late 2023, headline inflation neared its prepandemic level in most economies for the first time since the start of the global inflation surge (Figure 1.1). In the last quarter of 2023, headline inflation for advanced economies was 2.3 percent on a quarter-over-quarter annualized basis, down from a peak of 9.5 percent in the second quarter of 2022. For emerging market and developing economies, inflation was 9.9 percent in the last quarter of 2023, down from a peak of 13.7 percent in the first quarter of 2022, but this average was driven by high inflation in a few countries; for the median emerging market and developing economy, inflation declined to 3.9 percent. This progress notwithstanding, inflation is not yet at target in most economies.

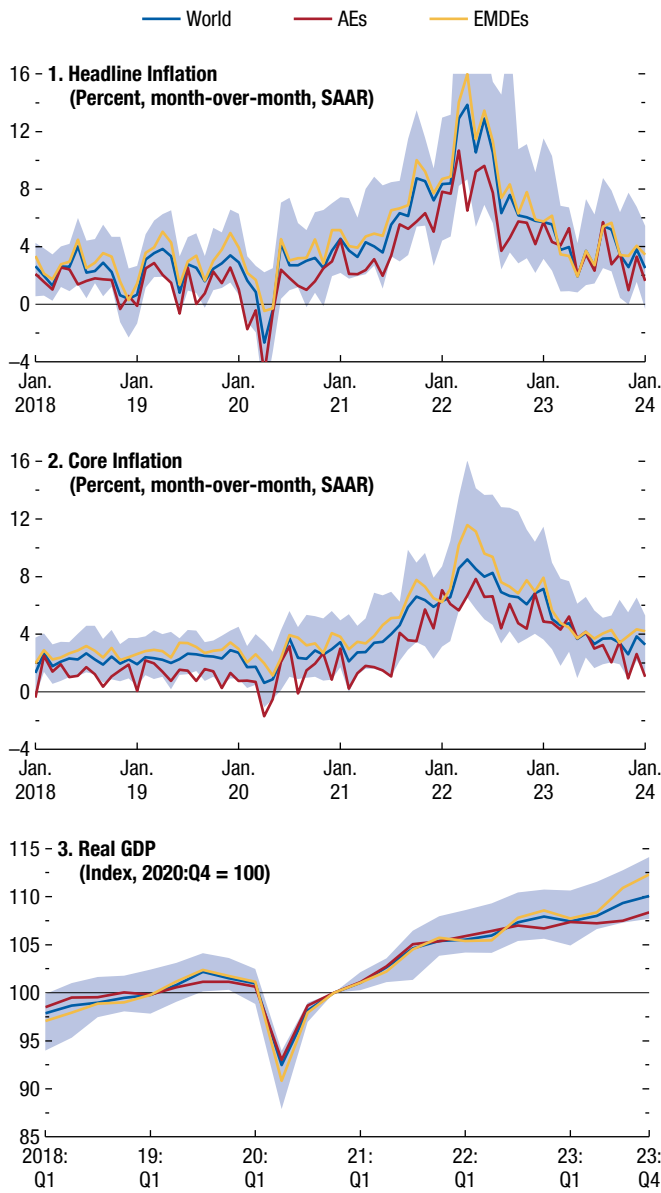
As global inflation descended from its peak, economic activity grew steadily, defying warnings of stagflation and global recession. During 2022 and 2023, global real GDP rose by a cumulative 6.7 percent. That is 0.8 percentage point higher than the forecasts made at the time of the October 2022 *World Economic Outlook* (WEO) (Figure 1.2). The United States and several large emerging market and middle-income economies displayed the greatest overperformance, with aggregate demand supported by stronger-than-expected private consumption amid

still-tight—though easing—labor markets. Households in advanced economies supported their spending by drawing down accumulated pandemic-era savings. Larger-than-expected government spending further supported the expansion of aggregate demand in most regions. The overall budgetary stance—measured by the structural fiscal balance—was more expansionary than expected, on average. Among large economies, the additional budgetary support, compared with October 2022 WEO forecasts, was estimated at 2 percent of GDP in the United States and 0.2 percent of GDP in the euro area, whereas in China,<sup>1</sup> the fiscal stance was mildly tighter than expected, by 0.7 percent of GDP. The euro area also displayed the smallest upside growth surprise, reflecting weak consumer sentiment and the lingering effects of high energy prices. In parallel, global headline inflation declined broadly in line with expectations, averaging just 0.1 percentage point more than predicted in the October 2022 WEO for 2022 and 2023. However, in lower-income countries, inflation was on average higher than expected, reflecting cases in which pass-through into domestic prices from international food, fuel, and fertilizer costs, as well as from currency depreciation, was greater than expected. Price pressures in some lower-income countries were significant. These factors also caused these economies to grow more slowly than expected, suggesting a negative supply shock. In China, inflation fell unexpectedly, with the decrease reflecting sharply lower domestic food prices and pass-through effects on underlying (core) inflation.

The resilience in global economic activity was compatible with falling inflation thanks to a postpandemic expansion on the supply side. A greater-than-expected rise in the labor force amid robust employment growth supported activity and disinflation in advanced economies and several large emerging market and middle-income economies. The labor force expansion reflected, in some economies, increased inflows of

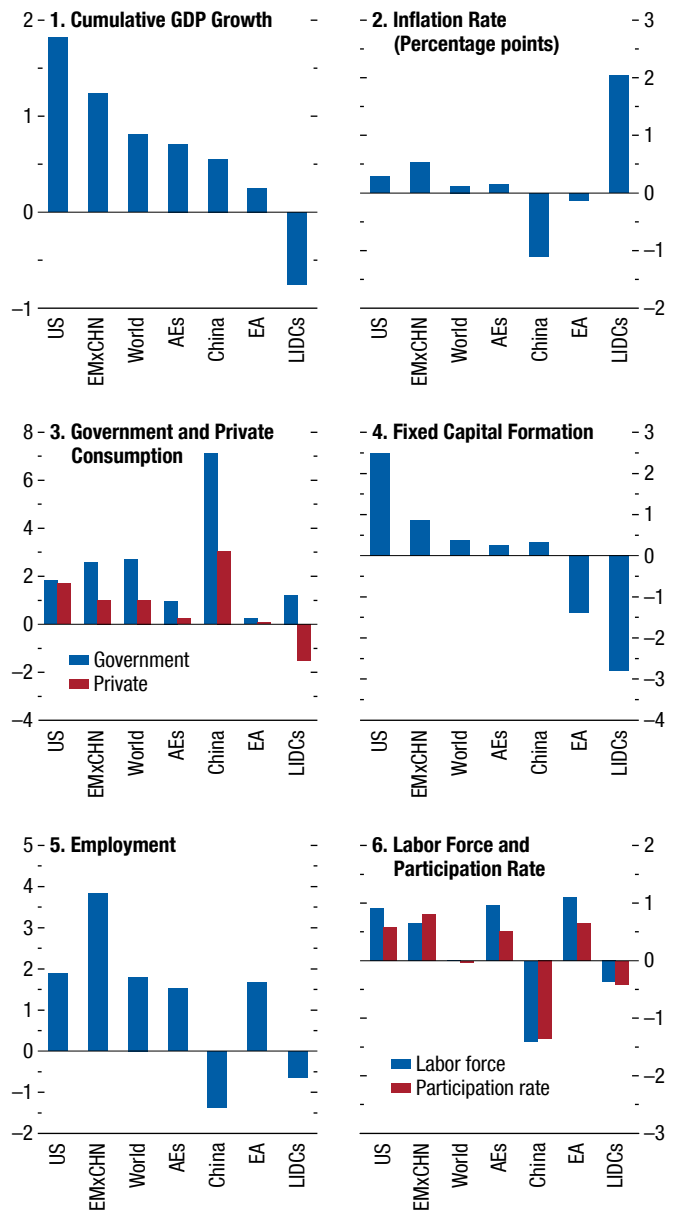
<sup>1</sup>China's deficit and public debt numbers cover a narrower perimeter of the general government than the IMF staff's estimates in China Article IV reports (see IMF 2024 for a reconciliation of the two estimates).

**Figure 1.1. Global Inflation Falling as Output Grows**



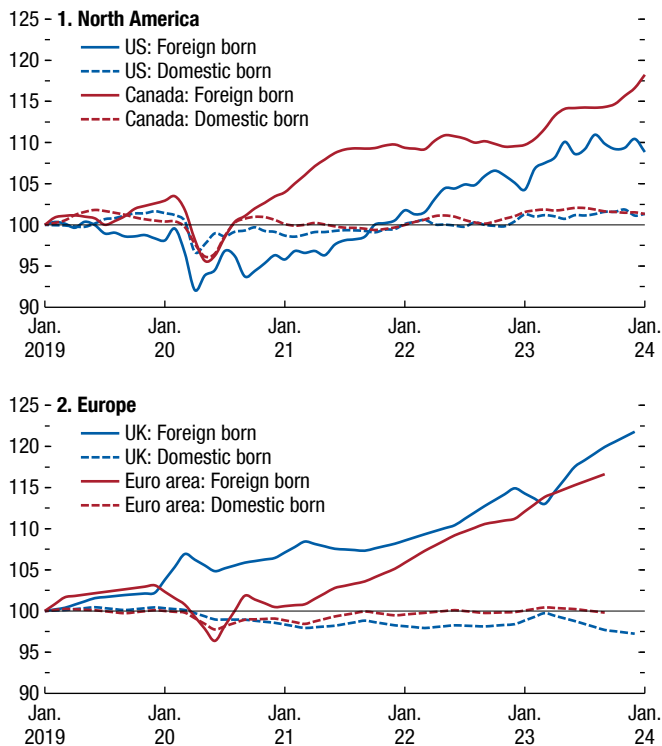
Sources: Haver Analytics; and IMF staff calculations.  
 Note: Panels 1 and 2 plot the median of a sample of 57 economies that accounts for 78 percent of *World Economic Outlook* world GDP (in weighted purchasing-power-parity terms) in 2023. Vertical axes are cut off at -4 percent and 16 percent. Panel 3 plots the median of a sample of 44 economies. The bands depict the 25th to 75th percentiles of data across economies. “Core inflation” is the percent change in the consumer price index for goods and services, excluding food and energy (or the closest available measure). AEs = advanced economies; EMDEs = emerging market and developing economies; SAAR = seasonally adjusted annual rate.

**Figure 1.2. Performance in 2022–23 Compared with Projections at Time of Cost-of-Living Crisis**  
 (Percent deviation from October 2022 WEO projection, unless noted otherwise)



Source: IMF staff calculations.  
 Note: Figure reports latest estimates for cumulative growth in 2022 and 2023 in deviation from October 2022 WEO forecast in all panels except panel 2, which reports the difference between average inflation in 2022 and 2023 and the corresponding October 2022 WEO forecasts. Panel 6 does not include India due to missing data. AEs = advanced economies; EA = euro area; EMxCHN = emerging market and middle-income economies excluding China; LIDCs = low-income developing countries; WEO = *World Economic Outlook*.

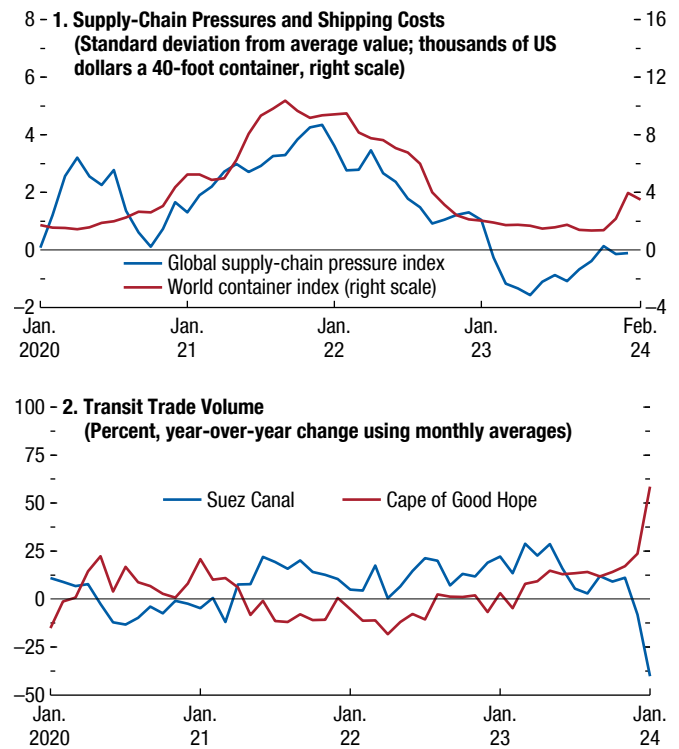
**Figure 1.3. Domestic- and Foreign-Born Workers in the Labor Force**  
(Index, January 2019 = 100)



Sources: Eurostat; Haver Analytics; US Bureau of Labor Statistics; and IMF staff calculations.

migrants, with faster growth in the foreign-born than in the domestic-born labor force since 2021 (Figure 1.3), as well as higher labor force participation rates. Exceptions to this pattern include China, where labor market weakness, in the context of subdued demand, was broad based across sectors, and lower-income countries, where supply-side challenges held job creation back. Greater-than-expected additions to the stock of physical capital, with business investment responding to the strength in product demand, further bolstered the supply side in most regions, with exceptions including the euro area, where interest-rate-sensitive business investment, particularly in manufacturing, was subdued. A resolution of pandemic-era supply-chain problems allowed delivery times to decline and transportation costs to decrease (Figure 1.4). After attacks on commercial shipping in the Red Sea—through which 11 percent of global trade flows—global transportation costs increased, reflecting the rerouting of cargo from the Suez Canal to the Cape of Good Hope and continued trade disruptions from climate extremes in the Panama Canal,

**Figure 1.4. Supply-Chain Pressures and Red Sea Tensions**



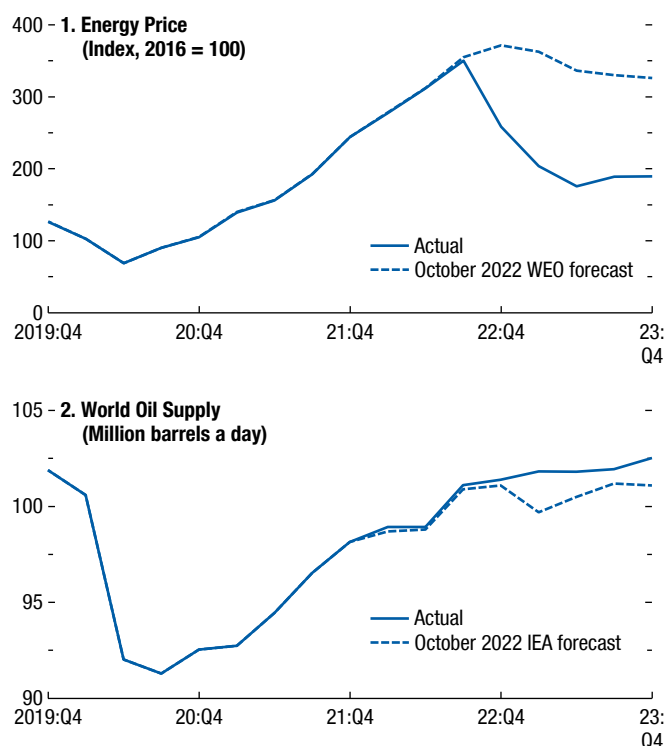
Sources: Federal Reserve Bank of New York; Haver Analytics; IMF, PortWatch; and IMF staff calculations.

but remained well below their 2021–22 levels and have recently declined. The price of energy fell faster than expected from its peak (Figure 1.5), in part as a result of increased non-OPEC (Organization of the Petroleum Exporting Countries) oil production and increased natural gas output, most notably in the United States. Rising exports of Russian oil on account of the expanding non-Western-aligned oil tanker fleet carrying Russian oil and Russia’s setting up its own maritime insurance added further to the world energy supply.

**Inflation (and Expectations) in Decline**

The fall in headline inflation since 2022 reflects the fading of relative price shocks—notably those to energy prices—as well as lower core inflation. The decline in energy prices reflects not only increased global energy supply, but also the effects of tight monetary policies. The monetary tightening by central banks in major advanced economies during 2022–23 may have contributed strongly to lowering energy prices owing to its high degree of synchronization and

**Figure 1.5. Global Energy Price and Oil Supply**

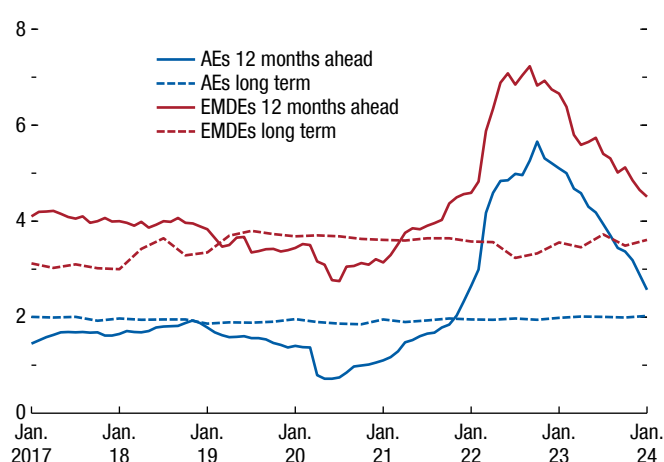


Sources: International Energy Agency (IEA); and IMF staff calculations.  
 Note: Forecasts for the energy price index and oil supply come from the October 2022 *World Economic Outlook* (WEO) and October 2022 IEA *Oil Market Report*, respectively.

the associated effect on curbing world energy demand (as in the analysis of Auclert and others 2023).

Core inflation has declined as a result of the fading of effects of pass-through from past shocks to headline inflation, as well as because labor market pressures have eased. Pass-through effects include the effects of past relative price shocks—notably those to the price of energy and supply shifts in various industries—on prices and costs in other industries through supply-chain inputs and wage demands. Near-term inflation expectations are an important pass-through channel because of their implications for both wage and price setting (see Chapter 2 of the October 2023 WEO) and have declined toward target levels in both advanced economies and emerging market and developing economies (Figure 1.6), although measures of financial-market-based inflation expectations have recently shown signs of a pickup in the US. Longer-term inflation expectations have remained anchored, despite the string of large shocks since 2020—with decisive communication and action by

**Figure 1.6. Near-Term Inflation Expectations Falling (Percent)**

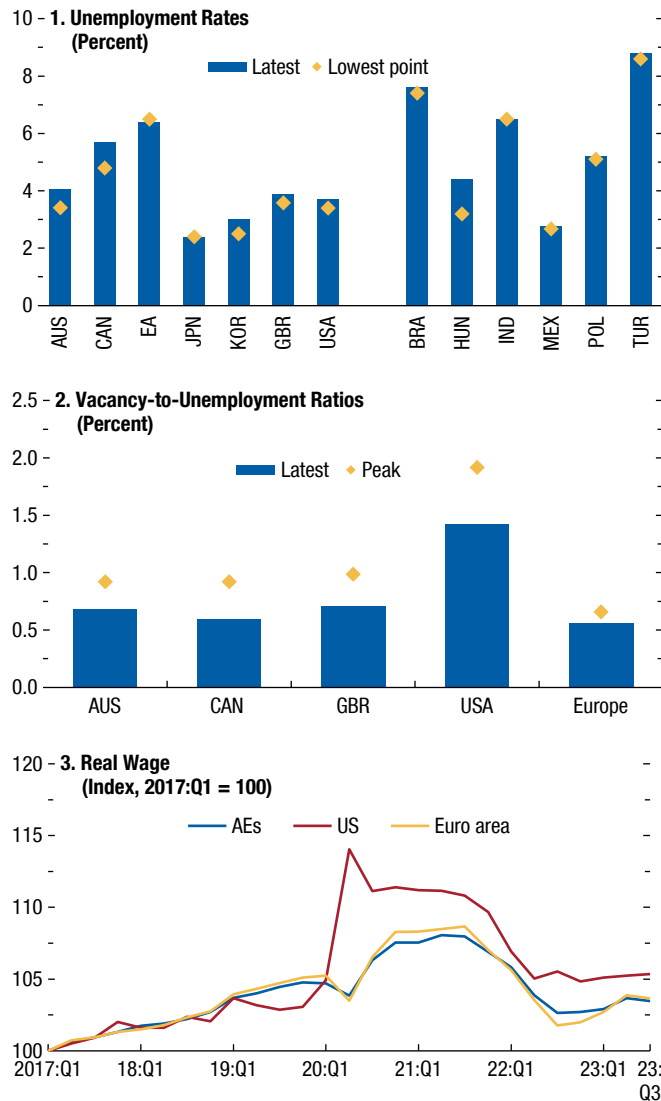


Sources: Consensus Economics; and IMF staff calculations.  
 Note: The figure shows median inflation expectations, computed based on Consensus Forecast surveys of professional forecasters, for respective groups of economies. The 12-month-ahead inflation expectations are constructed as the weighted sum of forecasts for the current and next calendar year (see Buono and Formai 2018). “Long term” denotes 10-year-ahead expectations. AEs = advanced economies; EMDEs = emerging market and developing economies.

central banks safeguarding the credibility of their inflation targets—and contributed little to recent movements in core inflation. Labor markets remain tight, especially in the United States, but the recent decline in the ratio of vacancies to the number of unemployed people amid a rise in unemployment rates suggests an easing across several economies (Figure 1.7). Nominal wage growth has generally remained contained in advanced economies since 2022, especially in the euro area, implying a moderation in real (inflation-adjusted) wages. Real wages are now close to or slightly below the level they were on before the pandemic in these economies. Wage-price spirals—in which prices and wages accelerate together for a sustained period—have generally not taken hold. Nevertheless, wages at the bottom of the wage distribution have risen faster than the average since the start of the pandemic, compressing the distribution.

