

INTERNATIONAL MONETARY FUND

WORLD ECONOMIC OUTLOOK

Policy Pivot, Rising Threats

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ASSUMPTIONS AND CONVENTIONS

A number of assumptions have been adopted for the projections presented in the *World Economic Outlook* (WEO). It has been assumed that *real effective exchange* rates remained constant at their average levels during July 30, 2024–August 27, 2024, except for those for the currencies participating in the European exchange rate mechanism II, which are assumed to have remained constant in nominal terms relative to the euro; that established *policies of national authorities* will be maintained (for specific assumptions about fiscal and monetary policies for selected economies, see Box A1 in the Statistical Appendix); that the average price of oil will be \$81.29 a barrel in 2024 and \$72.84 a barrel in 2025; that the *three-month government bond yield* for the United States will average 5.4 percent in 2024 and 3.9 percent in 2025, that for the euro area will average 3.5 percent in 2024 and 2.8 percent in 2025, and that for Japan will average 0.1 percent in 2024 and 0.5 percent in 2025; and that the *10-year government bond yield* for the United States will average 4.1 percent in 2024 and 3.5 percent in 2025, that for the euro area will average 2.4 percent in 2024 and 2.5 percent in 2025, and that for Japan will average 1.0 percent in 2024 and 1.3 percent in 2025. These are, of course, working hypotheses rather than forecasts, and the uncertainties surrounding them add to the margin of error that would, in any event, be involved in the projections. The estimates and projections are based on statistical information available through October 7, 2024, but may not reflect the latest published data in all cases. For the date of the last data update for each economy, please refer to the notes provided in the online WEO database.

The following conventions are used throughout the WEO:

- . . . to indicate that data are not available or not applicable;
- – between years or months (for example, 2023–24 or January–June) to indicate the years or months covered, including the beginning and ending years or months; and
- / between years or months (for example, 2023/24) to indicate a fiscal or financial year.
- “Billion” means a thousand million; “trillion” means a thousand billion.
- “Basis points” refers to hundredths of 1 percentage point (for example, 25 basis points are equivalent to $\frac{1}{4}$ of 1 percentage point).
- Data refer to calendar years, except in the case of a few countries that use fiscal years. Please refer to Table F in the Statistical Appendix, which lists the economies with exceptional reporting periods for national accounts and government finance data.
- For some countries, the figures for 2023 and earlier are based on estimates rather than actual outturns. Please refer to Table G in the Statistical Appendix, which lists the latest actual outturns for the indicators in the national accounts, prices, government finance, and balance of payments for each country.

What is new in this publication:

- Following the recent release of the 2021 survey by the World Bank Group’s International Comparison Program for new purchasing-power-parity benchmarks, the WEO’s estimates of purchasing-power-parity weights and GDP valued at purchasing power parity have been updated. For more details, see Box A2 in the Statistical Appendix.
- For Bangladesh, fiscal year estimates of real GDP and purchasing-power-parity GDP are now used in country group aggregates.
- For Zimbabwe, the authorities have recently redenominated their national accounts statistics following the introduction on April 5, 2024 of a new national currency, the Zimbabwe gold, replacing the Zimbabwe dollar. The use of the Zimbabwe dollar ceased on April 30, 2024.

In the tables and figures, the following conventions apply:

- Tables and figures in this report that list their source as “IMF staff calculations” or “IMF staff estimates” draw on data from the WEO database.
- When countries are not listed alphabetically, they are ordered on the basis of economic size.
- Minor discrepancies between sums of constituent figures and totals shown reflect rounding.
- Composite data are provided for various groups of countries organized according to economic characteristics or region. Unless noted otherwise, country group composites represent calculations based on 90 percent or more of the weighted group data.
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PREFACE

The analysis and projections contained in the *World Economic Outlook* are integral elements of the IMF's surveillance of economic developments and policies in its member countries, of developments in international financial markets, and of the global economic system. The survey of prospects and policies is the product of a comprehensive interdepartmental review of world economic developments, which draws primarily on information the IMF staff gathers through its consultations with member countries. These consultations are carried out in particular by the IMF's area departments—namely, the African Department, Asia and Pacific Department, European Department, Middle East and Central Asia Department, and Western Hemisphere Department—together with the Strategy, Policy, and Review Department; the Monetary and Capital Markets Department; and the Fiscal Affairs Department.

The analysis in this report was coordinated in the Research Department under the general direction of Pierre-Olivier Gourinchas, Economic Counsellor and Director of Research. The project was directed by Petya Koeva Brooks, Deputy Director, Research Department, and Jean Marc Natal, Deputy Division Chief, Research Department.

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Gemma Rose Diaz from the Communications Department led the editorial team for the report, with production and editorial support from Michael Harrup and additional assistance from Lucy Scott Morales, James Unwin, Grauel Group, and Absolute Service, Inc. Elad Meshulam, Mishri Someshwar, and John Michael Burkhardt from IMF Creative Lab assisted with the design of the surveys used in Chapter 3. Gabriele Ciminelli, Davide Furceri, Daisuke Fukuzawa, Ergys Islamaj, and Duong Trung Le provided updated estimates of selected IMF Structural Reform Database series used in Chapter 3. Tatiana Goriainova and Sylvie Poirot from CSF Library provided data licensing services and support.

The analysis has benefited from comments and suggestions by staff members from other IMF departments, as well as by Executive Directors following their discussion of the report on October 8, 2024. However, estimates, projections, and policy considerations are those of the IMF staff and should not be attributed to Executive Directors or to their national authorities.

The Global Battle against Inflation Is Almost Won; A Policy Triple Pivot Is Now Needed

The global battle against inflation has largely been won, even though price pressures persist in some countries. After peaking at 9.4 percent year over year in the third quarter of 2022, headline inflation rates are now projected to reach 3.5 percent by the end of 2025, below the average level of 3.6 percent between 2000 and 2019.

Moreover, despite a sharp and synchronized tightening of monetary policy around the world, the global economy has remained unusually resilient throughout the disinflationary process, avoiding a global recession. Growth is projected to hold steady at 3.2 percent in 2024 and 2025, even though a few countries, especially low-income developing countries, have seen sizable downside growth revisions, often as a result of increased conflicts.

While the global decline in inflation is a major milestone, downside risks are rising and now dominate the outlook: an escalation in regional conflicts, monetary policy remaining tight for too long, a possible resurgence of financial market volatility with adverse effects on sovereign debt markets (see October 2024 *Global Financial Stability Report*), a deeper growth slowdown in China, and the continued ratcheting up of protectionist policies.

What accounts for the decline in inflation? As Chapter 2 of this report argues, the surge and subsequent decline in global inflation reflects a unique combination of shocks: broad supply disruptions coupled with strong demand pressures in the wake of the pandemic, followed by sharp spikes in commodity prices caused by the war in Ukraine. These shocks led to an upward shift and a steepening of the relationship between activity and inflation, the Phillips curve. As supply disruptions eased and monetary policy tightening started to constrain demand, normalization in labor markets allowed inflation to decline rapidly without a major slowdown in activity. Clearly, much of the disinflation can be attributed to the unwinding of the

shocks themselves, followed by improvements in labor supply, often linked to immigration. But monetary policy played an important role too by helping to keep inflation expectations anchored, avoiding deleterious wage-price spirals and a repeat of the disastrous inflation experience of the 1970s.

The return of inflation to near central bank targets paves the way for a much-needed policy triple pivot.

The first—on monetary policy—has started. Since June, major central banks in advanced economies have started to cut their policy rates, moving their policy stance toward neutral. This will support activity at a time when many advanced economies' labor markets are showing signs of weakness, with rising unemployment rates. It will also help ward off the downside risks.

The change in global monetary conditions is easing the pressure on emerging market economies, with their currencies strengthening against the US dollar and financial conditions improving. This will help reduce imported inflation pressures, allowing these countries to pursue more easily their own disinflation path.

However, vigilance remains key. Inflation in services remains too elevated, almost twice as high as before the pandemic. Some emerging market economies are facing a resurgence of inflationary pressures, sometimes because of elevated food prices. Furthermore, we have now entered a world dominated by supply disruptions—from climate, health, and geopolitics. It is always harder for monetary policy to maintain price stability when faced with such shocks, which simultaneously increase prices and reduce output. Finally, while inflation expectations have remained well anchored this time around, it may be harder next time, as workers and firms will be more vigilant in protecting their standards of living and profits going forward.

The second pivot is on fiscal policy. Fiscal space is also a cornerstone of financial stability. After years of loose fiscal policy, it is now time to stabilize debt dynamics and rebuild much-needed fiscal buffers. While the decline in policy rates provides some fiscal relief by lowering funding costs, this will not be

sufficient, especially as long-term real interest rates are much above pre-pandemic levels. In many countries, primary balances, the difference between fiscal revenues and public expenditures net of debt service, need to improve. For some countries, like the United States and China, debt dynamics are not stabilized under current fiscal plans (see October 2024 *Fiscal Monitor*). In many others, while early fiscal plans showed promise after the pandemic and cost-of-living crises, there are increasing signs of slippage. The path is narrow: unduly delaying adjustment increases the risk of disorderly market-imposed adjustments, while an excessively sharp turn toward fiscal consolidation would be self-defeating and hurt economic activity. Success requires staying the course by implementing gradual and credible multiyear adjustments without delay, where consolidation is necessary. The more credible and disciplined the fiscal adjustment, the more monetary policy will be able to play a supporting role. But the willingness and ability to deliver disciplined and credible adjustments have been lacking.

The third pivot—and the hardest—is on structural reforms. Much more needs to be done to improve growth prospects and lift productivity, as this is the only way we can address the many challenges we face: rebuilding fiscal buffers, aging and declining populations in many parts of the world, young and growing populations in Africa in search of opportunity, tackling the climate transition, increasing resilience, and improving the lives of the most vulnerable, within and across countries. Unfortunately, medium-term global growth remains lackluster, at 3.1 percent. While much of this reflects China’s weaker outlook, medium-term prospects in other regions, such as Latin America and the European Union, have also deteriorated. The recently published Draghi report offers a

clear-eyed assessment of the diminished prospects in the region—and the associated challenges.

Faced with increased external competition and structural weaknesses in manufacturing and productivity, many countries are implementing industrial and trade policy measures to protect their workers and industries. While these measures can sometimes boost investment and activity in the short run—especially when they rely on debt-financed subsidies—they often lead to retaliation, are unlikely to deliver sustained improvements in standards of living at home or abroad, and should be firmly resisted when they do not carefully address well-identified market failures or national security concerns. Instead, economic growth must come from ambitious domestic reforms that boost technology and innovation, improve competition and resource allocation, further economic integration, and stimulate productive private investment.

Yet while structural reforms are as urgent as ever, they often face significant social resistance. Chapter 3 of this report explores the factors that shape the social acceptability of reforms, one of the prerequisites for their eventual success. A clear message emerges from the chapter: better communication can only go so far. Instead, building trust between the government and its people—a two-way process throughout the policy design—and the inclusion of proper compensatory measures to mitigate distributional effects are essential features. This is an important lesson that should also resonate when thinking about ways to further improve international cooperation and bolster our multilateral efforts to address common challenges as we celebrate the 80th anniversary of the Bretton Woods institutions.

Pierre-Olivier Gourinchas
Economic Counsellor

EXECUTIVE SUMMARY

Global growth is expected to remain stable yet underwhelming. At 3.2 percent in 2024 and 2025, the growth projection is virtually unchanged from those in both the July 2024 *World Economic Outlook Update* and the April 2024 *World Economic Outlook*. However, notable revisions have taken place beneath the surface, with upgrades to the forecast for the United States offsetting downgrades to those for other advanced economies—in particular, the largest European countries. Likewise, in emerging market and developing economies, disruptions to production and shipping of commodities—especially oil—conflicts, civil unrest, and extreme weather events have led to downward revisions to the outlook for the Middle East and Central Asia and that for sub-Saharan Africa. These have been compensated for by upgrades to the forecast for emerging Asia, where surging demand for semiconductors and electronics, driven by significant investments in artificial intelligence, has bolstered growth. The latest forecast for global growth five years from now—at 3.1 percent—remains mediocre compared with the prepandemic average. Persistent structural headwinds—such as population aging and weak productivity—are holding back potential growth in many economies.

Cyclical imbalances have eased since the beginning of the year, leading to a better alignment of economic activity with potential output in major economies. This adjustment is bringing inflation rates across countries closer together and on balance has contributed to lower global inflation. Global headline inflation is expected to fall from an annual average of 6.7 percent in 2023 to 5.8 percent in 2024 and 4.3 percent in 2025, with advanced economies returning to their inflation targets sooner than emerging market and developing economies. As global disinflation continues to progress, broadly in line with the baseline, bumps on the road to price stability are still possible. Goods prices have stabilized, but services price inflation remains elevated in many regions, pointing to the importance of understanding sectoral dynamics and of calibrating monetary policy accordingly, as discussed in Chapter 2.

Risks to the global outlook are tilted to the downside amid elevated policy uncertainty. Sudden eruptions in financial market volatility—as experienced in early August—could tighten financial conditions and weigh on investment and growth, especially in developing economies in which large near-term external financing needs may trigger capital outflows and debt distress. Further disruptions to the disinflation process, potentially triggered by new spikes in commodity prices amid persistent geopolitical tensions, could prevent central banks from easing monetary policy, which would pose significant challenges to fiscal policy and financial stability. Deeper- or longer-than-expected contraction in China’s property sector, especially if it leads to financial instability, could weaken consumer sentiment and generate negative global spillovers given China’s large footprint in global trade. An intensification of protectionist policies would exacerbate trade tensions, reduce market efficiency, and further disrupt supply chains. Rising social tensions could prompt social unrest, hurting consumer and investor confidence and potentially delaying the passage and implementation of necessary structural reforms.

As cyclical imbalances in the global economy wane, near-term policy priorities should be carefully calibrated to ensure a smooth landing. In many countries, shifting gears on fiscal policy is urgently needed to ensure that public debt is on a sustainable path and to rebuild fiscal buffers; the pace of adjustment should be tailored to country-specific circumstances. Structural reforms are necessary to lift medium-term growth prospects, but support for the most vulnerable should be maintained. Chapter 3 discusses strategies to enhance the social acceptability of these reforms—a crucial prerequisite for successful implementation. Multilateral cooperation is needed more than ever to accelerate the green transition and to support debt-restructuring efforts. Mitigating the risks of geoeconomic fragmentation and strengthening rules-based multilateral frameworks are essential to ensure that all economies can reap the benefits of future growth.

Uncertainty Seeping through as Policies Shift

The past four years have put the resilience of the global economy to the test. A once-in-a-century pandemic, eruption of geopolitical conflicts, and extreme weather events have disrupted supply chains, caused energy and food crises, and prompted governments to take unprecedented actions to protect lives and livelihoods. The global economy has demonstrated resilience overall, but this masks uneven performance across regions and lingering fragilities.

The negative supply shocks to the global economy since 2020 have had lasting effects on output and inflation, with varied impacts across individual countries and country groups. The sharpest contrasts are between advanced and developing economies. Whereas the former have caught up with activity and inflation projected before the pandemic, the latter are showing more permanent scars (see the October 2023 *World Economic Outlook*), with large output shortfalls and persistent inflation (Figure 1.1). They also remain more vulnerable to the types of commodity price surges that followed Russia's invasion of Ukraine (Figure 1.2; October 2023 and April 2024 *World Economic Outlook*).

Since the beginning of the year, signs have emerged that cyclical imbalances are being gradually resorbed, with economic activity in major economies better aligned with their potential. These developments may have helped bring inflation rates across countries closer together, but the momentum in global disinflation appears to have slowed in the first half of the year (July 2024 *World Economic Outlook Update*). Goods prices have stabilized, and some are declining, but services price inflation remains high in many countries, partly reflecting rapid wage increases, as pay is still catching up with the inflation surge of 2021–22. This has forced some central banks to delay their policy-easing plans (Chapter 2), putting public finances under more pressure, especially in countries where debt-servicing costs are already high and refinancing needs significant.

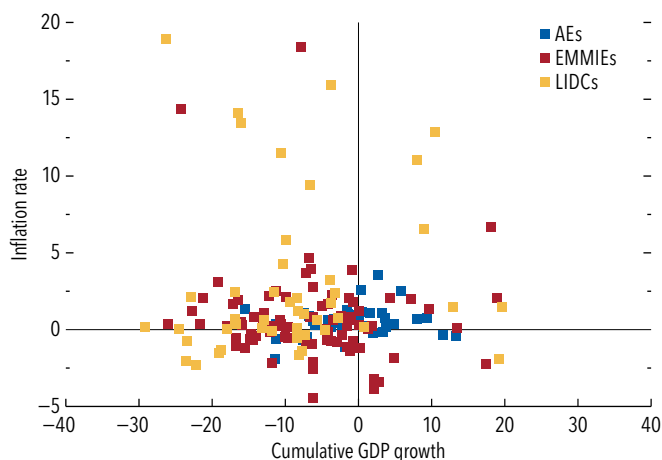
Now, as before, the global outlook will be shaped largely by fiscal and monetary choices, their international spillovers, the intensity of geoeconomic fragmentation forces, and the ability of governments to implement long-overdue structural reforms. With inflation approaching central bank targets and governments striving to manage debt dynamics, the policy mix is expected to shift from monetary to fiscal tightening as monetary policy rates are brought down, closer to their natural levels. How fast such rotations occur in individual countries will have consequences for capital flows and exchange rates.

The level of uncertainty surrounding the outlook is high. Newly elected governments (about half of the world population has gone or will go to the polls in 2024) could introduce significant shifts in trade and fiscal policy (Box 1.2). Moreover, the return of financial market volatility over the summer has stirred old fears about hidden vulnerabilities. This has heightened anxiety over the appropriate monetary policy stance—especially in countries where inflation is persistent and signs of slowdown are emerging. Further intensification of geopolitical rifts could weigh on trade, investment, and the free flow of ideas. This could affect long-term growth, threaten the resilience of supply chains, and create difficult trade-offs for central banks. On the upside, governments could succeed in building the necessary consensus around overdue and difficult-to-pass structural reforms (Chapter 3), which would boost growth and enhance fiscal sustainability and financial stability.

Steady Disinflation, yet Bumps in the Road Still Possible

In many advanced economies, disinflation has come at a relatively low cost to employment, thanks partly to offsetting supply developments. These included a faster-than-expected decline in energy prices and a surprising rebound in labor supply, bolstered by substantial immigration flows that helped cool labor markets (April 2024 *World Economic Outlook*). Moreover, temporary sectoral bottlenecks during

Figure 1.1. Growth and Inflation Revisions
(Percentage points, relative to January 2020 WEO Update)



Source: IMF staff calculations.

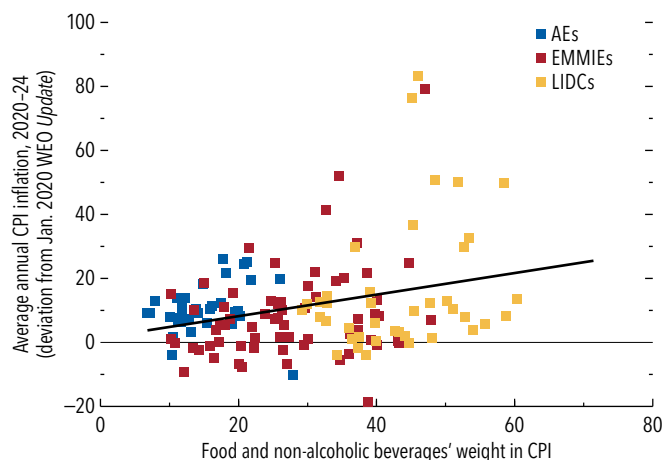
Note: X-axis reports latest estimates for cumulative GDP growth from 2020 to 2024 in deviation from January 2020 WEO Update forecast. Y-axis reports latest estimates for inflation rate in 2024 in deviation from January 2020 WEO Update forecast. AEs = advanced economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries; WEO = World Economic Outlook.

and after the pandemic led to a steepening of the Phillips curve and implied a small sacrifice ratio (the slack required to decrease inflation). As explained in Chapter 2, a temporarily steeper Phillips curve helps explain both the rapid surge in inflation and the—so far—relatively painless disinflation (Figure 1.3, panel 1).

Since the beginning of 2024, signs that cyclical imbalances are being gradually resorbed have helped bring inflation rates across countries closer together (Figure 1.3, panel 2). Disinflation has continued broadly as expected but did show signs of slowing in the first half of the year, suggesting potential bumps on the road to price stability (July 2024 *World Economic Outlook Update*). The persistence in core inflation has been driven primarily by services price inflation. At 4.2 percent, core services price inflation is about 50 percent higher than before the pandemic in major advanced and emerging market economies (excluding the US). This contrasts with core goods price inflation, which has declined all the way to zero (Figure 1.3, panel 3). Recent increases in shipping rates, especially for routes to and from China, have put upward pressure on goods prices. However, this source of upward pressure has been mitigated so far by declining prices for exports from China (Figure 1.3, panel 4).

Stubbornness in services price inflation partly reflects higher nominal wage growth relative to

Figure 1.2. Inflation Surprises and Importance of Food in CPI
(Percent)



Source: IMF staff calculations.

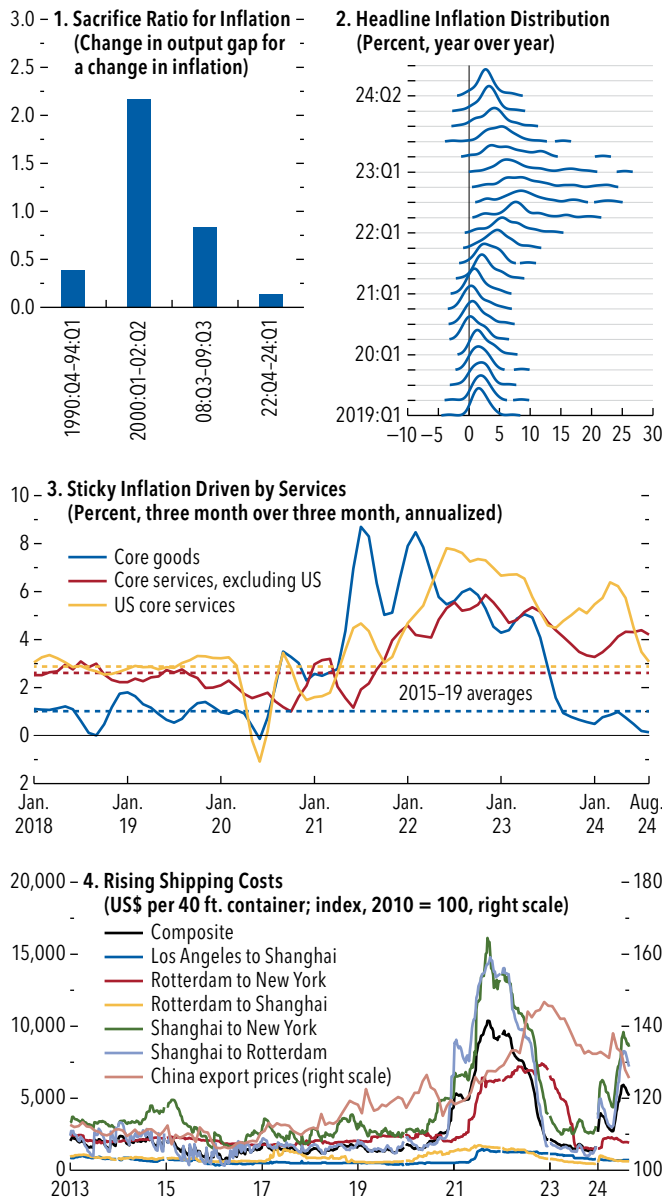
Note: The solid line denotes linear regression. AEs = advanced economies; CPI = consumer price index; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries; WEO = World Economic Outlook.

prepandemic trends. Even as labor market pressure has started to ease (Figure 1.4, panel 2), wage negotiators have continued to aim for sizable raises to counter the cost-of-living squeeze felt after the 2021–22 inflation surge (Figure 1.4, panel 1). That nominal wage growth continues to run higher after the inflation surge is consistent with past inflationary episodes—when real wages catch up to their equilibrium level determined by labor productivity—and does not necessarily risk a wage-price spiral (see Chapter 2 of the October 2022 *World Economic Outlook*).

With output gaps expected to close, and assuming no disruptions to labor supply in advanced economies, wage growth is expected to moderate. Whether recent increases translate into further persistence in core inflation will depend on (1) the impact of recent real wage increases on unit labor costs, which itself depends on labor productivity, and (2) the willingness of firms to absorb increased unit labor costs in their profit margins.

These two factors seem to be working differently in the largest two advanced economies but should still allow disinflation to continue. In the United States, wage growth has reflected productivity gains lately, keeping unit labor costs contained. In the euro area, recent wage increases have exceeded productivity, raising unit labor costs (Figure 1.4, panel 3). However, European firms should be able to absorb those costs, given large increases in profit shares in recent years (Figure 1.4, panel 4).

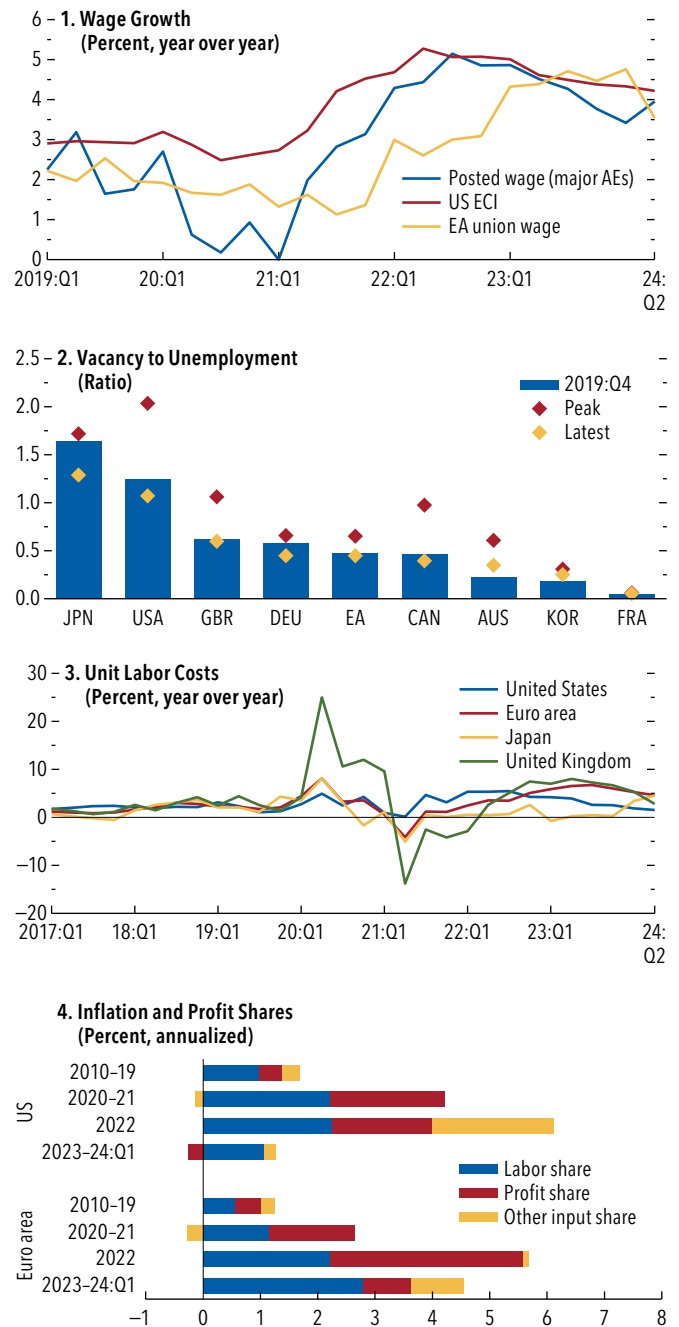
Figure 1.3. Recent Inflation Developments



Sources: Haver Analytics; Organisation for Economic Co-operation and Development; and IMF staff calculations.

Note: In panel 1, sample includes 37 advanced economies. Panel 2 shows the density distribution of headline inflation developments across 32 advanced economies and 13 emerging market and developing economies. The vertical line indicates the 2019:Q1 median. In panel 3, the two aggregates are the purchasing-power-parity-weighted averages. Sample includes 11 advanced economies and 9 emerging market and developing economies that account for approximately 55 percent of 2021 world output at purchasing-power-parity weights.

Figure 1.4. Labor Market Developments



Sources: Eurostat; Haver Analytics; US Bureau of Economic Analysis; and IMF staff calculations.

Note: In panel 4, US decomposition uses data on factor shares from the nonfinancial corporate sector only. Euro area decomposition is based on whole-economy data. Data labels in the figure use International Organization for Standardization (ISO) country codes. AEs = advanced economies; EA = euro area; ECI = Employment Cost Index.

Policy Mix: Tight Monetary, Loose Fiscal Policies

Economic developments over the past four years have had a lot to do with how individual countries have deployed fiscal and monetary policies since the pandemic.

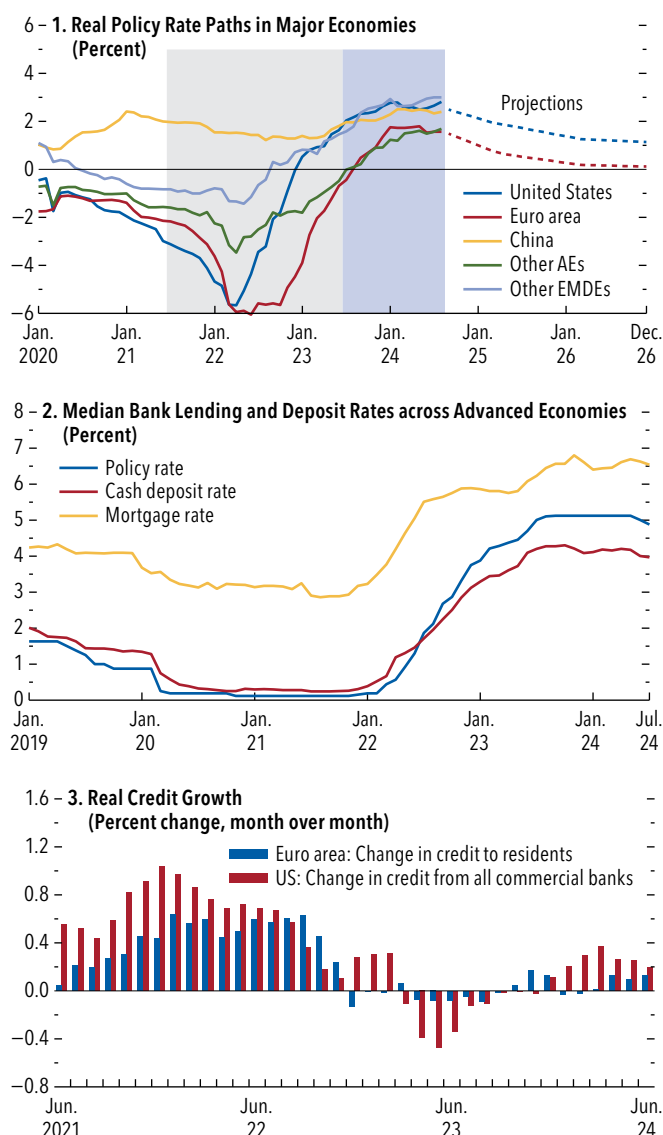
Following an initial period of easing, monetary policy has tightened significantly, with central banks in many emerging markets starting earlier than major central banks in advanced economies (Chapter 2). Most central banks stopped increasing nominal policy rates in the first half of 2023. But real rates continued to rise as inflation expectations started to decline (Figure 1.5, panel 1), tightening the monetary policy stance further. Real policy rates are currently above estimates of the natural rates and thus are acting to cool down economic activity and bring inflation back to target.

Higher policy rates have led to higher mortgage and bank lending rates, a sign that the first leg of monetary transmission has worked as expected. The pass-through to market rates has been gradual but seems to have finished. The increase in borrowing costs has in turn held back private credit growth and investment, moderating aggregate demand (Figure 1.5, panels 2 and 3).

The contrast with fiscal policy is striking. Despite a strong rebound in activity in 2022 and generalized inflationary pressures, fiscal policy has remained looser. Some slippage with respect to consolidation plans is evident (see the October 2024 *Fiscal Monitor*), except in low-income developing countries, where limited fiscal space has constrained their ability to tackle energy and food crises (Figure 1.6, panel 1). From 2022 to 2024, monetary policy tightened significantly in most countries, but fiscal policy lagged and even eased in many instances (Figure 1.6, panel 2), complicating the task of central banks in their effort to rein in inflation and delaying the necessary rebuilding of fiscal buffers. Tight monetary policy combined with relatively loose fiscal policy, particularly relevant in the United States, may be one of the key factors that has led to dollar appreciation in 2024.

This is expected to change. With public-debt-servicing costs on an upward trend in emerging market and developing economies and a recent jump in the United States (Figure 1.6, panel 3), the baseline assumes a rotation of the policy mix. Necessary fiscal consolidation in many economies is expected to slow down growth and calls for looser monetary policy, which should in turn help governments trim deficits more easily (see “Policy Priorities: From Restoring Price Stability to Rebuilding Buffers”).

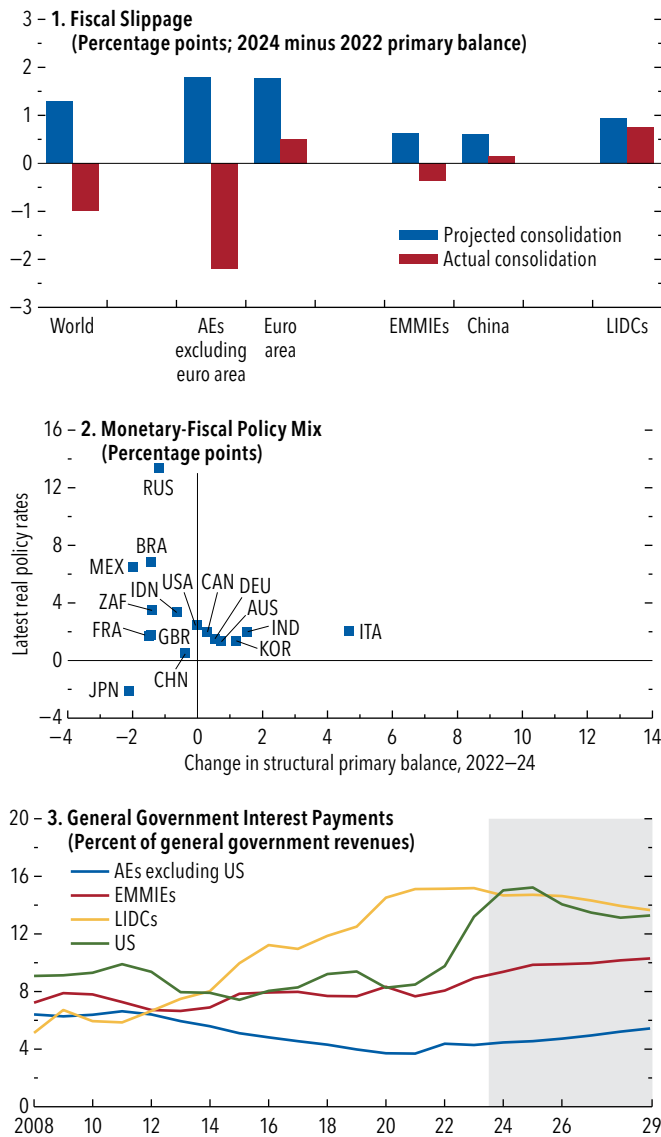
Figure 1.5. Monetary Transmission



Sources: Bank for International Settlements; Consensus Economics; European Central Bank; Federal Reserve Board; Haver Analytics; and IMF staff calculations.

Note: In panel 1, the gray area denotes discretionary tightening periods (nominal rate hikes, excluding China), and the blue area denotes nondiscretionary tightening periods (nominal rate pauses, excluding China). 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 subsequent calendar years (see Buono and Formai 2018). Projections for United States and euro area real rates are based on market-implied policy rates and inflation swaps for expected inflation. Panel 2 includes Australia, Canada, Japan, New Zealand, the United Kingdom, and the United States. In panel 3, credit growth is deflated by GDP deflator. AEs = advanced economies; EMDEs = emerging market and developing economies.

Figure 1.6. Fiscal Policy Stance



Source: IMF staff calculations.

Note: In panel 1, the projected and actual consolidations are from January 2022 WEO Update and October 2024 WEO, respectively; the panel uses the primary balance to broaden the country coverage. In panel 2, the primary balance refers to the general government structural primary balance in percent of potential GDP, and G20 economies are presented, except for Argentina, Saudi Arabia, and Türkiye, owing to lack of data availability. In panel 3, the projections are based on the October 2024 WEO. Data labels in the figure use International Organization for Standardization (ISO) country codes. AEs = advanced economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries; WEO = World Economic Outlook.

Returning Financial Market Volatility

In the first week of August, global financial markets experienced significant turbulence, interrupting a steady and rapid ascent of equity markets. Weaker-than-expected jobs data raised concerns about a potential recession in the United States, leading to a stock market correction. This, combined with the Bank of Japan’s decision to hike interest rates, resulted in a rapid unwinding of Japanese-yen-funded carry trades, which amplified the equity market correction (see Box 1.3 of the October 2024 *Global Financial Stability Report* and Box 1.4 of the April 2023 *Global Financial Stability Report*).