The roles of these factors in reducing core inflation have diverged across major economies. IMF staff analysis (Figure 1.8) suggests that the rapid fading of pass-through from past relative price movements—in particular from energy price shocks—has played a larger role in the euro area and the United Kingdom than in the United States in reducing core inflation (the staff’s methodology was the same as that used in Dao and others 2023). In the United States, labor market tightness and, more broadly, strong macroeconomic

**Figure 1.7. Labor Markets Cooling**

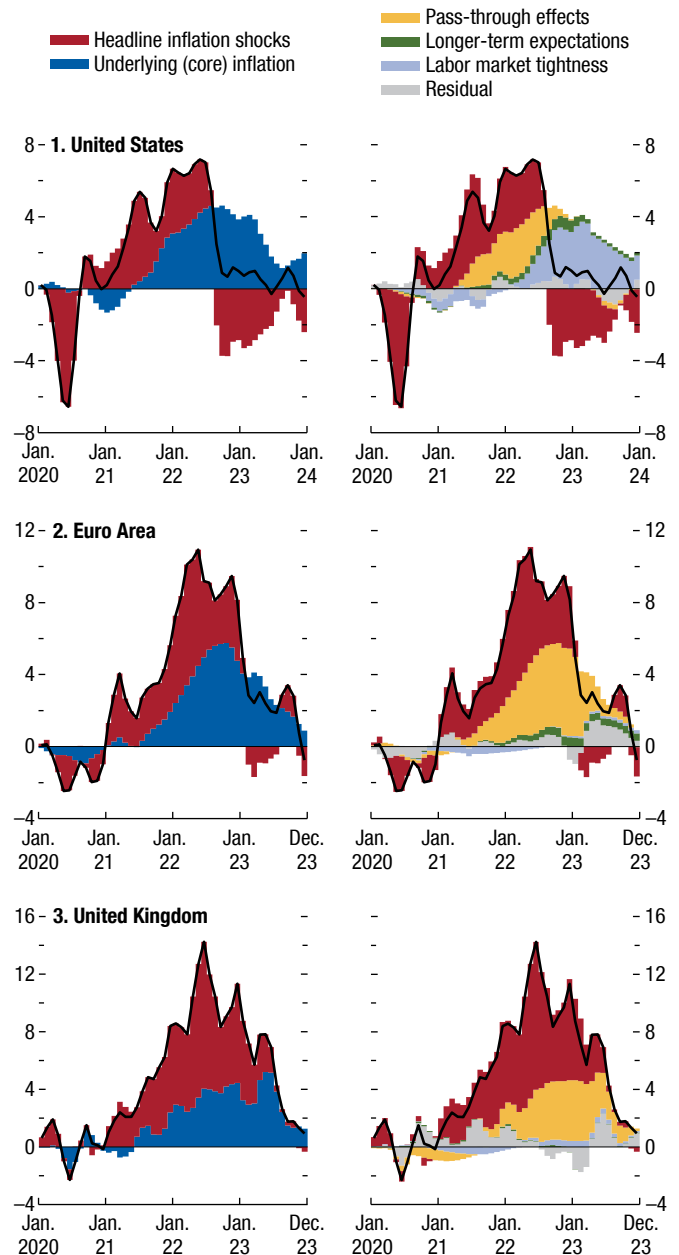


Sources: Haver Analytics; International Labour Organization; Organisation for Economic Co-operation and Development; US Bureau of Economic Analysis; US Bureau of Labor Statistics; and IMF staff calculations.  
 Note: In panel 1, India's unemployment in urban areas is from Periodic Labor Force Survey data. In panel 2, Europe includes Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Romania, the Slovak Republic, Slovenia, Spain, and Sweden. In panel 3, the "real wage" is the nominal wage divided by the consumer price index and is defined on a per worker basis. Data labels in the figure use International Organization for Standardization (ISO) country codes except for EA (euro area). AEs = advanced economies.

conditions, which partly reflect the effects of earlier fiscal stimulus as well as strong private consumption, are the main source of remaining upward pressure on underlying inflation. In the United Kingdom, labor market tightness predating the pandemic may partly explain why inflation has been higher than in the US

**Figure 1.8. Decomposition of Inflation Drivers**

(Percentage point deviation from December 2019; three-month average inflation, annualized)



Source: IMF staff calculations.  
 Note: Underlying (core) inflation denotes weighted median inflation. Methodology is as in Dao and others (2023) and Ball, Leigh, and Mishra (2022).

or euro area following the onset of the pandemic (see Haskel, Martin, and Brandt 2023). Accordingly, IMF staff estimates of the gap between actual and potential output levels in 2023 are positive for the United States, at 0.7 percent, and negative for the euro area and for the United Kingdom, at -0.3 percent.

### Interest Rates Restrictive, but Set to Fall

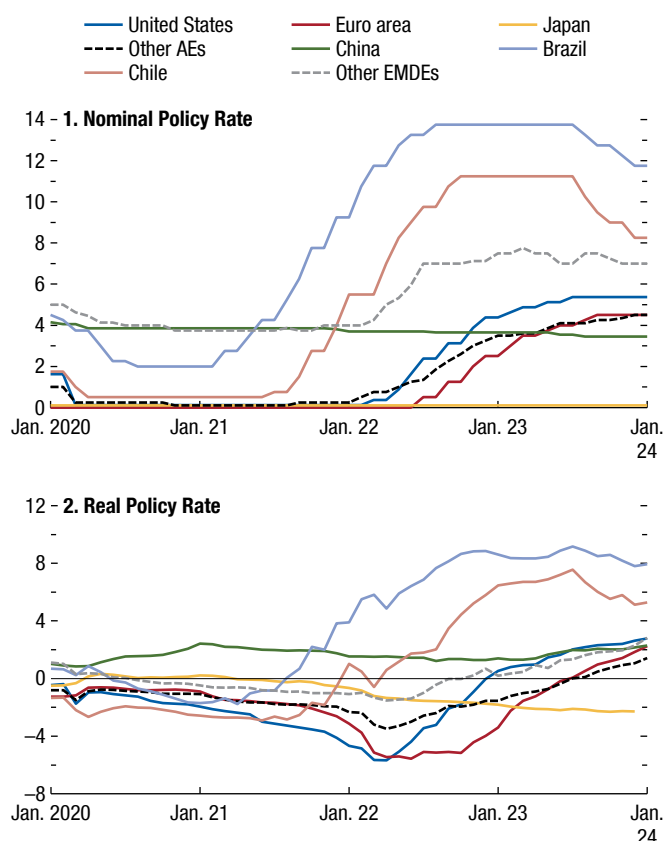
To counter rising inflation, major central banks have raised policy interest rates to levels estimated as restrictive. As a result, mortgage costs have increased and credit availability is generally tight, resulting in difficulties for firms refinancing their debt, rising corporate bankruptcies, and subdued business and residential investment in several economies. The commercial real estate sector, including office markets, is under especially strong pressure in some economies, with rising defaults and lower investment and valuations, reflecting the combined effects of higher borrowing costs and the shift toward remote work since the pandemic (see the April 2024 *Global Financial Stability Report*).

However, despite concerns, a global economic downturn caused by a sharp rise in policy rates has not materialized, for several reasons. First, some central banks—including the European Central Bank and the Federal Reserve—raised their nominal interest rates after inflation expectations started to rise, resulting in lower real rates that initially supported economic activity (Figure 1.9). The Bank of Japan has continued to keep policy rates near zero, resulting in a steady decline in real interest rates. By contrast, the central banks of Brazil, Chile, and several other emerging market and developing economies raised rates relatively quickly, resulting in earlier increases in real interest rates. Second, households in major advanced economies were able to draw on substantial savings accumulated during the pandemic to limit the impact of higher borrowing costs on their spending (Figure 1.10).<sup>2</sup> Third, as Chapter 2 explains, changes in mortgage and housing markets over the prepandemic decade of low interest rates have limited the drag of the recent rise in policy rates on household consumption in several economies. The average maturity and share of mortgages subject to fixed rates increased, moderating the near-term impact of rate hikes. At the same time, there is substantial heterogeneity in the degree of the monetary policy pass-through to mortgages and housing markets across countries.

Nevertheless, the cooling effects of high policy rates are intensifying in several economies. Fixed-rate mortgages are resetting, the stock of pandemic savings

<sup>2</sup>Estimates of the stock of excess household savings—the accumulation of savings beyond the prepandemic trend—come with a range of uncertainty but generally show a consistent pattern across methodological approaches, with the stock declining in major advanced economies since 2022. Estimates based on a linear trend show a less pronounced drop in excess household savings for some economies.

**Figure 1.9. Monetary Tightening: Nominal and Real (Percent)**

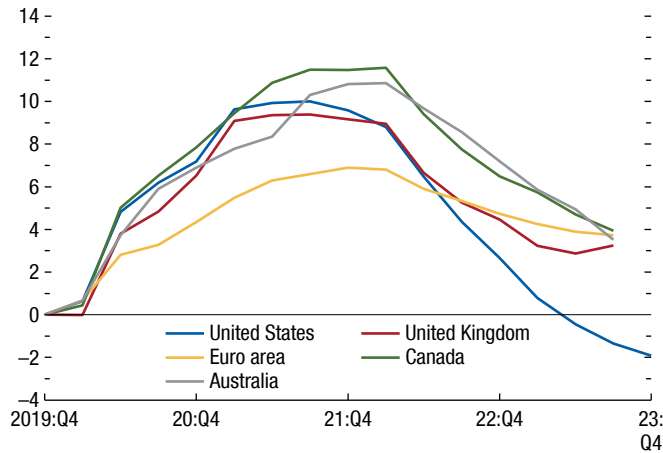


Sources: Bank for International Settlements; Consensus Economics; Haver Analytics; and IMF staff calculations. Note: Sample includes 16 AEs and 65 EMDEs. “Other” aggregates are medians. Real rates are calculated by subtracting 12-month-ahead inflation expectations, computed based on Consensus Forecast surveys of professional forecasters, from nominal policy rates. The 12-month-ahead inflation expectations are constructed as the weighted sum of forecasts for the current and next calendar years (see Buono and Formai 2018). AEs = advanced economies; EMDEs = emerging market and developing economies.

available to soften the impact on households has declined in advanced economies, and with inflation expectations falling, real policy rates are rising even where central banks have not changed nominal rates.

At the same time, with inflation moving toward targets, market expectations that policy rates will decline have generally contributed to a decline in long-term borrowing rates, rising equity markets, and an easing in overall global financial conditions since last October, although funding is still more expensive than before the pandemic (see the April 2024 *Global Financial Stability Report*). Central banks that raised policy rates earlier, including those in Brazil and Chile, have already cut them substantially since

**Figure 1.10. Savings from the Pandemic: Declining**  
(Percent of GDP)



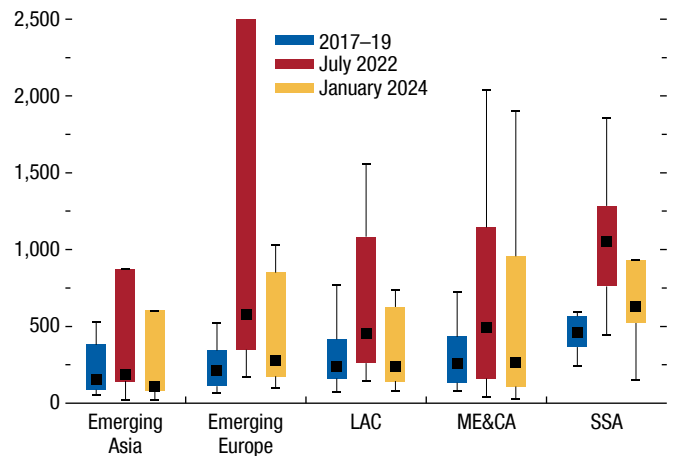
Sources: de Soyres, Moore, and Ortiz 2023; and IMF staff calculations.  
Note: Excess savings are calculated as the deviation from the predicted saving rate using a Hamilton trend. Accumulation starts in the first quarter of 2020. Euro area comprises France, Germany, Italy, and Spain.

the second half of 2023. With expectations of lower interest rates in advanced economies, the appetite for assets in emerging market and developing economies has picked up, and sovereign spreads on risk-free government debt have fallen from their July 2022 peaks toward their prepandemic levels (Figure 1.11). Accordingly, more governments that earlier faced severe funding shortages are accessing international debt markets this year.

### Elevated Debt Burdens

Debt-to-GDP ratios, which increased sharply during the pandemic, remain elevated, and large budget deficits continue to raise the debt burden in many economies (see the April 2024 *Fiscal Monitor*). Interest payments on debt have also increased as a share of government revenues (Figure 1.12), crowding out necessary growth-enhancing budgetary investments. In low-income countries, interest payments are estimated to average 14.3 percent of general government revenues in 2024, about double the level 15 years ago. To rebuild budgetary room for maneuver and curb the rising path of debt, the fiscal policy stance is expected to tighten in 2024 and beyond, with higher taxes and lower government spending in several advanced and emerging market and developing economies. This shift is expected to weigh on near-term economic activity.

**Figure 1.11. Sovereign Bond Spreads in Emerging Market and Developing Economies**  
(Basis points; distribution by economy group)



Sources: Bloomberg Finance L.P.; and IMF staff calculations.  
Note: For each region, the box denotes upper and lower quartiles and black marker shows median. Whiskers show maximum and minimum values within the boundary of 1.5 times the interquartile range from the upper and lower quartiles. Y-axis is cut off at 2,500 basis points. LAC = Latin America and the Caribbean; ME&CA = Middle East and Central Asia; SSA = sub-Saharan Africa.

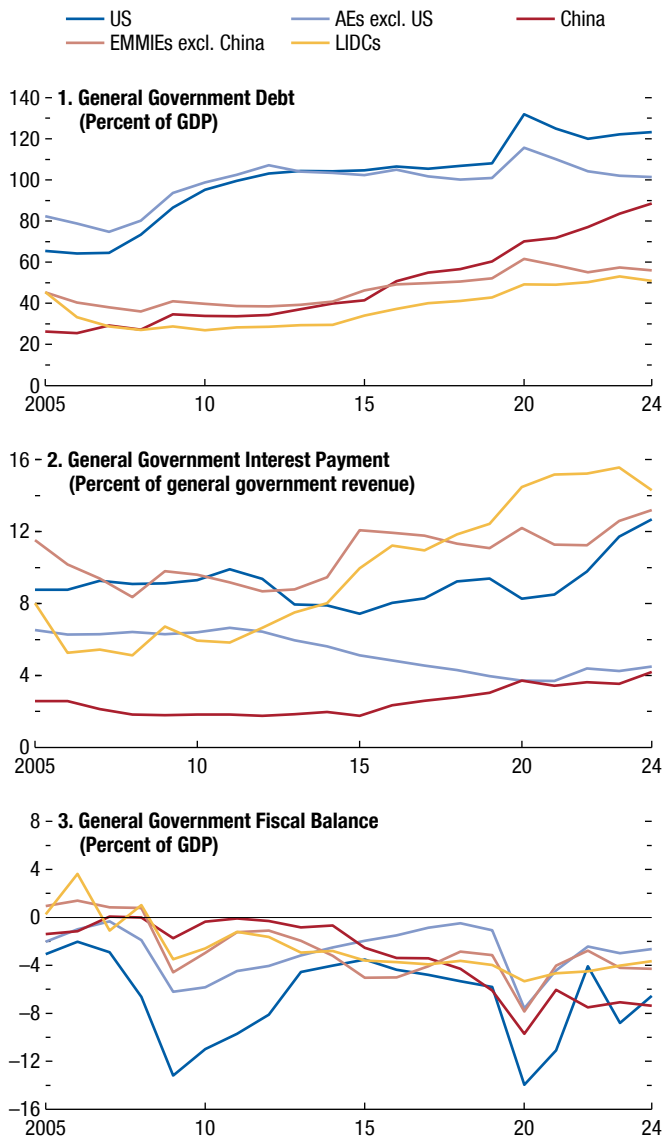
### The Outlook: Steady Growth and Disinflation

Latest projections are for the global economy to continue growing at a similar pace as in 2023 during 2024–25 and for global headline and core inflation to decline steadily. There is little change in the forecast for global growth since the January 2024 WEO *Update*, with some adjustments for major economies (Tables 1.1 and 1.2), including a further strengthening in the projection for the United States, offset by modest downward revisions across several other economies. The forecast for global growth remains higher, however, than in the October 2023 WEO. The outlook for inflation is broadly similar to that in the October 2023 WEO, with a downward revision for advanced economies, offset by an upward revision for emerging market and developing economies. Medium-term prospects for growth in world output and trade remain the lowest in decades, with the pace of convergence toward higher living standards slowing for middle- and lower-income countries.

The baseline forecasts for the global economy are predicated on a number of projections for global commodity prices, interest rates, and fiscal policies (Figure 1.13):

- **Commodity price projections:** As explained in the Commodity Special Feature in this chapter, prices of fuel commodities are projected to fall in 2024

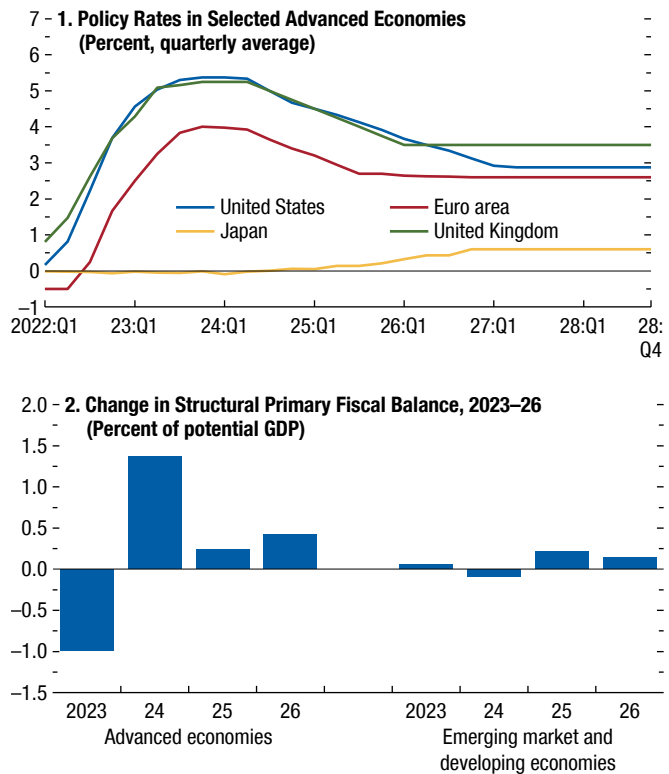
Figure 1.12. Elevated Debt and Deficits



Source: IMF staff calculations.  
 Note: AEs = advanced economies; EMMIEs = emerging market and middle-income economies; excl. = excluding; LIDCs = low-income developing countries.

by, on average, 9.7 percent, with oil prices falling by about 2.5 percent. The decreases reflect abundant spare capacity and strong non-OPEC+ (Organization of the Petroleum Exporting Countries plus selected nonmember countries, including Russia) supply growth. Coal and natural gas prices are expected to continue declining from their earlier peaks, by 25.1 percent for coal and 32.6 percent for natural gas in 2024, with the gas market becoming increasingly balanced on account of

Figure 1.13. Monetary and Fiscal Policy Projections



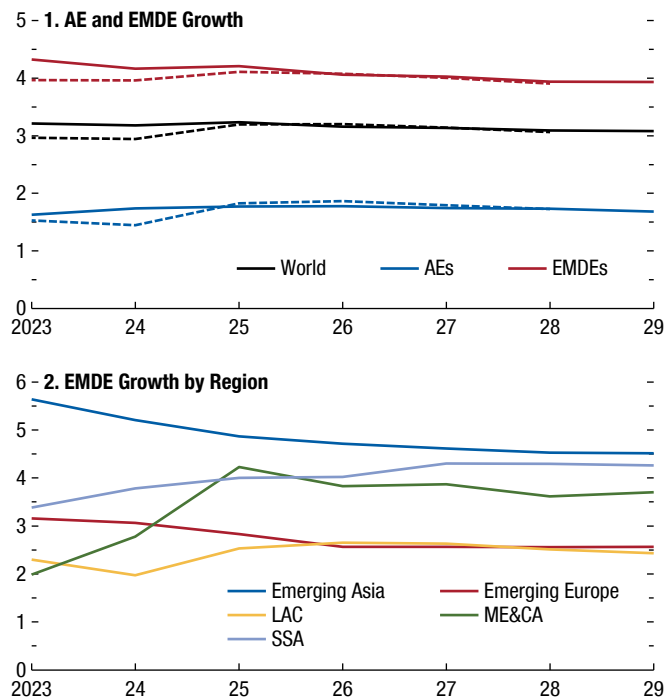
Source: IMF staff calculations.  
 Note: In panel 2, the structural primary fiscal balance is the cyclically adjusted primary balance corrected for a broader range of noncyclical factors, such as changes in asset and commodity prices.

new supply, dampened demand, and high storage levels. The forecast for nonfuel commodity prices is broadly stable in 2024, with prices for base metals expected to fall by 1.8 percent, on account of weaker industrial activity in Europe and China. Food commodity prices are predicted to decline by 2.2 percent in 2024. Compared with those in the January 2024 WEO *Update*, forecasts for food prices have been revised slightly downward, driven by expectations of abundant global supplies for wheat and maize.

- **Monetary policy projections:** With inflation projected to continue declining toward targets and longer-term inflation expectations remaining anchored, policy rates of central banks in major advanced economies are generally expected to start declining in the second half of 2024 (Figure 1.13). Among major central banks, by the fourth quarter of 2024, the Federal Reserve’s policy rate is expected to have declined from its current level of about



**Figure 1.14. Growth Outlook: Broadly Stable**  
(Percent; solid = April 2024 WEO, dashes = October 2023 WEO)



Source: IMF staff calculations.

Note: AE = advanced economy; EMDE = emerging market and developing economy; LAC = Latin America and the Caribbean; ME&CA = Middle East and Central Asia; SSA = sub-Saharan Africa; WEO = *World Economic Outlook*.

5.4 percent to 4.6 percent, the Bank of England to have reduced its policy rate from about 5.3 percent to 4.8 percent, and the European Central Bank to have reduced its short-term rate from about 4.0 percent to 3.3 percent. For Japan, policy rates are projected to rise gradually, reflecting growing confidence that inflation will sustainably converge to target over the medium term despite Japan's history of deflation.

- **Fiscal policy projections:** Governments in advanced economies are expected to tighten fiscal policy in 2024 (Figure 1.13) and, to a lesser extent, in 2025–26. Among major advanced economies, the structural fiscal-balance-to-GDP ratio is expected to rise by 1.9 percentage points in the United States and by 0.8 percentage point in the euro area in 2024. In emerging market and developing economies, the projected fiscal stance is expected to be, on average, broadly neutral in 2024, with a tightening of about 0.2 percentage point projected for 2025.

### Growth Outlook: Stable but Slow

*Global growth*, estimated at 3.2 percent in 2023, is projected to continue at the same pace in 2024 and 2025 (Table 1.1). The projection for 2024 is revised up by 0.1 percentage point from the January 2024 WEO *Update*, and by 0.3 percentage point with respect to the October 2023 WEO forecast (Figure 1.14). Nevertheless, the projection for global growth in 2024 and 2025 is below the historical (2000–19) annual average of 3.8 percent, reflecting restrictive monetary policies and withdrawal of fiscal support, as well as low underlying productivity growth. Advanced economies are expected to see growth rise slightly, with the increase mainly reflecting a recovery in the euro area from low growth in 2023, whereas emerging market and developing economies are expected to experience stable growth through 2024 and 2025, with regional differences.

### Growth Forecast for Advanced Economies

For *advanced economies*, growth is projected to rise from 1.6 percent in 2023 to 1.7 percent in 2024 and 1.8 percent in 2025. The forecast is revised upward by 0.2 percentage point for 2024 compared with the January 2024 WEO *Update* projections and remains the same for 2025. The 2024 upgrade reflects a revision to US growth, while an upward revision to the US broadly offsets a similar downward revision to the euro area in 2025.

- In the *United States*, growth is projected to increase to 2.7 percent in 2024, before slowing to 1.9 percent in 2025, as gradual fiscal tightening and a softening in labor markets slow aggregate demand. For 2024, an upward revision of 0.6 percentage point since the January 2024 WEO *Update* reflects largely statistical carryover effects from a stronger-than-expected growth outcome in the fourth quarter of 2023, with, in addition, some of the stronger momentum expected to persist into 2024.
- Growth in the *euro area* is projected to recover from its low rate of an estimated 0.4 percent in 2023, which reflected relatively high exposure to the war in Ukraine, to 0.8 percent in 2024 and 1.5 percent in 2025. Stronger household consumption, as the effects of the shock to energy prices subside and a fall in inflation supports growth in real income, is expected to drive the recovery. The pace of recovery

**Table 1.1. Overview of the *World Economic Outlook* Projections**  
(Percent change, unless noted otherwise)

	2023	Projections		Difference from January 2024 WEO <i>Update</i> <sup>1</sup>		Difference from October 2023 WEO <sup>1</sup>	
		2024	2025	2024	2025	2024	2025
<b>World Output</b>	<b>3.2</b>	<b>3.2</b>	<b>3.2</b>	<b>0.1</b>	<b>0.0</b>	<b>0.3</b>	<b>0.0</b>
<b>Advanced Economies</b>	<b>1.6</b>	<b>1.7</b>	<b>1.8</b>	<b>0.2</b>	<b>0.0</b>	<b>0.3</b>	<b>0.0</b>
United States	2.5	2.7	1.9	0.6	0.2	1.2	0.1
Euro Area	0.4	0.8	1.5	-0.1	-0.2	-0.4	-0.3
Germany	-0.3	0.2	1.3	-0.3	-0.3	-0.7	-0.7
France	0.9	0.7	1.4	-0.3	-0.3	-0.6	-0.4
Italy	0.9	0.7	0.7	0.0	-0.4	0.0	-0.3
Spain	2.5	1.9	2.1	0.4	0.0	0.2	0.0
Japan	1.9	0.9	1.0	0.0	0.2	-0.1	0.4
United Kingdom	0.1	0.5	1.5	-0.1	-0.1	-0.1	-0.5
Canada	1.1	1.2	2.3	-0.2	0.0	-0.4	-0.1
Other Advanced Economies <sup>2</sup>	1.8	2.0	2.4	-0.1	-0.1	-0.2	0.1
<b>Emerging Market and Developing Economies</b>	<b>4.3</b>	<b>4.2</b>	<b>4.2</b>	<b>0.1</b>	<b>0.0</b>	<b>0.2</b>	<b>0.1</b>
Emerging and Developing Asia	5.6	5.2	4.9	0.0	0.1	0.4	0.0
China	5.2	4.6	4.1	0.0	0.0	0.4	0.0
India <sup>3</sup>	7.8	6.8	6.5	0.3	0.0	0.5	0.2
Emerging and Developing Europe	3.2	3.1	2.8	0.3	0.3	0.9	0.3
Russia	3.6	3.2	1.8	0.6	0.7	2.1	0.8
Latin America and the Caribbean	2.3	2.0	2.5	0.1	0.0	-0.3	0.1
Brazil	2.9	2.2	2.1	0.5	0.2	0.7	0.2
Mexico	3.2	2.4	1.4	-0.3	-0.1	0.3	-0.1
Middle East and Central Asia	2.0	2.8	4.2	-0.1	0.0	-0.6	0.3
Saudi Arabia	-0.8	2.6	6.0	-0.1	0.5	-1.4	1.8
Sub-Saharan Africa	3.4	3.8	4.0	0.0	-0.1	-0.2	-0.1
Nigeria	2.9	3.3	3.0	0.3	-0.1	0.2	-0.1
South Africa	0.6	0.9	1.2	-0.1	-0.1	-0.9	-0.4
<i>Memorandum</i>							
World Growth Based on Market Exchange Rates	2.7	2.7	2.7	0.1	0.0	0.3	0.0
European Union	0.6	1.1	1.8	-0.1	-0.1	-0.4	-0.3
ASEAN-5 <sup>4</sup>	4.1	4.5	4.6	-0.2	0.2	0.0	0.1
Middle East and North Africa	1.9	2.7	4.2	-0.2	0.0	-0.7	0.3
Emerging Market and Middle-Income Economies <sup>5</sup>	4.4	4.1	4.1	0.0	0.0	0.2	0.1
Low-Income Developing Countries <sup>5</sup>	4.0	4.7	5.2	-0.2	-0.1	-0.3	-0.1
<b>World Trade Volume (goods and services)</b>	<b>0.3</b>	<b>3.0</b>	<b>3.3</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.5</b>	<b>-0.4</b>
Imports							
Advanced Economies	-1.0	2.0	2.8	-0.7	-0.4	-1.0	-0.4
Emerging Market and Developing Economies	2.0	4.9	4.1	0.0	-0.3	0.5	-0.6
Exports							
Advanced Economies	0.9	2.5	2.9	-0.1	-0.3	-0.6	-0.4
Emerging Market and Developing Economies	-0.1	3.7	3.9	-0.4	-0.4	-0.5	-0.3
<b>Commodity Prices (US dollars)</b>							
Oil <sup>6</sup>	-16.4	-2.5	-6.3	-0.2	-1.5	-1.8	-1.4
Nonfuel (average based on world commodity import weights)	-5.7	0.1	-0.4	1.0	0.0	2.8	-0.3
<b>World Consumer Prices<sup>7</sup></b>	<b>6.8</b>	<b>5.9</b>	<b>4.5</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>-0.1</b>
Advanced Economies <sup>8</sup>	4.6	2.6	2.0	0.0	0.0	-0.4	-0.2
Emerging Market and Developing Economies <sup>7</sup>	8.3	8.3	6.2	0.2	0.2	0.5	0.0

Source: IMF staff estimates.

Note: Real effective exchange rates are assumed to remain constant at the levels prevailing during January 30, 2024—February 27, 2024. Economies are listed on the basis of economic size. The aggregated quarterly data are seasonally adjusted. WEO = *World Economic Outlook*.<sup>1</sup> Difference based on rounded figures for the current, January 2024 WEO *Update*, and October 2023 WEO forecasts.<sup>2</sup> Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.<sup>3</sup> For India, data and forecasts are presented on a fiscal year basis, and GDP from 2011 onward is based on GDP at market prices with fiscal year 2011/12 as a base year.<sup>4</sup> Indonesia, Malaysia, the Philippines, Singapore, and Thailand.<sup>5</sup> Vietnam is removed from the Low-Income Developing Countries group and added to the Emerging Market and Middle-Income Economies group. The reported differences from January 2024 and October 2023 are for Low-Income Developing Countries excluding Vietnam and Emerging Market and Middle-Income Economies including Vietnam.

**Table 1.1. Overview of the *World Economic Outlook Projections (continued)***  
(Percent change, unless noted otherwise)

	Q4 over Q4 <sup>9</sup>						
	2023	Projections		Difference from January 2024 WEO Update <sup>1</sup>		Difference from October 2023 WEO <sup>1</sup>	
		2024	2025	2024	2025	2024	2025
<b>World Output</b>	<b>3.2</b>	<b>3.2</b>	<b>3.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	...
<b>Advanced Economies</b>	<b>1.6</b>	<b>1.9</b>	<b>1.7</b>	<b>0.3</b>	<b>0.0</b>	<b>0.4</b>	...
United States	3.1	2.1	1.8	0.6	-0.1	0.7	...
Euro Area	0.1	1.4	1.4	-0.1	-0.2	0.0	...
Germany	-0.2	0.7	1.8	-0.4	-0.1	-1.0	...
France	0.7	1.1	1.5	-0.3	-0.3	-0.4	...
Italy	0.6	0.7	0.6	-0.6	-0.4	-0.5	...
Spain	2.0	1.9	2.1	0.1	0.0	-0.1	...
Japan	1.3	1.7	0.5	0.1	0.0	0.7	...
United Kingdom	-0.2	1.5	1.3	0.9	-0.5	0.7	...
Canada	0.9	1.8	2.3	-0.1	0.1	-0.3	...
Other Advanced Economies <sup>2</sup>	1.7	2.2	2.5	-0.4	0.5	0.0	...
<b>Emerging Market and Developing Economies</b>	<b>4.5</b>	<b>4.3</b>	<b>4.1</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.4</b>	...
Emerging and Developing Asia	5.7	5.1	4.6	-0.4	-0.1	-0.4	...
China	5.4	4.4	4.1	0.0	0.1	-0.3	...
India <sup>3</sup>	6.8	6.4	6.4	-1.4	-0.3	-1.3	...
Emerging and Developing Europe	4.1	3.2	2.8	1.2	-0.1	0.7	...
Russia	4.8	2.6	1.2	1.2	0.2	1.4	...
Latin America and the Caribbean	1.5	2.1	2.6	0.4	0.0	-1.1	...
Brazil	2.2	3.0	1.5	0.4	0.1	0.2	...
Mexico	2.5	1.9	1.8	0.0	0.4	0.0	...
Middle East and Central Asia	...	...	...	...	...	...	...
Saudi Arabia	-4.3	3.1	5.9	0.3	0.5	-0.9	...
Sub-Saharan Africa	...	...	...	...	...	...	...
Nigeria	2.9	3.5	2.5	0.2	-0.4	-0.1	...
South Africa	0.9	1.3	1.2	0.1	-0.1	-0.7	...
<i>Memorandum</i>							
World Growth Based on Market Exchange Rates	2.7	2.7	2.6	0.2	0.0	0.1	...
European Union	0.4	1.7	1.7	0.3	-0.6	0.1	...
ASEAN-5 <sup>4</sup>	4.2	5.2	3.1	0.0	-0.4	0.6	...
Middle East and North Africa	...	...	...	...	...	...	...
Emerging Market and Middle-Income Economies <sup>5</sup>	4.5	4.3	4.1	0.0	-0.1	-0.4	...
Low-Income Developing Countries <sup>5</sup>	...	...	...	...	...	...	...
<b>Commodity Prices (US dollars)</b>							
Oil <sup>6</sup>	-4.4	-6.0	-5.5	0.1	-0.6	-0.3	...
Nonfuel (average based on world commodity import weights)	-0.2	0.8	0.4	-0.7	0.2	0.1	...
<b>World Consumer Prices<sup>7</sup></b>	<b>5.8</b>	<b>5.4</b>	<b>3.6</b>	<b>0.1</b>	<b>-0.2</b>	<b>0.6</b>	...
Advanced Economies <sup>8</sup>	3.1	2.4	2.0	0.1	0.0	-0.2	...
Emerging Market and Developing Economies <sup>7</sup>	8.0	8.0	5.0	0.3	-0.2	1.4	...

<sup>6</sup> Simple average of prices of UK Brent, Dubai Fateh, and West Texas Intermediate crude oil. The average price of oil in US dollars a barrel was \$80.59 in 2023; the assumed price, based on futures markets, is \$78.61 in 2024 and \$73.68 in 2025.

<sup>7</sup> Excludes Venezuela. See the country-specific note for Venezuela in the "Country Notes" section of the Statistical Appendix.

<sup>8</sup> The assumed inflation rates for 2024 and 2025, respectively, are as follows: 2.4 percent and 2.1 percent for the euro area, 2.2 percent and 2.1 percent for Japan, and 2.9 percent and 2.0 percent for the United States.

<sup>9</sup> For world output, the quarterly estimates and projections account for approximately 90 percent of annual world output at purchasing-power-parity weights. For emerging market and developing economies, the quarterly estimates and projections account for approximately 85 percent of annual emerging market and developing economies' output at purchasing-power-parity weights.

is revised downward by 0.3 percentage point for Germany for both 2024 and 2025 amid persistently weak consumer sentiment, although this adjustment is largely offset by upgrades for several smaller economies, including Belgium and Portugal.

- Among other advanced economies, growth in the *United Kingdom* is projected to rise from an estimated 0.1 percent in 2023 to 0.5 percent in 2024,

as the lagged negative effects of high energy prices wane, then to 1.5 percent in 2025, as disinflation allows financial conditions to ease and real incomes to recover. In *Japan*, output is projected to slow from an estimated 1.9 percent in 2023 to 0.9 percent in 2024 and 1 percent in 2025, owing to fading of one-off factors that supported growth in 2023, including a surge in inbound tourism.

**Table 1.2. Overview of the *World Economic Outlook* Projections at Market Exchange Rate Weights**  
(Percent change)

	2023	Projections		Difference from January 2024 WEO <i>Update</i> <sup>1</sup>		Difference from October 2023 WEO <sup>1</sup>	
		2024	2025	2024	2025	2024	2025
<b>World Output</b>	<b>2.7</b>	<b>2.7</b>	<b>2.7</b>	<b>0.1</b>	<b>0.0</b>	<b>0.3</b>	<b>0.0</b>
<b>Advanced Economies</b>	<b>1.6</b>	<b>1.8</b>	<b>1.8</b>	<b>0.3</b>	<b>0.1</b>	<b>0.4</b>	<b>0.0</b>
<b>Emerging Market and Developing Economies</b>	<b>4.2</b>	<b>4.0</b>	<b>4.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>	<b>0.1</b>
Emerging and Developing Asia	5.4	5.0	4.6	0.1	0.0	0.4	0.0
Emerging and Developing Europe	2.9	3.1	2.8	0.3	0.3	1.0	0.3
Latin America and the Caribbean	2.2	1.9	2.5	0.1	0.1	-0.3	0.2
Middle East and Central Asia	1.6	2.6	4.3	-0.2	0.1	-0.8	0.4
Sub-Saharan Africa	3.2	3.6	4.0	-0.1	-0.1	-0.3	-0.1
<i>Memorandum</i>							
European Union	0.5	0.9	1.7	-0.1	-0.1	-0.4	-0.3
Middle East and North Africa	1.4	2.5	4.3	-0.3	0.1	-0.9	0.4
Emerging Market and Middle-Income Economies <sup>2</sup>	4.2	4.0	3.9	0.1	0.0	0.2	0.1
Low-Income Developing Countries <sup>2</sup>	4.0	4.7	5.2	-0.2	-0.1	-0.3	-0.1

Source: IMF staff estimates.

Note: The aggregate growth rates are calculated as a weighted average, in which a moving average of nominal GDP in US dollars for the preceding three years is used as the weight. WEO = *World Economic Outlook*.<sup>1</sup> Difference based on rounded figures for the current, January 2024 WEO *Update*, and October 2023 WEO forecasts.<sup>2</sup> Vietnam is removed from the Low-Income Developing Countries group and added to the Emerging Market and Middle-Income Economies group.

The reported differences from January 2024 and October 2023 are for Low-Income Developing Countries excluding Vietnam and Emerging Market and Middle-Income Economies including Vietnam.

### Growth Forecast for Emerging Market and Developing Economies

In *emerging market and developing economies*, growth is expected to be stable at 4.2 percent in 2024 and 2025, with a moderation in emerging and developing Asia offset mainly by rising growth for economies in the Middle East and Central Asia and for sub-Saharan Africa. *Low-income developing countries* are expected to experience gradually increasing growth, from 4.0 percent in 2023 to 4.7 percent in 2024 and 5.2 percent in 2025, as some constraints on near-term growth ease.

- Growth in *emerging and developing Asia* is expected to fall from an estimated 5.6 percent in 2023 to 5.2 percent in 2024 and 4.9 percent in 2025, a slight upward revision compared with the January 2024 WEO *Update*. Growth in *China* is projected to slow from 5.2 percent in 2023 to 4.6 percent in 2024 and 4.1 percent in 2025 as the positive effects of one-off factors—including the postpandemic boost to consumption and fiscal stimulus—ease and weakness in the property sector persists. Growth in *India* is projected to remain strong at 6.8 percent in 2024 and 6.5 percent in 2025, with the robustness reflecting continuing strength in domestic demand and a rising working-age population.
- Growth in *emerging and developing Europe* is projected at 3.2 percent in 2023 and 3.1 percent

in 2024, with an easing to 2.8 percent in 2025, an upward revision of 0.5 percentage point for 2023 and 0.3 percentage point for 2024 and 2025 since January. The moderation reflects a prospective decline of growth in *Russia* from 3.2 percent in 2024 to 1.8 percent in 2025 as the effects of high investment and robust private consumption, supported by wage growth in a tight labor market, fade. In *Türkiye*, growth is projected at 3.1 percent in 2024 and 3.2 percent in 2025, with economic activity strengthening in the second half of 2024 as monetary tightening ends and consumption starts to recover.

- In *Latin America and the Caribbean*, growth is projected to decline from an estimated 2.3 percent in 2023 to 2.0 percent in 2024 before rising again to 2.5 percent in 2025, an upward revision of 0.1 percentage point for 2024 since January. In *Brazil*, growth is expected to moderate to 2.2 percent in 2024 on the back of fiscal consolidation, lagged effects of still-tight monetary policy, and a smaller contribution from agriculture. In *Mexico*, growth is projected at 2.4 percent in 2024, supported by a fiscal expansion, before declining to 1.4 percent in 2025 as the government is expected to tighten the fiscal stance. The forecast for Mexico is revised downward on account of weaker-than-expected outcomes for end-2023 and early 2024, with a contraction in manufacturing.

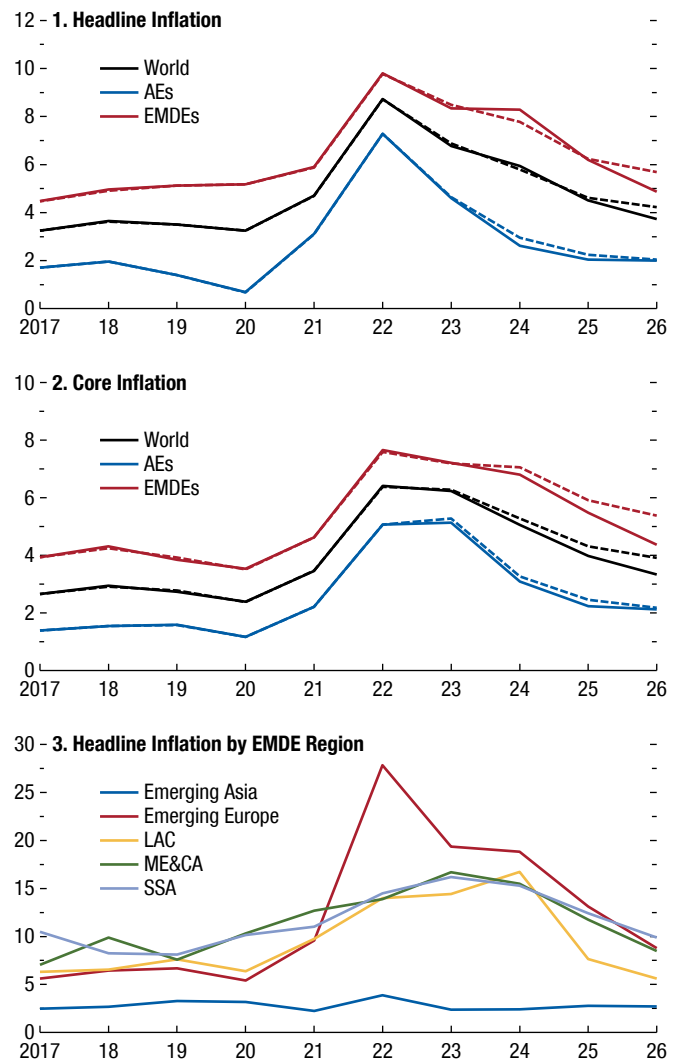
- Growth in the *Middle East and Central Asia* is projected to rise from an estimated 2.0 percent in 2023 to 2.8 percent in 2024 and 4.2 percent in 2025, with a downward revision of 0.1 percentage point for 2024 from the January 2024 projections. The revision reflects a downward adjustment in the 2024 growth forecast for *Iran* driven by lower non-oil activity and oil revenues, as well as for a number of smaller economies.
- In *sub-Saharan Africa*, growth is projected to rise from an estimated 3.4 percent in 2023 to 3.8 percent in 2024 and 4.0 percent in 2025, as the negative effects of earlier weather shocks subside and supply issues gradually improve. The forecast is unchanged for 2024 from the January 2024 WEO *Update*, as a downward revision to *Angola* owing to a contraction in the oil sector is broadly offset by an upward revision to *Nigeria*.

### Inflation Outlook: Declining at Different Speeds

Global headline inflation is expected to fall from an annual average of 6.8 percent in 2023 to 5.9 percent in 2024 and 4.5 percent in 2025 (Table 1.1). A more front-loaded decline is expected for advanced economies, with inflation falling by 2.0 percentage points in 2024, while it declines in 2025 only in emerging market and developing economies. Advanced economies are also expected to return sooner to rates near their prepandemic (2017–19) average, with inflation averaging 2.0 percent in 2025, about a year before emerging market and developing economies are expected to return to their prepandemic average near 5.0 percent (Figure 1.15). At the same time, a great deal of differentiation is expected among emerging market and developing economies, with the inflation forecast ranging—among the five regions—from only 2.4 percent for emerging and developing Asia, reflecting subdued inflation in China as well as in Thailand, to 18.8 percent for emerging and developing Europe, reflecting elevated inflation in Türkiye.

The global inflation forecast is revised upward by 0.1 percentage point in 2024 from the January 2024 projections. This reflects unchanged projections for advanced economies—with decreases in the euro area, Japan, and the United Kingdom compensated by an increase in the United States—and an upside revision of 0.2 percentage point in emerging market and developing economies, mainly on account of increases in Iran and a few other low-income countries.

**Figure 1.15. Inflation Outlook: Falling**  
(Percent; solid = April 2024 WEO, dashes = October 2023 WEO)

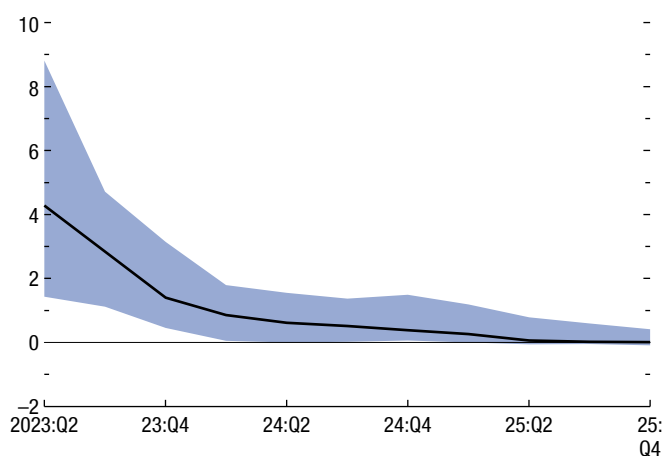


Source: IMF staff calculations.

Note: Core inflation excludes volatile food and energy prices. AEs = advanced economies; EMDEs = emerging market and developing economies; LAC = Latin America and the Caribbean; ME&CA = Middle East and Central Asia; SSA = sub-Saharan Africa; WEO = *World Economic Outlook*.

The fall in global inflation in 2024 reflects a broad-based decline in global core inflation. This dynamic differs from that in 2023, when global core inflation fell a little on an annual average basis and headline inflation declined mainly on account of lower fuel and food price inflation. In 2024, core inflation is expected to fall by 1.2 percentage points after contracting by just 0.2 percentage point in 2023. As is the case for headline inflation, the fall in core inflation is faster for advanced economies. The drivers of declining core inflation differ by country but include

**Figure 1.16. Inflation Closer to Target**  
(Percentage points; distribution of deviation from inflation target)



Sources: Central bank websites; Haver Analytics; and IMF staff calculations.  
Note: The figure shows the distribution of the deviations of year-over-year inflation from the inflation target or the inflation target midpoint for 61 economies. The line shows the median, and the shaded area indicates the interquartile range.

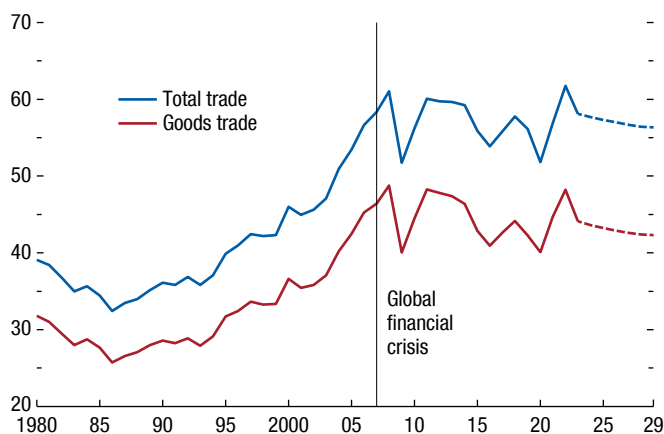
the effects of still-tight monetary policies, a related softening in labor markets, and fading pass-through effects from earlier declines in relative prices, notably in that of energy.