Markets have rapidly stabilized. The Chicago Board Options Exchange Volatility (VIX) Index, after having surged to its highest point since 2020, has returned to its historical average. However, vulnerabilities that contributed to the recent increase in market volatility persist. These include the disconnect between economic uncertainty and market volatility (see Chapter 1 of the October 2024 *Global Financial Stability Report*) and overstretched equity valuations, particularly in the technology sector.

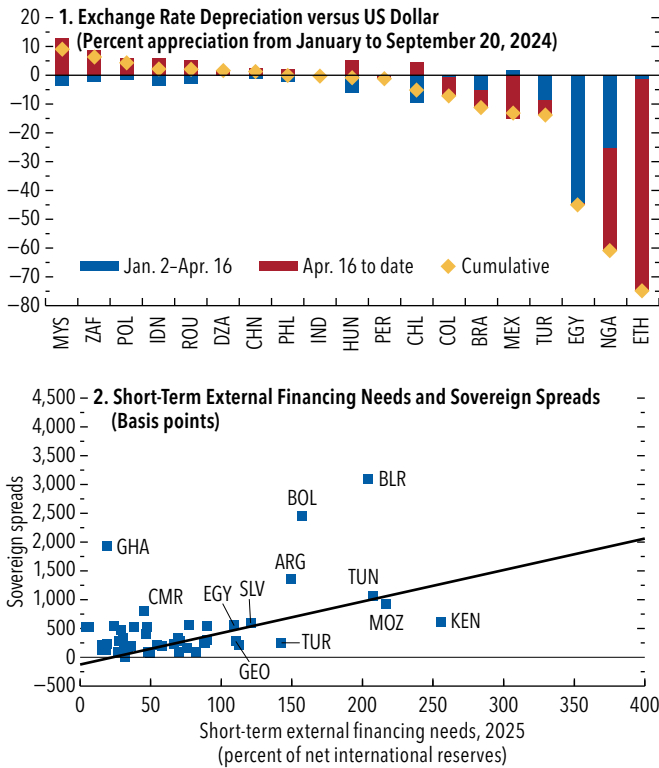
Revised market expectations regarding US monetary policy have aligned the outlook for rate cuts there more closely with those for other advanced economies, halting the appreciation of the US dollar against the currencies of major advanced economies. However, depreciation pressures remain high in emerging market and developing economies (Figure 1.7, panel 1). Many of these economies, which began hiking interest rates earlier, have also started easing earlier, leading to a narrowing of differentials between their policy rates and that of the United States.

For some emerging market and developing economies faced with large short-term external financing needs—often a significant share of their buffer of net international reserves—sovereign borrowing spreads have increased since April, posing an additional challenge (Figure 1.7, panel 2). Although few of these economies are in debt distress—defined as having spreads greater than 1,000 basis points—heavy reliance on short-term external financing reveals vulnerabilities to sudden currency swings.

Rising Geopolitical Tensions but Limited Impact on Global Trade So Far

Despite ongoing geopolitical tensions, global trade volume as a share of world GDP has not deteriorated. However, signs of geoeconomic fragmentation

Figure 1.7. Pressure on Emerging Markets



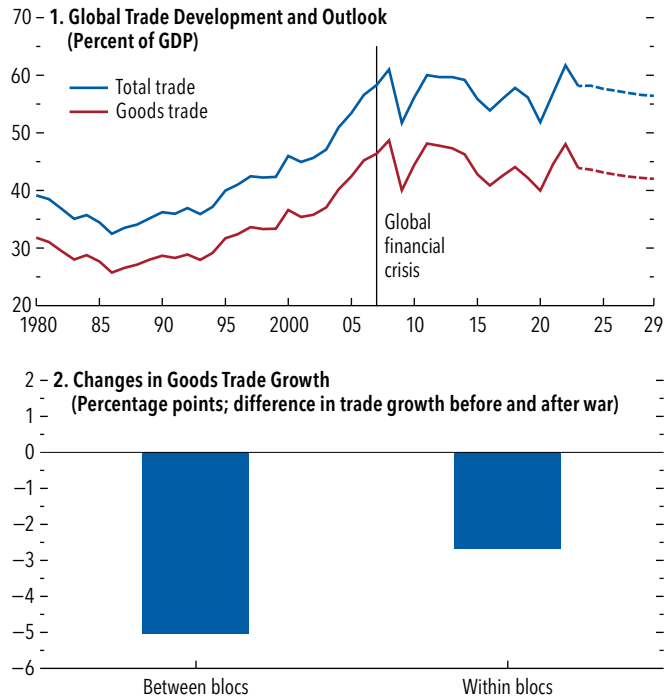
Sources: Haver Analytics; and IMF staff calculations.

Note: In panel 1, percentage appreciation is computed as the difference in log exchange rates. In panel 2, fitted regression line is $y = -19.5 + 4.47x$, with a slope t -statistic equal to 2.51. The regression is weighted by purchasing-power-parity GDP. The sample excludes EMDE oil exporters. Data labels in the figure use International Organization for Standardization (ISO) country codes. EMDE = emerging market and developing economy.

have started to emerge, with increasingly more trade occurring within geopolitical blocs rather than between them (Figure 1.8). Specifically, when the averages for the periods 2017 to 2022 and 2022 to the first quarter of 2024 are compared, goods trade growth is observed to have declined by approximately 2½ percentage points more between geopolitically distant blocs than within blocs.

A more fragmented global trade landscape could emerge if geopolitical tensions continue to develop in a way similar to that during the Cold War (Figure 1.9). Although fragmentation, if it goes hand in hand with an increase in intrabloc trade, may not necessarily imply rapid deglobalization (Gopinath and others 2024), it could reduce the resilience of global supply chains, increase funding costs, disrupt cross-border capital flows (see Chapter 3 of the April 2023 *Global Financial Stability Report*) and lower market efficiency, slow the transfer of knowledge between advanced and

Figure 1.8. Globalization and Trade Fragmentation



Sources: Gopinath and others 2024; and IMF staff calculations.

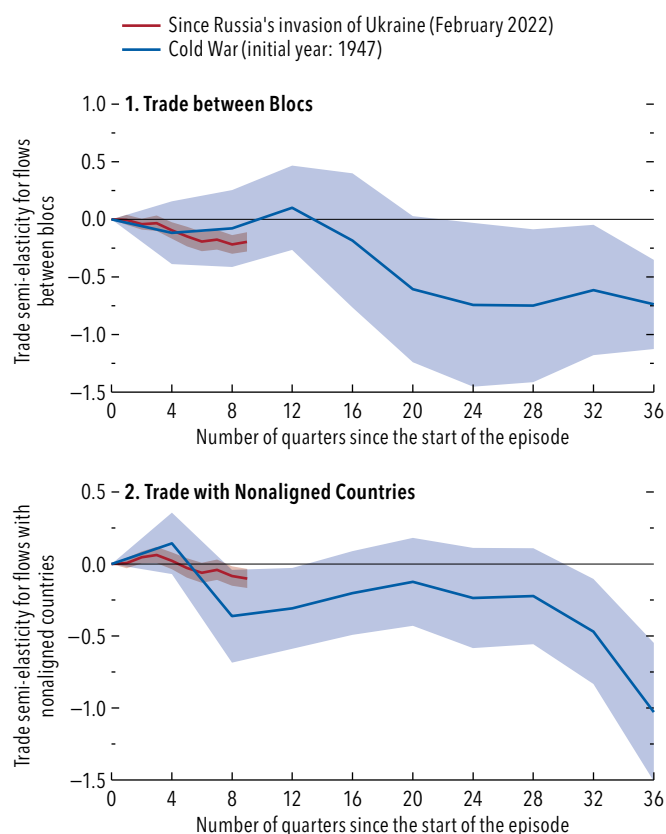
Note: In panel 1, “trade” is defined as the sum of exports and imports. Global trade and GDP for percentage calculation are in current US dollars. Dashed portions of graph lines indicate October 2024 *World Economic Outlook* forecasts. In panel 2, change is calculated as the average trade growth during 2022:Q2–24:Q1 minus the average trade growth during 2017:Q1–22:Q1 within and between blocs. For the current period, bloc definition is based on a hypothetical Western bloc centered on the US and Europe and a hypothetical Eastern bloc centered on China and Russia. Bilateral quarterly growth rates are computed as the differences in log bilateral trade, which are then aggregated using bilateral nominal trade as weights.

emerging market and developing economies (hampering income convergence), increase costs and risks for businesses, and induce a larger economic cost for the green transition (Box 1.1).

The Outlook: Stable yet Underwhelming—Brace for Uncertain Times

There has been little change in the global growth outlook since the April 2024 *World Economic Outlook*. Following the postpandemic rebound, the global projection for GDP growth has been hovering at about 3 percent, both in the short and the medium term. Weak growth extends beyond the disinflation period, suggesting that potential growth has been durably affected (see Chapter 3 of the April 2024 *World Economic Outlook*).

Figure 1.9. Trade Fragmentation: Cold War and Now
(Percentage points)

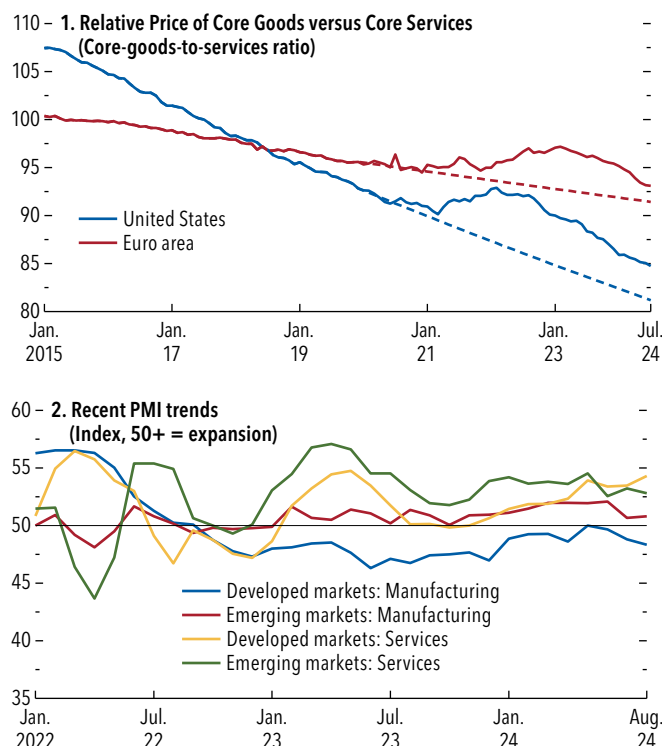


Sources: Gopinath and others 2024; and IMF staff calculations.

Note: The figure plots the change in global trade between blocs (panel 1) and with nonaligned countries (panel 2) during the Cold War (blue line, with $t_0 = 1947$) and since Russia's invasion of Ukraine (red line, with $t_0 = 2021:Q4$). For each episode, the figure plots the semi-elasticity of trade for flows, estimated using a difference-in-differences approach, with bilateral goods trade values on the y-axis, with importer-exporter, importer-year, and exporter-year fixed effects controlled for, and the associated 90 percent confidence bands. The missing category is trade within blocs. The Cold War results are obtained using yearly data from 1920 to 1990—excluding the World War II years (1939–45), and with 1947 as an excluded year—and the bloc definition based on Gokmen (2017). The results for the most recent period are based on quarterly trade data from 2017:Q1 to 2024:Q1 (with 2021:Q4 as an excluded quarter), with the wider bloc definition based on the ideal point distance (a measure based on voting patterns in the United Nations General Assembly computed by Bailey, Strezhnev, and Voeten [2017]).

The picture is far from monolithic, however, and important sectoral and regional shifts underpin the stable global outlook that has emerged since the April 2024 *World Economic Outlook*. Relative to prepandemic trends, goods prices remain elevated compared with those for services, a lingering effect of the pandemic and its aftermath, which saw strong demand for goods alongside supply constraints (Figure 1.10, panel 1). Consequently, behind stable growth figures, a global shift from goods to services consumption is underway. This rebalancing

Figure 1.10. Continued Rotation to Services



Sources: Haver Analytics; and IMF staff calculations.

Note: Solid lines denote GDP growth from the October 2024 *World Economic Outlook*, and dashed lines denote GDP growth forecasts from the April 2024 *World Economic Outlook*, respectively. PMI = purchasing managers' index.

is tending to boost activity in the services sector in advanced and emerging markets but is dampening manufacturing. Manufacturing production is also increasingly shifting toward emerging market economies—in particular, China and India—as advanced economies lose competitiveness (Figure 1.10, panel 2).

Global Assumptions

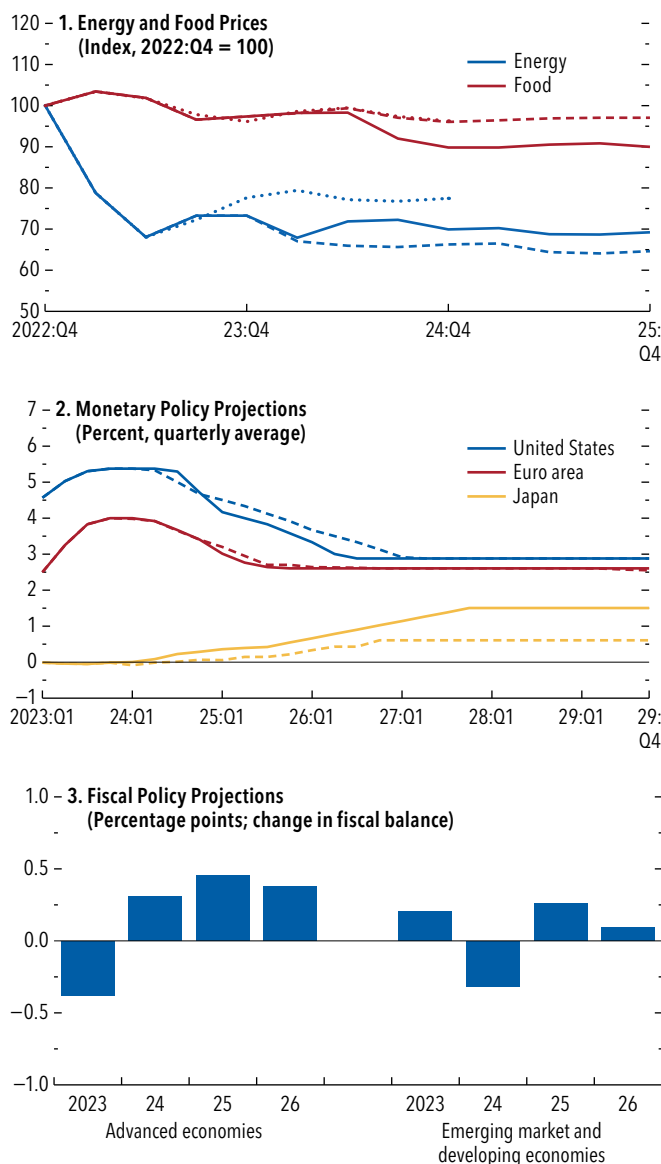
Before regional developments are discussed, it is important to review the key assumptions about commodity prices and fiscal and monetary policy on which the baseline projection is predicated.

With acknowledgment of exceptional policy uncertainty associated with newly elected governments in 2024 (in 64 countries representing about half of the global population), the baseline projection is flanked with *two alternative scenarios*, which lay out the main implications for growth and inflation of shifts in trade and fiscal policy. The scenarios are meant to be

illustrative but are quantitatively plausible alternatives around the baseline (Box 1.2).

- Commodity price assumptions:** Oil prices are expected to rise by 0.9 percent in 2024 to about \$81 a barrel as production cuts by OPEC+ (Organization of the Petroleum Exporting Countries plus selected nonmember countries, including Russia), sustained global oil demand growth, and geopolitical tensions in the Middle East offset strong non-OPEC+ supply growth. Overall, however, prices for fuel commodities are projected to fall on average by 3.8 percent—owing to declines in prices of natural gas (by 16.4 percent) and coal (by 18.0 percent) as they come off their 2022 peaks—but less rapidly than assumed in April (Figure 1.11, panel 1). Food prices are expected to decline by 5.2 percent in 2024 and by a further 4.5 percent in 2025 as global grain production is forecast to reach record highs in 2024–25.
- Monetary policy assumptions:** Compared with that in April 2024, the anticipated trajectory of policy rates for major central banks in advanced economies has shifted. In the euro area, 100 basis points of cuts are expected in 2024 and 50 basis points in 2025, bringing the policy rate to 2.5 percent by June 2025. In the United States, the Federal Reserve pivoted to cutting rates in September, starting with a 50 basis point drop. The federal funds rate is projected to reach its long-term equilibrium of 2.9 percent in the third quarter of 2026, almost a year earlier than what was expected in April. In Japan, however, policy rate projections have been revised upward (since the April 2024 *World Economic Outlook*), reflecting the Bank of Japan’s rate hike in July. The policy rate is projected to continue to rise gradually over the medium term toward a neutral setting of about 1.5 percent, consistent with keeping inflation and inflation expectations anchored at the Bank of Japan’s 2 percent target.
- Fiscal policy assumptions:** Governments in advanced economies are on average expected to tighten their fiscal policy stances in both 2024 and 2025, halving primary deficits by 2029. However, contrasts between the euro area and the United States are important. In the baseline, the US fiscal deficit is only marginally trimmed down, remaining at about 6.1 percent in 2029, with about half of this reflecting interest rate expenses. Under current policies, the US public debt is not stabilized, reaching almost 134 percent of GDP in 2029. In the euro area, on the other hand, the debt-to-GDP ratio is expected to have stabilized already at about 88 percent in

Figure 1.11. Global Assumptions



Source: IMF staff calculations.

Note: In panels 1 and 2, solid lines denote projections from the October 2024 *World Economic Outlook* and dashed lines from the April 2024 *World Economic Outlook*. Also, the dotted line in panel 1 denotes projections from October 2023 *World Economic Outlook*. In panel 3, the fiscal balance used is the general government structural primary balance, which is the cyclically adjusted primary balance corrected for a broader range of noncyclical factors such as changes in asset and commodity prices.

2024, although with some cross-country differences. Large contrasts are apparent in the emerging market and developing economies country group as well. Whereas fiscal stances are expected to remain relatively loose on average in emerging markets, fiscal consolidation is ongoing among developing economies. Over the past few years, many low-income countries have either lost market access or

been forced to drastically scale back deficits because higher interest rates have pushed up borrowing costs (see Chapter 1 of the October 2024 *Global Financial Stability Report*). Forced consolidation is expected to bring down their debt-to-GDP ratios to 47.4 percent in 2029 from 54.8 percent in 2024, a reduction of about 1.5 percent of GDP every year.

Baseline Outlook: Stable Growth amid Continuing Disinflation

Global growth is expected to remain broadly flat—decelerating from 3.3 percent in 2023 to 3.1 percent by 2029—and is largely unchanged from *World Economic Outlook* forecasts in April 2024 and October 2023 (Tables 1.1 and 1.2; Figure 1.12).¹ Under the surface, however, offsetting revisions have brought major economies closer together as cyclical forces wane and GDP moves closer to potential. As inflation recedes, policy rates are expected to follow suit, preventing undue increases in real interest rates. Interest rates are expected to gradually descend toward their natural levels: the levels of risk-free real interest rates compatible with output at potential and inflation at target.

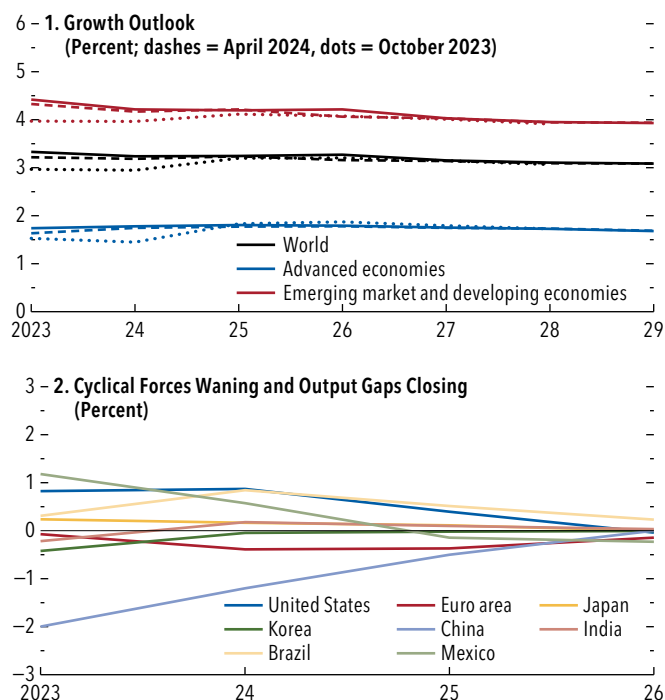
Although global revisions to the forecast since April have been minimal, offsetting shifts at the country group level reflect recent shocks and policies, most notably in emerging market and developing economies. Cuts in production and shipping of commodities (oil in particular), conflicts, and civil unrest have led to downward revisions to the regional outlooks for the Middle East and Central Asia and for sub-Saharan Africa. At the same time, surging demand for semiconductors and electronics, driven by significant investment in artificial intelligence, has fueled stronger growth in emerging Asia.

Growth Outlook: Major Economies Draw Closer Together

Following a reopening rebound in 2022, growth in advanced economies markedly slowed in 2023 and is projected to remain steady, oscillating between 1.7 and 1.8 percent until 2029. This apparent stability conceals differing country dynamics as various cyclical forces unwind and economic activity gets back in

¹For the global and regional aggregates, this *World Economic Outlook* report uses the newly revised purchasing-power-parity GDP weights based on the latest release from the International Comparison Program; see the Statistical Appendix for details.

Figure 1.12. Growth Outlook



Source: IMF staff calculations.

Note: In panel 1, solid lines denote GDP growth from the October 2024 *World Economic Outlook*, and dashed and dotted lines denote GDP growth forecasts from the April 2024 *World Economic Outlook* and the October 2023 *World Economic Outlook*, respectively.

line with potential. In the United States, growth is expected to decelerate, with output reaching potential from above by 2029. In the United Kingdom and the euro area, on the other hand, activity is projected to accelerate, closing the output gap from below. In Japan, where the output gap is already closed, GDP is expected to grow in line with potential.

- In the *United States*, projected growth for 2024 has been revised upward to 2.8 percent, which is 0.2 percentage point higher than the July forecast, on account of stronger outturns in consumption and nonresidential investment. The resilience of consumption is largely the result of robust increases in real wages (especially among lower-income households) and wealth effects. Growth is anticipated to slow to 2.2 percent in 2025 as fiscal policy is gradually tightened and a cooling labor market slows consumption. With GDP growth lower than potential, the output gap is expected to start closing in 2025.
- In the *euro area*, growth seems to have reached its lowest point in 2023. A touch weaker than projected in April and July 2024, GDP growth is

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

	2023	Projections		Difference from July 2024 WEO Update ¹		Difference from April 2024 WEO ¹	
		2024	2025	2024	2025	2024	2025
World Output	3.3	3.2	3.2	0.0	-0.1	0.0	0.0
Advanced Economies	1.7	1.8	1.8	0.1	0.0	0.1	0.0
United States	2.9	2.8	2.2	0.2	0.3	0.1	0.3
Euro Area	0.4	0.8	1.2	-0.1	-0.3	0.0	-0.3
Germany	-0.3	0.0	0.8	-0.2	-0.5	-0.2	-0.5
France	1.1	1.1	1.1	0.2	-0.2	0.4	-0.3
Italy	0.7	0.7	0.8	0.0	-0.1	0.0	0.1
Spain	2.7	2.9	2.1	0.5	0.0	1.0	0.0
Japan	1.7	0.3	1.1	-0.4	0.1	-0.6	0.1
United Kingdom	0.3	1.1	1.5	0.4	0.0	0.6	0.0
Canada	1.2	1.3	2.4	0.0	0.0	0.1	0.1
Other Advanced Economies ²	1.8	2.1	2.2	0.1	0.0	0.1	-0.2
Emerging Market and Developing Economies	4.4	4.2	4.2	0.0	-0.1	0.1	0.0
Emerging and Developing Asia	5.7	5.3	5.0	-0.1	-0.1	0.1	0.1
China	5.2	4.8	4.5	-0.2	0.0	0.2	0.4
India ³	8.2	7.0	6.5	0.0	0.0	0.2	0.0
Emerging and Developing Europe	3.3	3.2	2.2	0.0	-0.3	0.1	-0.6
Russia	3.6	3.6	1.3	0.4	-0.2	0.4	-0.5
Latin America and the Caribbean	2.2	2.1	2.5	0.3	-0.2	0.2	0.0
Brazil	2.9	3.0	2.2	0.9	-0.2	0.8	0.1
Mexico	3.2	1.5	1.3	-0.7	-0.3	-0.9	-0.1
Middle East and Central Asia	2.1	2.4	3.9	0.0	0.0	-0.4	-0.3
Saudi Arabia	-0.8	1.5	4.6	-0.2	-0.1	-1.1	-1.4
Sub-Saharan Africa	3.6	3.6	4.2	-0.1	0.1	-0.2	0.1
Nigeria	2.9	2.9	3.2	-0.2	0.2	-0.4	0.2
South Africa	0.7	1.1	1.5	0.2	0.3	0.2	0.3
<i>Memorandum</i>							
World Growth Based on Market Exchange Rates	2.8	2.7	2.8	0.0	0.0	0.0	0.1
European Union	0.6	1.1	1.6	-0.1	-0.2	0.0	-0.2
ASEAN-5 ⁴	4.0	4.5	4.5	0.1	-0.1	0.1	0.0
Middle East and North Africa	1.9	2.1	4.0	-0.1	0.1	-0.6	-0.2
Emerging Market and Middle-Income Economies	4.4	4.2	4.2	-0.1	0.0	0.1	0.1
Low-Income Developing Countries	4.1	4.0	4.7	-0.2	-0.4	-0.5	-0.4
World Trade Volume (goods and services)	0.8	3.1	3.4	0.0	0.0	0.1	0.1
Imports							
Advanced Economies	-0.7	2.1	2.4	-0.3	-0.3	0.1	-0.4
Emerging Market and Developing Economies	3.0	4.6	4.9	0.4	0.1	-0.3	0.8
Exports							
Advanced Economies	1.0	2.5	2.7	-0.1	-0.2	0.0	-0.2
Emerging Market and Developing Economies	0.6	4.6	4.6	0.4	0.5	0.9	0.7
Commodity Prices (US dollars)							
Oil ⁵	-16.4	0.9	-10.4	0.1	-4.4	3.4	-4.1
Nonfuel (average based on world commodity import weights)	-5.7	2.9	-0.2	-2.1	-1.8	2.8	0.2
World Consumer Prices⁶	6.7	5.8	4.3	-0.1	-0.1	-0.1	-0.2
Advanced Economies ⁷	4.6	2.6	2.0	-0.1	-0.1	0.0	-0.1
Emerging Market and Developing Economies ⁶	8.1	7.9	5.9	-0.1	0.0	-0.3	-0.2

Source: IMF staff estimates.

Note: Real effective exchange rates are assumed to remain constant at the levels prevailing during July 30, 2024–August 27, 2024. Economies are listed on the basis of economic size. The aggregated quarterly data are seasonally adjusted. WEO = *World Economic Outlook*.¹ Difference based on rounded figures for the current, July 2024 WEO *Update*, and April 2024 WEO forecasts. Global and regional growth figures are based on new purchasing-power-parity weights derived from the recently released 2021 International Comparison Program survey (see Box A2) and are not comparable to the figures reported in the July 2024 WEO *Update* or the April 2024 WEO.² Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.³ 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.⁴ Indonesia, Malaysia, the Philippines, Singapore, and Thailand.⁵ 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 \$81.29 in 2024 and \$72.84 in 2025.⁶ Excludes Venezuela. See the country-specific note for Venezuela in the "Country Notes" section of the Statistical Appendix.

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

	Q4 over Q4 ⁸						
	2023	Projections		Difference from July 2024 WEO Update ¹		Difference from April 2024 WEO ¹	
		2024	2025	2024	2025	2024	2025
World Output	3.4	3.3	3.1	0.1	-0.2	0.1	0.0
Advanced Economies	1.7	1.9	1.7	0.2	-0.1	0.1	0.0
United States	3.2	2.5	1.9	0.5	0.1	0.4	0.1
Euro Area	0.2	1.2	1.3	-0.3	-0.2	-0.2	-0.1
Germany	-0.2	0.3	1.3	-0.5	-0.4	-0.4	-0.5
France	1.3	0.7	1.5	-0.1	0.0	-0.4	0.0
Italy	0.3	1.0	0.6	0.5	-0.7	0.3	0.0
Spain	2.3	2.9	2.0	0.6	-0.1	1.0	-0.1
Japan	0.9	1.8	0.2	0.2	-0.1	0.1	-0.3
United Kingdom	-0.3	2.1	1.1	0.6	-0.5	0.6	-0.2
Canada	1.0	2.3	2.1	0.1	-0.1	0.5	-0.2
Other Advanced Economies ²	2.0	1.8	2.6	-0.1	-0.2	-0.3	0.0
Emerging Market and Developing Economies	4.7	4.4	4.3	0.1	-0.1	0.1	0.2
Emerging and Developing Asia	5.9	5.4	5.0	0.1	0.0	0.3	0.3
China	5.4	4.5	4.7	-0.1	-0.2	0.1	0.6
India ³	7.8	6.7	6.5	0.2	0.0	0.3	0.1
Emerging and Developing Europe	4.3	2.3	2.7	-0.1	-0.7	-0.9	0.1
Russia	4.8	2.4	1.2	0.6	-0.5	-0.2	0.0
Latin America and the Caribbean	1.3	2.1	2.9	-0.3	0.3	0.0	0.3
Brazil	2.2	3.5	2.2	0.6	0.2	0.5	0.7
Mexico	2.3	1.3	1.4	-1.7	0.3	-0.6	-0.4
Middle East and Central Asia	...	...	...	...	...	...	...
Saudi Arabia	-4.3	2.1	4.6	-0.5	0.3	-1.0	-1.3
Sub-Saharan Africa	...	...	...	...	...	...	...
Nigeria	3.2	3.5	3.7	0.2	1.0	0.0	1.2
South Africa	1.3	1.7	1.0	0.4	0.1	0.4	-0.2
<i>Memorandum</i>							
World Growth Based on Market Exchange Rates	2.8	2.8	2.6	0.1	-0.2	0.1	0.0
European Union	0.5	1.6	1.4	-0.1	-0.4	0.0	-0.3
ASEAN-5 ⁴	4.2	6.3	3.0	0.8	0.2	1.2	-0.1
Middle East and North Africa	...	...	...	...	...	...	...
Emerging Market and Middle-Income Economies	4.7	4.4	4.3	0.1	-0.1	0.1	0.2
Low-Income Developing Countries	...	...	...	...	...	...	...
Commodity Prices (US dollars)							
Oil ⁵	-4.4	-7.3	-4.9	-4.9	0.8	-1.3	0.6
Nonfuel (average based on world commodity import weights)	-0.2	3.8	0.5	-3.9	0.0	3.0	0.1
World Consumer Prices⁶	5.7	5.3	3.5	-0.1	0.0	-0.1	-0.1
Advanced Economies ⁷	3.2	2.3	2.0	-0.2	0.0	-0.1	0.0
Emerging Market and Developing Economies ⁶	7.8	7.7	4.7	-0.1	-0.1	-0.1	-0.1

⁷The assumed inflation rates for 2024 and 2025, respectively, are as follows: 2.4 percent and 2.0 percent for the euro area, 2.2 percent and 2.0 percent for Japan, and 3.0 percent and 1.9 percent for the United States.

⁸For 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.

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

	2023	Projections		Difference from July 2024 WEO Update ¹		Difference from April 2024 WEO ¹	
		2024	2025	2024	2025	2024	2025
World Output	2.8	2.7	2.8	0.0	0.0	0.0	0.1
Advanced Economies	1.8	1.8	1.8	0.1	0.0	0.0	0.0
Emerging Market and Developing Economies	4.3	4.0	4.1	-0.1	0.0	0.0	0.1
Emerging and Developing Asia	5.5	5.1	4.8	-0.1	-0.1	0.1	0.2
Emerging and Developing Europe	3.1	3.1	2.3	-0.1	-0.3	0.0	-0.5
Latin America and the Caribbean	2.2	1.9	2.4	0.2	-0.2	0.0	-0.1
Middle East and Central Asia	1.5	2.1	4.0	-0.1	0.0	-0.5	-0.3
Sub-Saharan Africa	3.4	3.4	4.1	-0.2	0.1	-0.2	0.1
<i>Memorandum</i>							
European Union	0.5	1.0	1.5	0.0	-0.1	0.1	-0.2
Middle East and North Africa	1.3	1.8	4.0	-0.3	0.0	-0.7	-0.3
Emerging Market and Middle-Income Economies	4.3	4.0	4.0	-0.1	-0.1	0.0	0.1
Low-Income Developing Countries	4.1	3.8	4.8	-0.3	-0.4	-0.6	-0.3

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*.

¹ Difference based on rounded figures for the current, July 2024 WEO Update, and April 2024 WEO forecasts.

expected to pick up to a modest 0.8 percent in 2024 as a result of better export performance, in particular of goods. In 2025, growth is projected to rise further to 1.2 percent, helped by stronger domestic demand. Rising real wages are expected to boost consumption, and a gradual loosening of monetary policy is expected to support investment. Persistent weakness in manufacturing weighs on growth for countries such as *Germany* and *Italy*. However, whereas Italy's domestic demand is expected to benefit from the European Union–financed National Recovery and Resilience Plan, Germany is experiencing strain from fiscal consolidation and a sharp decline in real estate prices.

- Offsetting dynamics are also at play among other advanced economies. Growth is expected to decelerate in *Japan* in 2024, with the slowdown reflecting temporary supply disruptions and fading of one-off factors that boosted activity in 2023, such as the surge in tourism. With respect to April, growth is revised downward, by 0.6 percentage point, to 0.3 percent for 2024, reflecting a temporary supply disruption in the car industry and the base effect of historical data revisions. An acceleration to 1.1 is predicted in 2025, with growth boosted by private consumption as real wage growth strengthens. In the *United Kingdom*, in contrast, growth is projected to have accelerated to 1.1 percent in 2024 and is expected to continue doing so to 1.5 percent in 2025 as falling inflation and interest rates stimulate domestic demand.

Growth Outlook: Emerging Markets Get Support from Asia

In a manner similar to that for advanced economies, the growth outlook for emerging market and developing economies is remarkably stable for the next two years, hovering at about 4.2 percent and steady at 3.9 percent by 2029. And just as in advanced economies, offsetting dynamics are occurring between country groups. Compared with that in April, growth in emerging market and developing economies is revised upward by 0.1 percentage point for 2024, reflecting upgrades for Asia (China and India) that more than offset downgrades for sub-Saharan Africa and for the Middle East and Central Asia (Table 1.1).

- *Emerging Asia's* strong growth is expected to subside, from 5.7 percent in 2023 to 5.0 percent in 2025. This reflects a sustained slowdown in the region's two largest countries. In *India*, the outlook is for GDP growth to moderate from 8.2 percent in 2023 to 7 percent in 2024 and 6.5 percent in 2025, because pent-up demand accumulated during the pandemic has been exhausted, as the economy reconnects with its potential. In *China*, the slowdown is projected to be more gradual. Despite persisting weakness in the real estate sector and low consumer confidence, growth is projected to have slowed only marginally to 4.8 percent in 2024, largely thanks to better-than-expected net exports. Compared with that in April, the forecast has been revised upward by 0.2 percentage point in 2024 and

- 0.4 percentage point in 2025. Recent policy measures may provide upside risk to near-term growth.
- In contrast, growth in the *Middle East and Central Asia* is projected to pick up from an estimated 2.1 percent in 2023 to 3.9 percent in 2025, as the effect on the region of temporary disruptions to oil production and shipping are assumed to fade away. Compared with that in April, the projection has been revised downward by 0.4 percentage point for 2024, mainly the result of the extension of oil production cuts in *Saudi Arabia* and ongoing conflict in *Sudan* taking a large toll.
 - In *sub-Saharan Africa*, GDP growth is similarly projected to increase, from an estimated 3.6 percent in 2023 to 4.2 percent in 2025, as the adverse impacts of prior weather shocks abate and supply constraints gradually ease. Compared with that in April, the regional forecast is revised downward by 0.2 percentage point for 2024 and upward by 0.1 percentage point for 2025. Besides the ongoing conflict that has led to a 26 percent contraction of the *South Sudanese* economy, the revision reflects slower growth in *Nigeria*, amid weaker-than-expected activity in the first half of the year.
 - In *Latin America and the Caribbean*, growth is projected to decline from 2.2 percent in 2023 to 2.1 percent in 2024 before rebounding to 2.5 percent in 2025. In *Brazil*, growth is projected at 3.0 percent in 2024 and 2.2 percent in 2025. This is an upward revision of 0.9 percentage point for 2024, compared with July 2024 *World Economic Outlook Update* projections, owing to stronger private consumption and investment in the first half of the year from a tight labor market, government transfers, and smaller-than-anticipated disruptions from floods. However, with the still-restrictive monetary policy and the expected cooling of the labor market, growth is expected to moderate in 2025. In *Mexico*, growth is projected at 1.5 percent in 2024, reflecting weakening domestic demand on the back of monetary policy tightening, before slowing further to 1.3 percent in 2025 on a tighter fiscal stance. Overall, offsetting revisions leave the regional growth forecast broadly unchanged since April.
 - Growth in *emerging and developing Europe* is projected to remain steady at 3.2 percent in 2024 but to ease significantly to 2.2 percent in 2025. The moderation reflects a sharp slowdown in *Russia* from 3.6 percent in 2023 to 1.3 percent in 2025 as private consumption and investment slow

amid reduced tightness in the labor market and slower wage growth. In *Türkiye*, growth is expected to slow from 5.1 percent in 2023 to 2.7 percent in 2025, with the slowdown driven by the shift to monetary and fiscal policy tightening since mid-2023.