Among economies with an inflation target, headline inflation is projected to be 0.5 percentage point above target (or the midpoint of the target range) for the median economy by the third quarter of 2024 on a quarter-over-quarter basis (Figure 1.16). For advanced economies, however, the median gap between actual and target is expected to be just 0.3 percentage point by the third quarter of 2024, implying a faster return to target levels than in emerging market and developing economies. Most economies are expected to reach levels within a quarter of a percentage point of their targets (or the midpoints of their target ranges) by the second quarter of 2025.

### World Trade Outlook: Stable, in Line with Output

World trade growth is projected at 3.0 percent in 2024 and 3.3 percent in 2025, with revisions of a 0.3 percentage point decrease for 2024 and 2025 compared with January 2024 projections. Trade growth is expected to remain below its historical (2000–19) annual average growth rate of 4.9 percent over the medium term, at 3.2 percent in 2029. This projection implies, in the context of the relatively low outlook for

**Figure 1.17. Global Trade Outlook: Stable**  
(Percent of GDP)



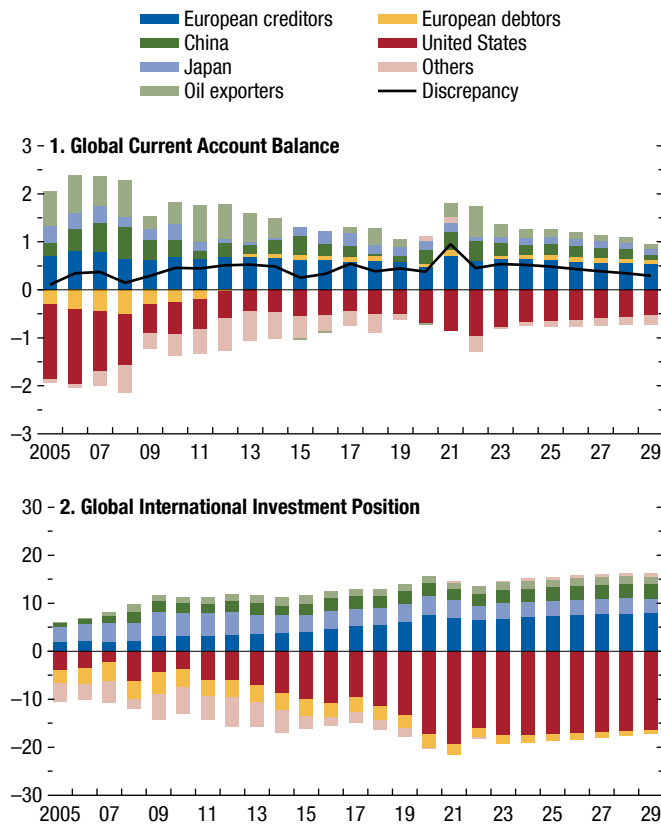
Source: IMF staff calculations.  
Note: Trade is defined as sum of exports and imports. Global trade and GDP for ratio calculation are in current US dollars. Dashes indicate April 2024 *World Economic Outlook* forecasts.

economic growth, a ratio of total world trade to GDP (in current dollars) that averages 57 percent over the next five years, broadly in line with the evolution in trade since the global financial crisis (Figure 1.17).

Even as world trade-to-GDP ratios remain relatively stable, significant shifts in trade patterns are taking place, with increasing fractures along geopolitical lines, especially since the start of the war in Ukraine in February 2022. IMF staff analysis indicates that growth in trade flows between geopolitical blocs has declined significantly since then compared with growth of trade within blocs (Box 1.1). This reallocation of trade flows is occurring in the context of rising cross-border trade restrictions, with about 3,200 new restrictions on trade in 2022 and about 3,000 in 2023, up from about 1,100 in 2019, according to Global Trade Alert data, and increased concerns about supply-chain resilience and national security.

Meanwhile, global current account balances—the sums of absolute surpluses and deficits—are expected to continue narrowing in 2024, as in 2023, following their significant increase in 2022 (Figure 1.18). The rise in current account balances in 2022 reflected contributions from elevated commodity prices, triggered by Russia’s invasion of Ukraine, the uneven recovery from the pandemic, and the rapid tightening of US monetary policy. Over the medium term, global balances are expected to narrow gradually as the contribution of these factors wanes. Creditor and debtor stock positions are estimated to have increased in 2023,

**Figure 1.18. Current Account and International Investment Positions**  
(Percent of global GDP)



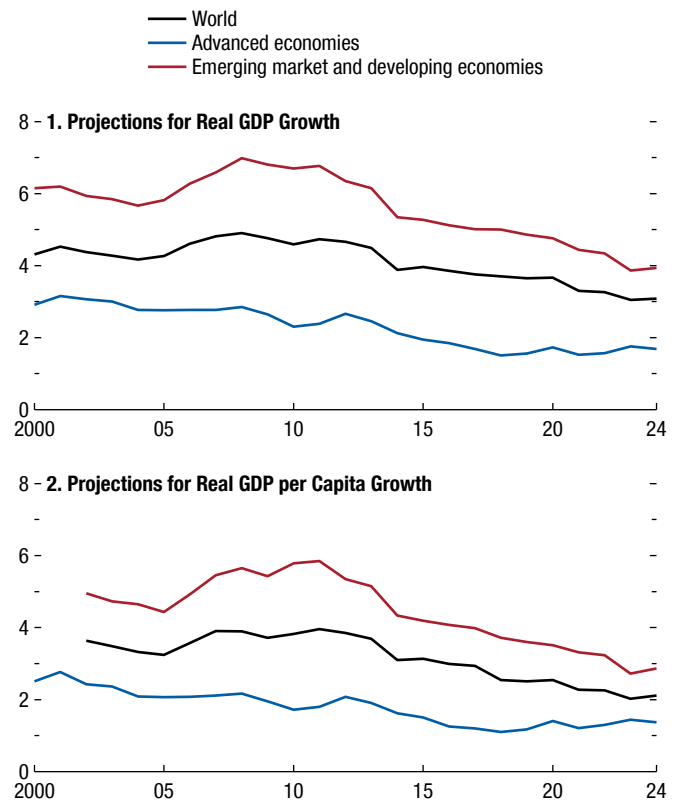
Note: European creditors are Austria, Belgium, Denmark, Finland, Germany, Luxembourg, The Netherlands, Norway, Sweden, and Switzerland; European debtors are Cyprus, Greece, Ireland, Italy, Portugal, Slovenia, and Spain; oil exporters are Algeria, Azerbaijan, Iran, Kazakhstan, Kuwait, Nigeria, Oman, Qatar, Russia, Saudi Arabia, the United Arab Emirates, and Venezuela.

with valuation losses in debtor economies and gains in creditor economies more than offsetting narrowing current account balances. These positions are expected to stabilize over the medium term. In some economies, gross external liabilities remain large from a historical perspective and pose risks of external stress.

**Medium-Term Growth Outlook: Low by Historical Standards**

The latest forecast for global growth in 2029 is 3.1 percent. This medium-term forecast—unchanged since the October 2023 WEO—is at its lowest in decades (Figure 1.19). It is lower than the medium-term projection of 3.6 percent made just

**Figure 1.19. Forecasts for Global GDP and GDP per Capita**  
(Percent; five-year-ahead projections)



Source: IMF staff calculations.  
Note: Horizontal axis refers to the year in which the five-year-ahead forecasts are made. Each forecast is from the *World Economic Outlook* published in April of the corresponding year.

before the onset of the pandemic (at the time of the January 2020 WEO Update), the 4.9 percent medium-term projection made just before the onset of the global financial crisis (at the time of the April 2008 WEO), and the historical (2000–19) annual average 3.8 percent for actual global growth.<sup>3</sup>

The gradual erosion in global growth prospects reflects factors beyond a more slowly rising global population. The bulk of the decline reflects a fall in prospective growth in GDP per person, which is down from a medium-term forecast of 3.9 percent made before the global financial crisis to 2.1 percent in the latest projections (Figure 1.19, panel 2).

<sup>3</sup>The latest projection of global growth over the medium term, which is based on the aggregation of IMF staff forecasts at the country level, is broadly consistent with the assessment in Chapter 3 based on an analysis of recent trends in global capital and labor accumulation and in total factor productivity.

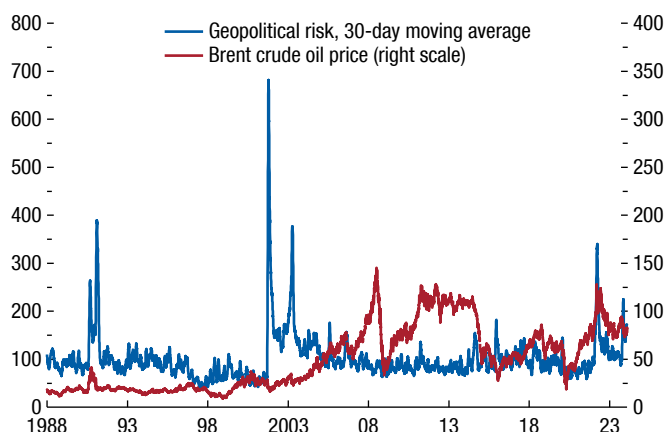
The contraction in per person growth prospects is especially pronounced for emerging market and developing economies, implying a slower pace of convergence toward higher per person income and persistent global disparities in living standards. Among advanced economies, the decline in medium-term prospects is driven by countries other than the United States.

Chapter 3 diagnoses the slowdown in global growth over the past two decades and concludes that most of it reflects lower growth in total factor productivity (efficiency in the use of labor and capital). Among major economies, the drivers of this slowdown include declining labor force participation amid population aging, weaker business investment, and—most important—a drag on growth resulting from persistent structural frictions that prevent resources from being allocated to more productive firms. As Chapter 4 explains, dimmer prospects for growth in China and other large emerging market economies that together make up an increasing share of the global economy will weigh on the prospects of trading partners and transmit through the world's highly integrated supply chains. Ongoing geoeconomic fragmentation—the policy-driven reversal of cross-border economic integration—is expected to affect the medium-term outlook by limiting international flows of goods, services, capital, and workers and so reduce scope for efficiency gains from specialization, economies of scale, and competition (see Aiyar and others 2023 and Gopinath and others 2024).

### Risks to the Outlook: Broadly Balanced

Risks to the global economic landscape have diminished since October 2023, leading to a broadly balanced distribution of possible outcomes around the baseline projection for global growth, from a clear downside tilt in the April 2023 WEO and the October 2023 WEO. With inflationary pressures abating more swiftly than expected in many countries, risks to the inflation outlook are now also broadly balanced. Overall, there is scope for further favorable surprises, but numerous adverse risks pull the distribution of outcomes in the opposite direction. Prominent risks and uncertainties surrounding the outlook are now discussed, and a model-based analysis that quantifies risks to the global outlook and plausible scenarios follows in Box 1.2.

**Figure 1.20. Geopolitical Risk and Oil Prices**  
(Index, 1985–2019 = 100; US dollars a barrel, right scale)



Sources: Caldara and Iacoviello 2022; and Haver Analytics.

Note: The Geopolitical Risk Index is constructed by Caldara and Iacoviello (2022) to measure adverse geopolitical events and associated risks based on automated text search results of the electronic archives of several newspapers covering geopolitical tensions.

### Downside Risks

Despite the surprisingly resilient global economic performance since October 2023, several adverse risks to global growth remain plausible:

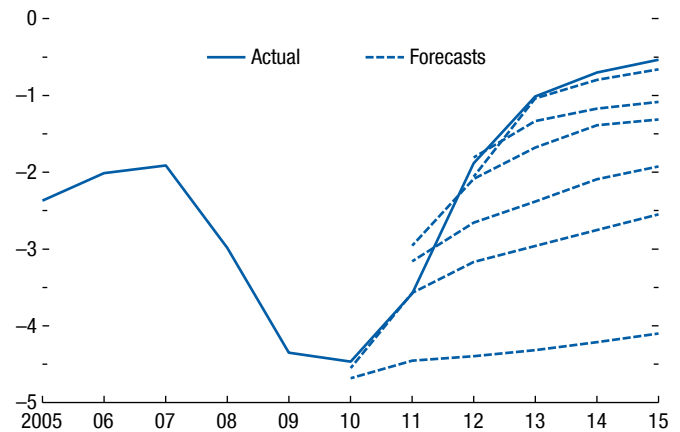
- **New commodity price spikes amid regional conflicts:** The conflict in Gaza and Israel could escalate further into the wider region. Continued attacks in the Red Sea and the ongoing war in Ukraine risk generating additional supply shocks adverse to the global recovery, with spikes in food, energy, and transportation costs. Further geopolitical tensions—including a possible reescalation of the war in Ukraine—could also constrain cross-border flows of food, fuel, and fertilizer, causing additional price volatility and undermining business and consumer sentiment (Figure 1.20). As the risk analysis in Box 1.2 highlights, such geopolitical shocks could complicate the ongoing disinflation process and delay central bank policy easing, with negative effects on global economic growth. Overall, such adverse supply shocks may affect countries asymmetrically, with particularly acute effects on lower-income countries where food and energy constitute a large share of household expenditure.
- **Persistent inflation and financial stress:** A slower-than-expected decline in core inflation in major economies as a result, for example, of persistent labor market tightness or renewed tensions



in supply chains could trigger a rise in interest rate expectations and a fall in asset prices, as in early 2023. Furthermore, as Chapter 2 explains, the risk that the cooling effects of past monetary tightening are yet to come is plausible, especially where fixed-rate mortgages are resetting and household debt is high. Such developments could increase defaults in many sectors—notably including commercial real estate and firms—and raise risks to financial stability (see Chapter 1 of the April 2024 *Global Financial Stability Report*). They could also trigger flight-to-safety capital flows, tighten global financial conditions, and strengthen the US dollar and so reduce global growth.

- **China's recovery faltering:** In the absence of a comprehensive restructuring policy package for the troubled property sector in China, a larger and more prolonged drop in real estate investment could occur, accompanied by expectations of future house prices declining, reduced housing demand, and a further weakening in household confidence and spending, with implications for global growth. Unintended fiscal tightening on account of local government financing constraints could amplify the impact. As Box 1.2 illustrates, in such a scenario, the slowdown in domestic demand could cause disinflationary pressures to intensify, resulting in sustained low inflation or deflation. Spillovers to China's trading partners in such a scenario are estimated to be, on balance, negative, with effects through weaker demand for trading-partner products outweighing gains from lower commodity prices; global current account imbalances may increase as a result. The authorities' policy responses could significantly mitigate the economic costs of such developments if they include accelerating the exit of nonviable property developers, promoting the completion of housing projects, and resolving the debt risks of local governments. Additional monetary policy easing, especially through lower interest rates, as well as expansionary fiscal measures—including funding of unfinished housing and support to vulnerable households—could further support demand and ward off deflationary risks.
- **Disruptive fiscal adjustment and debt distress:** Fiscal consolidation is necessary in many advanced and emerging market and developing economies to curb debt-to-GDP ratios and rebuild capacity for weathering future shocks. But an excessively sharp shift to tax hikes and spending

**Figure 1.21. Sharper-than-Expected Fiscal Adjustment in the Euro Area, 2010–15**  
(Structural balance; percent of potential GDP)



Source: IMF staff calculations.

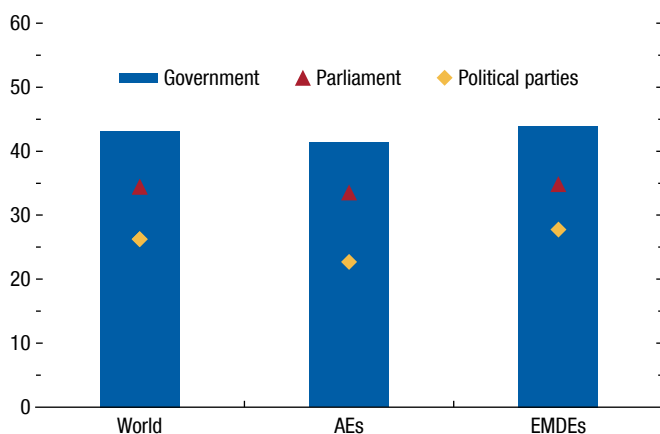
Note: Solid line denotes structural balance from April 2024 WEO, and dashed lines denote structural balance forecasts from April and October WEOs in 2010, 2011, and 2012. WEO = *World Economic Outlook*.

cuts, beyond what is currently envisaged, could result in slower-than-expected growth and reduce reform momentum. Countries that lack a credible medium-term consolidation plan could face adverse market reactions or increased risks of debt distress that force harsh adjustment. The experience of euro area economies during 2010–15 illustrates how concerns about debt sustainability can cause significant cuts to budget deficits that exceed initial projections (Figure 1.21), with significant negative consequences on growth. Despite recent improvement in international bond market conditions, the risk of debt distress in low-income countries continues to constrain scope for necessary growth-enhancing investment. The share of low-income countries (54 percent) and emerging markets (16 percent) in or at high risk of debt distress in 2024 remains elevated.

- **Distrust of government eroding reform momentum:** Across broad income groups, confidence in government, legislative bodies, and political parties is below 50 percent, by some measures (Figure 1.22). Low confidence in governments and institutions, amid political polarization in some cases, could sap support for structural reforms, complicate the adoption of and adaptation to technological advances, create resistance to raising the revenue needed to finance necessary investments, and in some cases increase the risk of social unrest.

**Figure 1.22. Confidence in Government, Parliament, and Political Parties**

(Percent of survey respondents reporting having confidence)



Sources: Joint European Value Study and World Value Survey, 2017–22; and IMF staff calculations.

Note: Bar height and different markers report share of respondents who say they have “quite a lot” or “a great deal” of confidence in their governments, parliaments, or political parties. AEs = advanced economies; EMDEs = emerging market and developing economies.

IMF staff research shows that discontent with state institutions, often rooted in perceptions of government policy failures in addressing inequality and fostering inclusive growth, has fueled social unrest and contributed to conflict (see Abdel-Latif and El-Gamal 2024 for analysis based on data for sub-Saharan Africa).

- *Geoeconomic fragmentation intensifying:* The separation of the world economy into blocs amid Russia’s war in Ukraine and other geopolitical tensions could accelerate. Such a development could generate more restrictions on trade and cross-border movements of capital, technology, and workers and could hamper international cooperation. IMF research suggests that intensified geoeconomic fragmentation could reduce portfolio and foreign direct investment flows, slow the pace of innovation and technology adoption, and constrain the flow of commodities across fragmented blocs, resulting in large output losses and commodity price volatility (see Aiyar and others 2023; Chapter 4 of the April 2023 WEO; Chapter 3 of the April 2023 *Global Financial Stability Report*; and Chapter 3 of the October 2023 WEO). In the context of upcoming elections in numerous countries, moves to raise barriers to the international flow of workers could reverse the supply-side gains of recent years, exacerbate labor

market tightness and skill shortages, and raise inflationary pressures. Tariff increases could trigger retaliatory responses, raise costs, and harm both business profitability and consumer well-being.

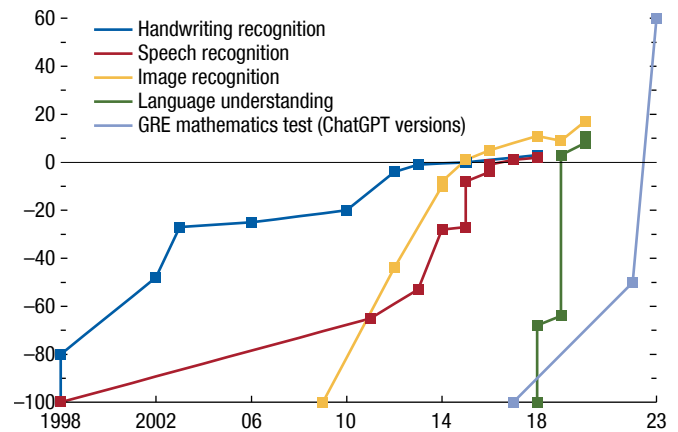
### Upside Risks

More favorable outcomes for the global economy than expected could arise from several sources:

- *Short-term fiscal boost in the context of elections:* Many countries are expected to elect their national governments in 2024—a “Great Election Year.” In this context, policymakers may postpone fiscal adjustment or commit to new expansionary measures. Studies suggest that fiscal deficits typically rise during elections and that governments do not tend to unwind the increases thereafter (Brender and Drazen 2007; Dubois 2016; de Haan, Ohnsorge, and Yu 2023; Chapter 1 of the April 2024 *Fiscal Monitor*). In the near term, new expansionary measures such as tax cuts, increased fiscal transfers, and infrastructure investment could boost economic activity, especially in economies in which sovereign risk is perceived as low, and raise global growth above current projections. However, such fiscal expansions could add to inflationary pressures—especially in countries with overheated economies and steep inflation-unemployment trade-offs—and result in higher interest rates, which would increase the challenge of curbing debt. A more disruptive policy adjustment could follow, with a negative impact on growth.
- *Further supply-side surprises, allowing for faster monetary policy easing:* Downside surprises to core inflation on account of a faster-than-expected fading of pass-through effects from past relative price shocks and the easing of global supply constraints are plausible in several cases. A faster-than-envisaged compression of profit margins to absorb past cost increases is also plausible. In the United States, for example, where the labor market remains especially tight, a stronger-than-expected downward shift toward the prepandemic ratio of vacancies to unemployed persons could ease labor market conditions and alleviate underlying inflationary pressures. Such developments could lead to a greater-than-expected decline in inflation expectations and allow central banks to bring forward their policy-easing plans, which would reduce borrowing costs, raise consumer confidence, and reinforce global growth.

- Spurs to productivity from artificial intelligence:* Recent advances in artificial intelligence, notably the emergence of large language models and of generative pretrained transformers, have marked a leap in the ability of technology to outperform humans in several cognitive areas, as illustrated for selected tasks in Figure 1.23. At the same time, as during the introduction of past general-purpose technologies, the impact of artificial intelligence on economic outcomes, as well as its timing, remains highly uncertain. In the near term, the rollout of artificial intelligence could boost investment in some cases, with firms allocating more resources to integrate innovative tools and refine production processes. IMF staff analysis suggests that over the medium term, artificial intelligence could raise worker productivity and incomes and contribute to growth but also cause job displacement and inequality (Cazzaniga and others 2024). Advanced economies stand to benefit from artificial intelligence sooner than emerging market and developing economies, given the greater emphasis on cognitive-intensive roles in the employment structures of the former. In advanced economies, artificial intelligence could affect about 60 percent of workers, with about half of those exposed achieving higher productivity and earning higher incomes and half seeing lower demand for their labor and lower wages. Artificial intelligence could affect about 40 percent of jobs in emerging market economies and 26 percent of jobs in low-income countries, implying a smaller near-term labor market disruption and less scope for related productivity improvements in economies in those two groups.
- Structural reform momentum gathering:* Faster-than-expected implementation of macrostructural reforms could boost productivity growth and contribute to higher medium-term growth than in baseline forecasts, helping to heal some of the “scarring” output losses from the pandemic (Box 1.2). Reforms aimed at increasing labor participation, reducing resource misallocation, and improving the allocation of talent could revive economic activity and reverse the past two decades of slower global growth, as Chapter 3 illustrates. IMF staff analysis also suggests that in emerging market and developing economies with constrained policy environments, faster progress on implementing supply-enhancing reforms—including those in the areas of governance, business

**Figure 1.23. AI Performance on Human Tasks**  
(Human benchmark = 0; initial AI performance = -100)



Sources: Kiela and others 2021; OpenAI; and IMF staff calculations. Note: Figure is based on a number of tests in which human and AI performance were evaluated in five different domains, from handwriting recognition to language understanding. For the GRE mathematics test, the human benchmark is set at the median percentile, with -100 in 2017 reflecting the publication of the seminal paper on GPTs. AI = artificial intelligence; GPT = generative pretrained transformer; GRE = Graduate Record Examination.

regulation, and external sector policies—could spark greater-than-expected domestic and foreign investment and growth (Budina and others 2023). Stepped-up efforts to narrow gaps in labor market participation by gender—beyond present policy trends—would amplify the returns of such reforms (Badel and Goyal 2023).

### Globally Consistent Risk Assessment of the World Economic Outlook Forecast

The risk of a hard landing has faded since the October 2023 WEO, as the quantitative analysis in Box 1.2, based on the IMF’s Group of Twenty (G20) Model, illustrates. The estimated probability that global growth in 2024 will fall below 2.0 percent—an outcome that has occurred only five times since 1970—is now at about 10 percent, consistent with an approximately symmetric risk distribution. This estimated likelihood is down from an estimated 15 percent at the time of the October 2023 WEO. For 2025, the probability of such an outcome is also about 10 percent. A contraction in global per capita real GDP—which often happens in a global recession—in 2024 has an estimated probability below 5 percent. At the same time, the probability of global growth’s exceeding the 3.8 percent historical average

during 2000–19 is slightly above 20 percent for 2024, highlighting the relatively weak baseline outlook for global growth. Turning to prices, the probability that core inflation in 2024 will be higher than that in 2023, instead of declining to 4.9 percent in 2024 from 6.2 percent in 2023, is assessed at less than 10 percent, consistent with a high level of confidence that disinflation will continue.

### **Policies: From Fighting Inflation to Restocking Fiscal Arsenals**

As the global economy approaches a soft landing, the near-term priority for central banks is to ensure that inflation comes down smoothly; they should neither ease policies prematurely nor delay too long and risk causing target undershoots. At the same time, as central banks take a less restrictive stance, a renewed focus on implementing medium-term fiscal consolidation is in order to rebuild room for budgetary maneuver and priority investments and to ensure debt sustainability. Intensifying supply-enhancing reforms would facilitate both inflation and debt reduction, allow economies to increase growth toward the higher pre-pandemic era average, and accelerate convergence toward higher income levels. Multilateral cooperation is needed to limit the costs and risks of geoeconomic fragmentation and climate change, to accelerate the transition to green energy, and to encourage debt restructuring.

### **Delivering a Smooth Landing**

With inflation receding and central banks considering the right timing of policy easing, ensuring that wage and price pressures are clearly dissipating before announcing moves to a less restrictive stance will guard against having to tighten again later if inflation surprises on the upside. Where core inflation persists above target-consistent levels, higher real interest rates may be necessary to achieve price stability. At the same time, where near-term inflation expectations and underlying inflation gauges are clearly declining toward target, delays in nominal policy rate cuts risk causing in practice a policy tightening, with rising real policy rates and, considering long transmission lags, economic weakness and target undershoots. In those cases, moving rates gradually toward a more neutral policy stance, while continuing to signal commitment to price stability, is appropriate. In emerging market

economies in which a relatively early start to monetary tightening has already allowed central banks to adjust interest rates to lower but still-restrictive levels, it is appropriate to proceed cautiously, guided by incoming data on inflation expectations, currency movements, and wage and price pressures.

As central bank policies become less synchronous, divergence in rates among countries may spur capital flow movements and renewed strength in the US dollar, which remains stronger than at any time in the pre-pandemic decade and a half. Unexpectedly persistent US inflation could, for example, trigger an upward revision to US interest rate expectations and cause a US dollar appreciation. In some cases, such developments could put the financial sector under pressure. Relatedly, the still-high borrowing costs in numerous economies imply the need for strengthened supervision (through implementation of Basel III, among other measures) to anticipate banking sector stress. In some cases, a recalibration of macroprudential policies may be necessary in response to a fast-evolving housing market.

In this context, the IMF's Integrated Policy Framework provides guidance on the appropriate policy response, depending on country-specific circumstances. For countries with deep foreign exchange markets and low foreign currency debt, adjusting the policy rate and allowing exchange rate flexibility are appropriate. Deploying—promptly and forcefully—tools that provide liquidity support, while mitigating the risk of moral hazard, would limit contagion where market strains emerge. If foreign exchange markets are shallow and countries have large foreign currency debts, a tightening of global financial conditions may be associated with “taper tantrums,” as portfolio-constrained investors sell domestic currency assets, and with systemic financial stability risks and tail risks in growth outcomes. In such cases, it may be appropriate to conduct foreign exchange intervention or implement capital flow management measures while keeping monetary and fiscal policy at their appropriate settings. Macroprudential policies should help reduce financial vulnerabilities from large exposures to foreign-currency-denominated debt. When there is a risk of de-anchoring of inflation expectations owing to a sharp exchange rate movement, foreign exchange interventions can support monetary policy, provided that there are enough reserves and the costs from monetary policy alone are too high. Countries at risk of external shocks can make full use of the global

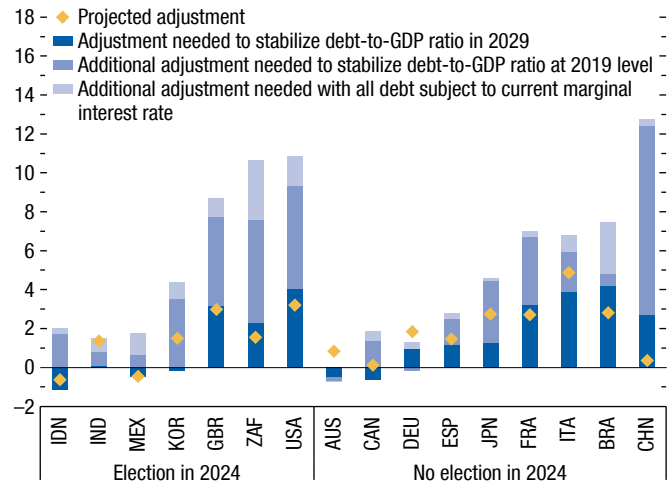
financial safety net afforded by international financial institutions, including IMF precautionary financial arrangements.

### Rebuilding Room for Budgetary Maneuver and Ensuring Debt Sustainability

A renewed focus on fiscal consolidation to rebuild budgetary room to deal with future shocks and curb the rise of public debt is appropriate, since major central banks are expected to ease monetary policy this year and economies are in a better position to absorb the economic effects of fiscal tightening. The size of the fiscal adjustment needed to ensure government debt sustainability is large in numerous cases (see the April 2024 *Fiscal Monitor*). To illustrate this point, Figure 1.24 compares the latest projections for the rise in the general government primary fiscal balance between 2023 and 2029 for selected G20 economies with the increase needed to stabilize the general government debt-to-GDP ratio in 2029. The figure also reports the additional adjustment needed to reduce debt to its 2019 level in 2029. At the interest rates currently envisaged to hold on to the total stock of debt, which includes debt issued during the pre-pandemic low-interest environment, the currently foreseen adjustment over 2023–29 is sufficient to stabilize the debt-to-GDP ratio in 2029 in most—although not all—cases. However, the projected adjustment is generally not sufficient to return debt to 2019 levels. As the figure illustrates, the adjustment needed to achieve such a debt reduction is even more challenging when assessed at the interest rates that currently apply to newly issued debt. With elections in a number of countries in 2024, ensuring that any new tax cuts or spending increases are funded and do not expand budget deficits is necessary to preserve the envisaged fiscal adjustment path.

- **Calibrating the pace of adjustment:** Fiscal adjustment should be gradual and sustained, where possible, given its generally negative effects on economic activity in the near term. Avoiding an abrupt adjustment is warranted to avert the risk that sharp expenditure cutbacks or tax increases will set off a negative cycle of slowing activity and rising debt ratios and undercut political support for fiscal reforms, which can often take time to implement. Front-loaded adjustment may be necessary to reduce the likelihood of a debt crisis, especially in economies that have lost market access. For countries with elevated inflation, fiscal consolidation can, by

**Figure 1.24. Medium-Term Fiscal Adjustment**  
(Percentage points; cumulative rise in primary-fiscal-balance-to-GDP ratio between 2023 and 2029)



Source: IMF staff calculations.

Note: Unless noted otherwise, the adjustments needed to stabilize debt-to-GDP ratios are computed using the effective rate, which measures the government's average interest rate on its total current debt stock. The marginal interest rate denotes the real interest rate based on the currently prevailing rate at the 10-year bond maturity (as of March 31, 2024). China's deficit and public debt numbers cover a narrower perimeter of the general government than the IMF staff's estimates in China Article IV reports (see IMF 2024 for a reconciliation of the two estimates). Korea's policy lending, which contributes to its fiscal deficit and public debt, is not included in the calculation of needed fiscal adjustment. Data labels in the figure use International Organization for Standardization (ISO) country codes.

reducing aggregate demand and reinforcing the overall credibility of disinflation strategies, further ease inflation. Supply-enhancing structural reforms and protecting targeted support for the most vulnerable, as well as priority investments during the adjustment, can mitigate the impact on economic activity and support debt reduction efforts over the medium term (see Chapter 3 of the April 2023 WEO and Aligishiev and others 2023).

- **Building credibility with well-specified plans and a strong institutional framework:** To reduce policy uncertainty, committing to measures sufficient to meet medium-term targets based on realistic assumptions about the short-term growth effects of fiscal consolidation, interest rates, and the budgetary yield of revenue and spending policy changes is essential. With energy prices returning to pre-pandemic levels, phasing out untargeted fiscal measures, especially those that blunt price signals, is warranted. Backing medium-term plans with binding legislation and fiscal frameworks, as well as clear contingencies for how governments will respond to unexpected

growth and interest rate movements—or to other country-specific developments—can bolster credibility. IMF staff analysis that builds on Blanchard (2022) indicates that agencies that rate sovereign debt reward reductions in debt-to-GDP ratios but that they also place a high premium on institutional quality (see Figure 1.25). At the same time, promises of future adjustment alone are unlikely to build credibility, and a steady pace of fiscal consolidation with a nontrivial first installment is warranted.

- **Addressing debt distress:** For countries in debt distress, debt restructuring, conducted in an orderly manner, may be necessary. Progress in improving international sovereign debt resolution frameworks is moving in the right direction. The G20 Common Framework has started to deliver, with each successive case building on previous experiences to achieve faster coordination. The Global Sovereign Debt Roundtable is helping foster greater common understanding of processes and principles for facilitating more timely and predictable restructurings. It is important to continue to build on this progress and to improve the efficiency of creditor coordination in cases that are not eligible for treatment under the Common Framework.

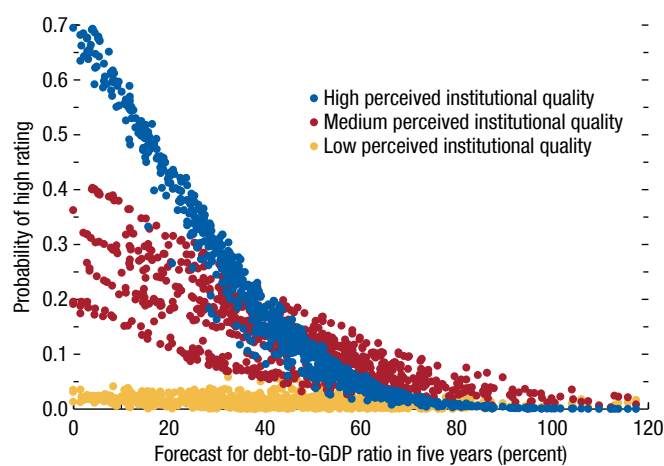
### Fostering Faster Productivity Growth

Structural reforms can support productivity growth and reverse declining medium-term growth prospects if they are targeted and carefully sequenced. Prioritizing reforms that relax the most binding constraints on economic activity can lead to output and productivity gains, even in the short term (Budina and others 2023). Reforms that address the persistent misallocation of resources can play a central role in boosting productivity, as the scenarios in Chapter 3 illustrate. In this vein, narrowing gender gaps to correct the misallocation of women’s talents and abilities would further contribute to enhancing aggregate productivity (Sayeh, Badel, and Goyal 2023).

The particular steps needed are country specific and in several cases include reforms that strengthen governance, reduce excessive business regulation and restrictions on trade, and improve access to foreign capital. These reforms can pave the way to deeper structural changes—including those necessary for a transition to cleaner energy sources—by fostering job and income growth and strengthening public support. Bundling reforms and appropriate sequencing of other reforms,

### Figure 1.25. Drivers of Sovereign Debt Ratings in Emerging Market and Developing Economies

(Probability of high rating as a function of debt-to-GDP ratio and institutional quality)



Sources: *International Country Risk Guide* (ICRG); and IMF staff calculations.

Note: Methodology builds on Blanchard (2022). Figure reports estimated probability of high credit rating, defined as being in the top 10 percent of S&P Global sovereign credit ratings in the sample. Estimated probability is based on an ordered probit regression of ratings on five-year-ahead debt-to-GDP ratio forecast from successive issues of the *IMF World Economic Outlook* for different subsamples based on low, medium, and high institutional quality measured by the ICRG Political Risk Index. High, medium, and low institutional quality are based on full-sample top (fourth) quartile, third quartile, and lower two quartiles, respectively. Sample includes 52 emerging market and developing economies during 2002–22. Per capita income and unemployment rate are included as controls in the probit regression.

such as labor market and credit market reforms, can front-load gains. Harnessing the potential of artificial intelligence will require developing adequate regulatory frameworks and investing in foundational infrastructure and digital skills training. Complementary reforms would be needed to support misplaced workers and their retraining. Industrial policies can be pursued where clearly identifiable externalities or important market failures are well established and other more effective policy options are unavailable, but the policies should avoid protectionist provisions and need to be consistent with World Trade Organization (WTO) rules.

### Speeding the Green Transition and Building Climate Resilience

Large global policy action gaps persist for reaching greenhouse gas emissions reduction goals consistent with limiting global average temperature increases to 1.5–2.0°C above preindustrial levels. To achieve

emissions reduction targets, countries need a holistic set of mitigation instruments, ideally including carbon pricing, public infrastructure investment in clean energy sources, sectoral policies, regulations, and reductions in fossil-fuel subsidies. Carbon border-adjustment mechanisms and incentive programs for green investments can speed the green transition but need to be designed to be consistent with WTO rules. Fiscal incentives to shift to clean energy sources are also needed. The energy transition will need to be managed carefully to address risks over the longer term to the energy security of some countries if the scaling back of investments in fossil fuels is not adequately matched by corresponding increases in alternative clean energy supplies. In parallel, investments in climate adaptation activities and infrastructure are needed, especially for regions most vulnerable to climate shocks. Enhancing climate-risk-monitoring systems and risk management frameworks and stronger safety nets and insurance are also needed to enhance climate resilience (see Chapter 1 of the October 2023 *Fiscal Monitor*). Mobilizing climate finance for both adaptation and mitigation in low-income countries will require coordinated efforts by international organizations, private investors, country authorities, and donors.

### Strengthening Cross-Border Cooperation

Multilateral cooperation is necessary to mitigate fragmentation and strengthen the resilience of the international monetary system. Policymakers should

maintain stable and transparent trade policies and avoid discriminatory policies that induce trade and investment distortions. An intergovernmental dialogue on—or a consultation framework for—industrial policies could help improve data and information sharing and identify the impact of policies, including their unintended consequences across borders. Over time, steady lines of communication could help in developing international rules and norms on the appropriate use and design of industrial policies, making it easier for firms to adjust to the new environment. Cooperation is also required for the orderly resolution of debt problems to clear a path through an increasingly complex creditor landscape. Furthermore, international coordination is vital to mitigate the effects of climate change and facilitate the transition to green energy, building on recent agreements at the 2023 Conference of the Parties to the UN Framework Convention on Climate Change. Safeguarding the transportation of critical minerals, restoring the WTO's ability to settle trade disputes, and ensuring the responsible use of potentially disruptive new technologies such as artificial intelligence by, among other things, upgrading domestic regulatory frameworks and harmonizing global principles are priorities. Establishing the free flow of low-carbon technologies—which facilitate emissions reductions—from advanced economies to emerging market and developing economies would further support meeting climate targets.

### Box 1.1. Fragmentation Is Already Affecting International Trade

Geoeconomic fragmentation could weigh on world trade and income growth in the coming years. Data on bilateral goods trade before and after Russia's invasion of Ukraine in February 2022 confirm that fragmentation is already underway (see also World Trade Organization 2023).

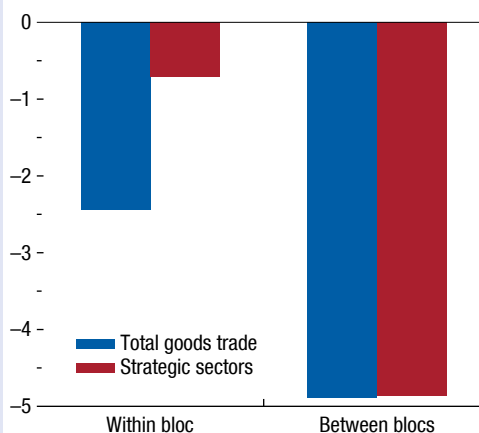
Trade between economies in politically distant blocs has slowed more than trade between those within blocs since the start of the war in Ukraine. To shed light on the evolution of trade fragmentation, the analysis illustrated in Figure 1.1.1 assigns countries to a hypothetical bloc including Australia, Canada, the European Union, New Zealand, and the United States or a hypothetical bloc comprising China, Russia, and countries that sided with Russia during the March 2, 2022, UN General Assembly vote on Ukraine, with all other countries considered nonaligned. The analysis compares the average growth rate of trade flows between members of each bloc during two periods: the period after Russia's invasion of Ukraine (from the second quarter of 2022 to the third quarter of 2023) and the five years leading up to the invasion (from the first quarter of 2017 to the first quarter of 2022).

Growth in goods trade between the two blocs has been significantly weaker since the start of the war than growth in goods trade within blocs. Total goods trade has slowed by about 2.4 percentage points more between countries not in the same bloc than among those in the same bloc. The relationship is especially strong for trade in strategic sectors, such as chemicals and machinery, in which trade has slowed by about 4 percentage points more among countries not in the same bloc. Gopinath and others (2024) provide further corroborating evidence based on gravity models of trade. Additional analysis suggests that these results are robust to alternative bloc definitions and are not driven exclusively by China and the United States. They hold based on a subsample of bilateral trade flows excluding pairs of economies in which one partner is either China or the United States (Gopinath and others 2024).

Another aspect of fragmentation is that trade links are weakening between China and the United States. Since the onset of China–US trade tensions in 2017,

The authors of this box are Andrea Presbitero and Petia Topalova.

**Figure 1.1.1. Fragmentation Affecting Trade**  
(Percentage points; difference in trade growth before and after war)



Sources: Trade Data Monitor; and IMF staff calculations.  
Note: Bilateral quarterly growth rates are computed as the difference in log bilateral trade averaged using weights equal to the bilateral nominal trade. Strategic sectors include the following Harmonized System two-digit chapters: 28, 29, 30, 38, 84, 85, 87, 88, 90, and 93. Before the war is between 2017:Q1 and 2021:Q4. The bloc definition is based on a hypothetical bloc comprising Australia, Canada, Europe, New Zealand, and the US and a hypothetical bloc including China, Russia, and countries siding with Russia during the March 2, 2022, UN General Assembly vote on the war in Ukraine. Other countries are considered nonaligned.

with tariffs rising on trade between the two countries, China's share of US goods imports has fallen by almost 8 percentage points (from 22 percent in 2017 to 14 percent in 2023, according to US Census Bureau data). At the same time, some evidence suggests that US sourcing was partly reallocated away from China and towards other countries during 2017–2022, including Mexico and Vietnam (Alfaro and Chor 2023; Freund and others 2023; Wang and Hannan 2023). As a result, supply chains are lengthening, with possible losses in efficiency (Qiu, Shin, and Zhang 2023).

If fragmentation continues, with countries imposing additional restrictions on trade, efficiency losses from declines in specialization, smaller gains from economies of scale, and reduced competition could be significant (see Aiyar and others 2023).



### Box 1.2. Risk Assessment Surrounding the World Economic Outlook's Baseline Projections

The IMF's Group of Twenty (G20) Model is used in this box to derive confidence bands around the World Economic Outlook (WEO) forecast and to quantify alternative scenarios.

Risks to global growth are considered broadly balanced. Uncertainty about 2024 has decreased since the October 2023 WEO, as the outturns for 2023 are now known. The risk that global growth will fall below 2 percent—an outcome that has occurred on only five occasions since 1970—in 2024 is assessed at less than 10 percent, compared with 15 percent in October. Risks for inflation in 2024 have also receded. The risk that core inflation will be higher in 2024 than in 2023 is now assessed at less than 10 percent, compared with 15 percent in the October 2023 WEO. The scenarios quantify several risks to the outlook: (1) the extent of healing from the COVID-19 pandemic, (2) changes in fiscal policy, (3) deflation in China, (4) geopolitical risk, and (5) greater global divergence.

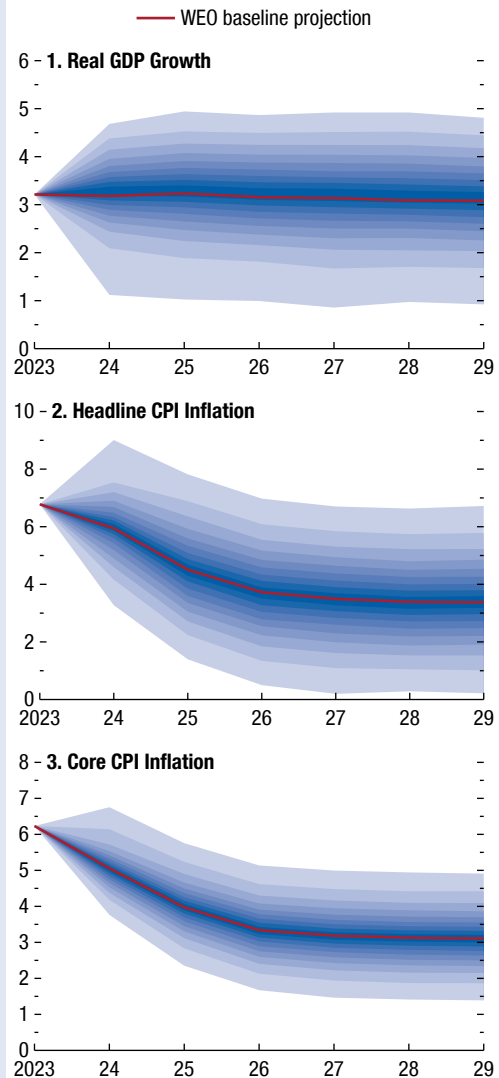
#### Confidence Bands

The methodology for producing confidence bands is based on Andrieu and Hunt (2020) and has been used in previous WEO reports. The G20 model, presented in Andrieu and others (2015) is used to interpret historical data on output, inflation, policy rates, and international commodity prices to recover the implied economic shocks to aggregate demand and supply. The recovered shocks are sampled through nonparametric methods and fed back through the model to generate predictive distributions around the WEO projections. Shocks are sampled uniformly, consistent with balanced risks to the outlook. A difference relative to October is that 2023 outturns are now known for most countries, which narrows the distribution around 2024 projections.