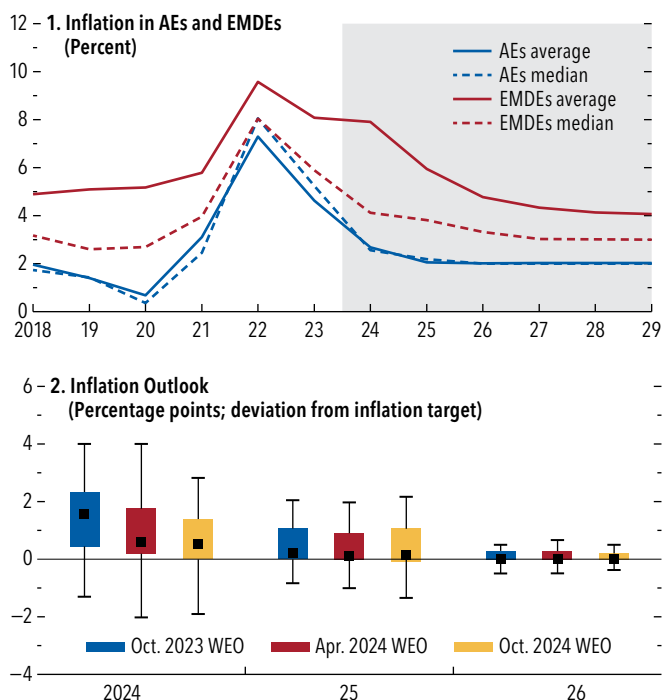
Inflation Outlook: Gradual Decline to Target

Although bumps on the path to price stability are still possible, global headline inflation is projected to decrease further, from an average of 6.7 percent in 2023 to 5.8 percent in 2024 and 4.3 percent in 2025 in the baseline. Disinflation is expected to be faster in advanced economies—with a decline of 2 percentage points from 2023 to 2024 and a stabilization at about 2 percent in 2025—than in emerging market and developing economies, in which inflation is projected to decline from 8.1 percent in 2023 to 7.9 percent in 2024 and then fall at a faster pace in 2025 to 5.9 percent.

There is a great deal of variation across emerging market economies, however, which is evident in the difference between median and average inflation (Figure 1.13, panel 1). Inflation in emerging Asia is projected to be on par with that in advanced economies, at 2.1 percent in 2024 and 2.7 percent in 2025, in part thanks to early monetary tightening and price controls in many countries in the region. In contrast, inflation forecasts for emerging and developing Europe, the Middle East and North Africa, and sub-Saharan Africa remain in double-digit territory on account of large outliers amid pass-through of past currency depreciation and administrative price adjustment (Egypt) and underperformance in agriculture (Ethiopia). For most countries in Latin America and the Caribbean, inflation rates have dropped significantly from their peaks and continue to be on a downward trend. However, large countries in the region have experienced upward revisions since the April 2024 *World Economic Outlook* that reflect a mix of (1) robust wage growth preventing faster disinflation in the services sector (Brazil, Mexico), (2) weather events (Colombia), and (3) hikes in regulated electricity tariffs (Chile).

The decline in global inflation in 2024 and 2025 reflects a broad-based decrease in core inflation, unlike the situation in 2023, when headline inflation fell mainly because of lower fuel prices. Core inflation is expected to drop by 1.3 percentage points in 2024, following a 0.1 percentage point

Figure 1.13. Inflation Outlook



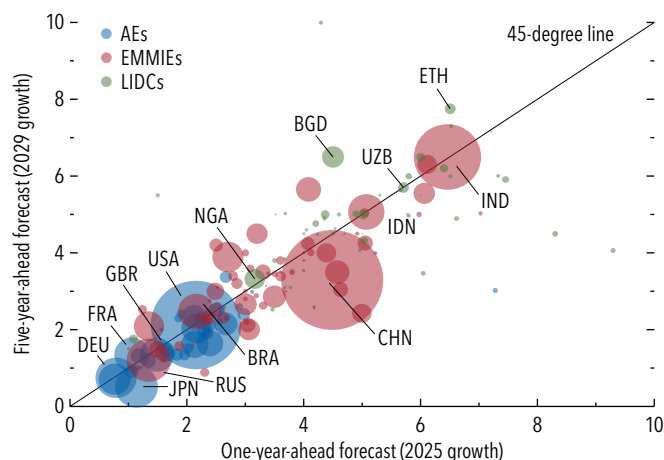
Sources: Central bank websites; Haver Analytics; and IMF staff calculations.

Note: In panel 1, the averages are calculated using purchasing-power-parity GDPs as weights. Panel 2 shows the distribution (box-whisker plot) from each WEO report. The blocks in the middle of the boxes are the medians, and the upper (lower) limits of the boxes are the third (first) quartile. The whiskers show the maximum and minimum within a boundary of 1.5 times the interquartile range from upper and lower quartiles, respectively. AEs = advanced economies; EMDEs = emerging market and developing economies; WEO = *World Economic Outlook*.

decrease in 2023, with advanced economies leading this decline. Factors contributing to lower core inflation include the delayed effect of tight monetary policies as well as diminishing pass-through effects from earlier declines in prices, especially in those for energy.

Overall, returning inflation to target is expected to take until 2025 in most cases. Although the pace of disinflation for the median economy has been faster than expected in October 2023, the dispersion across economies is now expected to be larger. Comparison of official inflation targets with the latest forecasts for a representative group of inflation-targeting advanced and emerging market economies suggests that annual average inflation will exceed targets (or the midpoints of target ranges) in more than three-quarters of these economies in 2025 (Figure 1.13, panel 2). But a great deal of this reflects annual carryover effects from 2024. Inflation is expected to decline steadily on a sequential

Figure 1.14. Medium-Term Outlook (Percent)



Source: IMF staff calculations.

Note: Bubble size reflects size of the economy using 2024 GDP in purchasing-power-parity international dollars. Data labels in the figure use International Organization for Standardization (ISO) country codes. AEs = advanced economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries.

basis, and by the end of 2025, most economies are expected to be either at target or within a stone's throw of it.

Medium-Term Outlook: A Low-Growth Regime Setting In

Absent a strong drive for structural reforms, output growth is expected to remain weak over the medium term (see Chapter 3 of the April 2024 *World Economic Outlook*).

Although monetary policy is expected to return to a neutral stance by 2025 in the world's largest economies, growth in most economies is expected to remain feeble over the medium term. For many advanced and emerging market economies, the five-year-ahead forecast is weaker than the one-year-ahead forecast (Figure 1.14), suggesting that persistent headwinds to growth will remain prevalent over the medium term.

Structural challenges such as population aging, weak investment, and historically low total factor productivity growth are still holding back global growth. The five-year-ahead forecast for global growth stands at 3.1 percent, indicating continued mediocre medium-term prospects relative to prepandemic forecasts. Compared with those in April 2024, medium-term growth prospects for advanced economies are unchanged. Although investment is expected to

pick up and productivity growth is also expected to see some normalization, the continued demographic drag is likely to produce an offsetting effect. Cerdeiro, Hong, and Kammer (2024) discuss underlying drivers of recent productivity divergence between the United States and euro area economies that may continue to define medium-term growth trends in these economies.

For emerging market and developing economies, medium-term growth prospects have not improved compared with those in the April 2024 *World Economic Outlook* and are still much weaker than they were in pre-pandemic projections. This partly reflects prolonged scarring from the shocks of the past few years, especially for low-income developing countries. It also reflects a slower pace of structural reforms, which is holding back productivity growth.

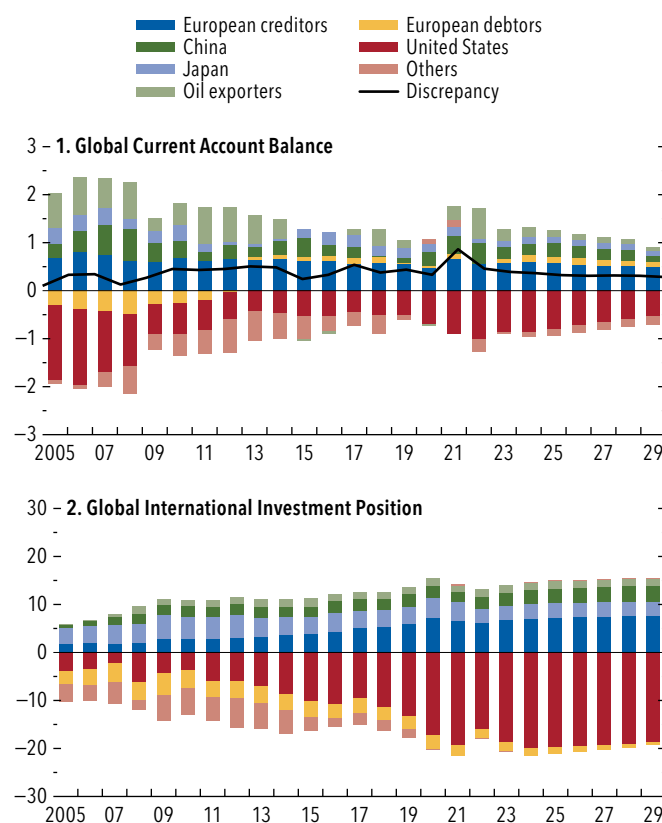
Projected slowdowns in the largest emerging market and developing economies imply a longer path to close the income gaps between poor and rich countries. Having growth stuck in low gear could also further exacerbate income inequality within economies. IMF staff analysis suggests that periods of low economic growth lasting four years or more tend to widen income inequality within countries, because sluggish job creation and wage growth—as well as weaker fiscal positions preventing redistribution—tend to affect low-income earners disproportionately (IMF 2024).

Trade Growth Historically Low, yet in Line with Output Growth

Global trade is expected to continue to grow in line with GDP, reaching an average of 3¼ percent growth annually in 2024 and 2025, following a period of near stagnation in 2023. Despite an increase in cross-border restrictions affecting trade between geopolitically distant blocs, the global trade-to-GDP ratio is expected to remain stable. Intrabloc trade and trade with third countries have been compensating forces so far.

Meanwhile, global current account balances—the sums of absolute surpluses and deficits—are expected to continue to decline from their 2022 peaks (Figure 1.15). As reported in the IMF’s 2024 *External Sector Report*, the significant moderation of current account balances in 2023 toward pre-pandemic levels reflected a reversal of large current account surpluses in commodity-exporting countries, continued economic recovery from the pandemic, and a slowdown in global goods trade during 2023. Over the medium term, global balances are expected to narrow gradually as

Figure 1.15. Current Account and International Investment Positions
(Percent of global GDP)



Source: IMF staff calculations.

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

commodity prices decline. Creditor and debtor stock positions reached historically elevated levels in 2022, with the increases reflecting widening current account balances. They are expected to moderate slightly over the medium term as current account balances gradually narrow. In some economies, gross external liabilities remain large from a historical perspective and pose risks of external stress.

Risks to the Outlook: Tilted to the Downside

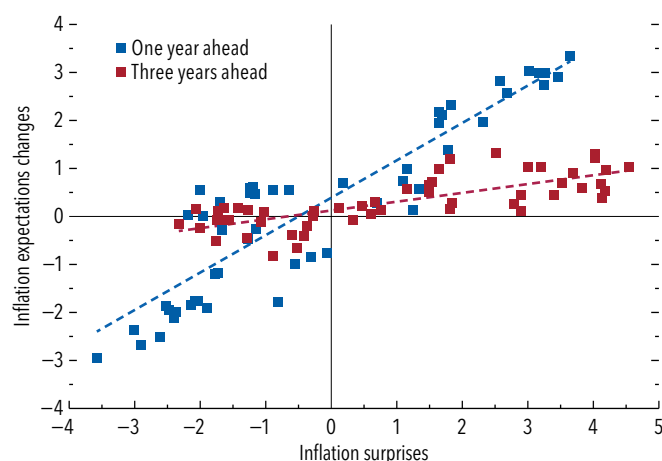
The most prominent risks and uncertainties surrounding the outlook are now discussed. A model-based analysis that quantifies risks to the global outlook and plausible scenarios—including shifts in trade and fiscal policies—is presented in Box 1.2.

Downside Risks

Since the July 2024 *World Economic Outlook Update*, adverse risks have gained more prominence.

- Monetary policy tightening bites more than intended.* Although policy rates are projected to normalize, an unanticipated back-loaded strengthening of the transmission of earlier rate increases could lead to a faster-than-anticipated deceleration in near-term growth and rising unemployment. Though the impact on growth is unlikely to be persistent given concurrent policy easing, a rapid weakening of activity could also work its way adversely through consumer and business sentiment. This would place a stronger drag on household spending and prompt businesses to dial back their investment plans, either (or both) of which could create a negative feedback loop to growth. In such circumstances, however, lower energy prices would cushion some of the negative effects on growth as lower demand would push oil prices down.
- Financial markets reprice as a result of monetary policy reassessments.* The global economy is at the last mile of disinflation, which may present greater challenges to monetary policy than expected if the cost of reducing inflation in terms of unemployment (the sacrifice ratio) is closer to pre-pandemic estimates than suggested by recent evidence (Figure 1.3, panel 1). If underlying inflation proves more persistent than expected, consumers may adjust their near-term inflation expectations (Figure 1.16), forcing central banks to adjust the path of monetary policy normalization. This would weaken consumer and business confidence, lead to market repricing and tighter financial conditions, and slow economic recovery. Given existing vulnerabilities (see Chapter 1 of the October 2024 *Global Financial Stability Report*), financial market turbulence could resurge, prompting sizable price corrections. Contagion effects are possible and could increase risks to financial stability by, among other things, triggering sovereign debt stress in emerging markets.
- Sovereign debt stress intensifies in emerging market and developing economies.* Although spreads have eased since peaking in July 2022, some emerging market and developing economies are still vulnerable to a repricing of risk. This could further increase their sovereign spreads and push them into debt distress. Countries with large external financing needs

Figure 1.16. Inflation Surprises and Changes in Inflation Expectations
(Percentage points)



Sources: Federal Reserve Bank of New York, Survey of Consumer Expectations; and IMF staff calculations.

Note: The figure covers the period January 2020 to May 2024. Dashed lines show fitted values. Inflation surprises are measured as the difference between actual year-over-year inflation and one-year (three-year) inflation expectations from one (three) years prior. Changes in inflation expectations are measured as the changes in one-year (three-year) inflation expectations relative to one (three) years prior.

and a low buffer of international reserves will be most affected, as many are already subject to large sovereign borrowing spreads (Figure 1.7, panel 2). With little room to maneuver on fiscal policy, forcing a front-loaded fiscal consolidation could precipitate an economic downturn amid a fragile recovery. Low-income countries will be particularly at risk given their limited fiscal space and the need to maintain expenditure on programs supporting the most vulnerable.

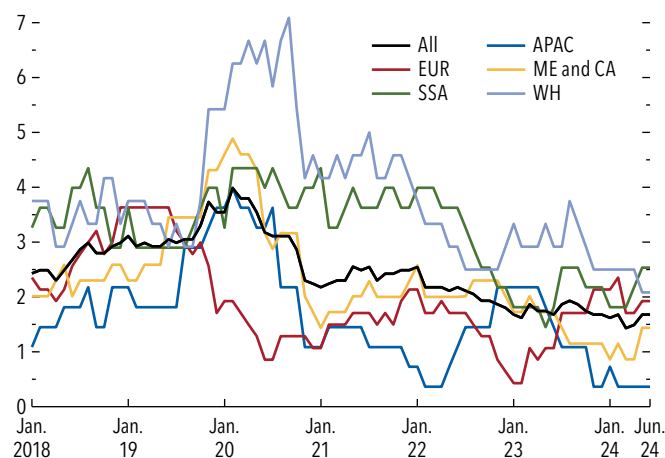
- China's property sector contracts more deeply than expected.* Conditions for the real estate market could worsen, with further price corrections taking place amid a contraction in sales and investment. The experiences of Japan in the 1990s and the United States in 2008 suggest that a further price correction is a plausible downside risk if the crisis is not adequately addressed. Further price drops could dent consumer confidence (which is already at historic lows) even more, further weakening household consumption. This could cause domestic demand to falter, with negative spillovers to both advanced and emerging market economies given China's rising footprint in global trade (see Chapter 4 of the April 2024 *World Economic Outlook*).

Government stimulus to counter weakness in domestic demand would place further strain on public finances. Subsidies in certain sectors, if targeted to boost exports, could exacerbate trade tensions with China's trading partners.

- *Renewed spikes in commodity prices arise as a result of climate shocks, regional conflicts, or broader geopolitical tensions.* Intensification of regional conflicts, especially given the wider span of conflict in the Middle East, or the war in Ukraine, could further disrupt trade, leading to sustained increases in food, energy, and other commodity prices. Commodity price volatility may result in higher inflation, especially for commodity-importing countries, and restrict central banks' room to maneuver. Extreme heat and prolonged droughts amid record high temperatures worldwide could also have an impact on harvests, adding to pressures on food prices and food security. Low-income countries are likely to be disproportionately affected, since food and energy costs take up a large part of household expenditures there.
- *Countries ratchet up protectionist policies.* A broad-based retreat from a rules-based global trading system is prompting many countries to take unilateral actions. Not only would an intensification of protectionist policies exacerbate global trade tensions and disrupt global supply chains, but it could also weigh down medium-term growth prospects by limiting positive spillovers from innovation and technology transfer, which fueled growth in emerging market and developing economies as globalization took off.
- *Social unrest resumes.* Reports of social unrest—including protests, riots, and major demonstrations—have picked up in some regions, although globally they remain fewer in number than the recent peak in late 2019 to early 2020 (Figure 1.17). However, a resurgence of social turmoil, potentially driven by higher inflation, higher taxes, and associated loss of purchasing power; spillovers from conflicts; and rising inequality, could slow economic growth, particularly in countries with more limited scope to cushion the impact through policies (Hadzi-Vaskov, Pienknagura, and Ricci 2023). Social unrest could also complicate the passage and implementation of necessary reforms. Chapter 3 emphasizes the crucial role of social consensus in achieving successful and sustainable implementation of structural reforms.

Figure 1.17. Social Unrest Levels

(Percent of economies experiencing major social unrest)



Sources: Barrett and others 2022; and IMF staff calculations.

Note: The figure shows the share of economies within a world region experiencing major events of social unrest (including protests, riots, and major demonstrations) in the preceding 12 months. All = all economies; APAC = Asia and Pacific; EUR = Europe; ME and CA = Middle East and Central Asia; SSA = sub-Saharan Africa; WH = Western Hemisphere.

Upside Risks

More favorable outcomes for global growth than in the baseline forecast are also plausible:

- *Stronger recovery in investment in advanced economies:* Public investment in advanced economies could accelerate to meet various pressing policy objectives, from the green transition to upgrading infrastructure and boosting investment in science and technology. This type of investment could also crowd in the private sector, increasing private investment, and lead to a higher-than-projected recovery in global demand and trade. Higher aggregate demand could be inflationary, although the pressure could be mitigated by the extent to which these investments enhance supply-side capacity (see Chapter 3 of the October 2022 *World Economic Outlook*). It also depends on how these investments are financed: fiscal slippage in advanced economies could further slow the pace at which central banks can bring inflation to target.
- *Stronger momentum of structural reforms:* Many advanced and emerging market economies may accelerate structural reform efforts to prevent productivity and potential growth from further lagging those of their more productive peers. Faster implementation of macro-critical structural reforms to

increase labor force participation (such as measures to better integrate immigrants and women), to reduce misallocation in labor and capital markets, or to help stimulate business innovations (Arnold, Claveres, and Frie 2024) could lead to higher medium-term growth.

Policy Priorities: From Restoring Price Stability to Rebuilding Buffers

Near-term policies should be carefully calibrated and sequenced to ensure a smooth landing. As central banks adopt a less restrictive stance, a renewed emphasis on medium-term fiscal consolidation is urgent. This is necessary to restore budgetary flexibility, fund priority investments, and ensure long-term debt sustainability. If inflation descends and approaches targets, central banks should also take into account the implications of monetary policy for growth and employment, as long as it does not undermine the goal of achieving price stability. Easing monetary policy, while still keeping inflation and inflation expectations on a downward path to target, would support growth and employment and also ease debt-servicing costs. This would in turn facilitate fiscal consolidation in a favorable feedback loop in which tighter fiscal policy paves the way for looser monetary policy. Implementing robust supply-enhancing reforms would help curb inflation and reduce debt, enabling economies to boost growth toward pre-pandemic rates, and accelerate progress toward higher income standards. Multilateral cooperation is essential to limit the costs and risks associated with geoeconomic fragmentation and climate change, speed up the transition to green energy, and support debt restructuring.

Ensuring a Smooth Landing

With output gaps gradually closing and inflation on a downward trajectory and approaching targets in many countries, the priority should be to ensure a smooth landing. Monetary policy should remain flexible and adjust based on a comprehensive analysis of incoming data and their implications for growth and inflation projections. As before, the focus should be to keep short- and long-term inflation expectations anchored. The varying pace of disinflation and monetary easing across advanced and emerging market and developing economies could trigger great exchange rate volatility, necessitating the use of alternative instru-

ments in some cases. In particular cases, when risk-off episodes translate into higher borrowing costs—putting financial sectors under more stress—the importance of close supervision and comfortable buffers cannot be overstated.

- *Carefully calibrate monetary policy.* Monetary policy needs to be carefully calibrated to ensure the restoration of price stability while supporting growth and employment. In economies with core inflation persistently above target, it is crucial to maintain a restrictive stance, keeping real interest rates above the neutral level until there is clear evidence of sustained cooling in underlying inflation. This approach is vital to preserving the achievements of many central banks in anchoring long-term inflation expectations. Where underlying inflation is diminishing consistently, in sync with inflation expectations, a transition to a more neutral policy stance would be warranted. In such cases, the policy rate can be dropped gradually to avoid undue increases in real interest rates. When the economy cools down faster than expected, and to the extent that inflation remains under control and on a downward path to target, real rates could be reduced to support growth and employment and keep output close to potential, accounting for lags in the transmission of monetary policy. Throughout this process, it is important to communicate consistently a commitment to price stability.
- *Mitigate disruptive foreign exchange volatility.* As countries follow different paths to disinflation, central bank policies may become less synchronized, potentially leading to increased capital flows. For instance, US inflation that is more persistent than expected could elevate interest rate expectations, causing the US dollar to appreciate. This would push up domestic prices in economies with higher import dependence and greater shares of dollar-invoiced imports, potentially exerting pressure on their financial sectors (Gopinath and Gourinchas 2022; Adrian, Natalucci, and Wu 2024). The IMF's Integrated Policy Framework offers country-specific guidance on appropriate policy responses in such scenarios. For countries with deep foreign exchange markets and low foreign currency debt, adjusting policy rates and allowing exchange rate flexibility are advisable. When market stress arises, rapid and decisive use of tools to provide liquidity support, while avoiding moral hazard, can help limit contagion. In contrast, for countries with shallow foreign exchange

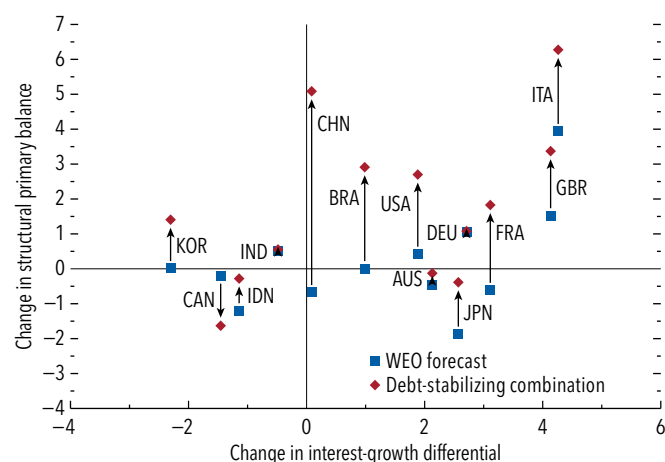
markets or substantial foreign currency debt, tightening global financial conditions might trigger a rise in risk premiums and lead to “taper tantrums” as investors offload domestic currency assets, posing systemic risks to financial stability and growth uncertainties. In these situations, while maintaining suitable monetary and fiscal policies, temporary foreign exchange interventions or capital flow management measures could be appropriate. Macroprudential measures should help mitigate financial vulnerabilities stemming from large foreign-currency-denominated debt exposures. When sharp exchange rate movements threaten to de-anchor inflation expectations, temporary foreign exchange interventions may support monetary policy, provided sufficient reserves are available and the cost of using monetary policy alone is excessive. Countries vulnerable to external shocks could consider using the global financial safety nets provided by international financial institutions, such as precautionary financial arrangements from the IMF.

- **Restore macroprudential buffers and ensure financial stability.** With borrowing costs still higher than before the pandemic, it is crucial to carefully monitor serious misalignments in financing conditions and strengthen supervision. This includes implementing Basel III reforms to protect the financial system from potential repercussions of a sudden repricing of risk and anticipating stress in the banking sector. Where feasible, macroprudential buffers deployed during the pandemic and the 2021 global energy crisis should be gradually rebuilt in the context of a rapidly evolving real estate market. In the event of market strains, central banks should be prepared to deploy necessary financial stability tools, providing prompt and forceful liquidity support to limit contagion (Adrian, Gopinath, and Gourinchas 2023).

Rebuilding Fiscal Buffers while Avoiding Debt Distress

Fiscal deficits and government debt are still above what they were before the pandemic, and debt-service costs remain high and rising in many countries. To ensure debt sustainability and restore long-term budgetary flexibility, it is important for many countries, including both advanced and emerging market economies, to tighten fiscal policy (Figure 1.18). In countries where inflation remains elevated, fiscal consolidation can also reduce aggregate demand and help

Figure 1.18. Required Fiscal Consolidation
(Percentage points)



Source: IMF staff calculations.

Note: “Debt-stabilizing combination” refers to the change in structural primary balance needed to stabilize the debt-to-GDP ratio at its 2023 level, given the projected change in the interest-growth differential from 2023 to 2024. Data labels in the figure use International Organization for Standardization (ISO) country codes. WEO = *World Economic Outlook*.

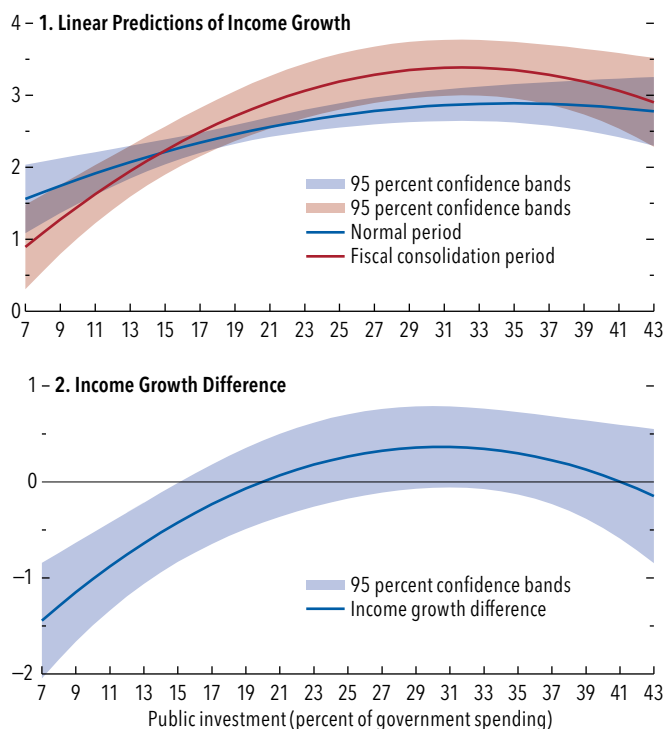
ease overall inflationary pressures. For countries with limited fiscal space, the reallocation of spending toward initiatives that support and enhance productivity and competitiveness can stimulate economic growth and release some of the pressure on overall spending. It is, however, important to ensure continuous support to the most vulnerable during fiscal consolidation, safeguarding key social spending and safety nets. Strong commitments, clearly defined medium-term fiscal policy plans, clear communication of objectives and policy rationale, and careful sequencing (see Chapter 3) are essential to maintain popular support, credibility, and confidence; prevent disruptive market reactions; and ensure debt sustainability.

- **Urgently devise credible fiscal plans to avoid disruptive adjustments.** Restoring depleted fiscal buffers requires a consolidation path that is carefully calibrated to country-specific economic conditions. Unduly delaying consolidation may lead to market-imposed disruptive adjustments, while excessively front-loading the adjustments may end up hurting economic activity and putting an undue burden on vulnerable members in the society. Where consolidation is necessary, its pace should be gradual and well communicated to avoid abrupt adjustments that could diminish economic activity, trigger spikes in debt ratios, and undermine public support for

fiscal plans. In certain cases, front-loading fiscal adjustments may be necessary to alleviate stress on sovereign debt, particularly in economies that have already lost or are about to lose market access. To achieve lasting consolidation, a credible medium-term plan is essential. This plan should signal a commitment to and identify measures sufficient for meeting medium-term targets based on realistic assumptions about interest rates, revenues and spending, and the growth effects of the consolidation. In addition, it is critical for the plan's credibility to put a strong institutional framework in place, including binding legislation and fiscal frameworks to support medium-term consolidation plans.

- **Safeguard growth-enhancing measures while reducing inequality.** During fiscal consolidation, it is crucial to maintain a growth-friendly approach to adjustments while mitigating the adverse impacts of consolidation on poverty and inequality, which could help increase social acceptability and gather political support. Continuing public investments, particularly in areas that boost productivity and competitiveness—such as public and digital infrastructure—can yield positive growth (Figure 1.19). In addition, implementing structural reforms to reduce market inefficiencies and increase labor supply can amplify the benefits of these growth-friendly investments. Key elements for a well-designed consolidation plan will vary across countries (see the October 2024 *Fiscal Monitor*).
- **Ensure debt sustainability.** Many countries, particularly emerging market economies and low-income countries, have stretched their ability to service their debt with borrowing costs and sovereign spreads still elevated and therefore require significant fiscal adjustments to ensure government debt sustainability (see the October 2024 *Fiscal Monitor*). In instances in which countries are in or at high risk of debt distress, achieving debt sustainability may require not only well-timed fiscal consolidation, but also debt restructuring (see Chapter 3 of the April 2023 *World Economic Outlook*). Recent progress in improving international sovereign debt resolution frameworks, including the Group of Twenty (G20) Common Framework and the Global Sovereign Debt Roundtable, is helping bring together debtors and creditors and facilitate predictable restructuring. It is critical to continue building on these initiatives and improve the efficiency of creditor coordination in cases that are not eligible for treatment under the Common Framework.

Figure 1.19. Government Spending Composition and Future Income Growth
(Percentage points)



Source: Kass-Hanna, Kpodar, and Tessema 2020.

Note: "Fiscal consolidation" is defined as a reduction of 1 percent of GDP or more in the primary deficit in two consecutive years after the fiscal deficit has climbed above 3 percent of GDP. Panel 1 plots predictions of medium-term income growth (GDP per capita, five-year-forward moving average) in the two periods. Panel 2 plots differences in the growth impacts in the two periods. It shows that the spending share of public investment is as important during consolidations as in good times.

Engineering Faster Medium-Term Growth and Combating Climate Change

To boost productivity and resolve key structural bottlenecks, targeted reforms are vital in areas that include health care, education, labor markets, competition, and digitalization. Effective and clear communication to garner consensus and stakeholder engagement is essential for successful implementation of these reforms. In some countries, first-generation reforms aimed at revitalizing domestic markets and opening up economies, including governance reforms to strengthen institutions, could have a significant impact on growth (Budina and others 2023).

- **Advance macrostructural reforms.** Carefully sequenced reforms targeting long-term structural weaknesses are crucial for reviving productivity growth and attracting infrastructure and human capital,

- especially when fiscal space is limited. This is increasingly important as medium-term growth prospects continue to weaken. Key reforms include enhancing human capital by expanding health care coverage and increasing access to early childhood and higher education, with a focus on affordability and quality; reducing labor market rigidity and increasing labor force participation, especially among women; reducing barriers to competition and supporting start-ups; and advancing digitalization. By accelerating growth, such reforms can also alleviate concerns about potential short-term growth costs of the transition to clean energy (see Chapter 3 of the October 2022 *World Economic Outlook*) and create the necessary fiscal space for implementation. Given the historical challenges in passing structural reforms, policymakers should engage in active and effective communication to build consensus. It is vital to design policy measures thoughtfully to ensure that reforms are sustainable and their benefits are widely shared. This includes early engagement with key stakeholders during policy design and crafting complementary and compensatory measures that consider the potential distributional effects of the reforms. Continuous engagement and robust institutions can help build trust (see Chapter 3).
- *Accelerate the green transition and address climate change.* Comprehensive and global policy actions are required to meet greenhouse gas reduction goals aiming to limit global temperature increases to 1.5–2.0°C above preindustrial levels. Carbon pricing, subsidies for green investments, and carbon border-adjustment mechanisms can support the green transition while maintaining consistency with World Trade Organization (WTO) rules. Green industrial policies in China, the United States, and the European Union, among others, should be designed to complement carbon pricing and avoid discriminatory elements and to be fully consistent with international law obligations of these countries. Significant emissions cuts are achievable by helping firms with high emissions per unit of output adopt frontier technologies.

To reduce long-term energy security risks, scaling back fossil fuel investments should be matched by increases in clean energy supplies. In addition, investments in climate adaptation and infrastructure are essential, particularly for regions most vulnerable to climate shocks. Improving climate-risk-monitoring systems and risk management frameworks and strengthening safety nets and insurance are necessary to build climate resilience. 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 (see the October 2023 *Fiscal Monitor*).

- *Strengthen multilateral cooperation.* Multilateral cooperation is essential in preventing fragmentation, sustaining economic growth and stability, and addressing climate change. Trade policies should be clear and transparent to stabilize expectations, lessen investment distortions, and reduce volatility in markets, including those for agricultural and critical mineral commodities. To combat climate change, establishing a “green corridor” agreement will secure the flow of critical minerals essential for the green transition, and increased sharing of data on these minerals can reduce uncertainty and price volatility. Industrial policies could be envisaged to address well-established negative externalities or market failures that horizontal policies cannot tackle. However, industrial policies should be well designed, with benefits greater than costs, and should protect fiscal sustainability and external stability. These policies should avoid protectionist measures and remain compliant with WTO agreements. Promoting a common platform for the transfer of low-carbon technologies to emerging market and developing economies and to regulate disruptive technologies such as artificial intelligence can help reduce emissions and foster global prosperity. In this context, priorities should be restoring a fully and well-functioning WTO dispute settlement system and achieving greater clarity and coherence between climate considerations and trade rules.

Box 1.1. The Global Automotive Industry and the Shift to Electric Vehicles

The rising adoption of electric vehicles (EVs) represents a fundamental transformation of the global automotive industry. It will have far-reaching consequences for patterns of investment, production, international trade, and employment. This box documents some key steps in the evolution of the automotive sector and charts possible economic and regional implications.

The car industry stands out among manufacturing sectors in several ways. First, it is very capital intensive, with high investment (including for innovation), and a significant capital share is value added. The sector relies on skilled labor and pays wages that reflect the high value added per worker (Figure 1.1.1, panel 1). Second, multinational firms in the sector operate in many countries along deep global value chains measured by the share of foreign value added in production (Figure 1.1.1, panel 2). Finally, despite having many competitors, carmakers manage to have effective product differentiation and extract a sizable share of the consumer surplus, particularly at the top end. With the sector having high wages, showing strong profits, using a high degree of technology, and having large export markets, many countries see it as strategic.

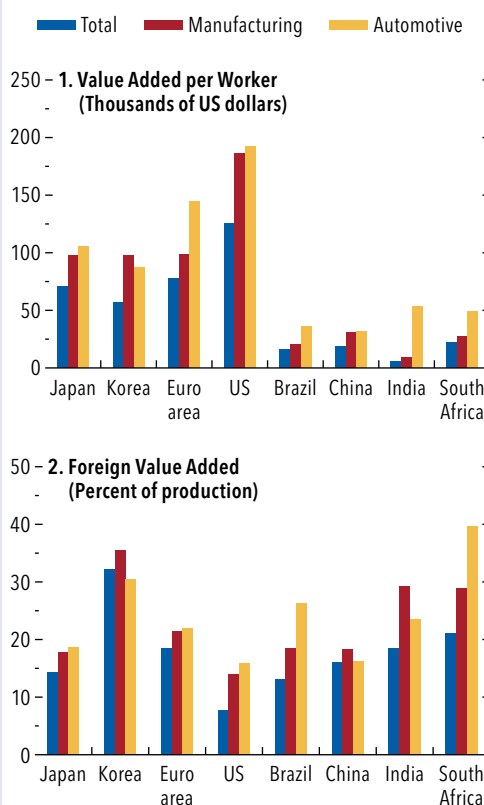
In 2022, the transportation sector generated 36 percent of greenhouse gas (GHG) emissions in the United States, 21 percent in the European Union, and 8 percent in China (IEA 2024b). Emissions from transportation have failed to decline at the same pace as those from electricity generation and industry in the past 15 years. Therefore, the shift to electric vehicles for personal transportation is a key part of the reduction of GHG emissions. To foster the adoption of EVs, both supply- and demand-side policies have been implemented across the world (IEA 2024a).