Figure 1.2.1 shows the resulting distributions for global growth and inflation projections. Each shade of blue represents a 5 percentage point interval, and each band covers 90 percent of the distribution. Regarding global growth, there is a 70 percent probability that growth will be between 2.4 percent and 4.1 percent in 2024—a narrower range than in October—and a 70 percent probability that growth will be between 2.2 percent and 4.3 percent in 2025.

The authors of this box are Jared Bebee, Dirk Muir, and Rafael Portillo.

**Figure 1.2.1. Distribution of Forecast Uncertainty around Global GDP Growth and Inflation Projections (Percent)**



Source: IMF staff calculations.

Note: The figure shows the distribution of forecast uncertainty around the baseline projection as a fan. Each shade of blue represents a 5 percentage point probability interval. CPI = consumer price index; WEO = World Economic Outlook.

**Box 1.2 (continued)**

Regarding global inflation, uncertainty around 2024 outcomes has also narrowed since the previous WEO report. There is a 70 percent probability that 2024 headline inflation will be about 1.3 percentage points higher or lower than currently projected, with the resulting band smaller than the 1.8 percent band estimated in October. The probability that headline inflation will be higher in 2024 than in 2023 is about 20 percent, compared with 25 percent in October. Similarly, the probability that core inflation will be higher in 2024 than in 2023 is assessed at less than 10 percent, compared with 15 percent back in October.

**Scenarios**

The G20 model is also used to quantify several risk scenarios relevant for the current outlook. The scenarios assume that monetary policy and automatic fiscal stabilizers respond endogenously to macro developments, unless explicitly stated otherwise.

***Greater-than-expected healing from the pandemic.***

Persistent positive surprises to growth forecasts from emerging market economies, and some advanced economies, over the past year have led to upward reassessments of potential output. At the same time, current WEO projections for most G20 countries include durable scarring effects from the pandemic and other recent shocks, which are most visible in labor productivity and labor force participation rates that remain below pre-pandemic trends. The scenario assumes the supply-side surprises continue over the medium term, with greater normalization (healing) over 2024–26 than in the baseline, implying additional increases in potential output. Country-specific improvements in total factor productivity help close the labor productivity gap by half relative to pre-pandemic forecasts: For the median G20 country, total factor productivity increases by about 2 percent over this period. Labor force participation also improves over the same period, fully closing the gap that opened through COVID-19, back to the pre-pandemic trend—and implying a 0.7 percentage point increase in labor force participation for the median G20 country. Normalization in the scenario is greater in emerging markets excluding China than in advanced economies, as current projections imply greater scarring for the former group. The scenario does not assume supply-side improvement (relative to baseline) for China or the United States.

**Fiscal policy.** Current WEO projections include modest fiscal tightening in many countries, mainly

**Table 1.2.1. Fiscal Impulse Relative to Baseline**  
(Percent, year-over-year change in structural primary deficit in percent of potential GDP)

	2024	2025	2026	2027
Advanced Economies	0.9	0.8	-2.0	-1.5
Emerging Market and Developing Economies Excluding China	0.1	0.3	-0.4	-0.4

Source: IMF staff calculations.

advanced economies, but also some emerging markets, with structural primary deficits in the median G20 country decreasing from about 1.5 percent of potential GDP in 2023 to zero by 2028 and most of the decrease in the first or second year. The scenario assumes that the fiscal tightening envisaged for 2024–25 does not take place. Structural primary deficits remain at their 2023 levels in 2024 and increase further in 2025, implying some fiscal stimulus relative to the baseline in both years, as shown in Table 1.2.1. The stimulus is greater in countries with larger expected fiscal withdrawal, such as the United States and the euro area in 2024 and Japan in 2025, while no stimulus is assumed for China. Lack of fiscal consolidation generates an increase in global borrowing costs starting in 2025. Advanced economies with debt levels above 100 percent of GDP experience increases in both term and sovereign premiums that peak at 100 basis points by 2026, while emerging markets experience increases in both premiums that peak at 150 basis points, also by 2026. A fiscal consolidation eventually takes place, in 2026–27; it is larger than in current projections to partly offset the effects of the initial expansion (and higher premiums) on debt accumulation. It is assumed that fiscal expansions and contractions are implemented through changes in targeted and general transfers in equal parts and that automatic stabilizers are turned off.

**Deflation in China.** The October 2023 WEO included a downside scenario for China, featuring deeper-than-expected contraction in the real estate sector absent swift action to restructure property developers and weaker consumption in the context of subdued confidence. A similar if somewhat greater downside is analyzed here. The main difference relative to October is that the scenario leads to greater deflationary pressures, on account of larger-than-realized economy-wide slack and excess

**Box 1.2 (continued)**

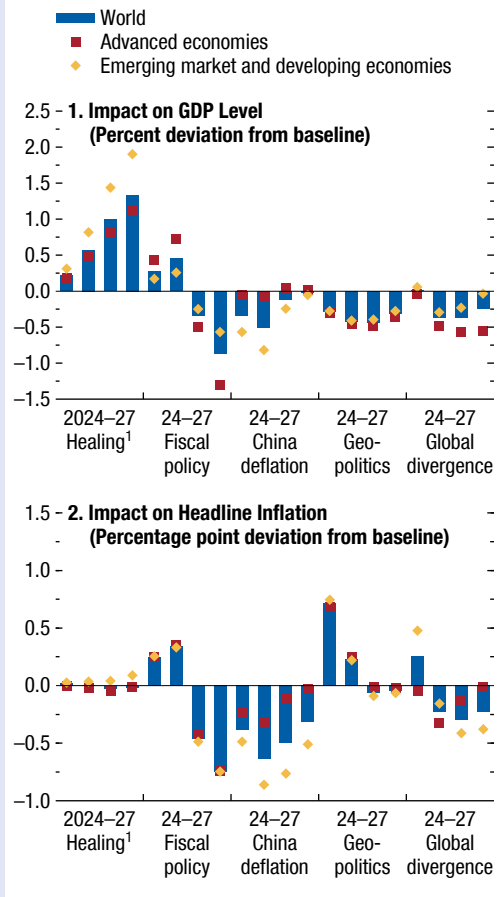
capacity in the goods sector, and greater sensitivity of inflation to supply-demand imbalances (a steeper Phillips curve). Core inflation in China declines relative to baseline by 1 percentage point in 2024 and 2 percentage points in 2025 and 2026, resulting in negative core inflation outturns in 2025–26. China's export price inflation decreases further, by 2 percentage points in 2024 and 4 percentage points in 2025 and 2026, respectively. The fall in inflation is persistent but ultimately temporary: monetary and fiscal policy accommodation help the initial shock to demand fade, and China's inflation gradually converges back to baseline after 2026.

**Geopolitical risk.** The scenario assumes that an escalation of conflict in the Middle East leads to a surge in oil prices and in shipping costs. Oil prices are 15 percent higher, a moderate increase by historical standards. Average container prices rise by 150 percent in 2024–25, an increase similar to that following recent incidents in the Red Sea. Most of the increase in the cost of shipping is concentrated in Asia-to-Europe routes. Oil prices and container costs return to baseline in 2026.

**Divergence and global financial conditions.** The final scenario assumes greater-than-expected divergence among advanced economies. US aggregate demand surprises to the upside, with domestic demand increasing by 1.5 percent in 2024 relative to current projections, while domestic demand decreases by 0.5 percent in Japan and 1 percent in the euro area in 2024. Diverging shocks to demand lead to divergence in monetary policy—tighter in the US and looser in the euro area—while monetary policy in Japan is unchanged relative to baseline. With US policy rates 70 basis points higher than baseline in 2024, global financial conditions tighten unexpectedly. Sovereign premiums in emerging markets and developing countries excluding China increase by 150 basis points in 2024–25; corporate premiums increase in emerging market and advanced economies by 75 basis points over the same period. Premiums return to long-term averages in 2026.

**Impact on World Output and Inflation**

Figure 1.2.2 presents the effects from all five scenarios. Panel 1 shows the effects on the *level* of GDP during 2024–27, while panel 2 shows the effects on inflation over the same period. Effects on GDP are presented as percent deviations from baseline, whereas effects on headline inflation are presented as

**Figure 1.2.2. Impact of Scenarios on GDP Level and Headline Inflation**

Source: IMF staff calculations.

Note: X-axis labels denote five distinct scenarios.

<sup>1</sup>In the healing scenario, results are shown for emerging market and developing economies excluding China.

percentage point deviations from baseline.<sup>1</sup> Global aggregates are shown by the bars in the figure; aggregates are shown by red squares for advanced economies and by yellow diamonds for emerging market and developing economies.

The *healing scenario* generates a gradual and permanent increase in activity over the WEO horizon, with global GDP increasing cumulatively by 1.3 percent by 2027 relative to current projections. Both advanced economies and emerging markets see an

<sup>1</sup>The impact on growth rates can be approximated by subtracting the effects on the level of output from the previous year.

**Box 1.2 (continued)**

expansion, but the increase is larger in the latter group, especially emerging markets excluding China (shown in Figure 1.2.2 instead of the emerging markets aggregate). The effect on inflation is close to zero, reflecting two offsetting forces. Output increases somewhat less than potential, which leads to mild declines in core inflation. At the same time, the expansion in global activity pushes oil prices up gradually over the WEO horizon, adding to headline inflation.

The *fiscal scenario* generates a whipsaw-like movement in activity, inflation, and policy rates. Global output initially increases relative to baseline, peaking at 0.5 percent in 2025. Activity in advanced economies rises by more than that in emerging markets, as most of the fiscal expansion takes place in the former. Global inflation is about 30 basis points higher, on average, during 2024–25. Monetary policy is correspondingly tighter; for example, policy rates in the US increase by 100 basis points relative to baseline by 2025. As borrowing costs rise and fiscal policy goes from stimulus to withdrawal, there is a great reversal in global activity in 2026–27. The reversal is more pronounced in advanced economies, with growth falling by about 1 percent relative to current projections in both 2026 and 2027. As a result, global inflation is about 60 basis points lower during 2026–27. Monetary policy turns accommodative during that period; for reference, US policy rates are 75 basis points lower than baseline by 2027.

The *China deflation scenario* results in lower global activity, with global GDP falling cumulatively by 0.5 percent relative to current projections by 2025. The impact is smaller than in the October 2023 scenario and mostly results from the direct impact on China's GDP. Activity spillovers to advanced economies and other emerging markets are close to zero, with two forces broadly offsetting each other. While lower activity in China reduces global demand, the large decrease in Chinese export prices benefits the rest of the world by improving terms of trade, lowering inflation, and raising purchasing power outside China. Inflation in advanced economies and emerging markets excluding China is 20 basis points lower, on

average, during the 2024–26 period for both headline and core measures. Policy rates outside China are also lower, with US rates 40 basis points lower than baseline by 2025.

The *geopolitical risk* scenario results in a negative global supply shock. Global headline inflation increases by close to 70 basis points in 2024 and remains 25 basis points above baseline in 2025. While much of the increase reflects the direct effect of higher oil prices, core inflation also increases by about 20–30 basis points in 2024–25, reflecting second-round effects from higher oil prices and higher production costs from disruptions to international shipping. Monetary policy tightens relative to baseline, with rates in both advanced economies and emerging markets about 30 to 40 basis points higher in 2025. The hit to purchasing power and tighter monetary policy lower global activity by as much as 0.4 percent by 2025. The impact on inflation and activity is broadly similar in advanced economies and emerging markets; within advanced economies the effect is slightly larger in Europe than in the United States, on account of the greater impact from shipping costs.

Finally, the global impact from *greater global divergence* builds over time. In advanced economies, upside surprises to activity and inflation in the United States are initially offset by downside surprises in other countries. The increase in US output is smaller than the initial shock, as the dollar appreciates against currencies in advanced and emerging market economies by 2 and 5 percent, respectively, in nominal terms in 2024 and global demand for US exports falls. In emerging markets, the depreciation provides support to export demand, and initially offsets the impact from tighter domestic financial conditions, while also leading to a modest increase in inflation. The global negative implications become more visible in 2025, as tighter financial conditions increasingly affect activity in advanced economies (outside of the United States) and emerging markets. Global output falls by 0.4 percent in 2025, and global headline inflation falls by about 25 basis points below baseline over the same period.

## Commodity Special Feature: Market Developments and the Power of Prices

Primary commodity prices declined slightly between August 2023 and February 2024, driven by a decrease in oil prices. Supply growth in the Americas surprised on the upside, buffering the impact of geopolitical tensions in the Middle East. Food and beverage prices increased, driven by the impact of El Niño on tropical crops. Iron ore prices rebounded due to record steel production in China. Gold prices were supported by safe haven demand. This Special Feature analyzes price elasticities of commodity demand and supply in depth.

### Commodity Market Developments

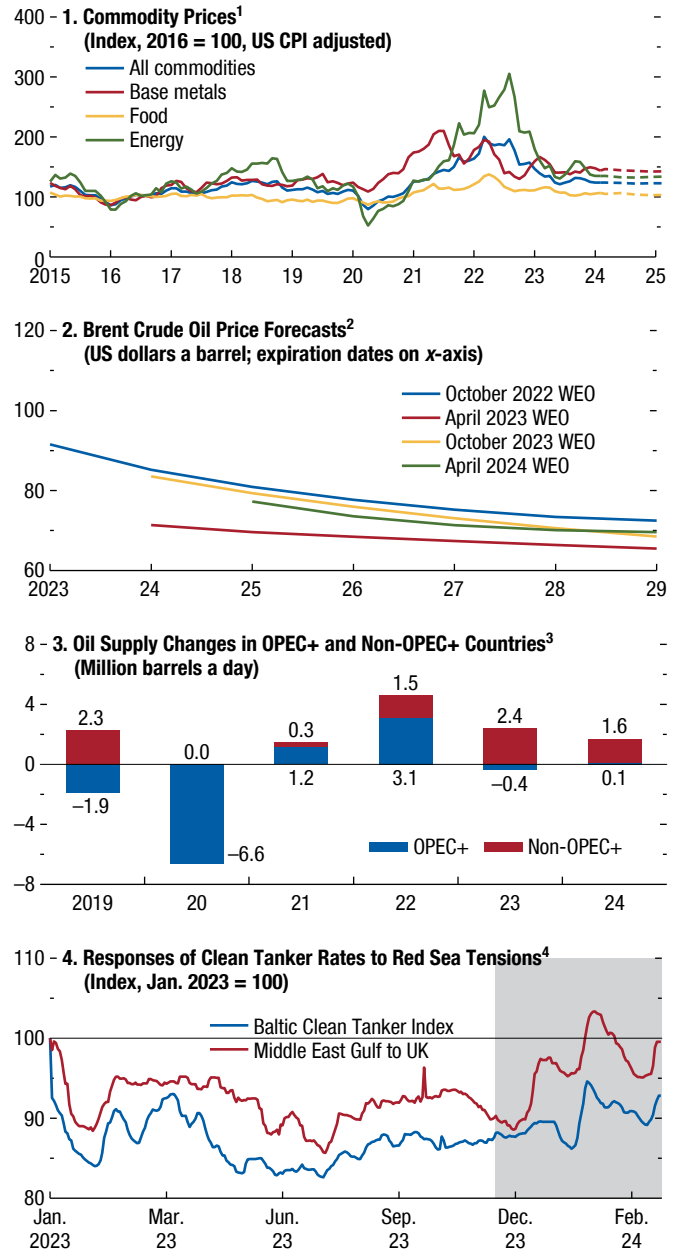
*Oil prices decreased despite Middle East tensions.* After breaking \$95 a barrel in late September, oil prices decreased by 4.2 percent between August 2023 and February 2024, when they stood at a monthly average of \$80.70. On the demand side, weaker expectations about global demand growth have contributed to downward price pressures. On the supply side, the implementation of output curbs by OPEC+ (Organization of the Petroleum Exporting Countries plus selected nonmember countries, including Russia) was more than offset by strong output growth in Iran and non-OPEC countries, led by the United States, Brazil, and Guyana (Figure 1.SF.1, panel 3).

Red Sea tensions have led to a 50 percent rise in global freight rates of oil product tankers. Among the main routes affected is the one from the Middle East to Europe (Figure 1SF.1, panel 4), for which prices increased by 200 percent from mid-November 2023 to mid-March 2024. The higher costs and the implied rerouting have only had a minor impact on crude oil prices. Russian oil, primarily exported to China and India, was mostly above the Group of Seven price cap since the second half of 2023, at a \$15–\$20 discount (based on Argus data).

Futures markets suggest that oil prices will slide by 2.5 percent year over year to average \$78.60 per barrel in 2024 and will continue to fall to \$67.50 in 2029. Risks to this price outlook are balanced. Upside price risks could arise from an escalation

The contributors of this Special Feature are Christian Bogmans, Andrea Pescatori (Team Lead), Ervin Prifti, and Martin Stuermer, with research assistance from Wenchuan Dong, Joseph Moussa, and Tianchu Qi. The consultant was Ivan Petrella. This Special Feature is based on Bogmans and others (2024).

**Figure 1.SF.1. Commodity Market Developments**



Sources: Bloomberg, L.P.; Haver Analytics; IMF, Primary Commodity Price System; International Energy Agency (IEA); Refinitiv Datastream; and IMF staff calculations.  
<sup>1</sup>Last actual consumer price index (CPI) value is applied to the forecast.  
<sup>2</sup>Forecasts are based on the *World Economic Outlook* (WEO).  
<sup>3</sup>OPEC+ represents the member countries of the Organization of the Petroleum Exporting Countries plus some other oil-producing countries. Data are from the IEA.  
<sup>4</sup>Lines represent logs of rates, which are normalized to January 2023. Shaded area represents the time since the first ship was seized by the Houthi rebels.

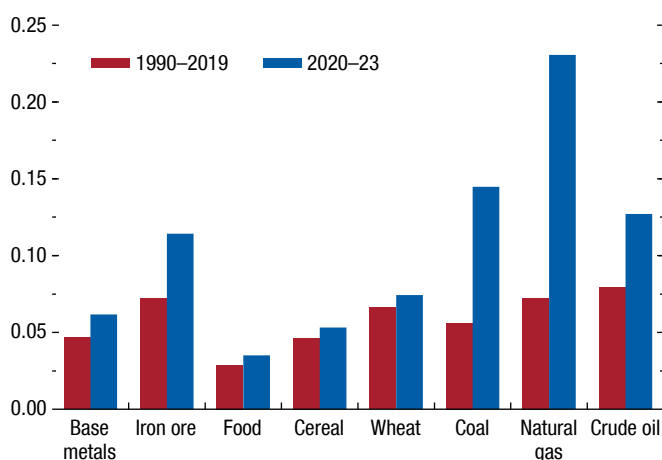
of the Middle East conflict and attacks on Russian oil infrastructure. Downside risks could arise from a slowdown in Chinese oil demand and strong non-OPEC supply growth, possibly coupled with a rise in OPEC+ oil supply to regain market share. The outlook for demand growth is highly uncertain.

*Natural gas prices continued to decline amid ample supplies.* Title Transfer Facility (TTF) trading hub prices in Europe fell 24.4 percent from August 2023 to \$8.10 a million British thermal units (MMBtu) in February 2024—within the upper range of historical prices. Mild weather, low industrial demand in Europe, and ample liquefied natural gas (LNG) supplies have led to high gas storage levels and lower prices (see also Albrizio and others 2022, 2023). Asian prices for LNG declined by 24.9 percent. US Henry Hub prices decreased by 32.3 percent. Futures markets suggest that TTF prices will average \$9.45 in 2024, decreasing to \$8.73 in 2029. Henry Hub prices may rise from an average of \$2.66 per MMBtu in 2024 to \$3.63 in 2029, as US export capacity is expected to almost double from 11.4 billion cubic feet a day (bcf/d) to 21.1 bcf/d until 2027, according to the US Energy Information Administration. Risks around this outlook are balanced.

*Metals prices rebounded.* After declining during the summer, the IMF's base metals price index rose by 4.7 percent from August 2023 to February 2024. Iron ore prices increased by 14.9 percent due to record steel production in China. Uranium prices rose by 75.3 percent to their highest level since 2007 due to supply disruptions from major producers, a potential ban on Russian exports, and better prospects for nuclear power production to combat climate change. Geopolitical tensions and expectations of monetary policy easing raised gold prices by 5.5 percent.

*Agricultural commodity prices rebounded.* Between August 2023 and February 2024, the IMF's food and beverages price index gained 6.0 percent, masking heterogeneity. Prices for cereals and vegetable oils continued to decline, by 7.2 percent and 10.9 percent, respectively, on the back of abundant global supplies. Concerns related to El Niño put upward pressure on the prices of certain tropical crops, including cocoa (64.2 percent) and coffee (18.2 percent). Coffee prices, especially those for Robusta, experienced upward price pressure from tensions in the Red Sea, which led some consumer countries to switch from Asian to Brazilian imports. Rubber prices jumped 39.8 percent as global output declined in 2023 following the outbreak

**Figure 1.SF.2. Volatility of Commodity Prices**  
(Standard deviation of log differences)



Sources: IMF Primary Commodity Price System; and IMF staff calculations. Note: Volatility is the standard deviation of log differences in monthly prices over the respective periods. Base metals, food, cereal, coal, and natural gas are price indices. The crude oil price refers to the IMF average petroleum spot price.

of a novel leaf disease in Asia. Seafood prices surged 25.9 percent as demand outstripped supply growth, partly because of stricter environmental legislation in some countries. Risks to the price outlook are balanced. Upside risks stem from further trade disruptions in the Black Sea and new food export restrictions. Larger-than-expected harvests constitute the most important downside risk.

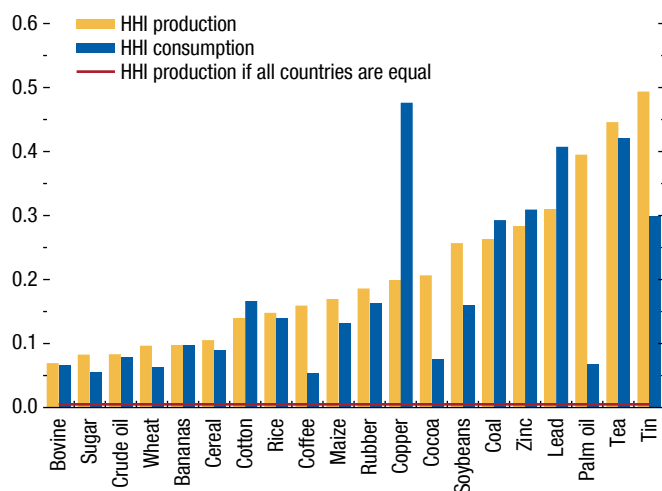
### The Power of Prices: How Fast Do Commodity Markets Adjust to Shocks?

The pandemic, the war in Ukraine, and the conflict in Gaza and Israel generated shocks that led to a surge in commodity price volatility (Figure 1.SF.2). This volatility destabilized inflation, and made fiscal and monetary policy more difficult, especially for low-income and commodity-exporting countries.

Geoeconomic fragmentation and climate change could lead to more commodity market turbulences. The resulting price volatility could crucially hinge on the price elasticities of demand and supply. The lower those elasticities, the more prices react to unexpected changes in supply and demand (see Albrizio and others 2022, 2023).

It is therefore essential to understand to what extent commodity supply and demand are slow to react. Is demand more price sensitive than supply?

Figure 1.SF.3. Herfindahl Index by Commodity, 2021



Sources: Bems and others 2023; Food and Agriculture Organization; International Energy Agency; International Historical Statistics; Stuermer 2017; World Bureau of Metal Statistics; and IMF staff calculations.

Note: For each commodity, the Herfindahl-Hirschman index (HHI) is calculated by summing the squares of each country's share in global production (consumption). The HHI ranges between indicating perfectly equal production across the 195 countries in our sample and 1 (indicating perfect inequality).