On the demand side, the European Union has set out an ambitious goal of reducing emissions from cars by 50 percent for 2030–35 from the 2021 levels in its “Fit for 55” package. In the United States, the Inflation Reduction Act includes subsidies for EV purchases and the deployment of charging stations.

Supply-side policies aim at closing the cost and convenience gaps between EVs and conventional internal combustion engine vehicles, which is a key obstacle to a widespread adoption of EVs. Policies are targeting the entire EV value chain: vehicles, batteries, and extraction and processing of metals.

The authors of this box are Benjamin Carton and Philippe Wingender.

Figure 1.1.1. Productivity and Global Value Chains in the Automotive Sector



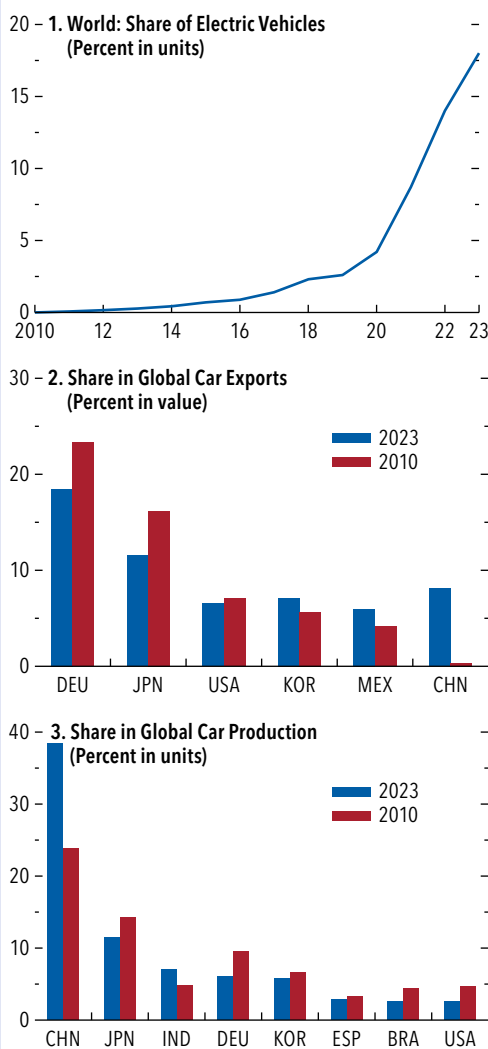
Sources: Organisation for Economic Co-operation and Development, Trade in Employment database and Trade in Value-Added indicators; and IMF staff calculations.

Cost reduction relies on two main pillars: innovation and increasing returns to scale. It explains the global race for innovation in EVs among large carmakers and battery manufacturers that resulted in the rise of many newcomers in the United States (Lucid, Rivian, Tesla) and even more in China (BYD, Geely, Wuling, and the like). The rise of lithium ion battery manufacturers has been even faster, as the industry started only 25 years ago.

As a result of policies and technological breakthroughs in batteries, the global transition from conventional vehicles to EVs has accelerated in recent years (Figure 1.1.2, panel 1) and comes with a redistribution of comparative advantages. In particular, the role of China in both production and exports has

Box 1.1 (continued)

Figure 1.1.2. Global Share of Electric Vehicles



Sources: IEA 2024a; International Organization of Motor Vehicle Manufacturers; International Trade Centre; and IMF staff calculations.

Note: Data labels in the figure use International Organization for Standardization (ISO) country codes.

dramatically increased compared with that 15 years ago (Figure 1.1.2, panels 2 and 3).

The EV transition will have global and regional macroeconomic implications. An IMF working paper (Wingender and others 2024) estimates the macroeconomic implications of a policy-driven shift to EVs in the European Union by 2035. Two main channels are at play: (1) regulation moves demand away from conventional vehicles and toward EVs, and (2) China continues to enjoy a relative cost advantage in building EVs. Under realistic EV market penetration scenarios, GDP in Europe is reduced by about 0.3 percent in the medium term. In these scenarios, employment declines in the automotive sector, and labor reallocates gradually to less capital-intensive sectors (with lower value added per worker).

The analysis also emphasizes that the ability to import EVs from China softens the trade-offs between economic and climate goals. With fewer imported EVs, climate policies have to be more stringent to reach the same climate goal, and households' purchasing power is reduced. Imports of EVs also redistribute gains and losses between countries specializing in car manufacturing (losing market share) and net car-importing countries (gaining purchasing power). The EV transition will have implications beyond car manufacturing: for the energy sector, for instance, with a shift from gasoline to electricity to fuel car fleets, or for demand for minerals.

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

The IMF's *Group of Twenty (G20) and Global Integrated Monetary and Fiscal (GIMF) models* are used in this box to derive confidence bands around the *World Economic Outlook* forecast and to quantify two scenarios.

Risks to growth are currently considered moderately tilted to the downside. The risk of global growth falling below 2 percent—an outcome that has occurred only five times since 1970—in 2025 is now assessed at 17 percent, compared with 12 percent in April, in part because the risk of a recession in the United States has increased moderately. Risks for global inflation are considered broadly balanced.

Confidence Bands

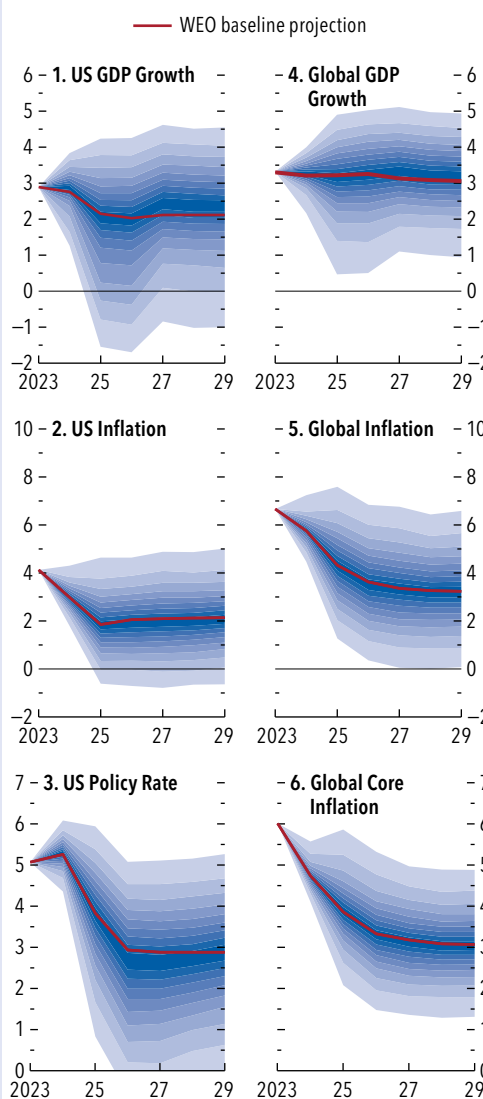
The G20 model (Andrle and others 2015) is used here to interpret historical data and recover the implied economic shocks. The shocks are then sampled and fed back through the model to generate predictive distributions. Unlike in the April 2024 *World Economic Outlook*, shocks from years in which US recessions took place are sampled more frequently when constructing the confidence bands for 2025 and 2026 projections. The approach reflects the assessment that US recession risks have increased somewhat in the near term on account of labor market developments.¹ Data from five recessions are oversampled: those in 1969, 1982, 1990, 2001, and 2008. Shocks for all countries are also oversampled for those years to exploit possible co-movements in the data.

Panels 1–3 in Figure 1.2.1 show the distributions for US growth, headline inflation, and the federal funds rate, respectively. The probability of US growth falling below 0.8 percent in 2025—corresponding to a short-lived US recession starting in the fourth quarter of 2024—is about 25 percent. That is a modest increase from the risk of recession in the April 2024 *World Economic Outlook* (17 percent). The risk of average US headline inflation falling below 1.5 percent in 2025 is assessed at about 40 percent; the risk of the federal funds rate falling below 3 percent for 2025 is about 28 percent.

The authors of this box are Jared Bebee, Chris Jackson, Gene Kindberg-Hanlon, Dirk Muir, and Rafael Portillo.

¹The implications of greater recession risks for the distribution of 2024 growth are not considered, because the first-half outturn is already known and a hypothetical recession would start in the fourth quarter at the earliest.

Figure 1.2.1. Forecast Uncertainty around Global Growth and Inflation Projections (Percent)



Source: IMF staff calculations.

Note: Each shade of blue represents a 5 percentage point probability interval. WEO = *World Economic Outlook*.

Panels 4–6 in Figure 1.2.1 show the distributions for global growth and headline and core inflation, respectively. The balance of risks for global growth is also tilted to the downside, whereas risks for global inflation remain broadly balanced.

Box 1.2 (continued)

The probability of global growth in 2025 falling below 2 percent is assessed at about 17 percent. The probabilities of global measures of average headline and core inflation falling below 3 percent in 2025 are estimated at about 20 percent and 15 percent, respectively.

Scenarios

The G20 and GIMF models are then used to simulate two scenarios, each consisting of various layers. Scenario A is considered a plausible downside alternative to the current baseline. Scenario B looks at policies advocated to address existing imbalances in the world economy. If implemented, policies in scenario B could reduce the likelihood of policies in scenario A materializing. Both scenarios assume endogenous monetary and fiscal policy responses (automatic stabilizers). It is also assumed that exchange rate stability plays a role in China's monetary policy.²

Scenario A has five layers:

A global increase in tariffs. Trade tensions lead to a permanent increase in tariffs starting in mid-2025 and affecting a sizable swath of global trade. The United States, the euro area, and China impose a 10 percent tariff on trade flows among the three regions; a 10 percent tariff is also levied on trade flows (in both directions) between the United States and the rest of the world. The increase in tariffs directly affects about one-quarter of all goods trade, representing close to 6 percent of global GDP.³ The revenue generated by the tariffs is transferred back to households.

Greater trade policy uncertainty. US tariff hikes in 2018–19 increased uncertainty over future trade policies and adversely affected investment, especially in manufacturing. In scenario A, the tariff increases similarly raise trade policy uncertainty from mid-2025 onward.⁴ It is assumed that US aggregate investment declines by about 4 percent relative to the baseline,

about twice the estimated effect from the previous episode. The increase in uncertainty is global. The euro area experiences a decrease in investment similar to that in the United States, and other regions, including China, experience a hit that is about half as large. The impact on investment fades starting in 2027.

Taxation of business income in the United States. Many of the provisions of the 2017 Tax Cuts and Jobs Act (TCJA) relating to the taxation of business income are due to expire at the end of 2025, leading to less generous depreciation allowances and raising the effective tax rate for some businesses. Scenario A assumes these expiring provisions are renewed for 10 years, lowering business income taxes by about 4.0 percent of baseline GDP, cumulatively, between 2025 and 2034.

Migration flows to the United States and Europe. Migration has been boosting labor force growth in advanced economies in recent years, raising potential output and reducing inflationary pressures, most notably in the United States. Whereas a normalization is projected in the *World Economic Outlook* baseline for both the United States and the euro area, scenario A assumes further reductions in net migration, starting in 2025. As a result, the US labor force is permanently reduced by 1 percent by 2030 and the euro area labor force by 0.75 percent, relative to the baseline.

Global financial conditions. Three factors result in a moderate tightening in financial conditions in 2025–26. First, the scenario has a negative impact on the world economy, trade, and uncertainty. Second, US monetary policy is (endogenously) tighter than in the baseline, because of a (small) net increase in US inflation. Third, debt increases further, more so in the United States, adding to concerns about debt sustainability. As a result of these factors, sovereign premiums in emerging markets (excluding China) increase by 50 basis points, while corporate premiums increase by 50 basis points in advanced economies and China and 100 basis points in other emerging markets. Term premiums also increase by 40 basis points in the United States and by 25 basis points in the euro area.

Scenario B has two layers:

Rebalancing in China. Reforms are implemented that strengthen China's social safety net by expanding coverage and increasing accessibility of social security benefits. As a result, the private saving rate gradually falls relative to the baseline starting in 2025 and is 3 percentage points of GDP lower by 2027. The saving

²The GIMF model is used for scenario A, as it is better suited for the analysis of tariffs and provides a more detailed treatment of corporate taxes (Anderson and others 2013; Carton, Fernandez-Corugedo, and Hunt 2019). Scenario B uses the G20 model.

³Tariff scenarios were analyzed in the *World Economic Outlook* in 2018 and 2019. The share of global trade affected by higher tariffs here is about four times larger than in those scenarios. The increase in tariffs is smaller (about one-third of those there).

⁴See, for example, Caldara and others (2020). Chapter 2 of the October 2024 *Global Financial Stability Report* provides an in-depth discussion of various measures of uncertainty and of the channels through which they affect activity.

Box 1.2 (continued)

rate gradually converges back to the baseline starting in 2030.

Higher EU public investment. Subdued productivity growth and ambitious green transition goals have underscored the need for higher investment in Europe, most recently advocated in the European Commission’s “The Future of European Competitiveness.” In scenario B, countries in the European Union undertake a region-wide expansion in public investment, which increases by 1.5 percent of the region’s baseline GDP on average during 2025–30 and remains permanently higher by 0.5 percent of baseline GDP after that, to sustain higher public capital. About half of the surge is financed by higher deficits and the rest by a reallocation of government spending.

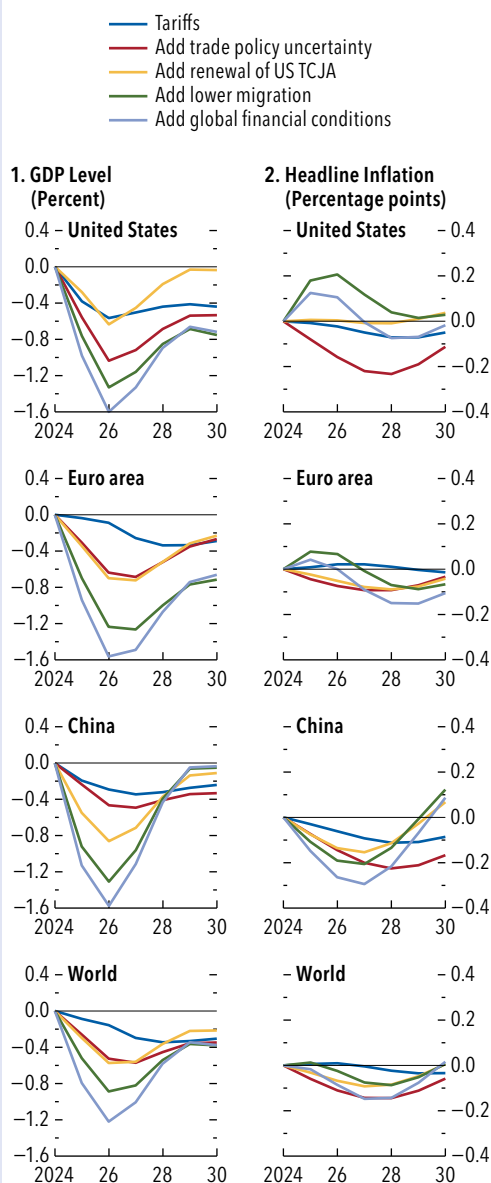
Impact on World Output and Inflation

Figures 1.2.2 and 1.2.3 present the effects for scenarios A and B. Panel 1 in each figure shows the effects on the *level* of GDP during 2024–30 for three economies (China, United States, euro area) and for the world. Panel 2 shows the effects for inflation. Effects on GDP are presented as percent deviations from the baseline, whereas effects on headline inflation are presented as percentage point deviations from the baseline.⁵

In scenario A, the *increase in tariffs* affects activity in all regions. Imposing tariffs on imports raises domestic input costs, and higher tariffs on exports lower external demand. The net effect on inflation depends on the relative strength of these two channels but is small. There is a small negative impact on investment; the impact on consumption is limited, because tariff revenue is transferred back to households. Across regions, the impact on the United States is larger, because US trade flows are subject in their entirety to the new tariffs: GDP falls by 0.4 percent in 2025 and by 0.6 percent in 2026. The impact on other regions and the world reaches –0.3 percent of GDP by 2026, and global imports and exports also fall by about 4 percent, relative to the baseline. The effects on GDP are permanent, however. The *trade policy uncertainty* layer has a more immediate impact on global activity. Global investment (not shown) falls by close to 2 percent by 2026, lowering GDP by 0.4 percent over the same period, while global inflation falls by 10 basis points.

⁵The impact on growth rates can be approximated by subtracting the effects on output from the previous year.

Figure 1.2.2. Impact of Scenario A on GDP and Headline Inflation

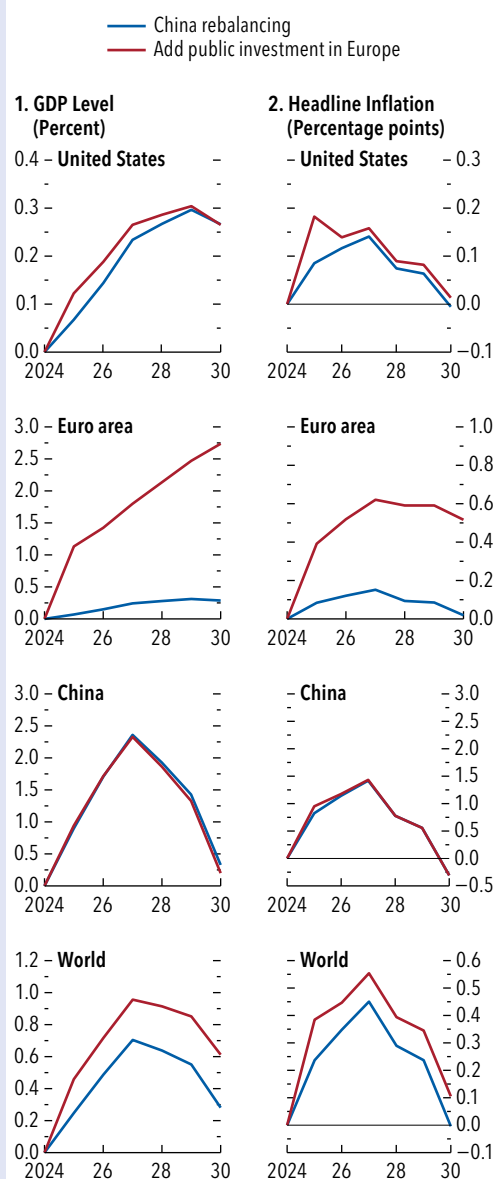


Source: IMF staff calculations.

Note: Results are shown as deviations from baseline projections. TCJA = Tax Cuts and Jobs Act.

Box 1.2 (continued)

Figure 1.2.3. Impact of Scenario B on GDP and Headline Inflation



Source: IMF staff calculations.

Note: Results are shown as deviations from baseline projections.

The temporary *renewal of US TCJA* provisions raises US investment by about 2 percent in 2025 and 4 percent in 2026, relative to the baseline. US GDP increases by 0.4 percent, and inflation increases by an average of 20 basis points over 2025–30, prompting higher US policy rates. Spillovers to other regions are negative as investment demand decreases slightly outside the United States. The *decrease in migration flows* to the United States and euro area permanently reduces potential output in both regions and raises inflation along the adjustment path. GDP falls by 0.5 percent in the United States and by 0.4 percent in the euro area in 2025, whereas inflation increases by about 20 basis points and 15 basis points for the two, respectively. As domestic demand falls in the United States and the euro area, GDP in the rest of the world also dips. Finally, the *tightening in global financial conditions* reduces activity globally, more so in emerging markets excluding China (not shown).

The *combined effect* of scenario A is a decrease in global GDP of about 0.8 percent by 2025 and 1.3 percent by 2026, relative to the baseline, with some of the effects fading over time. US GDP falls by about 1 percent relative to the baseline in 2025. The impact on global inflation is by contrast muted, at –10 basis points by 2026, reflecting the role of both demand and supply factors in the scenario.

In scenario B, the *China rebalancing* layer generates an increase in China's domestic absorption. The positive effect on China's GDP peaks at 2.5 percent by 2027 relative to the baseline, and headline inflation increases by 90 basis points in 2025 and by as much as 140 basis points in 2027. The rebalancing reduces China's current account by more than 1 percent of GDP and benefits global activity, but the effect on inflation outside China is small. The *EU public investment* layer steadily raises the level of GDP in the euro area, which peaks at 2.5 percent above the baseline by 2030. Productivity increases, raising private investment and potential output and limiting inflationary pressures: inflation is about 40 basis points higher than the baseline over 2025–30. Spillovers to other regions are small. The *combined effect* of layers in scenario B is a 0.5 percent increase in world GDP and a rise of 30 basis points in headline inflation in 2025.

Commodity Special Feature: Market Developments and the Inflationary Effects of Metal Supply Shocks

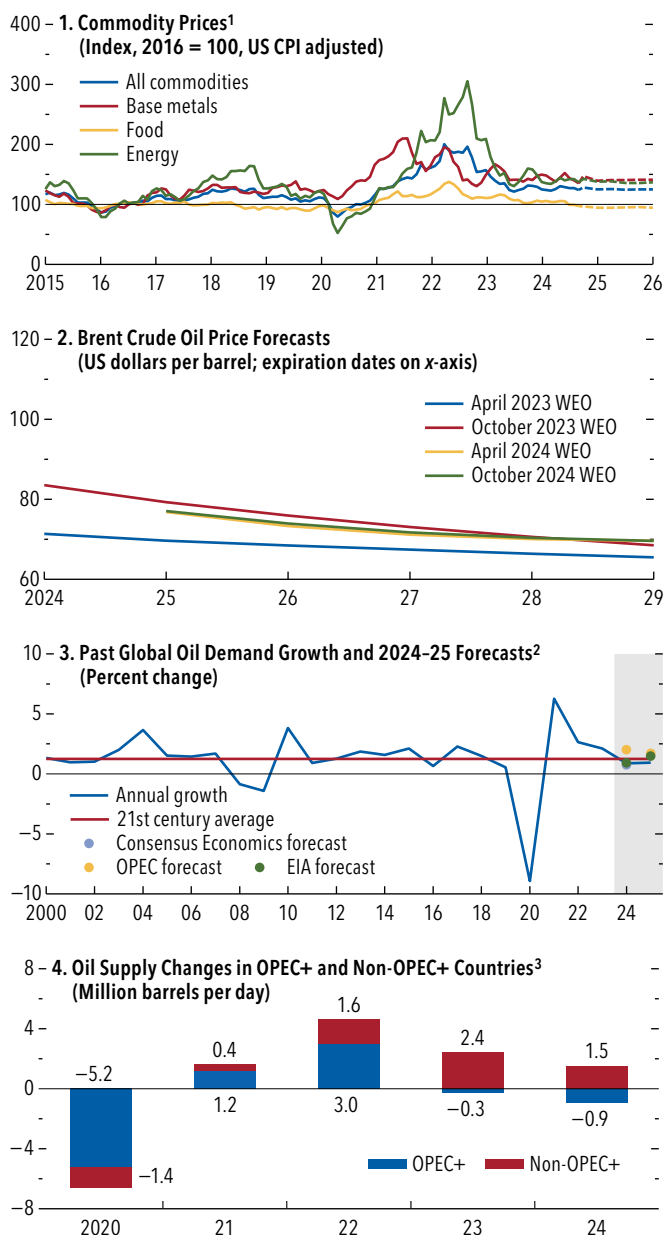
Primary commodity prices increased between February and August 2024, driven by natural gas, precious metal, and beverage prices. In oil markets, supply cuts by OPEC+ (Organization of the Petroleum Exporting Countries plus selected nonmember countries, including Russia) and geopolitical tensions in the Middle East offset strong non-OPEC+ supply growth. Beverage prices continued their ascent, which was driven by the impact of El Niño on tropical crops. Gold prices soared owing to geopolitical uncertainty and rising anticipation of rate cuts. This Special Feature analyzes the role of metals in the economy and their impact on inflation.¹

Commodity Market Developments

Oil prices steadied between February and August 2024 amid OPEC+ production cuts and Middle East tensions. Before weakening in September, oil prices held steady, with oil trading in a range of \$75 to \$90 a barrel between February and August, averaging \$83 a barrel. Oil demand growth for this year was expected to match its 21st century average, but this forecast was surrounded by great uncertainty (Figure 1.SF.1, panel 3).² Deep production cuts by OPEC+, totaling 5.86 million barrels per day (mb/d), have put a floor on prices, partially offsetting strong output growth in non-OPEC+ countries, led by Canada, Guyana, and the United States (Figure 1.SF.1, panel 4).

Fears of a broader regional escalation of tensions in the Middle East have added a volatile risk premium to oil prices, though no major supply disruptions have occurred so far. A rise in Red Sea maritime attacks has dislocated seaborne oil flows, decreasing traffic through the Suez Canal by almost two-thirds and largely rerouting it around the Cape of Good Hope, though tanker rates for both products and crude oil

Figure 1.SF.1. Commodity Market Developments



¹The contributors to this Special Feature are Christian Bogmans, Jorge Miranda-Pinto, Andrea Pescatori (team lead), Martin Stuermer, and Xueliang Wang, with research assistance from Wenchuan Dong, Maximiliano Jerez Osses, Joseph Moussa, and Tianchu Qi. This Special Feature is based on Miranda-Pinto and others (2024).

²As of its September reports, the International Energy Agency forecasts 0.90 million barrels a day (mb/d) in average demand growth for 2024, compared with OPEC's 2.00 mb/d, the US Energy Information Administration's 0.94 mb/d, and Consensus Economics' polling of 0.75 mb/d. Most of the discrepancy relates to the pace of demand growth in economies outside of the Organisation for Economic Co-operation and Development.

Sources: Bloomberg Finance L.P.; Consensus Economics (CE); Haver Analytics; IMF, Primary Commodity Price System; International Energy Agency (IEA); Refinitiv Datastream; US Energy Information Administration (EIA); and IMF staff calculations. Note: CPI = consumer price index; OPEC = Organization of the Petroleum Exporting Countries; WEO = World Economic Outlook.

¹Latest actual CPI value is applied to the dashed forecast.

²Data on past growth are from the IEA. 2024-25 forecast area is shaded. Baseline blue line in shaded area represents IEA forecast. Forecasts from CE, OPEC, and EIA are also included. CE does not have a 2025 forecast. All forecasts are from the latest September 2024 reports of the respective entities.

³OPEC+ denotes OPEC members plus some other oil-producing countries. Numbers are adjusted to account for Angola's departure from OPEC. Data are from the IEA, which assumes an extension of OPEC+ cuts for 2024.

have dropped back to pre-conflict prices. Russian oil, exported primarily to China and India, has been trading above the Group of Seven price cap for most of the past year—but at a \$15–\$20 discount to Brent.

Futures markets suggest that prices will rise by 0.9 percent year over year to average \$81.3 a barrel in 2024 and then fall to \$67.0 in 2029 (Figure 1.SF.1, panel 2). Risks to this outlook are tilted to the downside. Upside price risks from an escalation of the Middle East conflict or from a prolonged extension of OPEC+ cuts are outweighed by risks of weaker oil demand in China and the United States—which collectively account for almost 40 percent of global demand—as well as in Japan and other advanced economies, and a rise in OPEC+ production to regain market share.

Natural gas prices rose because of weather and supply concerns. Title Transfer Facility (TTF) trading hub prices in Europe rose 26.4 percent between February and August to \$10.2 a million British thermal units (MMBtu), though they remain well below their peak in 2022. Price increases were driven by warmer-than-expected summer weather in the Northern Hemisphere and a potential cutoff from Russia's remaining Europe-destined pipeline gas. Subdued economic activity in the European Union and high storage levels capped further price increases. For liquefied natural gas, Asian prices increased by 49.8 percent following strong import demand from Japan and especially China and India, and US Henry Hub prices rose by 16.8 percent. Futures markets suggest that TTF prices will average \$10.4/MMBtu in 2024, decreasing to \$8.2/MMBtu in 2029. Henry Hub prices may rise from \$2.3/MMBtu in 2024 to \$3.6/MMBtu in 2029, as US export capacity is expected to almost double through 2027, according to the US Energy Information Administration. Risks to this outlook are balanced.

Metals prices increased. The IMF's metals price index increased by 7.7 percent between February and August 2024 (Figure 1.SF.1, panel 1). Gold prices surged by 21.9 percent to record highs against the US dollar, driven by geopolitical uncertainty, expectations of US rate cuts, and past US consumer price index (CPI) inflation. Conversely, iron ore prices fell by 19.9 percent, affected by reduced demand from the steel and construction sectors in China. Copper (aluminum) prices soared by 8.1 (7.8) percent, reaching a record nominal high in early July, fueled by growing demand from renewable energy sources, electricity grids, electric vehicles, and data centers. However, starting in July, both copper and aluminum prices

retrenched on account of weaker demand projections from China.

Agricultural commodity prices declined. Between February and August 2024, the IMF's food and beverages price index decreased slightly, by 2.4 percent, as large price increases for beverages were more than offset by decreases in prices for other food categories. Cereal prices declined by 14.3 percent, with global grain production forecast to reach a record high over marketing year (MY) 2024–25. Cocoa prices increased by 20.4 percent, peaking at a record high in April, in line with expectations by the International Cocoa Organization of an 11 percent decline in global cocoa supply for MY 2023–24 on account of El Niño and crop diseases in West Africa. Coffee prices rallied, rising by 33.8 percent, following weather-related supply concerns in key producers Brazil and Vietnam. Rice prices declined by 7.5 percent, retreating from a multiyear peak reached in January of this year, as crop conditions improved in India and other parts of Asia. 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.

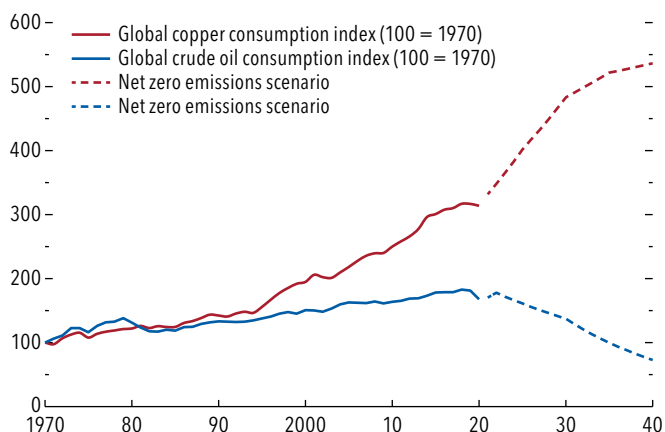
Metals Matter: The Economic Relevance of Critical Inputs

Since the end of World War II, oil has played a major role, among commodities, as a source of shocks for the global economy and inflation (see, for example, Hamilton 1983; and Kilian 2008, 2009). However, the shift from fossil fuels to metals as inputs to energy systems may render the global economy less oil intensive and relatively more metals intensive (Boer, Pescatori, and Stuermer 2024). The International Energy Agency predicts that demand for copper may grow by a factor of more than 1.5, and the consumption of oil could decline by 25 percent by 2030 in a net zero emissions scenario (Figure 1.SF.2; IEA 2022).

At the same time, metals production could become less reliable because of geopolitical tensions. Since most metals production is geographically concentrated (more so than that of oil) and most metals are not easily substitutable, trade disruptions could lead to sharp swings in prices, with a growing economic impact as the global economy and energy systems become more reliant on metals (Alvarez and others 2023).³

³New trade restrictions, including those on metals trade, have almost doubled since the start of the war in Ukraine (Gopinath and others 2024).

Figure 1.SF.2. Consumption of Copper and Oil (Index)



Sources: Boer, Pescatori, and Stuermer 2024; Schwerhoff and Stuermer 2019; International Energy Agency 2022; and IMF staff calculations.

Note: We assume that consumption equals production in 1970–2020.

Employing time series econometrics and a quantitative production network model, this Special Feature investigates how metals are used in an economy and how they affect fluctuations in inflation, using oil as a comparator.

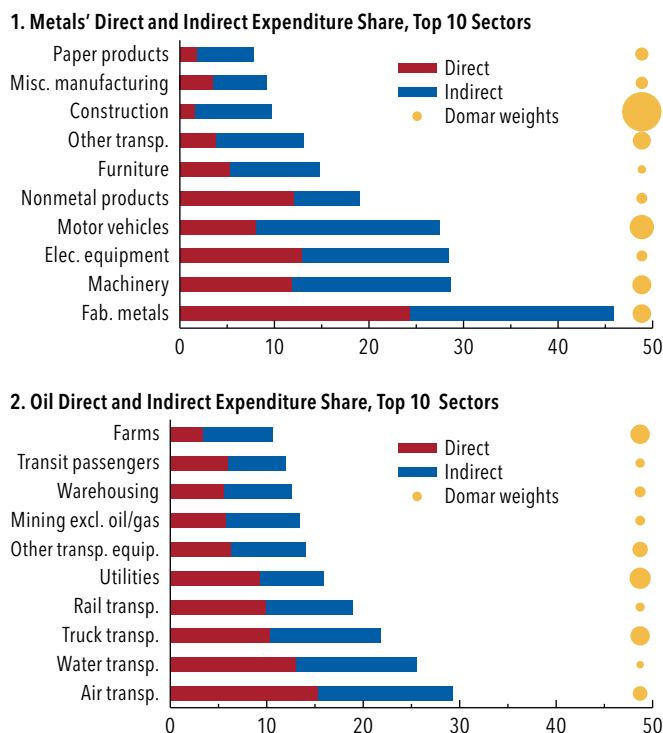
Metals Embodied in Investment Goods

Primary metals are embodied in the production of investment goods in a different way than oil is. In fact, even as metals like copper and aluminum represent only a small fraction of final consumption expenditure (for example, 0.01 percent against 2.6 percent for oil and coal products in the United States), they are critical *direct* intermediate inputs into the production of investment goods. For example, metals represent more than 10 percent of direct input expenditure in US sectors for electrical equipment and machinery (Figure 1.SF.3, panel 1).

Because metals are embodied in investment goods, they are also *indirect* inputs. For example, to produce vehicles, metals are used not only for the body of the car, but also for the machines used to assemble the car. To capture these indirect effects, a production network model with flexible prices (for example, Balke and Wynne 2000) is used.

As shown later empirically, the fact that key upstream sectors providing capital are highly exposed to metals implies a slower and more persistent response of inflation to metals price shocks. In contrast, gas and petroleum products are much less embodied in machines and investment goods. Instead, they are used chiefly as

Figure 1.SF.3. Intermediate Input Expenditure Share of Metals and Oil in Gross Output in the United States (Percent)



Source: Miranda-Pinto and others 2024.

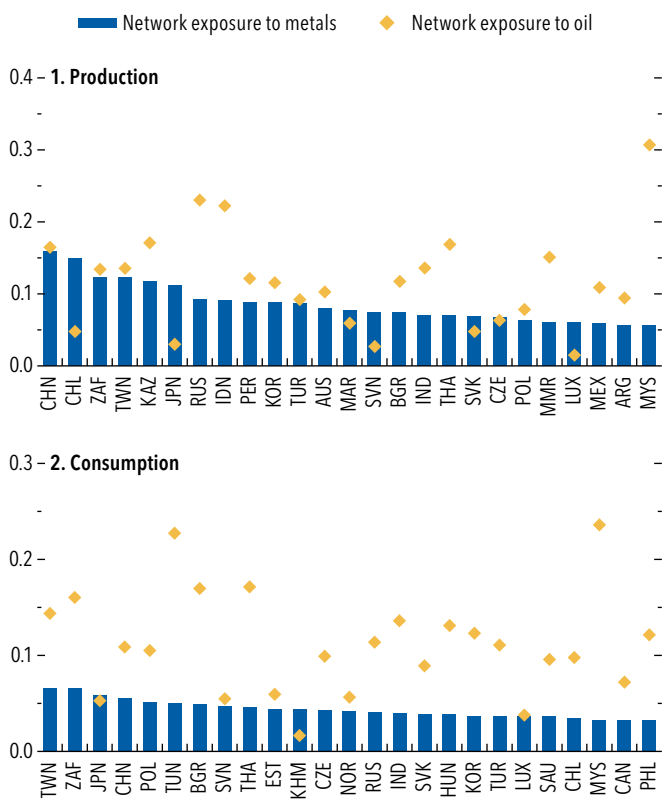
Note: "Direct" is sectoral intermediate input expenditure of metals (oil) as a share of sectoral gross output. "Indirect" is Leontief inverse share element minus "Direct." The Domar weight is the ratio of the nominal value of each industry's gross output to GDP and is expressed by the bubble size. The highest Domar weight is for construction (9.59 percent), and the lowest is for water transportation (0.03 percent). We define the metals sector as the sum of the non-oil and non-gas mining sector and the primary metals sector. The oil sector is the sum of the oil and gas mining sector and the petroleum manufacturing sector. equip. = equipment; excl. = excluding; Misc. = miscellaneous; transp. = transportation; Elec. = electrical; Fab. = fabricated.

fuel to produce energy, mostly in transportation (air, water, truck, rail) and utilities (Figure 1.SF.3, panel 2). This makes the effect of an oil price shock on headline inflation more immediate. Once the indirect component is considered, fabricated metals and machinery stand out, with 28 percent and 46 percent shares, respectively, for the United States (Figure 1.SF.3, panel 1). Shares are also sizable for motor vehicles and electrical equipment and appliances.

Metals Are Important in Many Countries' Production Networks

The relevance of metals in the production network is even more pronounced in some countries than in the United States. Figure 1.SF.4 plots the (total input-output network) exposure to metals and oil,

Figure 1.SF.4. Countries' Input-Output Network Exposure to Metals and Oil
(Percent)



Sources: Organisation for Economic Co-operation and Development; and IMF staff calculations.
 Note: The figure depicts countries' network exposure for the year 2018. Data labels in the figure use International Organization for Standardization (ISO) country codes. Sectoral exposures are weighted by (1) sectors' value-added share in total value added (panel 1) and (2) sectors' final consumption share.

at the aggregate level, for the top 25 countries, using input-output data from the Organisation for Economic Co-operation and Development.⁴ Panel 1 aggregates sectoral exposures to metals and oil using *value-added* shares, which are suited for use in gauging the exposure of an economy to metals and oil on the *production* side. Panel 2 shows the exposure to metals and oil on the consumption side. It uses *final consumption expenditure* shares, the relevant measure for CPI, to construct the consumption exposure, which indicates the percent increase in the CPI of a country following a 10 percent negative supply shock that results in about a 15 (16) percent increase in metals (oil) prices, on average, across countries.

⁴The data cover 45 sectors for 2018 and include imports of intermediates, which are sizable in the case of metals and oil.

Several results stand out from Figure 1.SF.4. First, the heterogeneity in the exposure of production is starker than the one in the exposure of consumption across countries. This is because consumption preferences are likely similar across countries, leading to less heterogeneity in consumption exposure. At the same time, the location of production of tradable goods is independent of the location of consumption, creating more heterogeneity in production exposure. Moreover, differences in technological adoption also induce significant heterogeneity in sectoral exposures to metals and oil across countries. For instance, whereas the total metal exposure of the motor vehicle sector in the average country is 16 percent, the 10th percentile is 5 percent, and the 90th percentile is 34 percent.

Second, metals are more relevant than oil in production in 7 of the top 25 countries. Nevertheless, once consumption shares are used to aggregate, only three countries display larger exposure to metals than to oil. Indeed, the median CPI exposure is three times larger for oil than for metals.

Third, there are significant cross-country differences. Although the median country has a metals exposure of 0.03, a country in the 90th percentile has an exposure that is five times larger than that of a country in the 10th percentile of the distribution. For instance, a 10 percent supply-driven increase in metals prices would generate a 0.36 percentage point increase in China's CPI, compared with a 0.1 percentage point increase for the United States, according to the network model.

The Impact of Metal Supply Shocks on Inflation

To study the inflationary consequences of metal and oil supply shocks empirically, this Special Feature follows Silva (2023) and uses a small open economy production network model (see Online Annex 1.1).⁵ To test the implications of the model, local projections instrumental variables (LP-IV) methods are employed. These estimate the effects of copper and oil price shocks for a balanced panel of 39 countries from 1996 to 2019.⁶

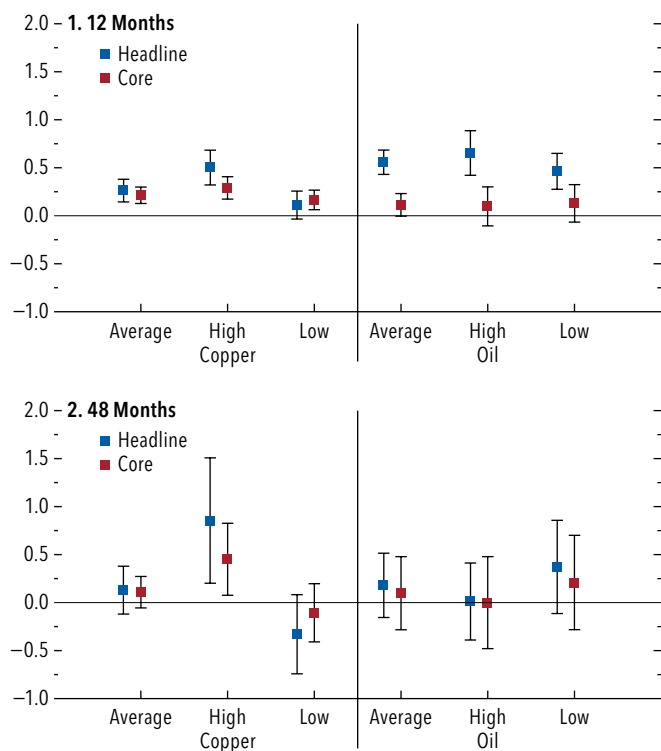
Panel 1 of Figure 1.SF.5 shows the cumulative 12-month effects of copper and oil supply shocks on headline and core inflation. A 10 percent increase in copper prices raises both headline and core inflation by

⁵All online annexes are available at www.imf.org/en/Publications/WEO.

⁶The instruments for copper and oil prices are the copper supply shocks from Baumeister, Ohnsorge, and Verduzco-Bustos (2024) and the oil supply shocks from Baumeister and Hamilton (2019).

Figure 1.SF.5. Impulse Responses
(Percent)

The figure shows impulse responses to a 10 percent increase in the prices of copper (left side) and oil (right side) for countries with a high (90th percentile) and low (10th percentile) network exposure to metals and oil.



Sources: Baumeister and Hamilton 2019; Baumeister, Ohnsorge, and Verduzco-Bustos 2024; and IMF staff calculations.

Note: Panel 1 shows the 12-month responses, while panel 2 shows the 48-month responses. Copper = impulse responses to copper supply shock. Oil = impulse responses to oil supply shock. "High" and "Low" indicate the 90th and 10th percentiles of network exposure to metals (for copper shock) and oil (for oil shock). Blue and red squares are the response for headline consumer price index (CPI) and core CPI. Whiskers indicate the 90 percent confidence intervals.

about 0.2 percentage point within 12 months, whereas oil price shocks show a substantial effect on headline inflation, but not on core.

There are, however, significant differences in the response of inflation as a function of countries' network exposure to metals and oil. The 12-month cumulative effect of a 10 percent increase in prices on headline (core) inflation is 0.5 (0.3) percentage point for copper and 0.7 (0.1) percentage point for oil in countries with high network exposure to metals and oil. For countries with low network exposure to metals and oil, the effect of a 10 percent increase in prices on headline (core) inflation is 0.1 (0.2) percentage point for copper and 0.5 percentage point (0.1) percentage point for oil.

To highlight the delayed and persistent effects on headline and core inflation, panel 2 of Figure 1.SF.5 shows the cumulative 48-month effects of metal and oil supply shocks. A 10 percent increase in copper prices leads to a cumulative 0.5 percentage point increase over 48 months in core inflation for the group of countries with high network exposure to metals. In contrast, a 10 percent increase in oil prices does not cause any significant increase in core inflation over the long term.⁷

Overall, empirical results underscore the delayed and persistent effects of metals prices on inflation through production networks' long-lasting effects on marginal costs through the cost of capital.⁸

Conclusions and Policy Implications

Primary metals play a major role as intermediate inputs for investment goods in production networks. Given how they enter the production network, metal supply shocks can have significant, persistent effects on core and headline inflation. In contrast, oil supply shocks affect mostly headline inflation.

Does this make the work of central banks easier or more difficult? Central banks have typically "looked through" oil price shocks, provided these shocks were not excessively large. As the energy system moves away from fossil fuels, however, such an approach may not work well when economies face major fluctuations in metals prices.⁹ Monetary authorities may eventually need to react to metal supply shocks, because these shocks have a more persistent effect on core inflation. In conclusion, central banks must be prepared for a potentially more metals-intensive global economy in which metals price shocks could become increasingly more relevant. Their impact on inflation may initially appear subtle but could prove to be quite persistent.

⁷The persistence of the copper and oil price shocks is roughly similar. However, copper price shocks have a stronger 48-month effect on copper prices than oil supply shocks have on oil prices. See Online Annex 1.1 for more details. Country heterogeneity is not significant for oil.

⁸The more persistent effect of metals price shocks is consistent with the version of the model with a capital stock (see Online Annex 1.1). Also, since copper represents 30 percent of the IMF's trade-weighted base metals index, these estimates are a lower bound in the case of a supply shock that increases base metals prices by 10 percent, as this effect is expected to be three times greater.

⁹Supply shocks to metals markets are more dispersed than those for oil markets, as they typically do not hit each of the metals markets at the same time. This has so far made the magnitude of supply shocks for the aggregate primary metals sector smaller than that for those in the petroleum sector.

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 ¹			Current Account Balance ²			Unemployment ³		
	2023	Projections		2023	Projections		2023	Projections		2023	Projections	
		2024	2025		2024	2025		2024	2025		2024	2025
Europe	1.5	1.7	1.7	9.9	7.9	5.3	2.2	2.5	2.3	...	...	...
Advanced Europe	0.5	1.0	1.4	5.7	2.4	2.0	2.8	3.1	3.0	5.9	6.0	5.8
Euro Area ^{4,5}	0.4	0.8	1.2	5.4	2.4	2.0	1.6	2.6	2.4	6.6	6.5	6.4
Germany	-0.3	0.0	0.8	6.0	2.4	2.0	6.2	6.6	6.4	3.0	3.4	3.2
France	1.1	1.1	1.1	5.7	2.3	1.6	-1.0	0.1	-0.1	7.4	7.4	7.2
Italy	0.7	0.7	0.8	5.9	1.3	2.1	0.0	1.1	1.4	7.7	7.0	7.2
Spain	2.7	2.9	2.1	3.4	2.8	1.9	2.7	3.4	3.2	12.2	11.6	11.2
The Netherlands	0.1	0.6	1.6	4.1	3.2	2.3	9.9	10.0	10.1	3.6	3.9	4.2
Belgium	1.4	1.1	1.2	2.3	4.3	2.1	-1.0	-0.3	0.0	5.5	5.7	5.7
Ireland	-5.5	-0.2	2.2	5.2	1.7	1.8	8.1	12.0	11.2	4.3	4.4	4.4
Austria	-0.8	-0.6	1.1	7.7	3.0	2.5	2.7	2.6	2.4	5.1	5.6	5.6
Portugal	2.3	1.9	2.3	5.3	2.5	2.1	1.4	2.0	2.3	6.6	6.5	6.4
Greece	2.0	2.3	2.0	4.2	2.9	2.1	-6.9	-6.5	-5.3	11.1	10.5	10.1
Finland	-1.2	-0.2	2.0	4.3	1.2	1.9	-1.1	-1.2	-1.2	7.2	8.3	7.4
Slovak Republic	1.6	2.2	1.9	11.0	2.8	5.1	-1.6	-1.7	-1.4	5.8	5.6	5.7
Croatia	3.1	3.4	2.9	8.4	4.0	2.8	1.1	1.5	0.9	6.2	5.6	5.5
Lithuania	-0.3	2.4	2.6	8.7	0.9	2.4	1.9	2.8	2.9	6.9	7.3	7.1
Slovenia	2.1	1.5	2.6	7.4	2.0	2.7	4.5	3.4	2.5	3.7	3.5	3.5
Luxembourg	-1.1	1.3	2.7	2.9	2.5	2.6	6.8	6.9	7.0	5.2	5.8	5.9
Latvia	-0.3	1.2	2.3	9.1	1.4	2.2	-4.0	-3.8	-3.6	6.5	6.7	6.5
Estonia	-3.0	-0.9	1.6	9.1	3.4	2.0	-1.7	-3.4	-3.3	6.4	7.5	7.1
Cyprus	2.5	3.3	3.1	3.9	2.2	2.0	-12.1	-10.1	-8.3	6.1	5.3	5.1
Malta	7.5	5.0	4.0	5.6	2.7	2.5	0.9	1.2	2.3	3.1	3.0	3.0
United Kingdom	0.3	1.1	1.5	7.3	2.6	2.1	-2.0	-2.8	-2.8	4.0	4.3	4.1
Switzerland	0.7	1.3	1.3	2.1	1.3	1.0	6.9	8.2	7.6	2.0	2.4	2.5
Sweden	-0.2	0.9	2.4	5.9	2.1	2.0	6.5	6.6	6.1	7.7	8.5	8.3
Czech Republic	-0.1	1.1	2.3	10.7	2.3	2.0	0.4	0.1	0.3	2.6	2.8	2.5
Norway	0.5	1.5	1.8	5.5	3.3	2.4	17.9	14.5	12.5	3.6	4.3	3.8
Denmark	2.5	1.9	1.6	3.4	1.8	2.2	9.8	9.0	9.3	2.8	2.9	3.0
Iceland	5.0	0.6	2.4	8.7	6.0	3.3	1.1	0.2	0.1	3.4	3.8	3.8
Andorra	1.4	1.4	1.6	5.6	3.6	2.5	17.0	17.2	17.3	1.6	1.6	1.6
San Marino	0.4	0.7	1.3	5.9	1.3	2.0	13.9	6.2	4.2	3.9	3.9	3.9
Emerging and Developing Europe⁶	3.3	3.2	2.2	17.1	16.9	11.1	-0.5	-0.3	-0.7	...	...	...
Russia	3.6	3.6	1.3	5.9	7.9	5.9	2.5	2.7	2.6	3.2	2.6	3.0
Türkiye	5.1	3.0	2.7	53.9	60.9	33.0	-4.0	-2.2	-2.1	9.4	9.3	9.9
Poland	0.2	3.0	3.5	11.4	3.9	4.5	1.5	0.8	0.0	2.8	3.2	3.3
Romania	2.1	1.9	3.3	10.4	5.3	3.6	-7.0	-7.5	-7.0	5.6	5.6	5.4
Ukraine ⁷	5.3	3.0	2.5	12.9	5.8	9.0	-5.4	-8.1	-14.3	19.1	14.2	12.7
Hungary	-0.9	1.5	2.9	17.1	3.8	3.5	0.2	1.6	0.6	4.1	4.4	4.2
Belarus	3.9	3.6	2.3	5.0	6.0	6.4	-1.8	-2.0	-2.4	3.5	3.0	2.9
Bulgaria	1.8	2.3	2.5	8.6	2.8	2.6	-0.3	-1.0	-1.7	4.4	4.3	4.2
Serbia	2.5	3.9	4.1	12.4	4.5	3.6	-2.6	-4.2	-4.8	9.4	9.1	9.0

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.

¹ 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.

² Percent of GDP.

³ Percent. National definitions of unemployment may differ.

⁴ Current account position corrected for reporting discrepancies in intra-area transactions.

⁵ Based on Eurostat's harmonized index of consumer prices except for Slovenia.

⁶ Includes Albania, Bosnia and Herzegovina, Kosovo, Moldova, Montenegro, and North Macedonia.

⁷ 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 ¹			Current Account Balance ²			Unemployment ³		
	2023	Projections		2023	Projections		2023	Projections		2023	Projections	
		2024	2025		2024	2025		2024	2025		2024	2025
Asia	5.0	4.6	4.4	2.6	2.2	2.6	1.9	1.9	1.9	...	...	...
Advanced Asia	2.0	1.6	1.9	3.6	2.4	2.1	4.4	4.7	4.6	2.8	2.9	3.0
Japan	1.7	0.3	1.1	3.3	2.2	2.0	3.6	3.8	3.6	2.6	2.5	2.5
Korea	1.4	2.5	2.2	3.6	2.5	2.0	1.9	3.9	3.6	2.7	2.9	3.0
Australia	2.0	1.2	2.1	5.6	3.3	3.3	0.3	-0.9	-1.1	3.7	4.1	4.4
Taiwan Province of China	1.3	3.7	2.7	2.5	2.1	1.7	13.8	14.8	14.6	3.7	3.7	3.7
Singapore	1.1	2.6	2.5	4.8	2.6	2.2	19.8	17.8	17.7	1.9	1.9	1.9
Hong Kong SAR	3.3	3.2	3.0	2.1	1.7	2.3	9.2	9.8	9.2	2.9	2.8	2.7
New Zealand	0.6	0.0	1.9	5.7	2.7	2.2	-6.9	-6.3	-5.0	3.7	5.1	5.1
Macao SAR	80.5	10.6	7.3	0.9	1.1	2.0	36.0	33.2	33.3	2.7	1.8	1.8
Emerging and Developing Asia	5.7	5.3	5.0	2.4	2.1	2.7	1.0	0.8	0.9	...	...	...
China	5.2	4.8	4.5	0.2	0.4	1.7	1.4	1.4	1.6	5.2	5.1	5.1
India ⁴	8.2	7.0	6.5	5.4	4.4	4.1	-0.7	-1.1	-1.3	...	...	...
Indonesia	5.0	5.0	5.1	3.7	2.5	2.5	-0.2	-1.0	-1.2	5.3	5.2	5.1
Thailand	1.9	2.8	3.0	1.2	0.5	1.2	1.4	1.8	2.0	1.0	1.1	1.0
Vietnam	5.0	6.1	6.1	3.3	4.1	3.5	5.8	3.0	2.7	2.0	2.1	2.0
Malaysia	3.6	4.8	4.4	2.5	2.8	2.5	1.5	2.6	2.8	3.6	3.5	3.5
Philippines	5.5	5.8	6.1	6.0	3.3	3.0	-2.6	-2.2	-1.8	4.4	4.4	5.2
Other Emerging and Developing Asia⁵	4.1	4.3	4.1	11.5	9.7	9.6	-1.0	-0.9	-1.4	...	...	...
<i>Memorandum</i>												
ASEAN-5 ⁶	4.0	4.5	4.5	3.5	2.3	2.3	3.1	2.7	2.7	...	...	...
Emerging Asia ⁷	5.8	5.4	5.1	2.0	1.8	2.4	1.0	0.9	1.0	...	...	...

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.

¹ 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.² Percent of GDP.³ Percent. National definitions of unemployment may differ.⁴ See the country-specific note for India in the "Country Notes" section of the Statistical Appendix.⁵ 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.⁶ Indonesia, Malaysia, the Philippines, Singapore, and Thailand.⁷ 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 ¹			Current Account Balance ²			Unemployment ³		
	2023	Projections		2023	Projections		2023	Projections		2023	Projections	
		2024	2025		2024	2025		2024	2025		2024	2025
North America	2.8	2.5	2.1	4.2	3.1	2.0	-2.9	-3.0	-2.8	...	...	...
United States	2.9	2.8	2.2	4.1	3.0	1.9	-3.3	-3.3	-3.1	3.6	4.1	4.4
Mexico	3.2	1.5	1.3	5.5	4.7	3.8	-0.3	-0.7	-0.9	2.8	3.0	3.3
Canada	1.2	1.3	2.4	3.9	2.4	1.9	-0.7	-1.0	-1.3	5.4	6.2	6.2
Puerto Rico ⁴	0.6	1.0	-0.8	3.5	1.6	1.9	...	...	...	5.9	6.2	6.5
South America⁵	1.5	1.8	2.7	19.8	23.7	10.9	-1.4	-1.2	-1.3	...	...	...
Brazil	2.9	3.0	2.2	4.6	4.3	3.6	-1.0	-1.7	-1.8	8.0	7.2	7.2
Argentina	-1.6	-3.5	5.0	133.5	229.8	62.7	-3.2	0.6	0.6	6.1	8.2	7.6
Colombia	0.6	1.6	2.5	11.7	6.7	4.5	-2.5	-2.5	-2.6	10.2	10.2	10.0
Chile	0.2	2.5	2.4	7.6	3.9	4.2	-3.5	-2.3	-2.7	8.7	8.5	8.0
Peru	-0.6	3.0	2.6	6.3	2.5	1.9	0.8	0.3	-0.1	6.8	6.8	6.5
Ecuador	2.4	0.3	1.2	2.2	1.9	2.2	1.9	2.8	2.4	3.4	4.2	4.0
Venezuela	4.0	3.0	3.0	337.5	59.6	71.7	3.1	4.1	3.3	...	...	...
Bolivia	3.1	1.6	2.2	2.6	4.3	4.2	-2.6	-5.4	-5.5	4.9	5.0	5.1
Paraguay	4.7	3.8	3.8	4.6	3.8	4.0	0.3	-0.6	-2.5	6.2	6.3	6.3
Uruguay	0.4	3.2	3.0	5.9	4.9	5.4	-3.8	-2.7	-2.6	8.3	8.4	8.0
Central America⁶	4.1	3.8	3.8	4.2	2.6	3.5	-1.3	-1.1	-1.2	...	...	...
Caribbean⁷	7.5	11.9	5.5	13.1	6.9	6.2	2.2	5.6	1.7	...	...	...
<i>Memorandum</i>												
Latin America and the Caribbean ⁸	2.2	2.1	2.5	14.8	16.8	8.5	-1.1	-0.9	-1.1	...	...	...
Eastern Caribbean Currency Union ⁹	3.9	4.5	3.6	4.0	3.0	2.0	-11.6	-11.1	-10.8	...	...	...

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.

¹ 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.

² Percent of GDP.

³ Percent. National definitions of unemployment may differ.

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

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

⁶ 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.

⁷ 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.

⁸ 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.

⁹ 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 ¹			Current Account Balance ²			Unemployment ³		
	2023	Projections		2023	Projections		2023	Projections		2023	Projections	
		2024	2025		2024	2025		2024	2025		2024	2025
Middle East and Central Asia	2.1	2.4	3.9	15.6	14.6	10.7	3.7	1.7	0.8	...	...	...
Oil Exporters⁴	2.0	2.4	3.9	11.1	8.6	8.2	6.2	4.0	2.7	...	...	...
Saudi Arabia	-0.8	1.5	4.6	2.3	1.7	1.9	3.2	0.4	-1.8	3.8	...	...
Iran	5.0	3.7	3.1	40.7	31.7	29.5	2.8	2.9	3.0	8.1	8.0	8.4
United Arab Emirates	3.6	4.0	5.1	1.6	2.3	2.1	10.7	8.8	8.2	...	...	...
Kazakhstan	5.1	3.5	4.6	14.6	8.6	7.2	-3.3	-1.5	-2.7	4.8	4.8	4.8
Algeria	4.1	3.8	3.0	9.3	5.3	5.2	2.5	1.3	-0.8	...	...	...
Iraq	-2.9	0.1	4.1	4.4	3.2	3.5	4.5	-1.9	-3.4	...	...	...
Qatar	1.2	1.5	1.9	3.1	1.0	1.4	17.1	13.4	13.3	...	...	...
Kuwait	-3.6	-2.7	3.3	3.6	3.0	2.4	31.4	28.2	23.7	...	...	...
Azerbaijan	1.1	3.2	2.5	8.8	2.1	4.8	11.5	6.1	5.9	5.5	5.4	5.3
Oman	1.3	1.0	3.1	0.9	1.3	1.5	2.4	2.3	1.4	...	...	...
Turkmenistan	2.0	2.3	2.3	-1.6	6.3	8.0	4.7	4.0	2.7	...	...	...
Bahrain	3.0	3.0	3.2	0.1	1.4	1.8	5.9	5.3	4.5	6.3	...	...
Oil Importers^{5,6}	2.1	2.4	4.0	22.8	24.7	14.7	-3.1	-4.6	-4.4	...	...	...
Egypt	3.8	2.7	4.1	24.4	33.3	21.2	-1.2	-6.6	-6.4	7.2	7.2	7.4
Pakistan	-0.2	2.4	3.2	29.2	23.4	9.5	-1.0	-0.2	-0.9	8.5	8.0	7.5
Morocco	3.4	2.8	3.6	6.1	1.7	2.3	-0.6	-2.0	-2.3	13.0	13.4	12.6
Uzbekistan	6.3	5.6	5.7	10.0	10.0	9.4	-7.7	-6.3	-6.1	6.8	6.3	5.8
Tunisia	0.0	1.6	1.6	9.3	7.1	6.7	-2.7	-3.5	-3.4	16.4	...	...
Sudan ⁷	-18.3	-20.3	8.3	77.2	200.1	118.9	-3.6	-3.9	-8.6	46.0	58.0	55.7
Jordan	2.6	2.4	2.9	2.1	2.1	2.4	-3.5	-5.0	-4.0	22.0	...	...
Georgia	7.5	7.6	6.0	2.5	1.1	2.6	-4.3	-5.8	-5.9	16.4	14.5	14.5
Armenia	8.3	6.0	4.9	2.0	0.2	3.1	-2.3	-4.2	-4.8	12.6	13.0	13.5
Tajikistan	8.3	6.8	4.5	3.7	4.5	5.9	4.9	0.3	-1.7	...	...	...
Kyrgyz Republic	6.2	6.5	5.0	10.8	5.1	5.0	-48.2	-21.7	-6.5	9.0	9.0	9.0
Mauritania	6.5	4.4	4.2	4.9	2.7	4.0	-8.8	-7.2	-8.7	...	...	...
West Bank and Gaza ⁷	-5.4	...	...	5.9	...	...	-16.6	...	...	...	...	...
<i>Memorandum</i>												
Caucasus and Central Asia	4.9	4.3	4.5	9.8	6.9	6.9	-2.1	-1.5	-2.0	...	...	...
Middle East, North Africa, Afghanistan, and Pakistan ⁶	1.6	2.1	3.9	16.5	15.9	11.4	4.6	2.2	1.3	...	...	...
Middle East and North Africa	1.9	2.1	4.0	15.0	14.8	11.6	5.1	2.5	1.5	...	...	...
Israel ^{7,8}	2.0	0.7	2.7	4.2	3.1	3.0	4.8	3.4	4.4	3.5	3.1	3.4

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.

¹ 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.² Percent of GDP.³ Percent. National definitions of unemployment may differ.⁴ Includes Libya and Yemen.⁵ Includes Djibouti, Lebanon, and Somalia. See the country-specific note for Lebanon in the "Country Notes" section of the Statistical Appendix.⁶ Excludes Afghanistan and Syria because of the uncertain political situation. See the country-specific notes in the "Country Notes" section of the Statistical Appendix.⁷ See the country-specific notes for Israel, Sudan, and West Bank and Gaza in the "Country Notes" section of the Statistical Appendix.⁸ 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 ¹			Current Account Balance ²			Unemployment ³		
	2023	Projections		2023	Projections		2023	Projections		2023	Projections	
		2024	2025		2024	2025		2024	2025		2024	2025
Sub-Saharan Africa	3.6	3.6	4.2	17.6	18.1	12.3	-2.7	-3.2	-2.9	...	...	...
Oil Exporters⁴	2.4	2.7	3.2	20.7	29.3	22.6	2.2	1.0	0.2	...	...	...
Nigeria	2.9	2.9	3.2	24.7	32.5	25.0	1.7	-0.5	-0.7	...	...	...
Angola	1.0	2.4	2.8	13.6	28.4	21.3	3.8	3.3	1.5	...	...	...
Gabon	2.4	3.1	2.6	3.6	2.1	2.2	5.4	5.1	3.1	...	...	...
Chad	4.9	3.2	3.8	4.1	4.9	3.7	-0.9	-1.7	-2.5	...	...	...
Equatorial Guinea	-6.2	5.8	-4.8	2.5	4.0	2.8	-0.8	-0.4	-2.7	...	...	...
Middle-Income Countries⁵	3.1	3.1	3.9	9.4	6.3	5.2	-3.6	-3.3	-2.5	...	...	...
South Africa	0.7	1.1	1.5	5.9	4.7	4.5	-1.6	-1.6	-1.9	33.1	33.7	33.9
Kenya	5.6	5.0	5.0	7.7	5.1	5.2	-4.0	-4.1	-4.1	...	...	...
Ghana	2.9	3.1	4.4	39.2	19.5	11.5	-1.4	-2.5	-2.0	...	...	...
Côte d'Ivoire	6.2	6.5	6.4	4.4	3.8	3.0	-8.0	-5.4	-1.3	...	...	...
Cameroon	3.2	3.9	4.2	7.4	4.4	3.5	-3.9	-2.8	-3.5	...	...	...
Senegal	4.6	6.0	9.3	5.9	1.5	2.0	-18.8	-12.7	-8.3	...	...	...
Zambia	5.4	2.3	6.6	10.9	14.6	12.1	-1.9	-0.2	6.9	...	...	...
Low-Income Countries⁶	5.7	5.2	5.9	26.3	23.1	11.0	-6.0	-5.9	-5.7	...	...	...
Ethiopia	7.2	6.1	6.5	30.2	23.9	23.3	-2.9	-3.4	-4.8	...	...	...
Tanzania	5.1	5.4	6.0	3.8	3.2	4.0	-5.3	-3.9	-3.4	...	...	...
Democratic Republic of the Congo	8.4	4.7	5.0	19.9	17.8	9.2	-6.3	-4.0	-2.0	...	...	...
Uganda	4.6	5.9	7.5	5.4	3.5	4.4	-7.4	-6.6	-6.6	...	...	...
Mali	4.4	3.8	4.4	2.1	2.5	2.0	-7.1	-5.5	-3.5	...	...	...
Burkina Faso	3.1	5.5	5.8	0.7	2.1	2.0	-8.0	-3.8	-1.2	...	...	...

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.

¹ 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.² Percent of GDP.³ Percent. National definitions of unemployment may differ.⁴ Includes Republic of Congo and South Sudan.⁵ Includes Benin, Botswana, Cabo Verde, the Comoros, Eswatini, Lesotho, Mauritius, Namibia, São Tomé and Príncipe, and Seychelles.⁶ 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
World	2.2	1.9	2.5	2.5	1.8	-3.9	5.6	2.6	2.3	2.7	2.3
Advanced Economies	0.9	1.3	2.1	1.8	1.4	-4.5	5.8	2.5	1.1	1.3	1.5
United States	0.8	1.1	1.8	2.4	2.1	-3.0	5.7	2.2	2.4	2.3	1.7
Euro Area ¹	0.5	1.5	2.4	1.5	1.3	-6.5	6.4	3.2	0.0	0.5	1.0
Germany	1.4	1.5	2.3	0.8	0.8	-4.2	3.6	0.6	-1.1	-0.4	0.6
France	0.5	0.5	2.0	1.3	1.7	-7.8	6.4	2.3	0.8	0.8	0.8
Italy	-0.9	1.5	1.8	1.0	0.6	-8.6	9.7	5.0	0.8	0.7	0.8
Spain	-0.1	2.8	2.7	2.0	1.1	-11.4	6.7	5.5	2.3	1.7	1.0
Japan	0.6	0.8	1.8	0.8	-0.2	-3.9	3.0	1.5	2.2	0.8	1.6
United Kingdom	0.4	1.1	2.0	0.8	1.1	-10.7	8.3	4.0	-0.1	0.6	1.1
Canada	0.6	0.0	1.8	1.3	0.4	-6.1	4.7	2.1	-1.5	-1.5	1.0
Other Advanced Economies ²	2.1	1.8	2.5	2.1	1.3	-2.2	6.0	1.8	0.7	1.5	1.7
Emerging Market and Developing Economies	4.0	2.8	3.3	3.4	2.4	-3.1	5.9	2.9	3.3	3.7	3.1
Emerging and Developing Asia	6.7	5.8	5.6	5.5	4.5	-1.4	7.0	3.9	5.2	4.7	4.4
China	9.0	6.2	6.4	6.3	5.6	2.1	8.4	3.0	5.4	4.9	4.6
India ³	5.3	7.0	5.6	5.3	2.8	-6.7	8.8	6.3	7.3	6.0	5.5
Emerging and Developing Europe	2.7	1.2	3.6	3.3	2.3	-1.8	7.4	2.0	3.6	3.4	2.5
Russia	2.4	-0.1	1.6	2.7	2.1	-2.5	6.2	-0.9	3.9	3.8	1.7
Latin America and the Caribbean	1.8	-2.0	0.3	0.2	-0.9	-7.9	6.6	3.5	1.5	1.2	1.8
Brazil	1.9	-4.0	0.7	1.1	0.6	-3.9	4.3	2.6	2.5	2.6	1.8
Mexico	0.5	0.8	0.9	1.0	-1.3	-9.1	5.4	2.9	2.3	0.6	0.5
Middle East and Central Asia	1.6	2.0	0.0	1.0	0.1	-4.3	2.7	3.3	0.1	4.8	2.1
Saudi Arabia	0.5	-1.9	0.8	5.9	1.5	-8.1	7.7	2.8	-2.7	-0.5	2.5
Sub-Saharan Africa	2.2	-1.4	0.1	0.5	0.4	-4.3	2.1	1.4	0.9	0.9	1.6
Nigeria	3.6	-4.2	-1.8	-0.7	-0.4	-4.3	1.1	0.7	0.3	0.4	0.7
South Africa	1.1	-0.8	-0.3	0.0	-1.3	-7.5	3.8	0.7	-0.8	-0.4	0.0
<i>Memorandum</i>											
European Union	0.9	1.7	2.8	2.0	1.8	-5.8	6.7	3.5	0.2	0.8	1.4
ASEAN-5 ⁴	3.7	3.5	4.0	3.8	3.2	-5.5	3.3	4.5	3.0	3.5	3.6
Middle East and North Africa	1.2	2.5	-0.5	0.5	-0.3	-4.5	2.9	3.3	0.0	0.2	2.2
Emerging Market and Middle-Income Economies	4.2	3.1	3.6	3.7	2.6	-2.9	6.5	3.3	3.7	3.5	3.4
Low-Income Developing Countries	3.1	0.9	2.0	2.2	2.5	-2.3	1.9	2.0	1.7	3.1	2.4

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.

¹ Data are calculated as the sum of those for individual euro area countries.

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

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

⁴ ASEAN-5 comprises Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

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The recent global inflationary experience was characterized by a complex set of events. During COVID-19 lockdowns, demand shifted toward goods and then pivoted toward services as economies reopened. These demand shifts occurred in the context of supply disruptions and unprecedented fiscal and monetary stimulus. Subsequently, the war in Ukraine led to spikes in commodity prices. Evidence suggests that the pass-through of sectoral price pressures to core inflation and the steepening of the inflation-slack relationship—that is, the Phillips curve—are essential to understanding the global surge in inflation. This evidence is consistent with key sectors hitting their supply bottlenecks as demand rotated across sectors and was boosted over time by a drawdown of savings. This chapter offers a new lesson and confirms an old one for monetary policy. In extreme cases when sectoral supply bottlenecks are widespread across an economy and interact with strong demand, inflation can surge, but tighter policy can bring it down quickly with limited output costs. Outside of such cases, when supply bottlenecks are confined to specific sectors, conventional policy rules, such as those that target measures of core inflation, perform well.

Introduction

The past three years have witnessed an extraordinary set of inflationary events. Initially, the COVID-19 pandemic triggered widespread economic shutdowns, causing many businesses to cut back on production. As the recovery began with pandemic restrictions still in place, consumer demand for goods surged. However, producers struggled to ramp up supply quickly enough amid ongoing supply-chain disruptions, leading to price pressures in the goods sector. When economies reopened, price pressures shifted as pent-up demand for services was released. While instrumental in containing the economic fallout from the pandemic, the

The authors of this chapter are Jorge Alvarez (co-lead), Emine Boz (co-lead), Thomas Kroen, Alberto Musso, Galip Kemal Ozhan, Nicholas Sander, Sebastian Wende, and Sihwan Yang, under the guidance of Jean-Marc Natal. Research assistance was provided by Canran Zheng and Weili Lin. The authors thank Benjamin Carton, Rafael Portillo, and Silvana Tenreiro for their very helpful comments.

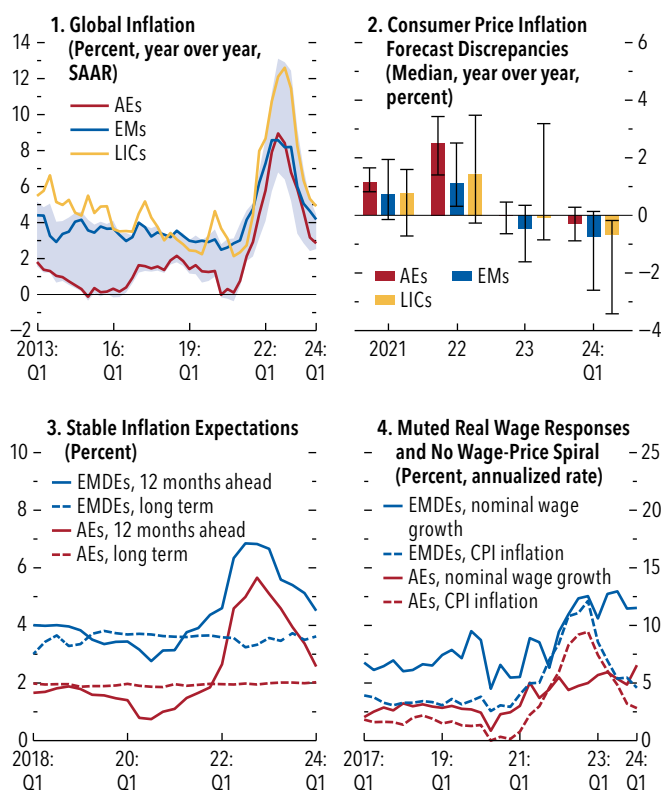
unprecedented fiscal and monetary stimulus¹ deployed by advanced economies and some emerging markets initially increased savings. Over time, however, a drawdown of those savings boosted demand, widening supply-demand imbalances and spurring inflation as capacity remained constrained. The situation was exacerbated by the war in Ukraine, which led to a global food and energy crisis. By mid-2022, global inflation had tripled relative to its prepandemic level (Figure 2.1, panel 1).

These inflationary pressures tested monetary policy frameworks and resulted in a global tightening cycle, or “Great Tightening.” The sectoral nature of the shocks, the accompanying relative price shifts, and the uncertainty about their ultimate inflationary effects, as well as the desire to prevent scarring from the pandemic, made it a challenge for central banks to calibrate the timing and pace of monetary responses. Central banks had to rely on tools and frameworks that did not fully account for the features of the new economic landscape. The simultaneous use of multiple policy levers by many countries, including balance sheet policies, price-suppressing measures, and fiscal policy, required assessment of their joint effects in real time. Despite the global nature of the tightening cycle, central banks did not start their rate hikes at the same time, with some (for example, Brazil and Chile) moving earlier than others, depending on country-specific circumstances and the timing and asymmetric effects of shocks.