Do the quantities supplied and demanded adjust more strongly over the long term? Are the elasticities different across energy, agricultural, and mineral commodities? What policies make commodity supply and demand more reactive?

This Special Feature presents a consistently identified and estimated set of price elasticities of demand and supply for a broad range of commodities.<sup>1</sup> Based on a granular instrumental variable approach (Gabaix and Koijen, forthcoming), an annual cross-country data set on agricultural goods, energy, and metals from 1960 to 2021 is employed.<sup>2</sup>

<sup>1</sup>This feature is based on Bogmans and others (2024). It fills a gap in the literature because surveys such as Dahl (2020) and Fally and Sayre (2018) mix estimates based on different methodologies. This is a major pitfall when models include several commodities (see, for example, Fally and Sayre 2018 and Bolhuis, Chen, and Kett 2023). The estimates are often based on correlations and suffer from biases (Roberts and Schlenker 2013). This feature also contributes to the literature estimating elasticities using vector autoregressive models (see Kilian 2022, Baumeister and Hamilton 2022, and Kilian and Zhou 2023).

<sup>2</sup>Online Annex 1.1 provides data descriptions and the methodology. Data sources are World Bank (2024), IEA (2024), FAO (2023), Bems and others (2023), and Schwerhoff and Stuermer (2020), among others. The online annex is available at [www.imf.org/en/Publications/WEO](http://www.imf.org/en/Publications/WEO).

## Commodity Shocks

The methodology uses idiosyncratic changes in commodity production and consumption in individual countries to estimate average global price elasticities. This works only if these shocks are large enough to affect global prices, which, in turn, manifests as high market concentration.

Most commodity markets are in fact highly concentrated in their production and consumption, as elevated Herfindahl-Hirschman indices (HHIs) in Figure 1.SF.3 show. For example, for palm oil the production HHI is 0.4, roughly 80 times higher than the value of the HHI if all 195 countries in the world had the same market share (red line). This means that an idiosyncratic shock in palm oil production most likely affects palm oil prices globally.

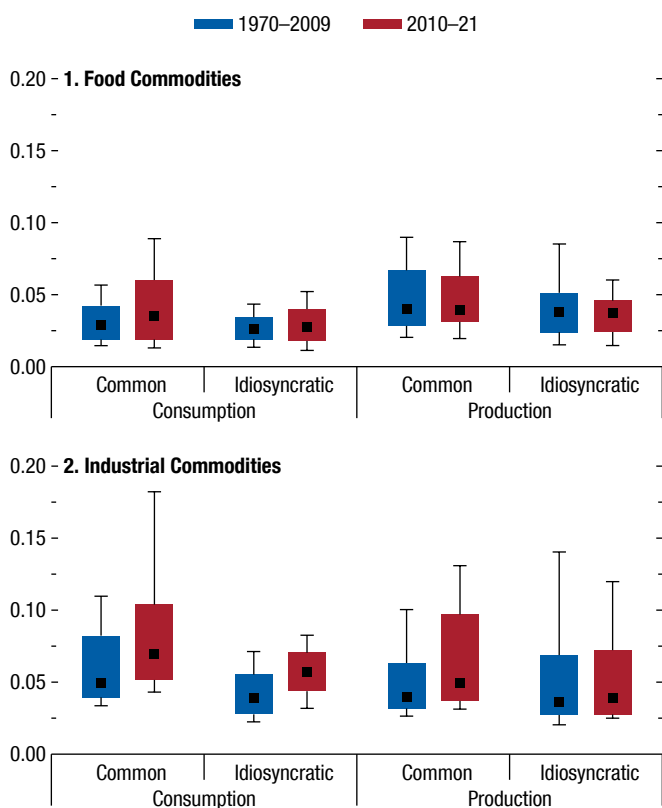
Figure 1.SF.4 shows that these country-specific idiosyncratic shocks are a substantial driver of fluctuations in global commodity production and consumption. Still, common factors are, on average, the stronger driver. One explanation is global supply chains. For example, shocks to shipping can manifest as a common factor across countries on the supply side. In line with this explanation, common factors have increased particularly in their role in the output of industrial commodities over the past decade. Common factors have also gained significance in the consumption of both food and industrial commodities (see also Jacks and Stuermer 2021). More synchronized global business cycles may offer an explanation (de Soyres and Gaillard 2020).

For food commodities idiosyncratic shocks in production are bigger than those in consumption. This is not the case for industrial commodities. Agricultural production can be affected more by idiosyncratic country-specific shocks such as droughts, flooding, or pests that can affect local yields.

## Commodities Are Mostly Inelastic

In terms of supply elasticities, results show that metals, especially copper and zinc, tend to have the lowest elasticities, while agricultural commodities have the highest (see Figure 1.SF.5). For example, copper and zinc have a supply elasticity close to zero. In contrast, the results for cereals show a supply elasticity of about 0.6, implying that a 10 percent increase in prices raises output by 6 percent within a year. This is in line with the fact that crop switching, or the application of more fertilizer is possible within a year, whereas the

**Figure 1.SF.4. Common versus Idiosyncratic Factors in Commodity Demand and Supply**



Sources: Bems and others 2023; Food and Agriculture Organization; Stuermer 2017; World Bureau of Metal Statistics; and IMF staff calculations.  
 Note: The y-axis shows the standard deviation of the common and idiosyncratic components of the country-specific residuals. The residuals are obtained from panel regressions using countries' commodity consumption or production as dependent variables and time fixed effects as controls. Whiskers indicate the 10th and 90th percentiles; the bars show the 25th and the 75th percentiles; black markers indicate the median.

expansion and opening of mines is subject to longer lead times.

A distinction exists between perennial crops such as coffee, palm oil, and cocoa, on one hand, and annual crops like soybeans on the other. Perennial crops are characterized by smaller short-term supply elasticities compared with those for annual crops. It takes an extended period for new trees to produce fruit: typically, two years for palm oil and five years for cocoa. The supply elasticities of energy commodities tend to be between those for mineral and agricultural commodities.

Elasticities on the demand side are determined less by commodity groups. Instead, commodity-specific characteristics seem to play a larger role. This is in line with several mechanisms that allow for demand-side adjustment across all commodities: substitution by

other commodities, more efficient use, and substitution of other products for downstream products.

For agricultural goods, rice is atypical, showing a price elasticity of demand close to zero, probably reflecting that only about 10 percent of output is internationally traded. Rice prices are also typically subsidized in Asia. Elasticities for tea, cotton, and wheat are above 0.4. For crude oil and coal, the results show demand elasticities below 0.2, in line with the difficulties of switching fuels over the short term because of technical constraints. Finally, copper and zinc have demand elasticities close to zero, whereas those for lead and tin are between 0.2 and 0.3. The former metals are essential for electrical appliances and steel production, respectively. Lead and tin are easier to substitute.

### Supply and Demand Become More Responsive over Time

Commodity supply and demand become more responsive over time as markets adjust to shocks (Figure 1.SF.5). However, long-term multipliers show notable differences across commodities at different horizons. Results for most agricultural commodities indicate that supply responses are flat over a five-year horizon. Elasticities for perennial crops like coffee, cocoa, and rubber still show a statistically significant strong peak about two to three years after a shock. For most metals and energy, supply elasticities are upward sloping, but only the one for copper is statistically significant. On the demand side, results are generally not very precisely estimated. Metals show the largest increases in the multipliers over longer horizons. At the same time, for most agricultural commodities, the demand multipliers do not become larger.

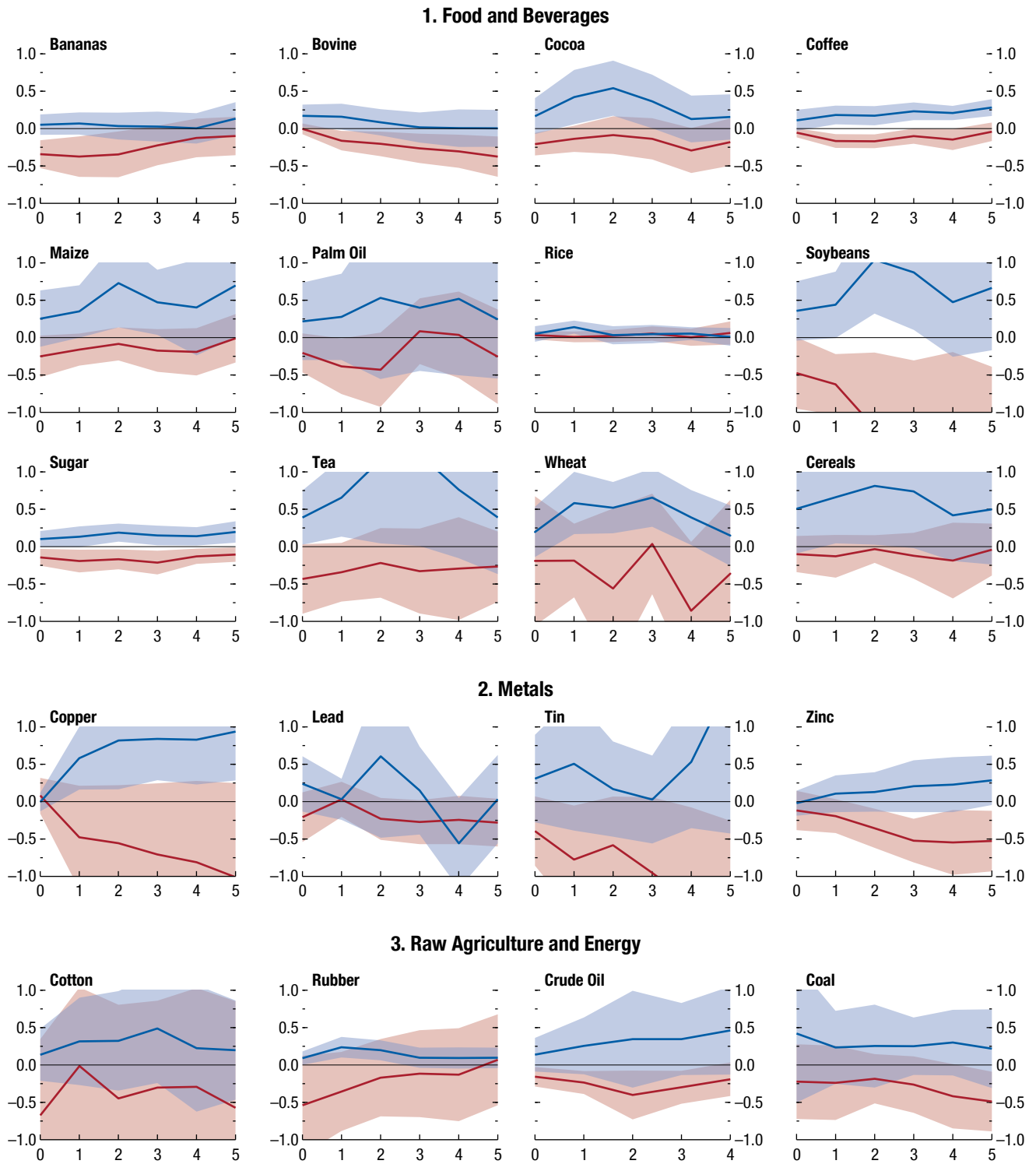
Demand and supply for agricultural goods seem generally more responsive to shocks than those for minerals and energy commodities. This is consistent with the smaller price volatility observed for agricultural goods, compared with that for metals and energy commodities (Figure 1.SF.2). Agricultural commodities also see the least increase in their responsiveness after a couple of years, whereas mineral commodities become more responsive.

### Conclusions and Policy Implications

This Special Feature estimated a broad set of supply and demand elasticities for commodities based on a consistent identification methodology and a unique data set. The results show that commodity demand



**Figure 1.SF.5. Cumulative Supply and Demand Responses to a 1 Percent Price Increase (Percent)**



Sources: Food and Agriculture Organization; World Bureau of Metal Statistics; and IMF staff calculations.

Note: Impulse response functions (IRFs) show the change in the quantity supplied (blue line) or demanded (red line) as a result of a 1 percent increase in prices as a function of time measured in years. IRFs are based on a combination of local projections and the granular instrumental variable approach (Gabaix and Koijen, forthcoming). Figure shows 90 percent confidence intervals.

and supply are generally price inelastic, but that differences exist. The supply of agricultural perennial crops is more inelastic than that of annual crops. This may explain why wheat prices, which spiked at the start of the war in Ukraine, have now come down below prewar levels. Demand elasticities may have also played a role, since within cereals, cross-elasticities of demand allow for substitution. Supply and demand of mineral commodities are particularly inelastic. Those for energy commodities are between those for agricultural commodities and those for metals. At the same time, supply and demand become more elastic for mineral and energy commodities over time.

Countries exposed to commodity markets with relatively low elasticities, especially metals, could

build fiscal buffers and monetary policy space to prepare for the larger impact of possible shocks. As elasticities ultimately reflect adjustments made by final consumers and producers, replacing energy and agricultural subsidies with targeted transfers would help increase the demand and supply elasticities of many commodities and could reduce their price volatility. International trade can also play a prominent role in smoothing out commodity shocks and buffer against their economic impact (see Albrizio and others 2022, 2023; and Alvarez and others 2023). This will be even more relevant in the context of increasing geopolitical tensions and trade fragmentation as well as in the case of critical minerals for the energy transition.

**Annex Table 1.1.1. European Economies: Real GDP, Consumer Prices, Current Account Balance, and Unemployment**  
(Annual percent change, unless noted otherwise)

	Real GDP			Consumer Prices <sup>1</sup>			Current Account Balance <sup>2</sup>			Unemployment <sup>3</sup>		
	2023	Projections		2023	Projections		2023	Projections		2023	Projections	
		2024	2025		2024	2025		2024	2025		2024	2025
<b>Europe</b>	<b>1.4</b>	<b>1.6</b>	<b>2.0</b>	<b>10.6</b>	<b>8.5</b>	<b>6.0</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	...	...	...
<b>Advanced Europe</b>	<b>0.5</b>	<b>0.8</b>	<b>1.5</b>	<b>5.7</b>	<b>2.4</b>	<b>2.0</b>	<b>3.0</b>	<b>3.1</b>	<b>3.0</b>	<b>5.9</b>	<b>6.0</b>	<b>5.8</b>
Euro Area <sup>4,5</sup>	0.4	0.8	1.5	5.4	2.4	2.1	1.9	2.3	2.3	6.5	6.6	6.4
Germany	-0.3	0.2	1.3	6.0	2.4	2.0	6.8	7.0	6.9	3.0	3.3	3.1
France	0.9	0.7	1.4	5.7	2.4	1.8	-0.7	-0.6	-0.6	7.4	7.4	7.0
Italy	0.9	0.7	0.7	5.9	1.7	2.0	0.2	0.8	1.3	7.7	7.8	8.0
Spain	2.5	1.9	2.1	3.4	2.7	2.4	2.6	2.5	2.4	12.1	11.6	11.3
The Netherlands	0.1	0.6	1.3	4.1	2.7	2.1	10.2	9.1	8.8	3.6	3.9	4.2
Belgium	1.5	1.2	1.2	2.3	3.6	2.0	-0.1	-0.5	-0.4	5.5	5.5	5.5
Ireland	-3.2	1.5	2.5	5.2	2.4	2.0	9.9	10.4	9.6	4.3	4.4	4.5
Austria	-0.7	0.4	1.6	7.7	3.9	2.8	1.8	2.1	2.1	5.1	5.4	5.2
Portugal	2.3	1.7	2.1	5.3	2.2	2.0	1.4	1.6	1.5	6.6	6.5	6.3
Greece	2.0	2.0	1.9	4.2	2.7	2.1	-6.9	-6.5	-5.3	10.9	9.4	8.7
Finland	-1.0	0.4	1.9	4.3	1.2	1.9	-1.0	-0.6	-0.4	7.2	7.6	7.4
Slovak Republic	1.1	2.1	2.6	11.0	3.6	3.9	-2.1	-4.4	-3.6	5.8	5.9	5.9
Croatia	2.8	3.0	2.7	8.4	3.7	2.2	1.2	1.5	0.9	6.2	5.8	5.5
Lithuania	-0.3	2.2	2.5	8.7	1.5	2.3	2.6	1.3	1.3	6.6	6.3	6.1
Slovenia	1.6	2.0	2.5	7.4	2.7	2.0	4.5	2.7	2.1	3.7	3.7	3.8
Luxembourg	-1.1	1.3	2.9	2.9	2.5	3.1	7.4	7.4	7.6	5.2	6.0	6.0
Latvia	-0.3	1.7	2.4	9.1	2.0	3.6	-4.0	-3.8	-3.9	6.5	6.5	6.5
Estonia	-3.0	-0.5	2.2	9.1	4.2	2.5	-1.7	-3.4	-2.7	6.4	8.1	7.7
Cyprus	2.5	2.7	2.9	3.9	2.3	2.0	-9.3	-8.6	-8.5	6.1	5.9	5.7
Malta	5.6	5.0	4.0	5.7	2.9	2.1	1.9	2.5	2.7	2.5	2.5	2.5
United Kingdom	0.1	0.5	1.5	7.3	2.5	2.0	-2.2	-2.6	-2.8	4.0	4.2	4.1
Switzerland	0.8	1.3	1.4	2.1	1.5	1.2	7.6	8.2	7.6	2.0	2.3	2.4
Sweden	-0.2	0.2	2.2	5.9	2.6	2.0	6.2	6.0	5.3	7.7	8.4	8.2
Czech Republic	-0.4	0.7	2.0	10.7	2.1	2.0	1.2	0.6	1.0	2.6	2.6	2.5
Norway	0.5	1.5	1.9	5.5	3.3	2.6	17.7	19.5	20.7	3.6	3.8	3.8
Denmark	1.8	2.1	1.5	3.4	1.5	2.0	10.9	9.9	9.7	4.9	4.9	4.9
Iceland	4.1	1.7	2.0	8.7	5.6	3.4	1.0	1.0	0.8	3.4	3.8	4.1
Andorra	2.3	1.8	1.5	5.6	4.3	2.4	17.3	17.5	17.5	1.5	1.5	1.5
San Marino	2.3	1.3	1.3	6.1	2.3	2.0	4.1	2.9	2.1	4.0	3.9	3.9
<b>Emerging and Developing Europe<sup>6</sup></b>	<b>3.2</b>	<b>3.1</b>	<b>2.8</b>	<b>19.4</b>	<b>18.8</b>	<b>13.1</b>	<b>-0.5</b>	<b>-0.3</b>	<b>-0.5</b>	...	...	...
Russia	3.6	3.2	1.8	5.9	6.9	4.5	2.5	2.7	2.7	3.2	3.1	3.2
Türkiye	4.5	3.1	3.2	53.9	59.5	38.4	-4.1	-2.8	-2.2	9.4	9.6	9.6
Poland	0.2	3.1	3.5	11.4	5.0	5.0	1.6	0.7	-0.2	2.8	2.9	3.0
Romania	2.1	2.8	3.6	10.4	6.0	4.0	-7.1	-7.1	-6.8	5.6	5.6	5.4
Ukraine <sup>7</sup>	5.0	3.2	6.5	12.9	6.4	7.6	-5.5	-5.7	-8.2	19.1	14.5	13.8
Hungary	-0.9	2.2	3.3	17.1	3.7	3.5	0.3	-0.2	-0.3	4.1	4.4	4.2
Belarus	3.9	2.4	1.1	5.0	6.3	6.5	-0.1	-0.5	-1.3	3.5	3.0	2.9
Bulgaria	1.8	2.7	2.9	8.6	3.4	2.7	0.3	-0.3	-1.2	4.4	4.3	4.2
Serbia	2.5	3.5	4.5	12.4	4.8	3.1	-2.6	-3.9	-4.7	9.5	9.4	9.3

Source: IMF staff estimates.

Note: Data for some countries are based on fiscal years. Please refer to Table F in the Statistical Appendix for a list of economies with exceptional reporting periods.

<sup>1</sup> Movements in consumer prices are shown as annual averages. Year-end to year-end changes can be found in Tables A6 and A7 in the Statistical Appendix.

<sup>2</sup> Percent of GDP.

<sup>3</sup> Percent. National definitions of unemployment may differ.

<sup>4</sup> Current account position corrected for reporting discrepancies in intra-area transactions.

<sup>5</sup> Based on Eurostat's harmonized index of consumer prices except for Slovenia.

<sup>6</sup> Includes Albania, Bosnia and Herzegovina, Kosovo, Moldova, Montenegro, and North Macedonia.

<sup>7</sup> See the country-specific note for Ukraine in the "Country Notes" section of the Statistical Appendix.

**Annex Table 1.1.2. Asian and Pacific Economies: Real GDP, Consumer Prices, Current Account Balance, and Unemployment**  
(Annual percent change, unless noted otherwise)

	Real GDP			Consumer Prices <sup>1</sup>			Current Account Balance <sup>2</sup>			Unemployment <sup>3</sup>		
	2023	Projections		2023	Projections		2023	Projections		2023	Projections	
		2024	2025		2024	2025		2024	2025		2024	2025
<b>Asia</b>	<b>5.0</b>	<b>4.5</b>	<b>4.3</b>	<b>2.6</b>	<b>2.4</b>	<b>2.7</b>	<b>1.9</b>	<b>1.7</b>	<b>1.7</b>	...	...	...
<b>Advanced Asia</b>	<b>2.2</b>	<b>1.7</b>	<b>1.8</b>	<b>3.6</b>	<b>2.5</b>	<b>2.2</b>	<b>4.5</b>	<b>4.6</b>	<b>4.6</b>	<b>2.8</b>	<b>2.9</b>	<b>3.0</b>
Japan	1.9	0.9	1.0	3.3	2.2	2.1	3.4	3.5	3.5	2.6	2.5	2.5
Korea	1.4	2.3	2.3	3.6	2.5	2.0	2.1	2.9	3.4	2.7	3.0	3.1
Australia	2.1	1.5	2.0	5.6	3.5	3.0	1.2	0.5	-0.2	3.7	4.2	4.5
Taiwan Province of China	1.4	3.1	2.7	2.5	1.9	1.6	13.1	13.9	13.9	3.7	3.7	3.7
Singapore	1.1	2.1	2.3	4.8	3.0	2.5	19.8	18.0	17.8	1.9	1.9	1.9
Hong Kong SAR	3.2	2.9	2.7	2.1	2.3	2.3	9.4	8.8	8.3	2.9	2.8	2.7
New Zealand	0.6	1.0	2.0	5.7	3.1	2.5	-6.9	-6.0	-5.4	3.7	5.0	5.4
Macao SAR	80.5	13.9	9.6	0.9	1.7	2.3	30.2	32.5	34.8	2.7	2.0	1.9
<b>Emerging and Developing Asia</b>	<b>5.6</b>	<b>5.2</b>	<b>4.9</b>	<b>2.4</b>	<b>2.4</b>	<b>2.8</b>	<b>1.0</b>	<b>0.7</b>	<b>0.7</b>	...	...	...
China	5.2	4.6	4.1	0.2	1.0	2.0	1.5	1.3	1.4	5.2	5.1	5.1
India <sup>4</sup>	7.8	6.8	6.5	5.4	4.6	4.2	-1.2	-1.4	-1.6	...	...	...
Indonesia	5.0	5.0	5.1	3.7	2.6	2.6	-0.1	-0.9	-1.3	5.3	5.2	5.1
Thailand	1.9	2.7	2.9	1.2	0.7	1.2	1.3	1.7	2.0	1.2	1.1	1.0
Vietnam	5.0	5.8	6.5	3.3	3.7	3.4	5.1	2.3	2.0	2.0	2.1	2.0
Philippines	5.6	6.2	6.2	6.0	3.6	3.0	-2.6	-2.2	-1.6	4.4	5.1	5.2
Malaysia	3.7	4.4	4.4	2.5	2.8	2.5	1.2	2.4	2.7	3.6	3.5	3.5
<b>Other Emerging and Developing Asia<sup>5</sup></b>	<b>4.0</b>	<b>5.4</b>	<b>5.7</b>	<b>11.6</b>	<b>9.2</b>	<b>6.2</b>	<b>-0.1</b>	<b>-0.9</b>	<b>-2.2</b>	...	...	...
<i>Memorandum</i>												
ASEAN-5 <sup>6</sup>	4.1	4.5	4.6	3.5	2.5	2.4	3.0	2.6	2.5	...	...	...
Emerging Asia <sup>7</sup>	5.7	5.2	4.8	2.0	2.1	2.6	1.0	0.7	0.8	...	...	...