Taking stock of the experience since late 2020, this chapter aims to disentangle the contribution of shocks and policy responses in accounting for the inflation surge and the subsequent disinflation, with the goal of drawing lessons for monetary policymakers. The chapter’s findings can be informative as rising geopolitical tensions and extreme weather events are likely to trigger further sectoral shocks, and as central banks review their monetary policy strategies and

¹Fiscal stimulus amounted to an average of about 12 percent of GDP in advanced economies and to an average of 4 percent of GDP in emerging markets (Deb and others 2024); quantitative easing policies amounted to about 20 percent of GDP in several advanced economies (Erceg and others 2024a).

Figure 2.1. Cross-Country Inflation Dynamics



Sources: Consensus Economics; Haver Analytics; International Labour Organization; Organisation for Economic Co-operation and Development; and IMF staff calculations.
 Note: In panel 1, lines are the median of consumer price index (CPI) inflation within each analytical group. The band depicts the 25th to 75th percentiles of data across economies. In panel 2, forecast discrepancies are derived by comparing one-year-ahead inflation forecasts with actual figures in the April *World Economic Outlook*. The bars represent median inflation rates, and the whiskers extend from the 25th to the 75th percentiles of data across economies. The data for the first quarter of 2024 are annualized year-over-year percent changes. Panel 3 reports quarterly 12-month- and five-year-ahead inflation expectations. Panel 4 reports real wages computed as nominal wages (defined on a per worker basis) divided by the CPI and then indexed to 100 in each country in the first quarter of 2017. Each line reports the group median. AEs = advanced economies; EMs = emerging markets; EMDEs = emerging market and developing economies; LICs = low-income countries; SAAR = seasonally adjusted annual rate.

frameworks. The chapter’s analysis is structured around the following questions:

- What accounts for the recent inflation dynamics in advanced economies and in emerging market and developing economies? What role did sectoral shocks and capacity constraints play, and how did they interact with monetary and fiscal policy?
- Was the monetary policy response or its transmission unusual relative to the past?
- What lessons can be drawn for monetary policy? Did the global nature of tightening make a difference?

The chapter tackles these questions in three parts. It first lays out stylized facts, both using raw data and through the lens of empirical Phillips curves. The second part documents the monetary policy response and transmission across countries and time. Third, findings from the empirical section motivate the development of a new multisector network model. The model is used to construct counterfactual scenarios to assess the importance of sectoral capacity constraints, the global nature of monetary tightening, and other fundamental factors in driving both the recent inflation surge and the ensuing disinflation. This part also compares the performance of alternative simple policy rules under different scenarios.

The chapter’s main findings are as follows:

- *Price surges in specific sectors and their broadening over time were a defining feature of the recent inflation episode.* Price pressures emerged sooner and were more pronounced in the goods sector and in sectors with higher energy dependence and flexible prices. The spillovers from higher prices in the energy and other sectors to core inflation played an important role. Overall, there is little evidence in most economies—with the possible exception of the US—to suggest that inflation was driven by labor market strength, at least during peak inflation.
- *Price Phillips curves steepened, but wage Phillips curves did not.* The relationship between economic slack and inflation in the data—that is, price Phillips curves—shifted upward and steepened. In other words, inflation accelerated faster than expected when unemployment declined, and in the same vein, disinflation took place with fewer job losses than expected. This was not the case for wage Phillips curves, as wages did not spike in the same way as prices did.
- *Interaction of supply bottlenecks with demand pressures can rationalize the steepening of price Phillips curves.* The decline in capacity in sectors that were in high demand—for example, in durable goods early in the pandemic and in transportation during reopening—contributed significantly to inflationary pressures.
- *Tightening on a global scale can be more effective than that by individual countries, as it can lower the price of tradable goods, especially commodities.*
- *The prevalence of supply bottlenecks and their interaction with demand are key for policy responses.* A diagnosis of the drivers of inflation, though challenging in real time, remains vital.

- When the Phillips curve is steep for an economy overall, the benefits of monetary tightening are amplified. In other words, counteracting the inflationary effects of demand in the presence of prevalent supply bottlenecks—as experienced recently—presents a favorable sacrifice ratio.
- However, when supply constraints are confined to the commodity sector, conventional policy rules, such as those targeting measures of core inflation, remain appropriate. Reacting strongly to flexible commodity prices, when supply constraints are present only in those sectors, brings down inflation fast but risks a recession later. In contrast, targeting sticky prices results in more gradual disinflation with a smoother output path.

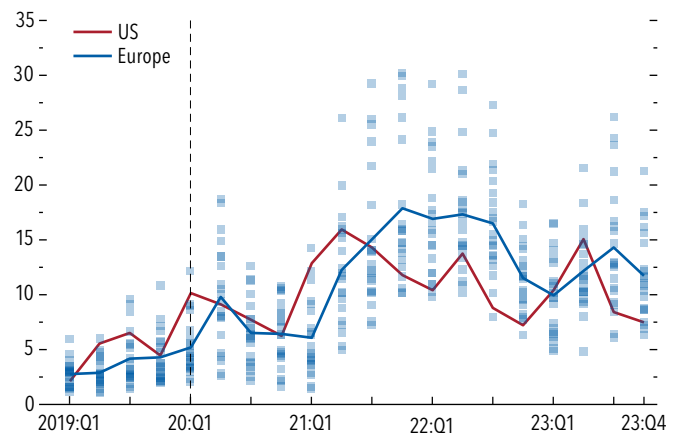
The chapter focuses mainly on the role of policy interest rates through conventional demand channels. As such, it is complementary to other work focusing on the role of central bank communications in inflation expectations (see Chapter 3 of the October 2023 *World Economic Outlook*), financial market risks, balance sheet policies (Box 2.1), price-suppressing measures (Box 2.2), liquidity measures, and other policy instruments beyond policy rates. Although lessons in these areas can be drawn from recent experience, the stability of long-term inflation expectations and the lack of broad-based financial distress motivate the chapter’s focus on interest rates, economic slack, and sectoral activity.

What Happened? Dissecting Inflation Dynamics

Starting in late 2020, inflation rose simultaneously and unexpectedly across the world to levels not seen since the 1970s (Figure 2.1, panel 1). Annual inflation peaked in 2022 at about 8 percent in the median advanced economy and emerging market and extended beyond that in the median low-income country, before receding over the course of 2023. The inflation surge was largely unexpected. Starting in 2021, *World Economic Outlook* forecasts, like many others, *underestimated* inflation for many countries, as evidenced by positive forecast errors in panel 2 of Figure 2.1.² The positive forecast errors were even larger in 2022, particularly for advanced economies, in which the median forecast error reached 2.5 per-

²Koch and Noureldin (2024) provide an in-depth analysis of inflation forecast errors.

Figure 2.2. Movements in Sectoral Price Dispersion (Percent)



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

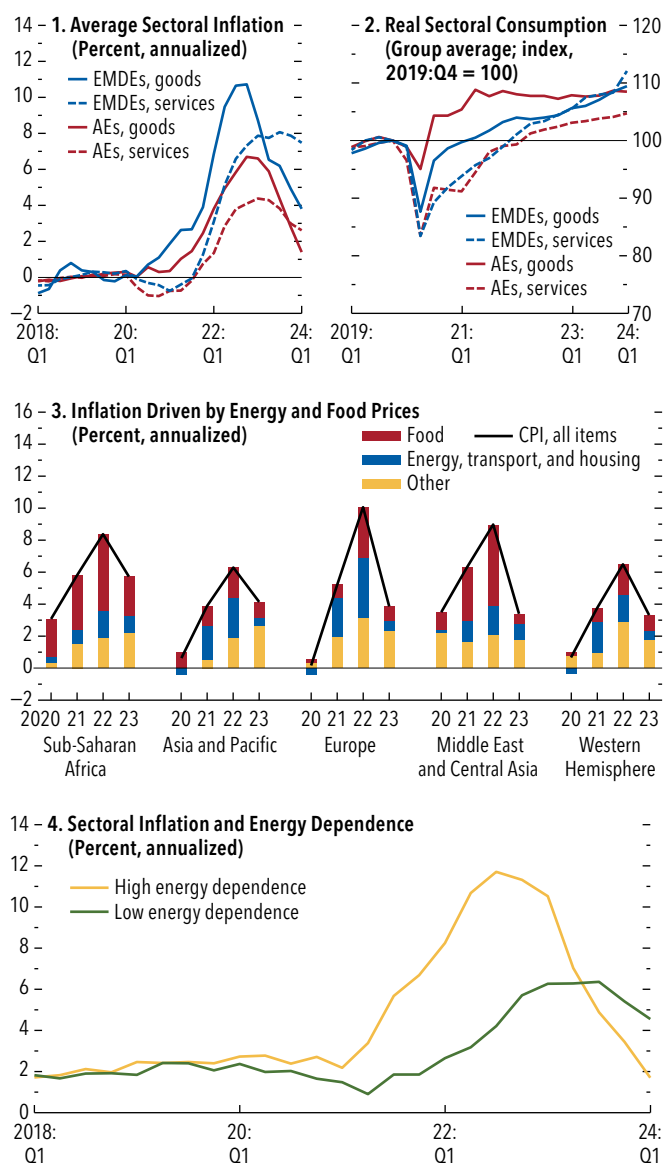
Note: Figure shows average sectoral price dispersion measured using the cross-sectoral standard deviation of producer price index (PPI) inflation for European countries (Norway, UK, EU countries) and the United States. The red line is quarterly standard deviation across US PPI sectors. Each blue square represents one European country’s cross-sectoral standard deviation, and the blue line represents the median of European countries in each given quarter.

centage points (1.1 percentage points for emerging markets and 1.5 percentage points for low-income countries). The disinflation of 2023–24 also progressed faster than expected, with negative forecast errors this time, especially for forecasts made in 2023 regarding 2024 inflation.

Even though global inflation reached unprecedented levels in recent history, the feared de-anchoring of inflation expectations reminiscent of the 1970s (Carvalho and others 2023) did not materialize, although short-term expectations and nominal wages went up (Figure 2.1, panels 3 and 4). Crucially, real wage growth remained contained in most economies and wage-price spirals—simultaneous accelerations of nominal wages and prices—did not occur in line with most historical experience (Alvarez and others 2024).

A defining feature of this inflationary episode was the prevalence of large sectoral shifts driven by both supply and demand. As a result of these shifts, relative prices changed and the variation in inflation across sectors spiked (Figure 2.2). Two main forces were at play. First, demand initially rotated toward goods amid lockdowns and supply-chain disruptions (Figure 2.3, panels 1 and 2). This caused goods inflation to take off, before a rebalancing of demand as the lockdowns eased. Because of this, inflation peaked earlier and higher in goods than in services. Second, the war

Figure 2.3. Sectoral Characteristics and Inflation Dynamics



Sources: Haver Analytics; IMF, Consumer Price Index (CPI) data portal; Organisation for Economic Co-operation and Development; US Bureau of Economic Analysis; and IMF staff calculations.

Note: Panel 1 displays the average inflation rates for goods (excluding food and energy) and services across a sample of 30 AEs and 13 EMDEs over time. Data are reported as deviations from 2018–19 average. Panel 2 shows the purchasing-power-parity GDP-weighted average of real sectoral consumption across AEs and EMDEs, normalized to the fourth quarter of 2019. Panel 3 shows the median contributions and aggregate inflation rate for each region. For panel 4, energy dependence is computed as the total share of oil, gas, and utilities in sectoral inputs. Sectors are defined as energy dependent if their energy dependence is above the median. Remaining sectors have low energy dependence. Sectoral inflation rates (measured as sectoral value-added deflators) are collapsed by median within each group. AEs = advanced economies; EMDEs = emerging market and developing economies.

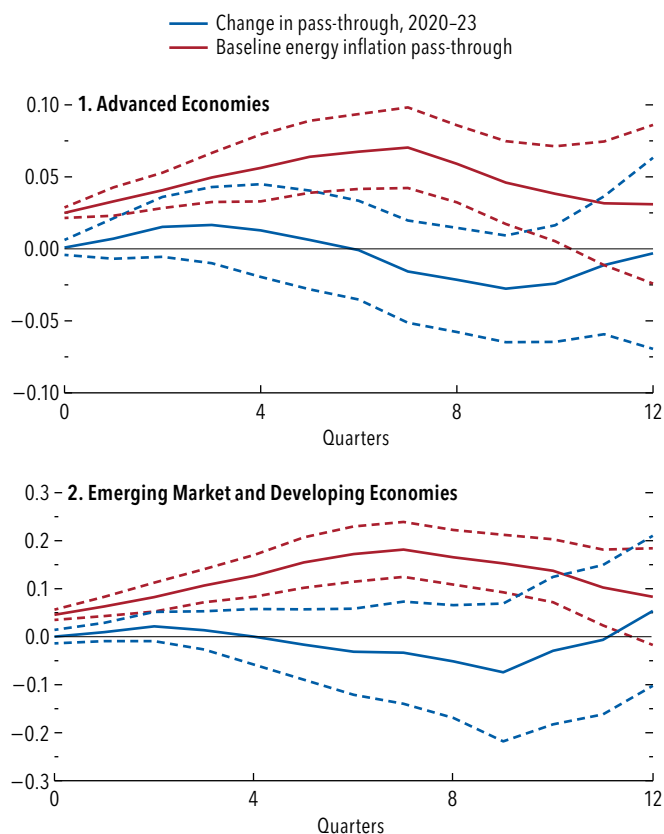
in Ukraine placed substantial pressure on noncore components of headline inflation. These drove the lion’s share of both the increase and the subsequent decrease in overall inflation (Figure 2.3, panel 3), with a major role for food price inflation, particularly in sub-Saharan Africa, the Middle East, and Central Asia, whereas energy prices were the primary driver of inflation dynamics in Europe.

The increases in commodity prices had substantial downstream effects, because commodities are an input for many other sectors. Using international input-output tables, the chapter computes the direct and indirect energy dependence of sectors through their supply chains. Inflation initially surged in energy-dependent sectors in 2021, even before the war in Ukraine began. During 2022, inflation in energy-dependent sectors peaked; inflation broadened and started rising in sectors with low energy dependence. Whereas inflation came down markedly in the energy-dependent sectors, it was just plateauing in less energy-dependent industries at the end of 2023 (Figure 2.3, panel 4), and these industries then became the primary drivers of overall inflation.

This is broadly consistent with past patterns in transmission of energy shocks across sectoral networks: energy shocks spread according to sectoral price flexibility and energy dependence (Online Annex Figure 2.2.6), with stronger pass-through in more energy-dependent sectors and in sectors with more flexible prices (Minton and Wheaton 2022; Afrouzi, Bhattarai, and Wu 2024). Even though the energy price shocks were extraordinarily large this time around (Online Annex Figure 2.2.2), the pass-through was not necessarily out of line. Historically, the peak pass-through from a 1 percentage point increase in energy prices into consumer price index (CPI) inflation at the country level was about 0.06 percentage point in advanced economies and 0.17 percentage point in emerging market and developing economies.³

³These estimated magnitudes are in the ballpark of those in Task Force of the Monetary Policy Committee of the ESCB (2010); Choi and others (2018); Minton and Wheaton (2022); and Afrouzi, Bhattarai, and Wu (2024). The larger impact on emerging market and developing economies partly reflects the greater share of energy-intensive sectors (for example, mining and manufacturing) in those countries (see also the October 2023 Asia and Pacific *Regional Economic Outlook*). Online Annex Figure 2.2.4 additionally tests for nonlinearities in pass-through, which are a feature of some structural models, such as that of Cavallo, Lippi, and Miyahara (2023). Although there is some evidence for nonlinearities in energy price pass-through, there is no evidence for a broad-based postpandemic strengthening of these nonlinearities. All online annexes are available at www.imf.org/en/Publications/WEO.

Figure 2.4. Energy Price Pass-Through into CPI Inflation
(Percentage points)



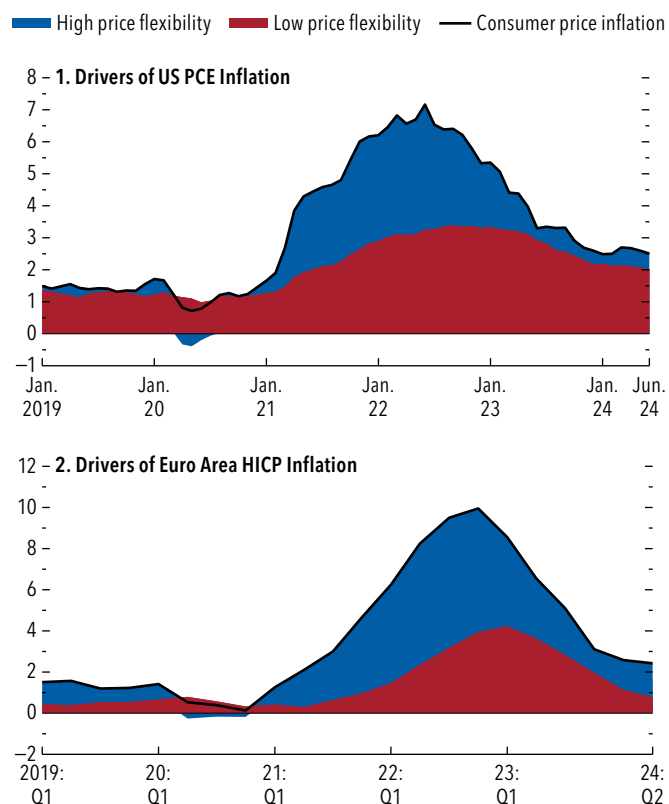
Sources: Haver Analytics; IMF, Consumer Price Index (CPI) data portal; and IMF staff calculations.

Note: Figure reports results of local projections of country-level consumer price index (CPI) inflation on energy prices for a 100 basis point energy price shock. The sample covers 2010–24 data for 26 advanced economies (AEs) and 9 emerging market and developing economies (EMDEs). COVID period is defined as the third quarter of 2020 onward. The first two quarters of 2020 are excluded. Controls include two lags of output gap, CPI inflation, policy rate, and change in nominal effective exchange rate. Regressions also include country fixed effects. Standard errors are double-clustered by country and time. Lines report local-projection coefficients for up to 12 quarters ahead alongside 95 percent confidence bands (dashed lines).

The values were comparable this time around, because the pass-through from energy prices into CPI inflation did not strengthen materially across a wide range of countries (Figure 2.4; Online Annex Figures 2.2.4 and 2.2.5).⁴ Moreover, countries with lower energy price inflation, notably Asian emerging market and developing economies (Online Annex Figure 2.2.2, panel 4), had lower overall CPI inflation, suggesting that energy prices may have played a prominent role in inflation dynamics—a theme that is revisited in

⁴The strength of oil price pass-through across countries may be affected by the level of fuel excise taxes (Ahn 2024), with stronger pass-through in countries with lower rates for these taxes.

Figure 2.5. Sectoral Inflation and Price Flexibility
(Percent, annualized rate)



Sources: Organisation for Economic Co-operation and Development; and IMF staff calculations.

Note: Inflation is measured as HICP inflation across euro area sectors. Sectoral price flexibility is computed using data from Rubbo (2023). Sectoral data feature 12 HICP sectors. Sectors are split along median of price flexibility, and then inflation is aggregated across countries using PPP country weights and within-country HICP weights. PCE = personal consumption expenditures; HICP = harmonised index of consumer prices; PPP = purchasing power parity.

this chapter using statistical inflation decompositions and in Box 2.2, in which the role of price-suppressing measures in containing (energy) inflation is explored.

Partly because of the role of energy and commodity price shocks, headline inflation was initially led by more price-flexible goods sectors such as energy, vehicles, and household equipment and followed by flexible-price services sectors such as restaurants, hotels, and recreation. These flexible-price sectors explain the bulk of the rise and fall in inflation observed in the United States and the euro area. Sectors with more rigid prices did not experience substantial price increases until late 2022 and early 2023. By the end of 2023, however, inflation was driven primarily by inflexible-price sectors such as clothing, communications, and health (Figure 2.5, panels 1 and 2). The chapter’s structural model captures different degrees of

price stickiness across sectors and the pass-through of inflation from flexible to sticky prices over time.

Before turning to the implications of these patterns for monetary policy, this section further dissects these inflation dynamics through the lens of aggregate and sectoral Phillips curves.

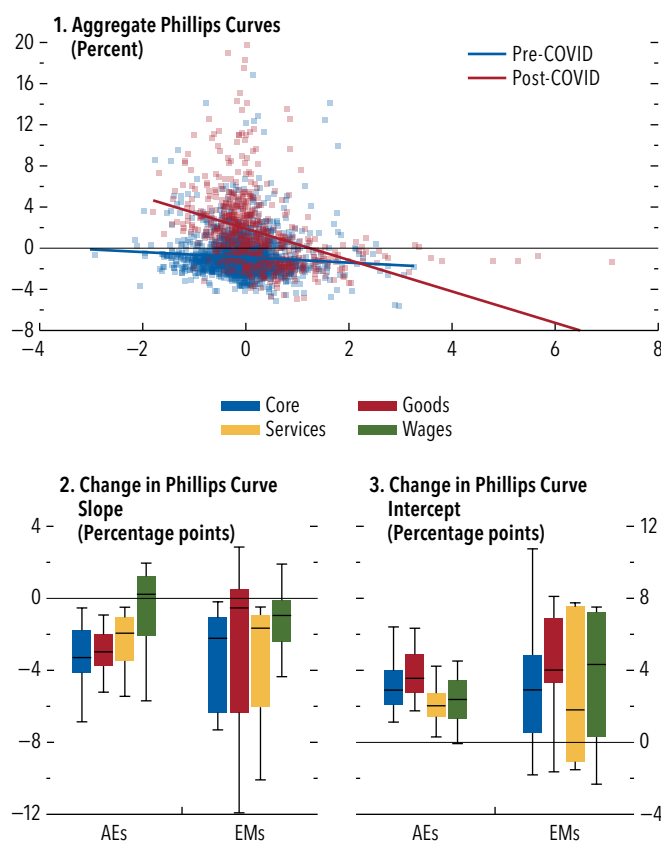
Shifting and Steepening of the Phillips Curve

Monetary policymakers pay particular attention to the relationship between economic slack and inflation, or the Phillips curve, because this relationship provides a measure of forgone employment and output as a cost of lowering inflation. Prior to the pandemic, the relationship was relatively flat, suggesting a weak trade-off between output and inflation (Blanchard 2016; Del Negro and others 2020; Hazell and others 2022; Rubbo 2023).⁵ In other words, before 2020, even when the economy was close to full employment, inflationary pressures were weak. However, during the pandemic, the empirical Phillips curve notably steepened and shifted upward (Figure 2.6; Ari and others 2023; Benigno and Eggertsson 2023; Gudmundsson, Jackson, and Portillo 2024; Inoue, Rossi, and Wang 2024). These patterns were particularly pronounced in advanced economies, and when comparisons are made across sectors, the shifting and steepening of empirical Phillips curves were somewhat more pronounced for goods than for services inflation (Figure 2.6, panels 2 and 3; Online Annex Figure 2.2.7). The steeper slope of the empirical Phillips curve implies that for a given *decrease* in economic slack, a larger increase in inflation was observed; conversely, a given *increase* in economic slack was associated with a larger decline in inflation. This pattern is consistent with the finding in the previous section that forecasts, presumably based on flatter pre-pandemic Phillips curves, underestimated inflation when it was surging and overestimated it when it was declining.

To test these relationships at the country level, the chapter estimates empirical Phillips curve relationships country by country and compares coefficients before and after the pandemic. The results confirm that the patterns were nearly universal across advanced economies and most emerging markets (Figure 2.6, panels 2 and 3). This holds true as well in a richer

⁵As discussed in McLeay and Tenreyro (2020), the flat pre-pandemic Phillips curve may also partly be the result of monetary policy that accommodated cost-push shocks and successfully stabilized economies in the wake of demand shocks.

Figure 2.6. Evolution of Phillips Curves



Sources: Haver Analytics; and IMF staff calculations.

Note: Throughout the figure, the first two quarters of 2020 are excluded. In panel 1, x-axis shows unemployment gap and y-axis denotes core inflation deviation. Inflation measures are residualized on a country fixed effect within each country. Blue and red lines are linear fits with a sample of 29 advanced economies and 15 emerging markets during the period from the first quarter of 2010 to the first quarter of 2024. "Post-COVID" is defined as the first quarter of 2020 onward. The unemployment gap is estimated using a univariate Hodrick-Prescott filter. Outliers with deviations of inflation from country average by more than 20 percentage points are excluded. Panels 2 and 3 report distribution of Phillips curve slope changes and intercept changes across countries from country-level estimations of pre-2020 and post-2020 raw Phillips curves. Outside values (more than 1.5 interquartile ranges below first quartile or above third quartile) are excluded from boxplots. AEs = advanced economies; EMs = emerging markets.

version of the model, which controls for other factors, including lagged inflation (to control in turn for potential mean reversion), inflation expectations, and energy and import prices (Online Annex Figure 2.2.7, panels 1 and 2).⁶

⁶Hooper, Mishkin, and Sufi (2020); McLeay and Tenreyro (2020); and Hazell and others (2022) argue for identifying Phillips curves from regional data to mitigate concerns about cost-push shocks biasing Phillips curves estimates from aggregate data. A regional estimation within the euro area with time fixed effects (Online Annex Figure 2.2.7, panels 5 and 6) confirms results presented earlier in the chapter.

However, the patterns were less pronounced for the empirical wage Phillips curve, which did not steepen much in either advanced economies or emerging markets, but shifted upward as short-term inflation expectations increased (green boxplots in Figure 2.6, panel 3). Because wages were less responsive, recent inflation dynamics likely did not reflect, at least not solely, excessive tightness in the labor market. The chapter’s structural model rationalizes the steepening of the Phillips curve with shocks and constraints that originate outside of the labor market.

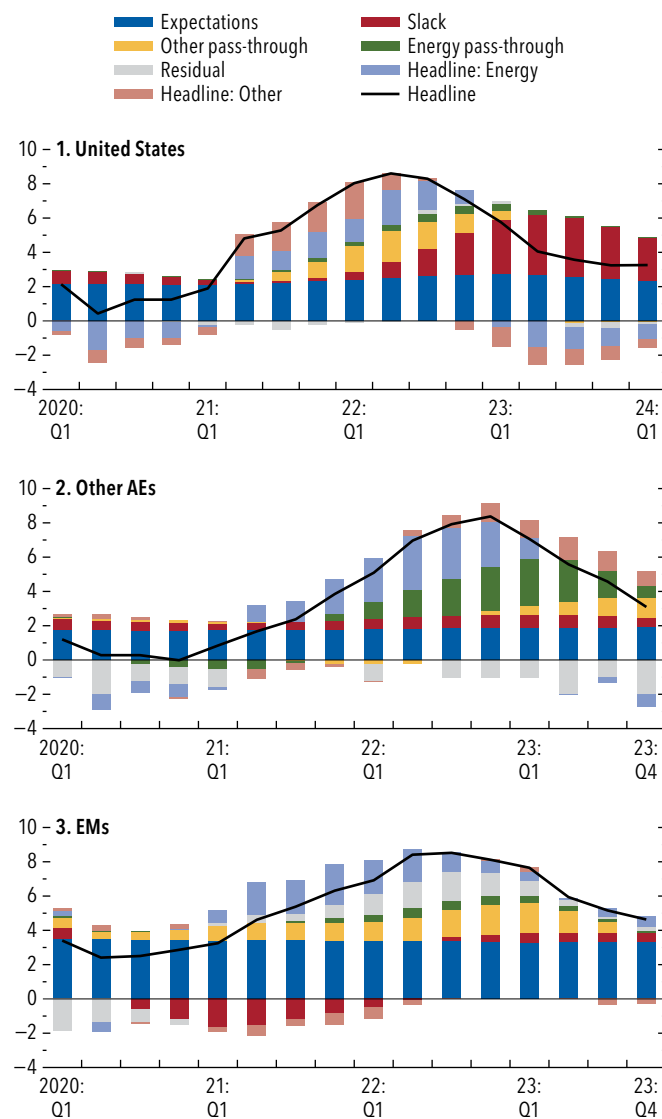
Pass-Through of Commodity Price Shocks

If a richer estimated Phillips curve is employed (Online Annex Figure 2.2.7), inflation in different countries can be decomposed through use of a methodology similar to that of Ball, Leigh, and Mishra (2022) and Dao and others (2024). Such a statistical decomposition does not break down the contribution of structural shocks to inflation but instead provides a correlational analysis of key factors contributing to inflation dynamics.⁷

Across the board, with the possible exception of the United States during the later period, since mid-2022, tight labor markets (a proxy for the amount of slack in the economy) play a moderate role in explaining inflation dynamics (Figure 2.7). This result is consistent with findings noted earlier in the chapter of a muted real wage response and limited changes to the wage Phillips curve. Instead, energy shocks and other shocks to headline inflation played an outsized role. These shocks were subsequently passed on to broader inflation, with import prices accounting for a sizable part of the pass-through in emerging markets. Finally, long-term inflation expectations remained anchored across countries and did not directly contribute to inflation dynamics.

More specifically, US inflation (Figure 2.7, panel 1) was initially driven by energy price shocks and other sector-specific shocks as shortages and the pandemic disrupted supply chains. These headline shocks subsequently passed through into broader

Figure 2.7. Inflation Drivers in the United States, Other Advanced Economies, and Emerging Markets
(Percent, year-over-year rate)



Sources: Consensus Economics; Haver Analytics; and IMF staff calculations.

Note: US inflation drivers are estimated on monthly data (following Dao and others 2024) and then converted to quarterly; for other countries, estimation is conducted on quarterly data. “Slack” is measured using the vacancy-to-unemployment ratio for AEs and using the unemployment gap (estimated using a univariate Hodrick-Prescott filter) for EMs. Country-level contributions for AEs and EMs are aggregated across country groups using purchasing-power-parity GDP weights. Fitted values for inflation gap are converted into 12-month rates. AEs = advanced economies; EMs = emerging markets.

⁷The impact of economic slack also captures the aggregate demand effects of fiscal stimulus or monetary policy. The impact through short-term inflation expectations is captured under pass-through, and the impact of food prices is captured under other headline shocks. The specification employed in the chapter allows labor market tightness to affect core inflation directly, rather than only indirectly through wage inflation, consistent with the evidence of Dao and others (2024).

inflation in 2021 and early 2022. Since mid-2022, however, the main driver of US inflation has been a tight labor market.⁸ By the first quarter of 2024, labor market tightness was still contributing 2.5 percentage points to US CPI inflation, which was partly offset by a modest deflation in energy costs.

In contrast, the contribution of labor market slack to inflation in other advanced economies and emerging markets was small. Inflation in other advanced economies, particularly those in Europe (Figure 2.7, panel 2), was initially driven by large energy price shocks that passed through into broad inflation, with the pass-through of energy price shocks alone contributing more than 2.5 percentage points to CPI inflation at its peak. For emerging markets (Figure 2.7, panel 3), import price pass-through was a significant driver of inflation pass-through, which would include any exchange rate effects, because import prices in local currency were used.⁹

Understanding the recent inflation dynamics requires understanding how sectoral shocks, including those in the energy and commodity sectors, led to broad-based inflationary pressures. Going beyond traditional models with one sector, the multisector structural model employed here sheds further light on the pass-through of sectoral shocks across the production network.

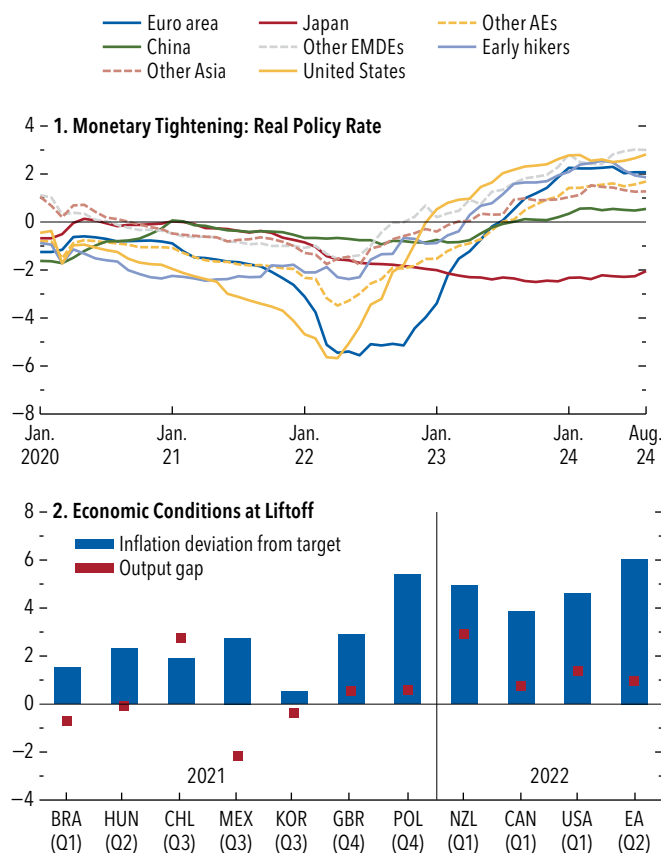
The Monetary Policy Reaction

Faced with the pandemic, central banks worldwide initially adopted expansionary monetary policies aimed at stimulating economies and maintaining financial stability (Figure 2.8, panel 1). As broader inflationary pressures emerged, central banks transitioned to tightening policy. Although the tightening was broadly synchronized, its exact timing and pace varied across countries, depending on the impact of the shocks on

⁸As argued by Ball, Leigh, and Mishra (2022); Barnichon and Shapiro (2024); and Bernanke and Blanchard (2024), labor market tightness in the United States is measured using the vacancy-to-unemployment ratio. Elsewhere, labor market tightness plays a much smaller role, regardless of the measure of tightness (vacancy-to-unemployment ratio or unemployment gap). Again, except in the case of the United States, using the output gap as the measure of economic slack results in similar findings (Online Annex Figure 2.2.7, panels 3 and 4), as does using country-by-country estimates for countries for which monthly data are available.

⁹Online Annex Figure 2.2.8 provides a detailed breakdown, highlighting, among other features, the importance of energy and headline shocks in eastern European emerging market and developing economies. Residuals across emerging markets overall could be explained partly by the cross-border transmission of global liquidity (Choi and others 2017).

Figure 2.8. Monetary Policy Tightening
(Percent)



Sources: Bank for International Settlements; Consensus Economics; Haver Analytics; and IMF staff calculations.

Note: Sample comprises 16 AEs and 65 EMDEs. "Other" aggregates are medians. "Early hikers" are Brazil, Chile, Hungary, Korea, New Zealand, Norway, Peru, and Poland, which hiked much earlier than major central banks. In panel 1, real rates are constructed as nominal rates minus one-year-ahead inflation expectations. Panel 2 reports economic conditions at first interest rate hike during current tightening cycle for early hikers other than Peru, Canada, the euro area, the United Kingdom, and the United States. Countries are sorted by the timing of their first interest rate hike. Inflation is reported as deviation of central bank's targeted inflation rate from central bank target in quarter of first tightening. The output gap data are annual. Data labels in the figure use International Organization for Standardization (ISO) country codes. AEs = advanced economies; EA = euro area; EMDEs = emerging market and developing economies.

individual economies, the timing of lockdowns and reopening, and initial conditions and institutional features. For example, commodity price increases after the start of the war in Ukraine led to terms-of-trade improvements for exporters, but to terms-of-trade deteriorations for importers. Central banks with a history of low and stable inflation had built policy credibility and could afford to "look through" seemingly transitory supply shocks for longer. In contrast, the presence of wage and price indexation mechanisms

limited room to maneuver in many countries. Finally, variation in other policy settings, such as the size of fiscal stimulus or price-suppressing measures, motivated different monetary responses. These differences resulted in some emerging market and developing economies, such as Brazil, Chile, and Mexico, starting their rate hikes earlier than others. Conversely, Asia exhibited a more tempered response, and the United States adjusted its policies relatively later (Figure 2.8, panel 2).

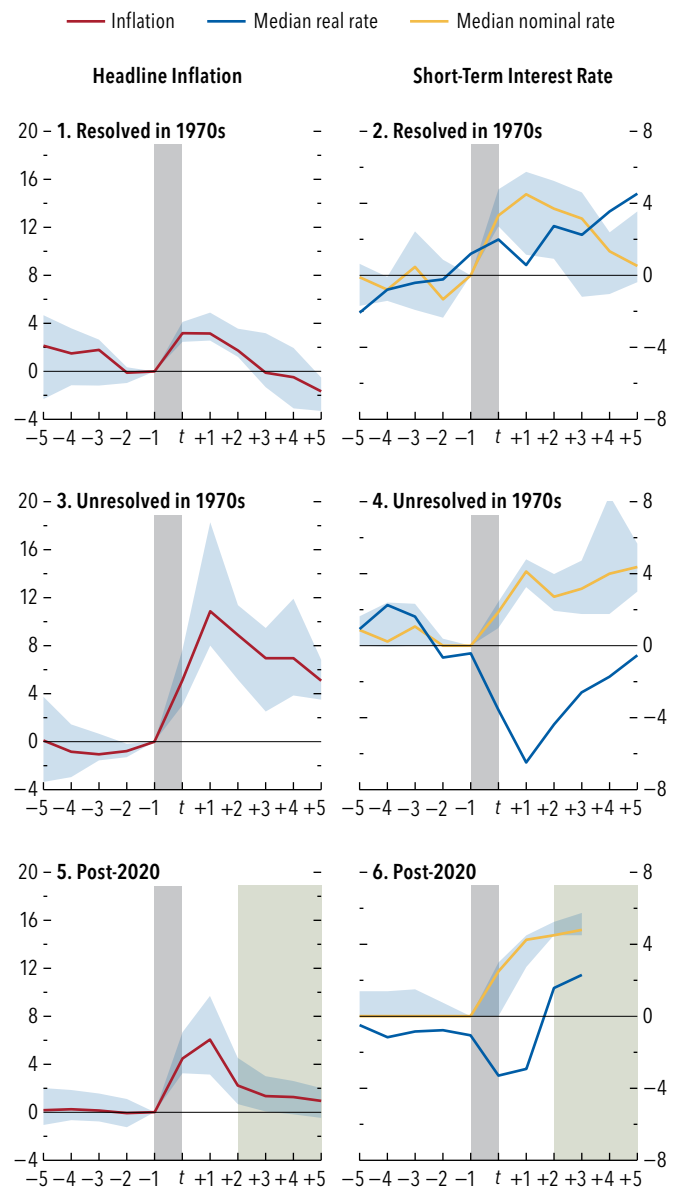
Policy Responses Compared with Those in the 1970s

The energy price shocks of the 1970s, which also had global repercussions, offer a natural, though imperfect, benchmark for comparing policy responses during the recent inflation surge. The benchmarking is imperfect because of the transformative changes in monetary policy frameworks and policy credibility since the 1970s and the fact that the recent experience coincided with a pandemic.

Such comparisons are facilitated by identifying inflationary episodes in a global sample. Following Ari and others (2023), this section defines an inflation episode as a period with an increase in inflation of more than 2 percentage points in a year. Such episodes are then grouped as “resolved” or “unresolved,” in which an episode is considered resolved if inflation declines in the neighborhood of 1 percentage point of its pre-episode level within a five-year window. Comparison of the post-2020 and 1970s episodes yields the following observations (Figure 2.9):

- Post-2020 inflation episodes have been more pronounced and persistent compared with the *resolved* episodes of the 1970s, with inflationary pressures building sharply during the episodes (shaded gray areas in the figure) and continuing to rise in the subsequent year.
- Nominal interest rate hikes during *resolved* episodes of the 1970s were larger, as real rates swiftly transitioned to contractionary territory (Figure 2.9, panel 2). In contrast, post-2020 episodes involved a milder nominal rate adjustment and a more prolonged expansionary policy stance, indicated by sustained negative real interest rates.
- During *unresolved* episodes, the median policy stance remained consistently expansionary, characterized by more prolonged and more negative real interest rates than observed after 2020.

Figure 2.9. Comparison of Inflation Episodes (Percent)



Sources: Ari and others 2023; Haver Analytics; and IMF staff calculations.

Note: “Median” refers to median outcome across inflation episodes. Inflation and short-term nominal interest rates are normalized to the preceding year ($t - 1$) as zero, with deviations shown thereafter. Real interest rates are shown in levels rather than normalized deviations. Blue-shaded areas indicate the 25th to 75th percentiles of data across inflation episodes. Gray-shaded areas denote identified inflation episodes, and green-shaded areas indicate projections.

Overall, the recent episode lies between the resolved and unresolved episodes of the 1970s in terms of inflation dynamics and the speed of the policy response. This conclusion for the policy response is corroborated when comparing the deviations from policy rates that would be implied by a simple policy rule targeting inflation and the output gap (Online Annex Figure 2.2.9). Although inflation expectations data for the 1970s are limited, proxying the degree of inflation expectations anchoring using past inflation volatility reveals that inflation expectations were more strongly anchored this time around (Online Annex Figure 2.2.10).

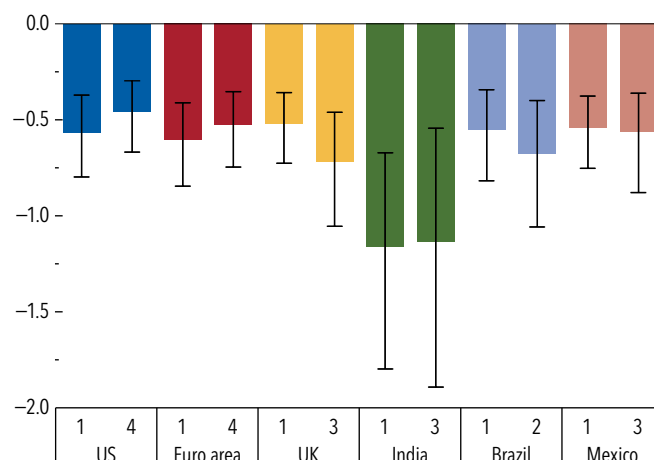
Transmission of Monetary Policy Tightening: Continuities and Changes

As has been documented in this chapter, monetary policy tightening kick-started after the initial extraordinary pandemic effects subsided, with most of the tightening occurring later in the episode.

But did the extraordinary shocks result in monetary transmission that was very different from historical experience? The answer is not obvious because some forces at play point to weaker transmission, whereas others point to a stronger transmission. For example, the policy transmission through housing markets may have weakened in some countries, given that the growing popularity of fixed rate mortgages may have reduced the sensitivity of households' payments to rising interest rates (see Chapter 2 of the April 2024 *World Economic Outlook*). Similarly, excess household savings have buffered household finances in many countries and may have resulted in resilience in consumption even as policy tightened. The globally synchronized nature of the tightening may have weakened the exchange rate channel of monetary policy, whereas it may have strengthened other channels, for example, through the world price of commodities (Bernanke, Gertler, and Watson 1997; Blanchard and Galí 2007b; Auclert and others 2023). Moreover, a steeper Phillips curve, as documented in the previous section, may imply that tightening could have a small effect on output but a strong disinflationary impact. Given these different forces, this section measures overall transmission.

The preliminary evidence suggests some variation but not a broad-based and significant change in

Figure 2.10. Monetary Policy Transmission to CPI during Tightening Episodes



Source: IMF staff calculations.

Note: The bars denote the country median peak response, and the whiskers represent the upper and lower bounds of the 68 percent HPD set of responses. 1 = 1990s to 2019, 2 = 2021 to 2022, 3 = 2021 to 2023, 4 = 2022 to 2023. CPI = consumer price index; HPD = highest posterior density set.

transmission over time. The comparison focuses on the transmission of a standardized monetary policy tightening shock, as estimated by a vector autoregression model with time-varying coefficients, across selected countries during tightening cycles since the 1990s.¹⁰ Estimates from the model suggest that the peak effects of consumer prices vary somewhat in response to the tightening shock (Figure 2.10; Online Annex Figure 2.3.2). However, the analysis does not detect a systematic and statistically significant difference in the magnitude of the responses when the post-2022 price responses are compared with the average transmission observed during the tightening cycles in the 1990s through 2019. This conclusion also holds when the full path of impulse responses over time, as opposed to only the peak effects, are compared (Online Annex Figure 2.3.1).

Several caveats are in order. The methodology employed in this section is designed to detect, using data available, significant changes in the overall transmission of policy tightening so far in countries' tightening cycles. It therefore does not rule out moderate

¹⁰The chapter focuses on the post-1990 period after countries adopted inflation-targeting regimes. Methodological details and further results are provided in Online Annex 2.3.

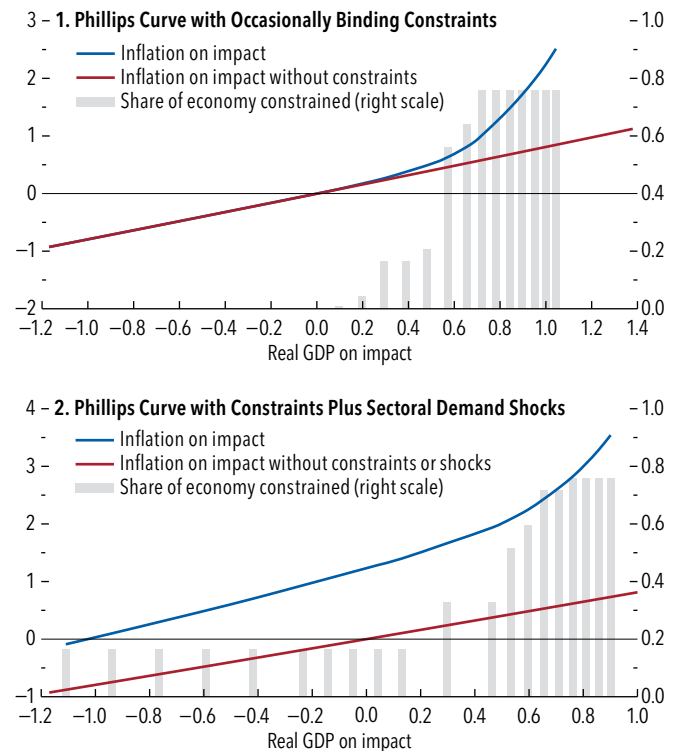
changes, given uncertainty surrounding the estimates, or the possibility that its conclusions will change once more data become available.

Lessons for Monetary Policy: A Model-Based Analysis

Guided by the chapter’s findings so far, this section develops a new global model with input-output linkages, the Global Dynamic Network Model, to derive further policy insights. Crucially, the model includes these features:

- Rich input-output linkages across sectors and countries.** To replicate the transmission of price pressures in individual sectors to core inflation, as in the empirical section, the model considers multiple sectors that are connected through input-output linkages. Relative demand for each sector can change both as a response to prices rising more in some sectors and if households’ tastes change, as happened, for example, when demand for goods relative to services rose during the pandemic lockdowns. Because it features two countries with trade linkages, the model can assess the role of synchronized global tightening.
- Occasionally binding supply constraints.** The model features sectoral constraints, in the form of limits on the maximum employment level of firms, that bind occasionally. These constraints mimic supply bottlenecks, and as will be shown, they are a key ingredient for rationalizing the recent steepening of the aggregate Phillips curve documented in the empirical section and observed in many countries (Gudmundsson, Jackson, and Portillo 2024; Comin, Johnson, and Jones 2023). In normal times, employment is rarely near these limits. However, in extreme cases such as lockdowns, in which the maximum employment in a sector may fall, or demand may surge in certain sectors (durable goods is an example), then these constraints can limit production. Such dynamics would result in higher prices in sectors with binding supply constraints and would also trickle down to the rest of the economy, especially if constrained sectors are major providers of inputs to other sectors and those inputs are not easily substitutable.
- Aggregate and sectoral shocks.** Given the potential role of monetary and fiscal stimulus during an episode, the model allows for monetary policy shocks as well as shocks to aggregate demand, in addition to a rich set of sectoral demand and supply shifts.

Figure 2.11. Phillips Curve under Different Constraints (Percent)



Source: IMF staff calculations.

Note: The blue line shows combination of the impact effect of real GDP (x-axis) and inflation (left scale) on monetary policy shocks of various sizes, with panel 2 also including a relative demand shock. The gray bars (right scale) show the share of the economy constrained. The red line shows the same combination without any supply bottlenecks imposed. The Phillips curve shape will depend on choice of constraints.

Widespread Bottlenecks and Rationalization of Steep Phillips Curves

To illustrate how the model can account for the steepening of Phillips curves, both panels in Figure 2.11 present the relationship between peak effects of inflation and output in a scenario in which monetary policy starts out contractionary (on the left) and gradually becomes more expansionary (on the right). In both panels, the supply constraints are set such that they become binding in more sectors as demand strengthens.

- Steepening.** When monetary policy is contractionary and demand is low, sectors operate below their labor constraints, and increases in demand lead to both higher employment and higher inflation. However, as policy becomes more expansionary, more sectors hit their supply constraints, as shown

by the gray bars in panel 1 of Figure 2.11 (see also Online Annex Figure 2.4.1). In turn, firms in these sectors cannot increase employment and output, and instead, prices must rise to equalize supply and demand. When such constraints are widespread, adding up across sectors for the entire macroeconomy reveals a nonlinear relationship between inflation and output; that is, a nonlinear aggregate Phillips curve (blue line). In the absence of supply bottlenecks, the analysis would have resulted in a linear aggregate Phillips curve (red line), underscoring the importance of the bottlenecks as a key mechanism in the model to account for the findings of the empirical section.¹¹

- **Shifting.** Panel 2 of Figure 2.11 illustrates how the Phillips curve can shift when relative demand shocks are also added. In that case, high-demand sectors hit their supply constraints and face upward price pressures. At the same time, other sectors produce less because of weak demand. The combination of higher prices (in constrained sectors) and weak output (in unconstrained sectors) leads to an upward shift in the aggregate Phillips curve.

Because the model allows for both a steepening and a shift of the Phillips curve, the relative strength of the two alternatives is then determined by the data.

Role of Constraints and Commodity-Specific Shocks

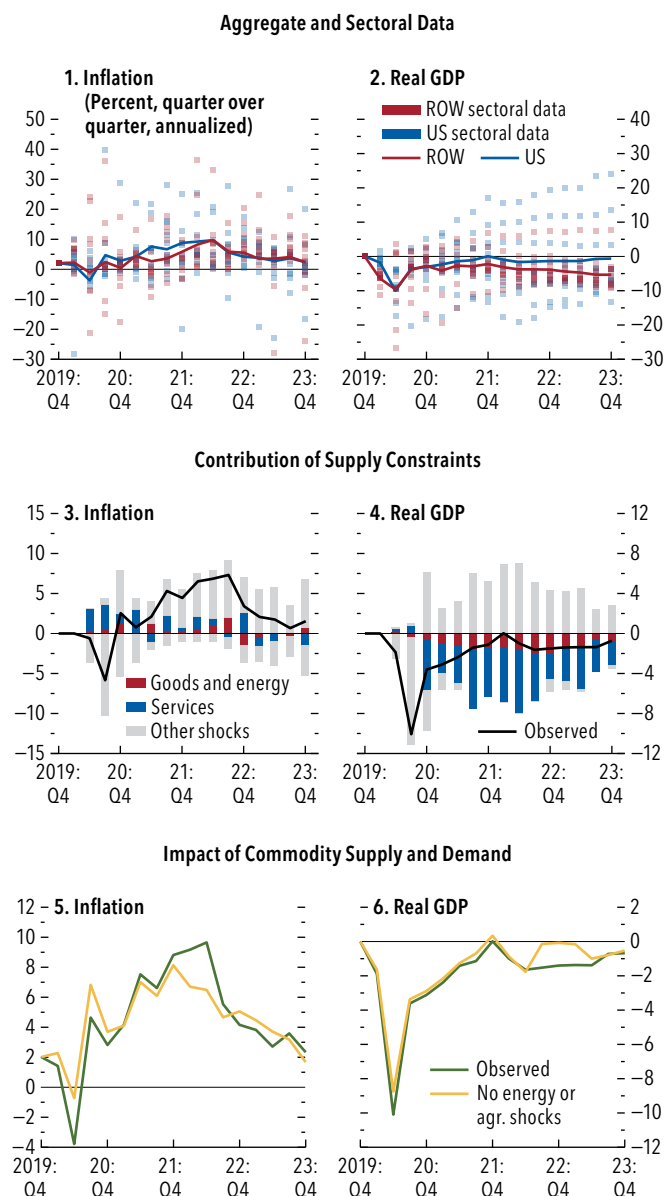
To unpack the role of supply constraints and commodity-sector-specific shocks through the lens of the model, this section takes the model to the data and presents counterfactual scenarios.

With the United States and the rest of the world set as the two countries or regions in the model, sectoral and aggregate shocks are quantified to match the data. Because the matched data include inflation and output, the model matches the sectoral dispersion shown in panels 1 and 2 of Figure 2.12 (similar to the empirical section). In the same figure, panel 4 shows that supply constraints were an important persistent drag on real GDP during this period. In addition,

¹¹Other mechanisms can also result in a steepening of the Phillips curve, such as asymmetries in wage setting, quasi-kinked demand for goods or informational frictions, and state-dependent pricing (Ilut, Valchev, and Vincent 2020; Harding, Lindé, and Trabandt 2022, 2023; Benigno and Eggertsson 2023; Dupraz 2024; Karadi and others 2024).

Figure 2.12. Impacts of Supply Constraints and Commodity Sector Shocks

(Percent deviation, unless noted otherwise)



Sources: Eurostat; Federal Reserve Economic Data; Organisation for Economic Co-operation and Development; and IMF staff calculations.

Note: The line in panel 3 shows inflation, and the line in panel 4 shows real GDP. The bars in panels 3 and 4 show the contributions from different groups of shocks. Note that the sum of all bars will equal the black line in each period. In panels 5 and 6 the “No energy or agriculture shocks” scenario assumes that monetary policy shocks remain as in the observed data, but monetary policy responds to changes in inflation, and that identified supply constraints in noncommodity sectors remain. agr. = agriculture; ROW = rest of the world.

they led to significant upward price pressures early in the pandemic, contributing 2–3 percentage points to US inflation during 2020–22 and playing a role in the subsequent disinflation, with a negative net contribution after 2023 (Figure 2.12, panel 3).¹² The inflation impacts appear to be less significant than GDP effects, largely because the supply bottlenecks—even if they may last for an extended period—raise prices persistently, leading to one-off rather than persistent increases in inflation.¹³

Because the empirical decompositions attribute an important role to “headline shocks,” which include shocks to food and energy prices, a scenario with a similar spirit can be considered. Specifically, panels 5 and 6 in Figure 2.12 turn off the shocks specific to the agriculture and raw energy sectors. The exercise reveals that inflation would have been lower when these shocks are turned off, especially around the beginning of the war in Ukraine, when supply constraints in these sectors were tightest. Turning off shocks specific to commodity sectors makes a smaller difference for GDP.

Although the important role of the agriculture and raw energy sectors in regard to inflation broadly aligns with the empirical analysis (if findings for the US are used to compare the two, given the model’s calibration), the two exercises are not identical. One important difference arises because shocks specific to agriculture and raw energy, which are turned off in this exercise, are not the only drivers of prices in their corresponding sectors. That’s why turning off shocks to these sectors does not mean that their prices remain constant throughout the exercise. In fact, the analysis suggests that aggregate demand shocks (especially because agriculture and energy have relatively flexible prices) and constraints in other sectors (which raise input prices) play a role, too. In contrast, empirical decompositions take these sectoral prices as exogenous and measure their contributions to core inflation relative to a case in which they are unchanged, remaining agnostic about their drivers.

¹²The blue and red bars in panels 3 and 4 include supply constraints and their interactions with other shocks. “Other shocks,” shown by the gray bars, include everything else. Because all shocks interact with supply constraints in complex ways, producing more detailed bars implying mutually exclusive contributions of shocks would be misleading.

¹³Supply bottlenecks can arise from tightening supply constraints for a given level of demand and their interaction with demand. The reported contributions measure the *total* impact of supply constraints, capturing the effects of supply constraints both in isolation and in combination with demand.

Policy Experiments

To draw policy lessons, this section undertakes two sets of analyses. The first comprises counterfactual scenarios with policies set differently from what central banks actually did. Because the data are first matched to the recent period featuring the effects of the pandemic and the war in Ukraine, the resulting policy lessons are more relevant for such tail event situations. The second set of analyses considers a hypothetical run-of-the-mill scenario. It features a supply constraint binding only for food and energy and a positive aggregate demand shock. For example, it could capture a situation in which a drought or a geopolitical shock constrains supply in agriculture and energy and is accompanied by fiscal support to contain its effects. In comparison with the experience since the pandemic, the share of sectors subject to supply bottlenecks would be much smaller in this scenario.

Counterfactual Scenarios

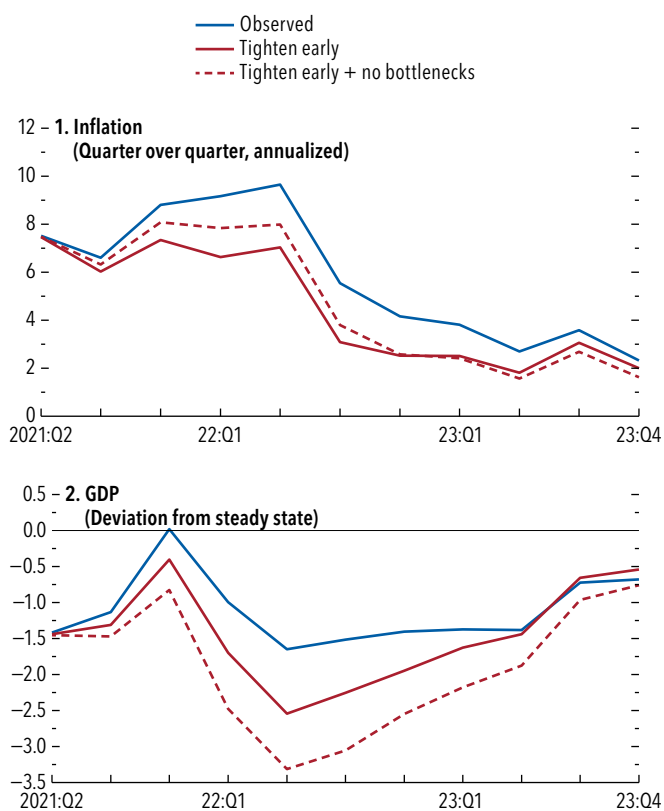
The counterfactual scenarios first ask, Would different policy choices by central banks have made a difference during the inflation surge? And how would they have interacted with bottlenecks? To answer these questions, Figure 2.13 presents cases in which policy tightens three quarters earlier than observed, combined with different assumptions about the presence of bottlenecks.

- Tightening earlier, shown by the solid red lines, lowers peak inflation by about 2 percentage points relative to the data (Figure 2.13, panel 1) but results in a 0.8 percentage point reduction in real GDP (Figure 2.13, panel 2) for 2022.
- Comparing two versions of the “earlier tightening” counterfactual further reveals the role of supply bottlenecks. When capacity constraints are imposed at levels estimated from fitting the model to the data (solid red lines), tighter policy has greater potency in lowering inflation, with low output cost relative to the case in which the constraints are assumed away (dashed red lines). This is because the constraints steepen the Phillips curve, as shown earlier, making expansionary policies more inflationary but also making it less costly to bring down inflation through monetary tightening. This comparison highlights how supply bottlenecks can steepen the Phillips curve and affect the cost of disinflation.

Would different policy choices by *other* central banks have made a difference? In the counterfactual scenario, the rest of the world tightens monetary

Figure 2.13. Counterfactual Monetary Policy

(Percent)



Sources: Federal Reserve Economic Data; Organisation for Economic Co-operation and Development; and IMF staff calculations.

Note: “Tighten early” scenario assumes rates rise three quarters earlier. Standard monetary policy counterfactuals assume identified labor constraints remain. “No bottlenecks” assumes the wedge between the marginal product of labor and wages (shadow price of constraint) is kept consistent with the data, but the constraint does not bind.

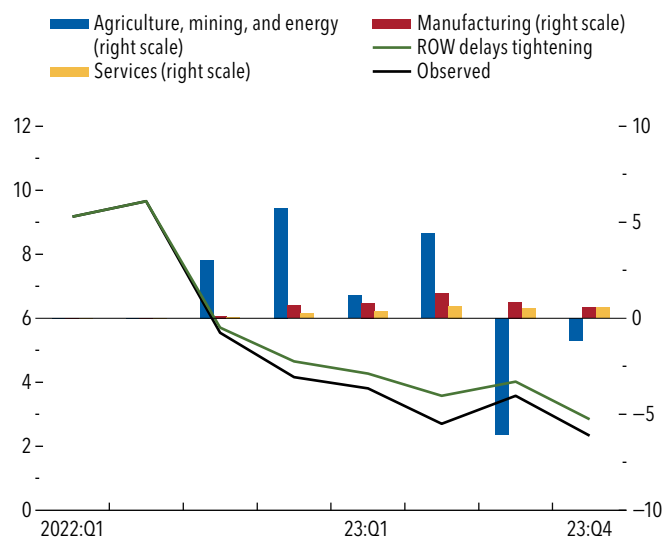
policy later than the United States (Figure 2.14).¹⁴ This delayed synchronization in tightening slows the domestic disinflation process. The difference between observed inflation and the counterfactual scenario is displayed by the bars in Figure 2.14 for each sector.¹⁵ Agriculture, mining, and energy—sectors with highly flexible prices—experience stronger inflation than the other sectors, and although inflation diminishes in these sectors over time, they generate further waves of price increases in manufacturing and services through input-output linkages.

¹⁴Even though this simulation considers the United States, a similar mechanism would be applicable for other economies.

¹⁵The figure reports both the direct and indirect effects, for example, including the impact that food and energy prices likely have on the prices of other goods and services.

Figure 2.14. Role of Coordinated Monetary Policy

(Percent, quarter over quarter, annualized)



Sources: Federal Reserve Economic Data; Organisation for Economic Co-operation and Development; and IMF staff calculations.

Note: “The rest of the world (ROW) delays tightening” scenario assumes ROW hiking is delayed three quarters and US rates remain as observed. Identified labor constraints are assumed to remain. The right-hand y-axis shows percentage point difference in sectoral inflation between the observed data and “ROW delays tightening” scenario.

Hypothetical Scenario

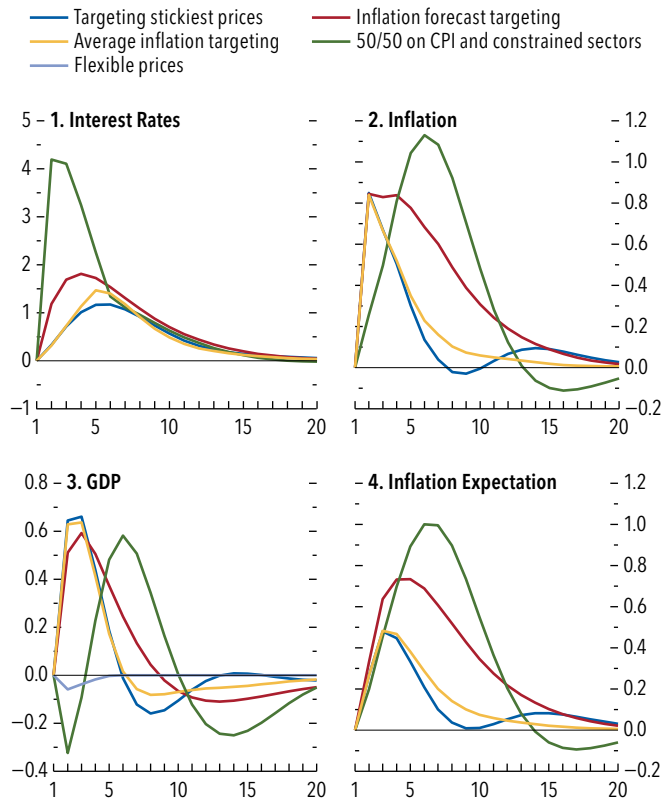
The analysis next turns to a hypothetical scenario with positive aggregate demand shocks combined with negative capacity constraint shocks in the agriculture, mining, and energy sectors for both countries or regions in the model. As explained in this chapter, this would correspond to a milder set of shocks than those considered so far.

Figure 2.15 compares four simple monetary policy rules in this scenario: (1) targeting inflation in sectors with the stickiest prices;¹⁶ (2) “inflation forecast targeting,” which aims to stabilize the four-quarter moving average of future CPI inflation; and (3) “average inflation targeting,” in which the central bank targets the average of the preceding four quarters of inflation, as well as (4) a sectoral Taylor rule that targets equally CPI inflation and sectoral inflation in agriculture, mining, and energy, which are the sectors subject to supply constraints but also those with the most flexible prices. The first three rules tend to be widely used or discussed, and the last one helps assess whether

¹⁶These sectors are information technology and telecommunications; finance and insurance; professional, scientific, and technical; education, health, and government services; and arts, entertainment, and recreation.

Figure 2.15. Alternative Policy Rules

(Percent deviation from steady state, quarter over quarter, annualized, y-axis; quarters, x-axis)



Source: IMF staff calculations.

Note: The Taylor rules are identical except for the inflation measure targeted. “Targeting stickiest prices” targets the five sectors with the steepest Phillips curves. “Inflation forecast targeting” targets the four-quarter moving average of future CPI inflation. “Average inflation targeting” represents average inflation targeting in which the central bank targets the average of the previous four quarters of inflation. “50/50 on CPI and constrained sectors” targets CPI inflation and sectoral inflation in agriculture, mining, and energy. “Flexible prices” shows relative prices in a scenario without nominal rigidities in any sector market. In each case the Taylor parameter is 3, the persistence parameter is 0.5, and neither GDP nor the output gap is targeted. CPI = consumer price index.

front-loading the policy adjustments in response to price increases in constrained sectors is appropriate. Because monetary policy can only alleviate the effect of nominal frictions on an economy’s response to shocks, a benchmark “efficient” economy output for the case in which prices and wages are assumed to be perfectly flexible is also shown, in panel 3 of the figure.

Comparing the alternative policy rules yields the following insights (Figure 2.15):

- Targeting inflation in the stickiest-price sectors delivers relatively fast disinflation. By contrast, the inflation forecast targeting rule ends up “running the economy hot” by responding to medium-term

inflation, which is lower than inflation on impact, and leads to a surge in inflation and inflation expectations. Despite higher nominal rates, this rule delivers lower real rates than the other policy rules. This leads to higher output initially but requires a prolonged medium-term reduction in real GDP to bring inflation to target.¹⁷

- The policy rule with the higher weight on food and energy tightens markedly more on impact, because food and energy prices are more flexible and sensitive to the demand shock, and these sectors themselves are supply constrained. The imposition of supply constraints, even if binding persistently, has transitory effects on inflation (Online Annex Figure 2.4.5).¹⁸ When policy focuses on these sectors, it overreacts to transitory inflation, delivering a sharp recession. As shocks dissipate, food and energy prices fall faster than the overall CPI, because they are more flexible, leading to a rapid fall in policy rates, and in turn, inflation and GDP surge. Although this policy rule delivers relative prices closer to the flexible-price benchmark in the short term, in the longer term, relative price movements are more persistent, distorting resource allocation for longer (Online Annex Figure 2.4.6).
- “Average inflation targeting” features inflation and GDP responses that are most like those arising from the rule targeting inflation in the sectors with the stickiest prices. The main difference is that the delayed response of average inflation targeting to inflation delivers a more gradual return of inflation to target, which leads real GDP to remain below the steady state in the medium term for longer.

Summary and Policy Implications

A defining characteristic of the recent inflationary episode was the prominence of sectoral shifts amid policy stimulus and capacity constraints, partly arising from

¹⁷These downsides from forecast-based policy rules relative to targeting realization-based inflation are similar to the results from Erceg, Lindé, and Trabandt (2024). Despite the broad similarities in their conclusions, the frameworks in the two studies are different in terms of specific scenarios considered and the underlying mechanisms. For example, Erceg, Lindé, and Trabandt (2024) allow price and wage setters to index more intensively after prolonged periods of high inflation, amplifying the costs of delayed policy tightening.

¹⁸Supply constraints require higher prices to realign demand in a sector to be consistent with the constrained production available. Once prices have risen, no further price increases are required to keep sectoral demand low. This leads to a transitory effect on inflation.

supply-chain disruptions. Statistical decompositions attribute an important role to price pressures arising from individual sectors and their spillovers to core inflation. Evidence also suggests that the relationship between inflation and economic slack shifted and steepened. In line with the empirical findings, a newly developed structural model can account for the transmission of sector-specific price pressures to the rest of an economy, as well as the shifting and steepening of Phillips curves, with a mechanism running through binding supply constraints combined with demand shocks.

Even though the episode was unique, central banks can still draw lessons from the experience, especially as they review their monetary policy frameworks. In this vein, the chapter offers the following insights.

Sectoral supply constraints tend to have large but short-lived effects on inflation as they start to bind. Steeper Phillips curves stem from the *interaction* of these constraints with demand shocks. Hence, policymakers should aim to differentiate between the immediate and transitory effects of sectoral constraints and their more persistent impact when combined with demand pressures.

The chapter draws an important distinction between the steepening of *aggregate* Phillips curves and that of *sectoral* Phillips curves. In doing so, it offers a new policy insight and reaffirms an old one.

- *New lesson.* When supply bottlenecks are prevalent and combined with strong demand, the aggregate Phillips curve steepens, as it did in the recent episode. In such cases, policy tightening is effective because it can ease demand pressures and bring down inflation quickly with limited output costs; in other words, the sacrifice ratio is low. Monitoring whether key sectors bump against their supply bottlenecks in an overheated economy is crucial.
- *Old lesson.* When supply bottlenecks are confined to specific sectors, such as commodities, standard rules, such as those focusing on inflation in sectors with the stickiest prices, remain appropriate (Blanchard and Galí 2007a; Natal 2012). Although sectoral Phillips curves steepen in constrained sectors, their effects may not spread widely enough to cause a steepening of the aggregate Phillips curve. In that case, monetary tightening can achieve a sharp decline in commodities' flexible prices, but at the expense of lower output, and over time, inflation will undershoot as flexible commodity prices decline and other prices also react to tighter policy.

- *Putting them together.* Central banks should consider including well-defined escape clauses in their policy frameworks to tackle inflationary pressures when aggregate Phillips curves steepen. Forward guidance should internalize those escape clauses and allow for front-loading of tightening in such situations.

This distinction aligns with earlier IMF work that suggests refining the traditional prescription to “look through” temporary supply shocks. In this context, Gopinath (2022, 2024) underscores that second-round effects can be significant if supply shocks are large and far reaching, particularly when the economy is already overheated with high inflation. The chapter's differentiation between widespread bottlenecks and those confined to specific sectors mirrors the earlier work's focus on the size and scope of shocks. In addition, the chapter's emphasis on the interaction of these bottlenecks with demand pressures relates to the earlier work's observation about the importance of recognizing an already overheated economy.

While “running the economy hot” may have benefits—for example, facilitating relative price adjustment when shocks are permanent and the economy needs to adjust accordingly (Guerrieri and others 2021; Guerrieri and others 2023), those benefits need to be weighed against the risk of a potential de-anchoring of inflation expectations and wage-price spirals. When balancing these risks, central banks should consider not only the most likely outcomes but also the distribution of risks, and they should keep inflation from drifting too far from target for an extended period, especially when inflation expectations are less anchored and policy credibility is weaker (Gopinath 2024).

A better understanding of sectoral dynamics can help central banks calibrate their policy responses more effectively. Therefore, investing in improved models and data collection over time would be a valuable endeavor.

- Developing models that capture sectoral linkages and heterogeneity—as exemplified by the model in this chapter—can be a step in the right direction, which should be considered as central banks plan to revamp their modeling approaches in the context of their framework reviews (for example, Bank of England 2024).
- The collection of more granular sectoral data would allow sectoral networks to be mapped out and models to be refined. How much and how fast sectoral price pressures propagate across an economy, for example, depending on the centrality or criticality

of sectors or the degree of price stickiness, could be quantified through such data.

- High-frequency sectoral indicators of supply constraints and demand pressures can support policy-making in real time. Disruptions in supply chains can arise both upstream (such as component shortages) and downstream (such as congested ports), and surveys of producers could help identify them early. Constraints may also emerge from the labor market: although many central banks monitor labor market indicators, analyzing them at the sectoral level could provide a more detailed understanding of shortages. In addition, measures of overall supply-demand mismatches (such as back orders) could highlight the interacted effects of supply and demand shocks.

Open economies can benefit from positive spillovers of other central banks' policy tightening through lower tradable goods prices. Such spillovers can be particularly important for countries that have high exposure to those prices—for example, those for food and energy, and limited policy levers to respond to them—for example, low-income countries with fixed exchange rate regimes. Exchange rate depreciations and their pass-through into inflation can exert upward price pressures in countries with flexible exchange rate regimes if they are not hiking interest rates at the same time.¹⁹ However, the exchange

¹⁹Although such currency movements can facilitate expenditure switching, financial frictions or weakly anchored inflation expectations can hamper macroeconomic stability.

rate channel would be muted relative to the lower tradable goods prices channel to the extent that the policy tightening is synchronized.

Credible policy frameworks remain a valuable asset for central banks. The recent experience is a case in point: inflation expectations remained anchored and wage-price spirals did not materialize even as policymakers navigated difficult policy trade-offs under immense uncertainty in countries with credible frameworks. Better understanding of inflation expectations formation across different horizons and economic agents would help inform policymaking (Adrian 2023; Alvarez and Dizioli 2023; Brandão-Marques and others 2023; October 2023 *World Economic Outlook*).

It is important to emphasize that providing a precise quantification of the drivers of inflation in the context of simultaneous shocks during a once-in-a-century pandemic is an inherently difficult task. Reduced-form empirical analyses provide suggestive correlations. Using aggregate data or single-sector models leads to difficulties in the identification of demand and supply shocks, given input-output linkages: supply constraints in one sector can cause lower demand in complementary sectors that produce their intermediate inputs. The chapter's multisector model can capture such interlinkages and emphasizes supply constraints but also finds that their interaction with demand shocks must have played an important role in generating the size and persistence of inflation observed in the data.

Box 2.1. The Role of Central Bank Balance Sheet Policies

Since the global financial crisis, central banks have expanded their toolkits by using balance sheet policies to achieve their objectives at the effective lower bound (ELB). This box documents that the unwinding of such policies, specifically quantitative tightening (QT), has had minimal effects so far, partly because of its slow and predictable implementation, facilitated by timely and extensive communication.

Central banks engaged in quantitative easing (QE) during the pandemic. QE was initially aimed at mitigating acute pandemic-related financial distress in spring 2020 and was used by many emerging markets as well as advanced economies. However, advanced economy central banks continued to expand their balance sheets even after the easing of financial distress in order to provide macroeconomic stimulus, although their policy rates were constrained by the ELB. Overall, during 2020–22, central bank balance sheets grew by more than 20 percent of GDP in Japan, the United Kingdom, and the euro area, and by about 18 percent of GDP in the United States (Figure 2.1.1). QE undertaken in this period is estimated to have had sizable effects in containing financial distress and supporting economic activity.