Source: IMF staff estimates.

Note: Data for some countries are based on fiscal years. Please refer to Table F in the Statistical Appendix for a list of economies with exceptional reporting periods.

<sup>1</sup> Movements in consumer prices are shown as annual averages. Year-end to year-end changes can be found in Tables A6 and A7 in the Statistical Appendix.<sup>2</sup> Percent of GDP.<sup>3</sup> Percent. National definitions of unemployment may differ.<sup>4</sup> See the country-specific note for India in the "Country Notes" section of the Statistical Appendix.<sup>5</sup> Other Emerging and Developing Asia comprises Bangladesh, Bhutan, Brunei Darussalam, Cambodia, Fiji, Kiribati, Lao P.D.R., Maldives, the Marshall Islands, Micronesia, Mongolia, Myanmar, Nauru, Nepal, Palau, Papua New Guinea, Samoa, the Solomon Islands, Sri Lanka, Timor-Leste, Tonga, Tuvalu, and Vanuatu.<sup>6</sup> Indonesia, Malaysia, the Philippines, Singapore, and Thailand.<sup>7</sup> Emerging Asia comprises China, India, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam.

**Annex Table 1.1.3. Western Hemisphere Economies: Real GDP, Consumer Prices, Current Account Balance, and Unemployment**  
(Annual percent change, unless noted otherwise)

	Real GDP			Consumer Prices <sup>1</sup>			Current Account Balance <sup>2</sup>			Unemployment <sup>3</sup>		
	2023	Projections		2023	Projections		2023	Projections		2023	Projections	
		2024	2025		2024	2025		2024	2025		2024	2025
<b>North America</b>	<b>2.5</b>	<b>2.6</b>	<b>1.9</b>	<b>4.2</b>	<b>3.0</b>	<b>2.1</b>	<b>-2.7</b>	<b>-2.2</b>	<b>-2.2</b>	...	...	...
United States	2.5	2.7	1.9	4.1	2.9	2.0	-3.0	-2.5	-2.5	3.6	4.0	4.2
Mexico	3.2	2.4	1.4	5.5	4.0	3.3	-0.3	-0.8	-0.8	2.8	2.8	3.2
Canada	1.1	1.2	2.3	3.9	2.6	1.9	-0.6	0.3	0.4	5.4	6.3	6.3
Puerto Rico <sup>4</sup>	-0.7	-0.2	0.0	2.8	1.9	2.3	...	...	...	6.9	6.7	6.6
<b>South America<sup>5</sup></b>	<b>1.5</b>	<b>1.4</b>	<b>2.7</b>	<b>19.7</b>	<b>24.7</b>	<b>10.1</b>	<b>-1.7</b>	<b>-1.2</b>	<b>-1.4</b>	...	...	...
Brazil	2.9	2.2	2.1	4.6	4.1	3.0	-1.3	-1.4	-1.5	8.0	8.0	7.9
Argentina	-1.6	-2.8	5.0	133.5	249.8	59.6	-3.5	0.9	0.9	6.6	8.0	7.5
Colombia	0.6	1.1	2.5	11.7	6.4	3.6	-2.7	-3.0	-3.3	10.1	9.9	9.6
Chile	0.2	2.0	2.5	7.6	3.2	3.0	-3.5	-3.9	-3.7	8.8	8.7	8.1
Peru	-0.6	2.5	2.7	6.3	2.3	2.0	0.6	-1.1	-1.4	6.8	6.6	6.5
Ecuador	2.3	0.1	0.8	2.2	1.4	1.5	1.2	0.9	1.2	3.7	4.2	4.0
Venezuela	4.0	4.0	3.0	337.5	100.0	150.0	3.4	4.7	4.0	...	...	...
Bolivia	2.5	1.6	2.2	2.6	4.5	4.2	-5.0	-5.7	-5.8	4.9	5.0	5.1
Paraguay	4.5	3.8	3.8	4.6	3.8	4.0	0.2	0.6	1.5	6.2	6.0	6.0
Uruguay	0.4	3.7	2.9	5.9	5.8	5.5	-3.9	-3.6	-3.2	8.3	8.1	8.0
<b>Central America<sup>6</sup></b>	<b>4.2</b>	<b>3.9</b>	<b>3.8</b>	<b>4.1</b>	<b>3.0</b>	<b>3.3</b>	<b>-0.5</b>	<b>-1.5</b>	<b>-1.8</b>	...	...	...
<b>Caribbean<sup>7</sup></b>	<b>8.3</b>	<b>9.7</b>	<b>6.9</b>	<b>12.8</b>	<b>6.8</b>	<b>5.6</b>	<b>2.6</b>	<b>3.0</b>	<b>2.1</b>	...	...	...
<i>Memorandum</i>												
Latin America and the Caribbean <sup>8</sup>	2.3	2.0	2.5	14.4	16.7	7.7	-1.2	-1.0	-1.2	...	...	...
Eastern Caribbean Currency Union <sup>9</sup>	4.8	4.3	3.3	3.9	2.3	2.0	-12.3	-11.2	-9.9	...	...	...

Source: IMF staff estimates.

Note: Data for some countries are based on fiscal years. Please refer to Table F in the Statistical Appendix for a list of economies with exceptional reporting periods.

<sup>1</sup> Movements in consumer prices are shown as annual averages. Year-end to year-end changes can be found in Tables A6 and A7 in the Statistical Appendix. Aggregates exclude Venezuela.

<sup>2</sup> Percent of GDP.

<sup>3</sup> Percent. National definitions of unemployment may differ.

<sup>4</sup> Puerto Rico is a territory of the United States, but its statistical data are maintained on a separate and independent basis.

<sup>5</sup> See the country-specific notes for Argentina and Venezuela in the "Country Notes" section of the Statistical Appendix.

<sup>6</sup> Central America refers to CAPDR (Central America, Panama, and the Dominican Republic) and comprises Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama.

<sup>7</sup> The Caribbean comprises Antigua and Barbuda, Aruba, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

<sup>8</sup> Latin America and the Caribbean comprises Mexico and economies from the Caribbean, Central America, and South America. See the country-specific notes for Argentina and Venezuela in the "Country Notes" section of the Statistical Appendix.

<sup>9</sup> Eastern Caribbean Currency Union comprises Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines, as well as Anguilla and Montserrat, which are not IMF members.

**Annex Table 1.1.4. Middle East and Central Asia Economies: Real GDP, Consumer Prices, Current Account Balance, and Unemployment***(Annual percent change, unless noted otherwise)*

	Real GDP			Consumer Prices <sup>1</sup>			Current Account Balance <sup>2</sup>			Unemployment <sup>3</sup>		
	2023	Projections		2023	Projections		2023	Projections		2023	Projections	
		2024	2025		2024	2025		2024	2025		2024	2025
<b>Middle East and Central Asia</b>	<b>2.0</b>	<b>2.8</b>	<b>4.2</b>	<b>16.7</b>	<b>15.5</b>	<b>11.8</b>	<b>4.0</b>	<b>1.8</b>	<b>1.4</b>	...	...	...
<b>Oil Exporters<sup>4</sup></b>	<b>2.1</b>	<b>2.8</b>	<b>4.4</b>	<b>11.4</b>	<b>10.3</b>	<b>9.1</b>	<b>6.4</b>	<b>4.0</b>	<b>3.1</b>	...	...	...
Saudi Arabia	-0.8	2.6	6.0	2.3	2.3	2.0	3.9	0.5	-0.6	...	...	...
Iran	4.7	3.3	3.1	41.5	37.5	32.5	4.4	3.6	3.4	9.0	8.9	8.8
United Arab Emirates	3.4	3.5	4.2	1.6	2.1	2.0	9.3	7.8	6.9	...	...	...
Kazakhstan	5.1	3.1	5.6	14.6	8.7	7.0	-3.8	-4.5	-2.7	4.8	4.8	4.8
Algeria	4.2	3.8	3.1	9.3	7.6	6.4	2.2	0.1	-1.5	...	...	...
Iraq	-2.2	1.4	5.3	4.4	4.0	4.0	2.6	-3.6	-5.1	...	...	...
Qatar	1.6	2.0	2.0	3.1	2.6	2.4	18.7	15.6	13.2	...	...	...
Kuwait	-2.2	-1.4	3.8	3.6	3.2	2.7	32.8	30.1	27.1	...	...	...
Oman	1.3	1.2	3.1	0.9	1.3	1.5	1.8	2.7	2.1	...	...	...
Azerbaijan	1.1	2.8	2.3	8.2	3.5	5.0	9.9	8.5	8.1	5.6	5.5	5.5
Turkmenistan	2.0	2.3	2.3	-1.7	5.0	7.9	4.8	4.1	2.8	...	...	...
Bahrain	2.6	3.6	3.2	0.1	1.4	1.8	6.3	6.9	5.3	...	...	...
<b>Oil Importers<sup>5,6</sup></b>	<b>1.8</b>	<b>2.7</b>	<b>4.0</b>	<b>25.7</b>	<b>24.5</b>	<b>16.3</b>	<b>-2.9</b>	<b>-4.6</b>	<b>-3.5</b>	...	...	...
Egypt	3.8	3.0	4.4	24.4	32.5	25.7	-1.2	-6.3	-2.4	7.2	7.1	7.0
Pakistan	-0.2	2.0	3.5	29.2	24.8	12.7	-0.7	-1.1	-1.2	8.5	8.0	7.5
Morocco	3.0	3.1	3.3	6.1	2.2	2.5	-1.5	-2.6	-2.9	13.0	12.0	11.5
Uzbekistan	6.0	5.2	5.4	10.0	11.6	9.7	-4.9	-4.9	-4.5	8.4	7.9	7.4
Sudan <sup>7</sup>	-18.3	-4.2	5.4	171.5	145.5	62.7	-5.4	-6.9	-11.0	46.0	49.5	48.2
Tunisia	0.4	1.9	1.8	9.3	7.4	6.9	-2.5	-3.5	-3.7	16.4	...	...
Jordan	2.6	2.6	3.0	2.2	2.7	2.4	-7.0	-6.3	-4.5	...	...	...
Georgia	7.5	5.7	5.2	2.5	2.6	4.2	-4.3	-5.8	-5.6	16.4	15.7	16.0
Armenia	8.7	6.0	5.2	2.0	3.1	3.7	-1.9	-2.8	-3.6	12.5	13.0	13.5
Tajikistan	8.3	6.5	4.5	3.7	4.9	6.3	-0.7	-2.1	-2.2	...	...	...
Kyrgyz Republic	4.2	4.4	4.2	10.8	6.7	6.6	-30.4	-9.5	-8.0	9.0	9.0	9.0
West Bank and Gaza <sup>7</sup>	-6.1	...	...	5.9	...	...	-13.1	...	...	28.7	...	...
Mauritania	4.8	5.1	5.5	4.9	2.8	4.0	-11.2	-11.7	-9.2	...	...	...
<i>Memorandum</i>												
Caucasus and Central Asia	4.9	3.9	4.8	9.7	7.7	7.1	-1.5	-1.9	-1.3	...	...	...
Middle East, North Africa, Afghanistan, and Pakistan <sup>6</sup>	1.6	2.6	4.1	17.7	16.6	12.4	4.8	2.4	1.8	...	...	...
Middle East and North Africa	1.9	2.7	4.2	16.0	15.4	12.4	5.3	2.7	2.1	...	...	...
Israel <sup>7,8</sup>	2.0	1.6	5.4	4.2	2.4	2.5	4.7	5.6	4.2	3.5	3.7	3.8

Source: IMF staff estimates.

Note: Data for some countries are based on fiscal years. Please refer to Table F in the Statistical Appendix for a list of economies with exceptional reporting periods.

<sup>1</sup> Movements in consumer prices are shown as annual averages. Year-end to year-end changes can be found in Tables A6 and A7 in the Statistical Appendix.<sup>2</sup> Percent of GDP.<sup>3</sup> Percent. National definitions of unemployment may differ.<sup>4</sup> Includes Libya and Yemen.<sup>5</sup> Includes Djibouti, Lebanon, and Somalia. See the country-specific note for Lebanon in the "Country Notes" section of the Statistical Appendix.<sup>6</sup> Excludes Afghanistan and Syria because of the uncertain political situation. See the country-specific notes in the "Country Notes" section of the Statistical Appendix.<sup>7</sup> See the country-specific notes for Israel, Sudan, and West Bank and Gaza in the "Country Notes" section of the Statistical Appendix.<sup>8</sup> Israel, which is not a member of the economic region, is shown for reasons of geography but is not included in the regional aggregates.

**Annex Table 1.1.5. Sub-Saharan African Economies: Real GDP, Consumer Prices, Current Account Balance, and Unemployment**  
(Annual percent change, unless noted otherwise)

	Real GDP			Consumer Prices <sup>1</sup>			Current Account Balance <sup>2</sup>			Unemployment <sup>3</sup>		
	2023	Projections		2023	Projections		2023	Projections		2023	Projections	
		2024	2025		2024	2025		2024	2025		2024	2025
<b>Sub-Saharan Africa</b>	<b>3.4</b>	<b>3.8</b>	<b>4.0</b>	<b>16.2</b>	<b>15.3</b>	<b>12.4</b>	<b>-2.8</b>	<b>-2.8</b>	<b>-2.6</b>	...	...	...
<b>Oil Exporters<sup>4</sup></b>	<b>2.4</b>	<b>3.2</b>	<b>2.9</b>	<b>21.2</b>	<b>23.7</b>	<b>19.7</b>	<b>0.9</b>	<b>1.6</b>	<b>1.0</b>	...	...	...
Nigeria	2.9	3.3	3.0	24.7	26.3	23.0	0.3	0.6	-0.1	...	...	...
Angola	0.5	2.6	3.1	13.6	22.0	12.8	3.1	4.9	4.6	...	...	...
Gabon	2.3	2.9	2.7	3.6	2.1	2.2	4.2	4.0	3.0	...	...	...
Chad	4.4	2.9	3.7	2.7	3.1	3.1	-2.5	-2.3	-3.0	...	...	...
Equatorial Guinea	-5.9	0.5	-4.6	2.5	4.4	1.8	-1.3	-2.7	-2.7	...	...	...
<b>Middle-Income Countries<sup>5</sup></b>	<b>2.8</b>	<b>3.2</b>	<b>3.6</b>	<b>9.0</b>	<b>6.8</b>	<b>5.2</b>	<b>-3.2</b>	<b>-2.7</b>	<b>-2.4</b>	...	...	...
South Africa	0.6	0.9	1.2	5.9	4.9	4.5	-1.6	-1.8	-1.9	32.8	33.5	33.9
Kenya	5.5	5.0	5.3	7.7	6.6	5.5	-3.9	-4.3	-4.2	...	...	...
Ghana	2.3	2.8	4.4	37.5	22.3	11.5	-1.7	-1.9	-2.2	...	...	...
Côte d'Ivoire	6.2	6.5	6.4	4.4	3.8	3.0	-6.0	-3.8	-2.6	...	...	...
Cameroon	4.0	4.3	4.5	7.2	5.9	5.5	-2.8	-2.8	-2.8	...	...	...
Zambia	4.3	4.7	4.8	11.0	11.4	7.8	-1.8	3.7	5.2	...	...	...
Senegal	4.1	8.3	10.2	5.9	3.9	2.0	-15.1	-8.9	-4.8	...	...	...
<b>Low-Income Countries<sup>6</sup></b>	<b>5.4</b>	<b>5.5</b>	<b>5.8</b>	<b>21.8</b>	<b>19.0</b>	<b>15.4</b>	<b>-5.6</b>	<b>-5.7</b>	<b>-5.2</b>	...	...	...
Ethiopia	7.2	6.2	6.5	30.2	25.6	18.2	-2.9	-2.6	-1.7	...	...	...
Tanzania	5.0	5.5	6.0	4.0	4.0	4.0	-5.3	-4.2	-3.6	...	...	...
Democratic Republic of the Congo	6.1	4.7	5.7	19.9	17.2	8.5	-5.4	-4.1	-3.2	...	...	...
Uganda	4.8	5.6	6.5	5.4	3.8	4.9	-7.7	-7.3	-7.6	...	...	...
Burkina Faso	3.6	5.5	5.8	0.9	2.1	2.0	-7.9	-5.7	-4.1	...	...	...
Mali	4.5	4.0	4.5	2.1	1.0	2.0	-9.0	-5.1	-4.4	...	...	...

Source: IMF staff estimates.

Note: Data for some countries are based on fiscal years. Please refer to Table F in the Statistical Appendix for a list of economies with exceptional reporting periods.

<sup>1</sup> Movements in consumer prices are shown as annual averages. Year-end to year-end changes can be found in Tables A6 and A7 in the Statistical Appendix.<sup>2</sup> Percent of GDP.<sup>3</sup> Percent. National definitions of unemployment may differ.<sup>4</sup> Includes Republic of Congo and South Sudan.<sup>5</sup> Includes Benin, Botswana, Cabo Verde, the Comoros, Eswatini, Lesotho, Mauritius, Namibia, São Tomé and Príncipe, and Seychelles.<sup>6</sup> Includes Burundi, Central African Republic, Eritrea, The Gambia, Guinea, Guinea-Bissau, Liberia, Madagascar, Malawi, Mozambique, Niger, Rwanda, Sierra Leone, Togo, and Zimbabwe.

**Annex Table 1.1.6. Summary of World Real per Capita Output**  
(Annual percent change; in constant 2017 international dollars at purchasing power parity)

	Average									Projections	
	2006–15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>World</b>	<b>2.1</b>	<b>1.9</b>	<b>2.5</b>	<b>2.5</b>	<b>1.7</b>	<b>-3.9</b>	<b>5.5</b>	<b>2.5</b>	<b>2.6</b>	<b>2.2</b>	<b>2.2</b>
<b>Advanced Economies</b>	<b>0.9</b>	<b>1.3</b>	<b>2.1</b>	<b>1.9</b>	<b>1.4</b>	<b>-4.5</b>	<b>5.6</b>	<b>2.2</b>	<b>1.1</b>	<b>1.3</b>	<b>1.4</b>
United States	0.8	1.1	1.8	2.4	2.0	-3.0	5.5	1.6	2.0	2.1	1.3
Euro Area <sup>1</sup>	0.5	1.6	2.4	1.6	1.3	-6.4	6.0	3.2	0.1	0.5	1.2
Germany	1.4	1.4	2.3	0.7	0.8	-3.9	3.1	1.1	-1.2	0.1	1.3
France	0.4	0.8	2.0	1.5	1.4	-7.8	5.9	2.2	0.6	0.5	1.2
Italy	-0.9	1.5	1.8	1.1	0.7	-8.7	9.1	4.3	1.2	0.8	0.9
Spain	-0.1	2.9	2.8	1.9	1.2	-11.6	6.5	5.1	2.1	0.7	1.0
Japan	0.6	0.8	1.8	0.8	-0.2	-3.9	2.8	1.2	2.4	1.3	1.5
United Kingdom	0.4	1.1	2.0	0.8	1.1	-10.7	8.4	3.6	-0.3	0.0	1.1
Canada	0.6	0.0	1.8	1.3	0.4	-6.1	4.7	2.1	-1.7	-1.1	1.0
Other Advanced Economies <sup>2</sup>	2.1	1.8	2.5	2.0	1.2	-2.2	5.9	1.8	0.9	1.5	2.0
<b>Emerging Market and Developing Economies</b>	<b>4.0</b>	<b>2.8</b>	<b>3.3</b>	<b>3.3</b>	<b>2.3</b>	<b>-3.1</b>	<b>5.8</b>	<b>3.0</b>	<b>3.7</b>	<b>3.1</b>	<b>3.1</b>
Emerging and Developing Asia	6.7	5.8	5.7	5.6	4.4	-1.3	6.9	3.9	5.1	4.6	4.3
China	9.0	6.2	6.4	6.3	5.6	2.1	8.4	3.1	5.3	4.7	4.2
India <sup>3</sup>	5.3	7.0	5.6	5.3	2.8	-6.7	8.8	6.3	7.0	5.8	5.5
Emerging and Developing Europe	2.9	1.5	3.9	3.4	2.3	-1.6	7.6	2.1	3.8	3.8	2.5
Russia	2.4	0.0	1.7	2.8	2.2	-2.5	6.4	-1.8	3.9	5.6	2.0
Latin America and the Caribbean	1.8	-1.9	0.3	0.2	-0.9	-8.1	6.4	3.4	1.4	1.1	1.6
Brazil	1.9	-3.8	0.8	1.3	0.7	-3.7	4.2	2.5	2.3	1.6	1.6
Mexico	0.5	0.8	0.9	1.0	-1.2	-9.3	5.1	3.2	2.3	1.5	0.6
Middle East and Central Asia	1.4	1.8	0.1	0.8	-0.1	-4.5	2.7	3.2	3.6	1.0	2.4
Saudi Arabia	0.3	-1.9	0.8	5.9	1.5	-8.1	7.7	2.8	-2.7	0.5	3.9
Sub-Saharan Africa	2.1	-1.3	0.1	0.6	0.5	-4.3	2.1	1.3	0.8	1.2	1.4
Nigeria	3.6	-4.2	-1.8	-0.7	-0.4	-4.3	1.1	0.7	0.3	0.8	0.5
South Africa	1.1	-0.8	-0.3	0.1	-1.2	-7.3	3.8	1.1	-0.9	-0.6	-0.3
<i>Memorandum</i>											
European Union	0.8	1.8	2.9	2.1	1.7	-5.8	6.2	3.4	0.4	0.9	1.6
ASEAN-5 <sup>4</sup>	3.7	3.6	4.1	3.9	3.2	-5.4	3.3	4.5	3.1	3.5	3.7
Middle East and North Africa	1.0	2.2	-0.5	0.5	-0.6	-4.9	2.8	3.2	0.0	0.9	2.5
Emerging Market and Middle-Income Economies	4.2	3.1	3.6	3.7	2.6	-2.9	6.5	3.4	3.6	3.4	3.4
Low-Income Developing Countries	3.1	0.9	2.0	2.2	2.1	-1.9	1.7	1.8	2.7	2.4	2.8

Source: IMF staff estimates.

Note: Data for some countries are based on fiscal years. Please refer to Table F in the Statistical Appendix for a list of economies with exceptional reporting periods.

<sup>1</sup> Data are calculated as the sum of those for individual euro area countries.

<sup>2</sup> Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.

<sup>3</sup> See the country-specific note for India in the "Country Notes" section of the Statistical Appendix.

<sup>4</sup> ASEAN-5 comprises Indonesia, Malaysia, the Philippines, Singapore, and Thailand.



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