Once inflation surged, central banks began hiking policy rates and unwinding balance sheet policies, but QT is not merely QE in reverse.¹ First, central banks generally resort to QE when short-term policy rates are constrained by the ELB. This is not the case with QT, which has been used alongside policy tightening. Second, if QT and rate hikes are at least partially substitutable, greater QT can be partly offset by a slower tightening of policy rates—its effects, therefore, are more muted.² Third, QT may take place against a steeper Phillips curve (Erceg and others 2024a).

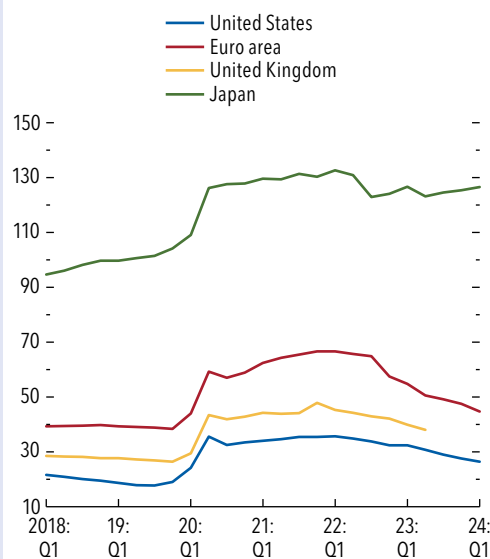
Evidence suggests that the effects of QT have so far been modest. Erceg and others (2024a), drawing on large-scale asset purchase shocks since the late 1990s, find that a one-standard-deviation QT shock

The author of this box is Thomas Kroen.

¹QT can occur passively when a central bank does not reinvest assets that mature or when it actively sells assets (Du, Forbes, and Luzzetti 2024).

²The peak impact on inflation from a one-standard-deviation QT and a similar-sized policy rate shocks is estimated to be comparable in Erceg and others (2024a).

Figure 2.1.1. Central Bank Balance Sheets
(Percent of GDP)



Sources: Haver Analytics; and IMF staff calculations.

Note: Figure reports stock of central bank asset holdings as a percentage of GDP at monthly frequency. United Kingdom data ends in the second quarter of 2023 due to five-quarter reporting lag.

has had a small, possibly slightly negative, effect on short-term rates while raising term premiums by about 12 basis points (Figure 2.1.2). Du, Forbes, and Luzzetti (2024) find that active QT tended to have a stronger impact on long-term rates than passive QT during the recent episode. They also find that the cumulative impact of QT announcements since 2021 has equaled at most two or three rate hikes in some countries, thus contributing moderately to a tighter policy stance.³

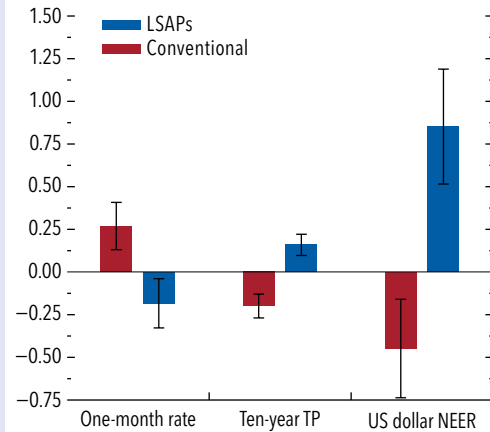
However, QT may have larger effects, especially if conducted more rapidly or on a larger scale. When reducing its balance sheet size, a central bank withdraws reserves from the banking system.

³Overall, QT has not been used as an explicit tool to tighten policy, instead largely working in the background. Moreover, because experience with QT started only in 2021, the external validity of these estimates in a macroeconomic environment very different from the postpandemic recovery remains an open empirical question (Du, Forbes, and Luzzetti 2024).

Box 2.1 (continued)

Although there was excess liquidity during the pandemic, QT may have stronger effects once reserves become scarce, as witnessed in the United States in 2019 (Du, Forbes, and Luzzetti 2024). Financial stability risks could also come to the fore: US commercial banks became more liquidity dependent through higher issuance of credit lines and increased financing via uninsured deposits, which raised the risk of sudden deposit withdrawals, as took place in March 2023 (Acharya and others 2023). Finally, advanced economies' QT strengthens their currencies (through higher term premiums) more than conventional tightening (through the short-term policy rate). Hence, there is more pressure on the currencies of emerging market and developing economies (Figure 2.1.2). This worsens inflation-output trade-offs in those economies, especially in those with a fixed exchange rate that must raise rates sharply to maintain their pegs (Erceg and others 2024a). In contrast, conventional tightening can achieve similar macroeconomic outcomes with smaller adverse international spillovers (Erceg and others 2024a).

Figure 2.1.2. Estimated Impact of Monetary Policy and LSAP Tightening
(Percent)



Sources: Erceg and others 2024a; and IMF staff calculations.
 Note: Monetary policy shocks are from Lewis (2023). The figure reports median quarterly impulse responses from estimation as in Erceg and others (2024a), along with 68 percent error bands for the United States. Shocks are scaled to a one-standard-deviation shock. LSAPs = large-scale asset purchases; NEER = nominal effective exchange rate; TP = term premium.

Box 2.2. The Role of Price-Suppressing Policies

Countries have frequently resorted to tools other than monetary policy to combat inflation. The recent inflationary episode was no exception. This box takes stock of inflation stabilization policies implemented historically and in the postpandemic recovery and discusses their rationale and limitations.

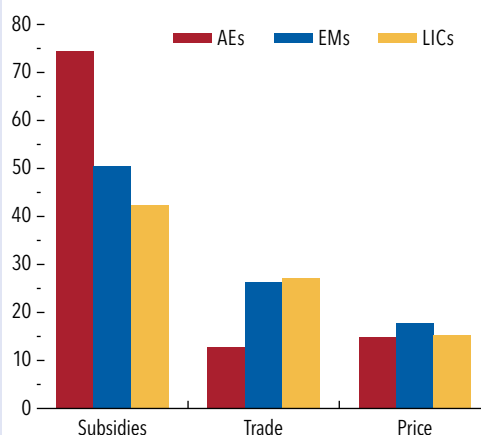
Energy and consumption subsidies. Subsidies have historically been used to maintain lower prices, especially for energy (Black and others 2023). During the pandemic, most governments subsidized fuel and electricity and reduced value-added taxes, sales taxes, and excises on essential goods (Figure 2.2.1). Subsidies work by absorbing increases in costs, thus limiting the pass-through to prices. They can tame inflation driven by temporary cost-push shocks. Dao and others (2023) find that energy subsidies played a significant role in stabilizing inflation in the euro area (Figure 2.2.2) in the recent episode. However, subsidies have substantial fiscal costs, do not align with climate-change-related goals, and often fail to target the vulnerable. They also distort relative prices, leading to overconsumption of subsidized goods, which fuels further price rises (Erceg and others 2024b).

Import tax reductions and export restrictions. Following the pandemic, many countries resorted to reducing import taxes and imposing export restrictions to stabilize domestic prices, especially in emerging markets and low-income countries (Figure 2.2.1). Import tax cuts lower imported goods prices and increase domestic supply, whereas export restrictions can ease domestic inflationary pressures. However, tax cuts have fiscal costs, and both policies induce adverse international spillovers by reducing global supply or increasing global demand, thereby contributing to further price increases (Giordani, Rocha, and Ruta 2016).

Price and wage controls. Historically, price and wage freezes have been used to curb inflation, in the United States and Europe in the 1960s and 1970s, among other instances. They have been used again to some degree since the pandemic, particularly in emerging markets and low-income countries, primarily on essential food items (Figure 2.2.1). In specific contexts, such as when dealing with monopsony (for example, minimum wage) or monopoly (for example, electricity pricing) power, these controls can be justified. However, they often lead to adverse outcomes, such as the emergence of black markets and shortages, and prevent adjustment in relative prices.

The author of this box is Damien Capelle.

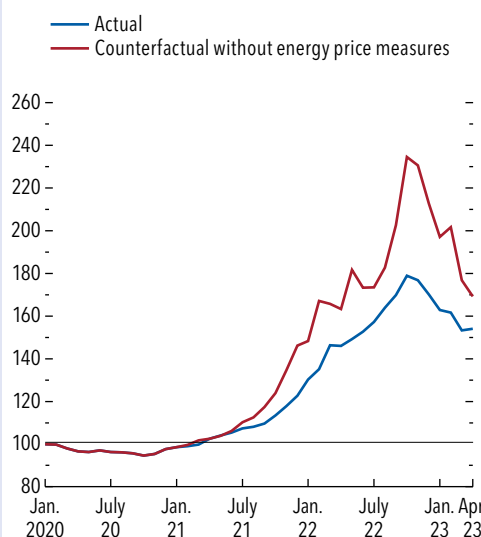
Figure 2.2.1. Discretionary Inflation Stabilization Policies during the Pandemic
(Percent of countries)



Sources: Amaglobeli and others 2023; IMF, Database of Energy and Food Price Actions.

Note: Based on surveys of 174 countries conducted from March to July 2022. AEs = advanced economies; EMs = emerging markets; LICs = low-income countries.

Figure 2.2.2. Euro Area Actual and Counterfactual Energy Price Levels
(Index; January 2020 = 100)



Sources: Dao and others 2023; and IMF staff calculations.

Note: "Actual" indicates the electricity, gas, and other fuels series of the harmonised index of consumer prices.

Box 2.2 (continued)

Other policies. Government-led negotiations have been historically employed in many countries to coordinate wage and price setting, during the pandemic as well as at other times. Although they can be instrumental in managing wage-price spirals and anchoring expectations, they can also distort relative prices. Finally, tax on inflation policies, which involve taxes proportional to a firm's increase in prices, was widely discussed and implemented in several advanced and emerging market economies in the 1970s and 1990s. Capelle and Liu (2023) show that by providing firms with incentives to moderate their price increases, tax on inflation policies can offer substantial stabilization gains under certain conditions. Although these policies

are useful for addressing inflation coming from cost-push shocks and shifts in inflation expectations, their practical implementation needs to be clarified, and monetary policy is a better instrument for bringing down inflation arising from excessive aggregate demand.

To conclude, countries have employed additional tools to stabilize inflation when monetary policy is limited, such as during cost-push shocks or under an exchange rate peg. However, monetary policy remains the primary tool for managing demand-driven inflation. The use of alternative tools requires careful assessment of their effectiveness and trade-offs to minimize potential adverse side effects.

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As the world grapples with a prolonged period of economic weakness, demographic shifts, and the imperative of navigating the green transition and technological upheavals, the urgency for structural reforms is clearer than ever. Policymakers are being urged to implement measures that foster competition, facilitate resource allocation to emerging sectors, and bolster labor supply amid aging populations. However, despite the clear need for action, securing broad social acceptability for policy changes has often been a significant obstacle, with reform efforts waning since the global financial crisis amid rising public resistance. This chapter explores the factors that shape public attitudes toward structural reforms and assesses the effectiveness of various strategies for increasing the social acceptability of policy changes. It finds that resistance to reforms often transcends economic self-interest and instead is deeply rooted in behavioral factors that include perceptions, misinformation, and trust deficits. Information strategies that raise awareness of the need for reform and correct misinformation about policies and misperceptions about how they work can significantly boost reform support. However, effective strategies require more than just better communication. They must be backed by a strong institutional framework that fosters trust and a two-way dialogue from the early stages of policy design. Thorough consultation with all stakeholders and the public is essential for identifying mitigating measures to address the personal and societal concerns that undercut support for reform. This chapter underscores the potential of informed, inclusive, and trust-based approaches not only to enhance the quality of policies but also to significantly increase the likelihood of implementing and sustaining structural reforms that are critical for boosting productivity, employment, and growth.

The authors of this chapter are Silvia Albrizio (co-lead), Hippolyte Balima, Pragyant Deb, Bertrand Gruss (co-lead), Eric Huang, Colombe Ladreit, and Yu Shi, with support from Yaniv Cohen, Shrihari Ramachandra, and Isaac Warren. Tohid Atashbar, Max Yarmolinsky, and Arash Sheikholeslam provided computational and technical assistance. Christopher Roth was an external consultant. The chapter benefited from comments by Santiago Levy and internal seminar participants and reviewers.

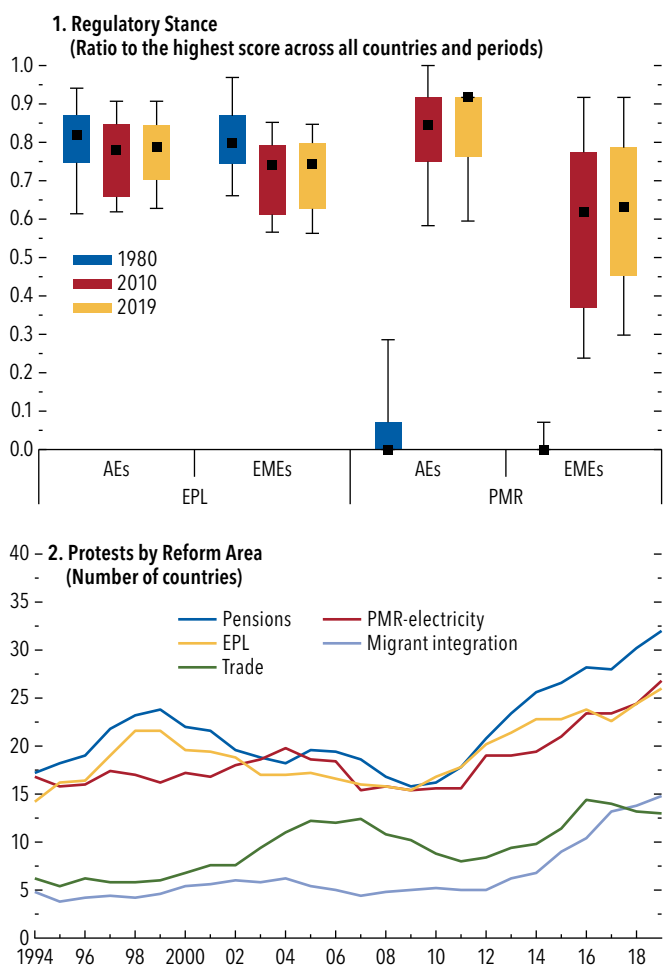
Introduction

The global economy has been enduring a prolonged period of structural weakness, and medium-term prospects under current policies remain bleak. The slowdown in global growth is attributed largely to aging populations, weak investment, and structural frictions that hinder the reallocation of capital and labor toward productive firms (see Chapter 3 of the April 2024 *World Economic Outlook* [WEO]). This is especially concerning because demographic pressures are expected to continue, and structural transformations related to the green transition and technological changes will require significant investment and resource reallocation.

In this context, policymakers are urged to advance structural reforms—that is, to update the rules and policies that shape how an economy operates—to boost productivity, employment, and growth. Key priorities include easing entry barriers and fostering competition in product markets to facilitate the reallocation of resources across sectors, thus helping countries harness the potential benefits of new technologies. Similarly, reforms to encourage workers to work longer and to facilitate the integration and improve the skill matching of foreign-born workers can help counterbalance the labor supply challenges posed by aging populations.

However, progress on progrowth structural reforms has historically been slow and uneven across countries and policy areas (Figure 3.1, panel 1). Although compromises regarding noneconomic goals may play a role (for instance, prioritizing state control in certain sectors for national security reasons), securing social acceptability for policy changes is often a major challenge (Figure 3.1, panel 2). A large body of literature on the political economy of reforms has emphasized that weak acceptability and slow progress reflect the uneven distribution of the costs and benefits they entail, across the economy and over time (for example, Boeri and Navaretti 2006). There is mounting awareness, however, that resistance to policy changes is often rooted in behavioral aspects that may dwarf the economic self-interest and equity considerations that have traditionally

Figure 3.1. Structural Reforms: Uneven Convergence amid Public Resistance



Sources: IMF, Structural Reforms Database; Mass Mobilization Project; and IMF staff calculations.

Note: Panel 1 shows the cross-country distribution of product and labor market reform indices—where higher values denote looser regulatory stance—expressed as a ratio to the highest score across all countries and periods in the sample. The marker inside each box represents the median; the upper and lower edges of each box show the top and bottom quartiles; and the black markers denote the top and bottom deciles. Panel 2 shows the five-year moving averages of the number of countries facing protests, with x-axis labels indicating the final year of the rolling window. AEs = advanced economies; EMEs = emerging market economies; EPL = employment protection legislation; PMR = product market regulation.

underpinned public economics analysis. Among various behavioral factors influencing reform acceptability, misinformation about the problems tackled by the reform and misperceptions about how policies work can be critical deterrents to support (for example, Douenne and Fabre 2022; Duval and others 2024).

Motivated by the urgent need to move forward on inclusive growth reform agendas, this chapter pursues two intertwined objectives: (1) to shed light

on factors that influence the social acceptability of structural reforms, and (2) to identify strategies, tools, and institutions that can enhance the acceptability of policies, with the ultimate objective of passing reforms that closely align with desired plans, end up being implemented, endure over time, and pave the way for advancing broader agendas. To achieve these objectives, the chapter seeks to address the following questions:

- *Historical overview of reform episodes.* How difficult has it been to implement structural reforms? How common is the reliance on active communication and consultation strategies, as well as the use of complementary or compensatory mitigating measures, to garner consensus, and how effective are these strategies in practice?
- *Drivers of social acceptability.* What drives individuals' attitudes toward reforms? To what extent do individual characteristics and economic self-interest determine support? What is the role of perceptions, information, and other beliefs in driving policy preferences?
- *Policy toolkit for consensus and reform sustainability.* Can information strategies correct misperceptions about reforms, notably regarding the need for and the effect of policy changes, and influence attitudes toward reforms? What other tools, strategies, and institutions can help policymakers forge consensus, improve the policy design process, and ensure that reforms not only are implemented but also endure?

To answer these questions, the chapter focuses on a set of product and labor market reforms. It begins by leveraging a novel narrative database to uncover key facts surrounding reform attempts since the mid-1990s to ease product market regulation (PMR) and increase competition in the electricity sector, provide incentives for the labor supply of elder workers, and integrate foreign-born workers into the labor market. The chapter then collects new evidence from surveys of individuals to (1) investigate how beliefs and, in particular, misinformation and misperceptions about policies affect support for reforms and (2) test whether providing information—for instance, on how policies work or complementing reforms with measures that address specific concerns—can increase support. Finally, the chapter conducts an in-depth review of 11 labor market reform episodes to contextualize lessons from the survey analysis and identify a broader set of strategies and tools that have helped policymakers build consensus and sustain reform efforts.

The chapter's main findings are as follows:

- *Passing structural reforms has typically been challenging, but the use of strategies to garner consensus is associated with higher chances of implementation.* A historical overview of reform episodes shows that the pace of reform efforts has more than halved since the global financial crisis of 2008–09. Moreover, a substantial fraction of reforms that are attempted are never implemented—nearly 20 percent of policies aimed at increasing competition in the electricity sector and almost 50 percent of those providing incentives for workers to work longer—or get passed only after being diluted amid resistance. The macroeconomic or political context in which reforms are attempted can sometimes matter, but it does not seem determinative. Instead, the use of communication and consultation strategies and mitigating measures are more reliable predictors of reform implementation.
- *Beliefs and perceptions are key determinants of attitudes toward structural reforms.* Socioeconomic characteristics underlying individuals' economic self-interest do influence policy views but, for instance, in the surveys conducted for this chapter they account for only 6 percent of individuals' support for reforms to increase competition in network sectors and 11 percent for policies to integrate foreign-born workers. Instead, individuals' beliefs and perceptions explain about 80 percent of reform support, and misinformation about policies and misperceptions about how they work account for about half that support.
- *Communication and information strategies, as well as complementary and compensatory measures, can shift policy views, especially when forged in a context of trust.* Randomized survey experiments on different policy areas and in countries at different stages of development show that providing information to populations can correct misperceptions about policies and increase support for reforms. Raising awareness regarding the need for reform can often help, and explaining the effect of policies and how they work appears critical to increasing social acceptability for reforms. For instance, in the surveys conducted for this chapter, additional support for migrant integration policies in the group that received information about how those policies work was equivalent to more than 40 percent of the share of those in the control group who were opposed. Survey analyses also show that tailored mitigating measures (complementary policies and compensa-

tory measures) that address not only self-interest, but also distributional and other societal concerns, can improve acceptability. However, lack of trust in the parties involved in the reform and in governments' ability to adequately implement policies and mitigating measures can still undermine social acceptability.

- *An expanded toolkit and a strong institutional setting fostering a two-way dialogue with stakeholders and the population at large can help policymakers garner support for implementing and sustaining reforms.* Effective strategies require far more than enhancing communication. The chapter's review of country cases confirms the importance of trust in both the message and the messenger. Conducting and diffusing policy research by independent, nonpartisan institutions has often been key to raising awareness about the need for reform and building consensus. A strong institutional setting that facilitated consultations with stakeholders, including in the policy design stage, helped cement trust in policymaking and move forward reforms that also endured. Instead, attempts to pass reforms that were not tailored to domestic conditions or that were pushed along with multiple other major reforms often faced major implementation challenges or were eventually reversed.

The chapter's findings and their implications for boosting the chances of reform implementation come with some caveats. *First*, social acceptability is not the only factor that matters for implementation success. For instance, vested interests can influence decision-making bodies and affect the course of reform attempts, regardless of whether the population broadly agrees with the proposed reform. *Second*, the strategies underscored in this chapter to cement social acceptability are not a substitute for sound policy design. The findings underscore that a poor understanding of policy mechanisms undermines public support, but a better understanding will not (and should not) help policymakers pass policies that are ill designed. *Third*, public resistance can reflect justifiable concerns about inappropriately designed reforms. In the same vein, social acceptability should not be viewed as an end in itself. Some inconsistent, counterproductive, or welfare-detrimental reform attempts may encounter little social resistance, and yet the reforms they are advocating should not be passed. This underscores the importance of the chapter's finding on the role of

knowledge and understanding of policies. A sustained effort to make independent and trustworthy policy analysis widely available can help protect societies from opportunistic populist proposals that hide costs and undesirable outcomes. *Finally*, understanding country- and policy-area-specific conditions is critical. However, with appropriate caveats, the broad principles drawn in this chapter from different policy fields and countries at various stages of development can still help policymakers navigate the challenges of implementing and sustaining reforms.

Social Acceptability of Reforms: A Primer

In essence, structural reforms are policy changes that modify acquired rights and economic rents with the aim of improving the allocation of resources in the economy. As such, they inevitably create winners (the beneficiaries from efficiency gains) and losers (those whose rents or acquired rights the reforms affect negatively).¹ For instance, reforms to foster competition can boost output and reduce prices, benefiting workers and consumers throughout the economy, but the immediate targets are the rents of the few firms with market power under existing rules and the workers in those firms.

The implications for the acceptability of reforms are, however, less straightforward than simply identifying winners and losers and eventually offsetting losses. Gains and losses from reforms are unevenly distributed not only across society, but also over time (Blanchard and Giavazzi 2003). Costs are often more evident in the short term and concentrated in a few well-organized and easily mobilized groups, whereas gains are diffused and mostly accrue slowly over time. This dynamic makes the status quo appealing, as its costs are not immediately apparent and the materialization of payoffs is uncertain (Fernandez and Rodrik 1991; Tompson 2009).

Securing social acceptability for reforms can be challenging, even when they are designed to balance increasing overall welfare with fairly compensating those who are adversely affected. A growing body of literature has pointed out that public resistance is not based solely on objective economic self-interest grounded in individuals' socioeconomic characteristics, such as employment status, age, and education level.

¹See, for instance, Boeri and Navaretti (2006), Tompson (2009), and Alesina and others (2023) for discussions on the political economy of structural reforms.

Individuals' views on policies—and consequently, the social acceptability of reforms—are also significantly influenced by their beliefs and perceptions, including those regarding the effects of policies and the willingness or ability of policymakers to implement them as promised.

For instance, lack of trust in plans to compensate those affected by policy changes has either derailed tax and subsidy reforms or required the use of earmarking schemes and other commitment solutions at the cost of efficiency considerations (Guillaume, Zytek, and Farzin 2011; Douenne and Fabre 2022; Kanbur and Levy 2022). Similarly, if potential winners do not comprehend how a policy change will benefit them, they may not trust or support it (Stantcheva 2021; Dechezleprêtre and others 2022; Alfaro, Chen, and Chor 2023; Dabla-Norris and others 2023; Duval and others 2024).

With these considerations in mind, the rest of the chapter investigates how policymakers can enhance the social acceptability of policies, with the ultimate objective of implementing and sustaining structural reforms. It focuses on policies that have been previously identified as critical to facilitating the reallocation of resources across sectors and boosting labor supply amid aging populations (for example, Ostry, Prati, and Spilimbergo 2009; Chapter 3 of the April 2016 WEO; Chapter 3 of the October 2019 WEO; Chapter 4 of the April 2020 WEO; Budina and others 2023; Chapter 3 of the April 2024 WEO) but does not explore their macroeconomic effects—or what constitutes solid policy design—since this has been covered extensively.

The Challenge of Implementing Structural Reforms: Key Facts

Despite the well-recognized challenges of passing structural reforms, there is a surprising lack of cross-country data documenting both successful and unsuccessful reform attempts. To fill this void, this chapter constructs a new database that tracks product and labor market reform episodes during 1996–2023 (Online Annex 3.2).² The documented reforms aimed to (1) ease product market regulation to increase competition in the electricity sector (*PMR-electricity* hereafter), (2) provide incentives for labor participation among elder workers (*elder LP* hereafter), and

²All online annexes are available at www.imf.org/en/Publications/WEO.

(3) increase the integration of foreign-born workers into labor markets (*migrant integration* hereafter). The database is constructed using text analysis of quarterly country reports from the Economist Intelligence Unit (EIU) spanning 26 advanced economies, 36 emerging market economies, and 14 low-income countries. For each policy area covered, it allows each country-year observation to be classified into one of three categories: (1) no relevant reform was under discussion, (2) a reform was under discussion but was not yet implemented, or (3) a reform was implemented.³ Validation tests confirm that the data set accurately captures reform information from the EIU reports.

A first notable observation is that the number of reform episodes, including those when policy changes were discussed but not implemented, has declined over time in almost all policy fields and country groups (Figure 3.2). Splitting the sample in half around the time of the global financial crisis shows a particularly sharp drop in *PMR-electricity* reform episodes—despite still-large cross-country heterogeneity in regulatory stances. The pace of *elder LP* reforms in advanced economies and emerging market economies has also slowed in recent years, notwithstanding rising longevity.⁴ The reduction in reform intensity could reflect shrinking scope for reforms in some policy areas and countries, such as PMR in network sectors in advanced economies. However, it has coincided with a documented increase in social discontent, notably since the global financial crisis, as captured by episodes of civil unrest, as well as distrust in public institutions, dissatisfaction with democracy, and lower voter turnout (OECD 2021). This suggests that less appetite for policy change among the public may have deterred policymakers from even attempting needed reforms.

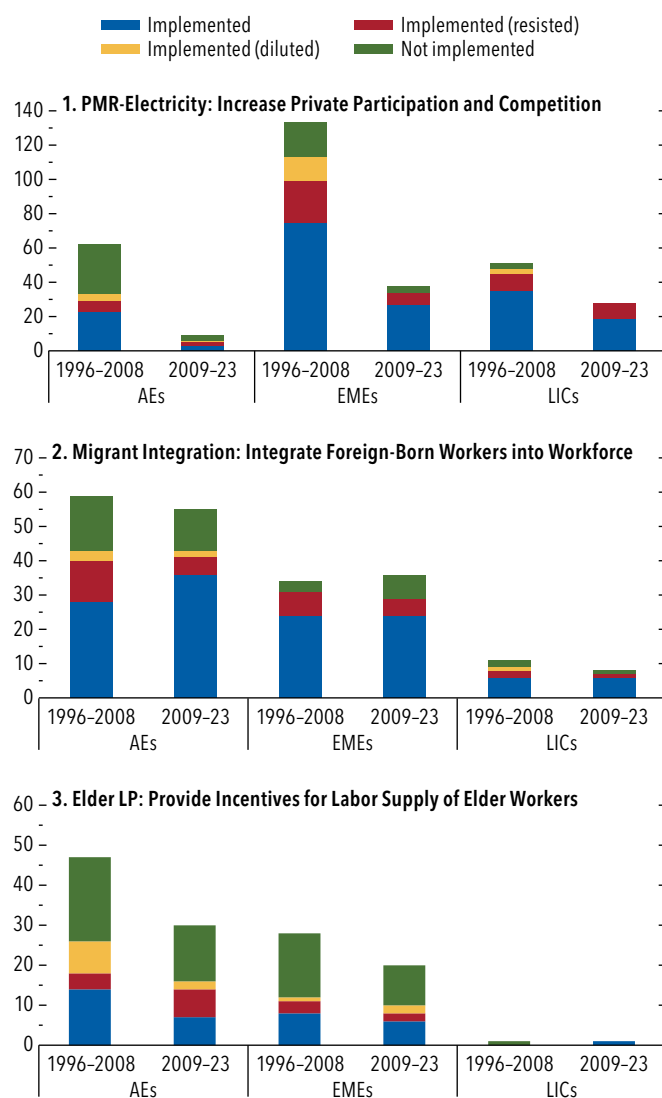
The data also reveal how difficult it has been historically to pass reforms. Only about 50 percent of all *PMR-electricity* and *elder LP* reforms that have been discussed in advanced economies over the past three decades were eventually implemented. The implementation rate for *elder LP* reforms in emerging market economies is comparable, whereas for *PMR-electricity*

³The first category can include both cases in which a reform was not needed and those in which it was needed but was not being considered. Earlier structural reform databases (for instance, Alesina and others 2023) identify only implemented reforms, with no-reform observations including both categories (1) and (2).

⁴There have been barely any attempts to undertake *elder LP* reforms in low-income countries, which is not surprising, because most are still benefiting from a youthful and growing working-age population or have incipient pension programs.

Figure 3.2. Reform Episodes by Implementation Outcome
(Total number of reform episodes)

The intensity of reform efforts has declined over time, and a substantial share of reform attempts are either dropped or implemented amid resistance and diluted.



Source: IMF staff calculations.

Note: The figure shows the shares of reform episodes across reform areas by implementation outcome: implemented (not resisted); implemented but resisted; implemented but resisted and diluted; and not implemented. AEs = advanced economies; EMEs = emerging market economies; LICs = low-income countries; LP = labor participation; PMR = product market regulation.

reform episodes, the share of implemented reforms is 90 percent for emerging market economies and for low-income countries. The implementation rate for *migrant integration* reform episodes is comparable across country groups, at about 80 percent.

In addition, in a significant fraction of episodes that did end in reform implementation, the reform

was nonetheless resisted by the public, as evidenced by strikes, protests, or riots: roughly 22 percent of *migrant integration* episodes, 30 percent in the case of *PMR-electricity* episodes, and as many as 40 percent for *elder LP* reform episodes. In many of those episodes, policymakers had to scale down the scope of the reform to secure its implementation (for instance, this occurred in nearly 40 percent of resisted *elder LP* reform episodes and in as many as 45 percent of episodes in the second half of the sample). Moreover, public resistance need not always preclude implementation, but it may affect the sustainability of a reform. Indeed, additional analysis reveals that among reforms that were enacted but later reversed, a higher share had faced resistance when implemented (Online Annex Figure 3.2.1).

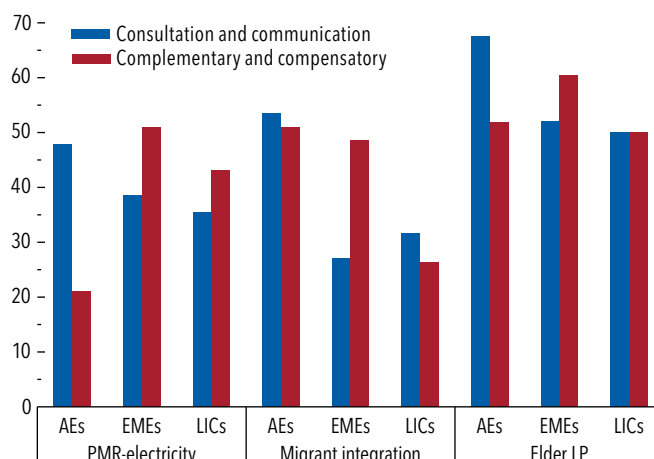
Strategies for Building Consensus for Structural Reforms

Earlier studies argue that communication and consultation efforts aimed at informing voters and stakeholders of both the need for and the goals of reform have often played a key role in securing implementation and reducing the chances of policy reversals (for example, Tompson 2009; OECD 2010). Besides early engagement with all stakeholders, those studies also underscore the role that mitigation measures have played in securing consensus. However, the evidence on the use of these strategies is drawn largely from case studies covering a handful of mostly advanced economies. To shed light on how extensively used these strategies are and what role they may have played for securing implementation, this section shows evidence based on two new indicators (see details in Online Annex 3.2):

- *Use of consultation and communication strategies.* An indicator variable records whether policymakers resorted to any of several tools—such as consultations, hearings, referendums, or independent communication agencies—to communicate, engage, and negotiate with various stakeholders at any point within a reform episode.
- *Complementary and compensatory measures.* Analogously, an indicator variable captures whether the authorities considered any of various mitigating measures—such as job training programs, temporary job protections, price subsidies, or grandfathering clauses—aimed at compensating those negatively affected by reforms or to offset transition costs.

Figure 3.3. Strategies for Building Consensus for Reform
(Share of reform episodes using each strategy, percent)

The use of consensus-building strategies has varied widely across episodes, reform areas, and income groups.



Source: IMF staff calculations.

Note: The figure shows the shares of reform episodes using each strategy by reform area and country income group. AEs = advanced economies; EMEs = emerging market economies; LICs = low-income countries; LP = labor participation; PMR = product market regulation.

Although countries in all income groups have used both sets of strategies across reform areas, in a significant share of reform episodes (close to half, on average), the use was not prominent enough to be captured in the data (Figure 3.3). Advanced economies appear to have resorted more often to consultation and communication strategies, compared with their use of complementary and compensatory measures, although the share of reform episodes in which they used these mitigating measures has picked up significantly since the global financial crisis. In contrast, emerging market economies and low-income countries seem to have relied more on complementary and compensatory measures, particularly in *PMR-electricity* reform episodes, in which subsidies or price controls were frequently part of the policy packages.

The heterogeneity in both the use of strategies to secure consensus and the implementation outcome across reform episodes raises a natural question: Has the use of these strategies helped overcome the challenges of passing reforms? Although causal effects cannot be convincingly tested with these aggregate data, an exploration of historical correlations based on multinomial logit regressions suggests that these strategies are associated with a more than 6 percentage point

increase, on average, in the likelihood of implementing proposed reforms across policy areas, with stronger effects for attempts facing resistance (Online Annex Figure 3.2.2). Indeed, in reform episodes that are met with public resistance, reaching implementation is more likely when explicit efforts to consult or communicate with social stakeholders are used than when they are not used. Also, the use of compensatory and complementary measures is generally associated with a higher likelihood of implementing reform proposals in the case of both resisted and less resisted episodes, with some differences across reform areas.

This does not mean that the use of these strategies is the only factor determining reform outcomes. The analysis also finds that the macroeconomic and political contexts in which reforms are attempted (for instance, whether a reform is proposed in good times or after a severe crisis, or at the beginning of a new administration versus closer to the next elections) can somewhat influence the likelihood of reform proposals being implemented. However, the correlations are not always consistent, with the role and significance of individual variables varying across reform areas (Online Annex Table 3.2.3).⁵ In addition, when the importance of reform strategies is compared with that of other factors for predicting the implementation of reform proposals, reform strategies jointly explain about 28 percent of the implementation likelihood, on average, across different policy areas (Figure 3.4). This is relatively large: by comparison, the variables capturing the macroeconomic context or the political context explain 16 percent and 22 percent, respectively, on average. Taken together, this suggests that active use of consultation, communication, and mitigating strategies is a more robust predictor of implementation success than the context in which reforms are attempted.

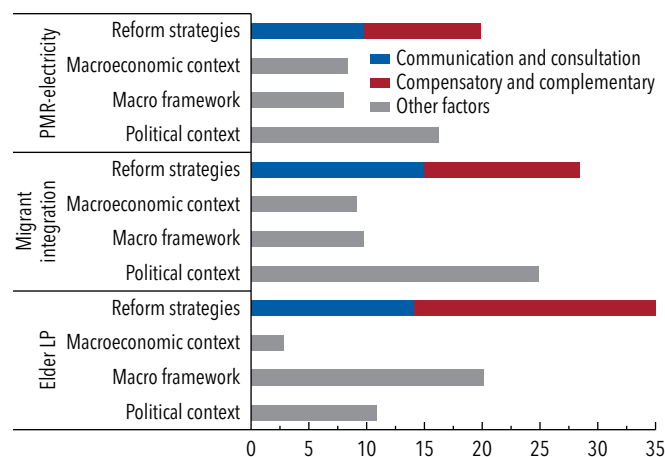
Attitudes toward Reforms: Evidence from Surveys

The role of reform design strategies documented in the previous section highlights the importance of understanding what drives individuals' skepticism regarding policy change and how policymakers can

⁵Earlier studies have also documented ambiguous relationships between the likelihood of reform implementation (with respect to nonreforming, without distinguishing reform discussions from other nonreform observations) and potential drivers related to cyclical conditions, macroeconomic policies, and political factors (see discussion in Duval, Furceri, and Miethe 2020).

Figure 3.4. Relative Importance of Reform Strategies for Predicting Reform Implementation
(Share of implementation likelihood explained, percent)

Consensus-building strategies significantly boost chances of implementing reforms.



Source: IMF staff calculations.

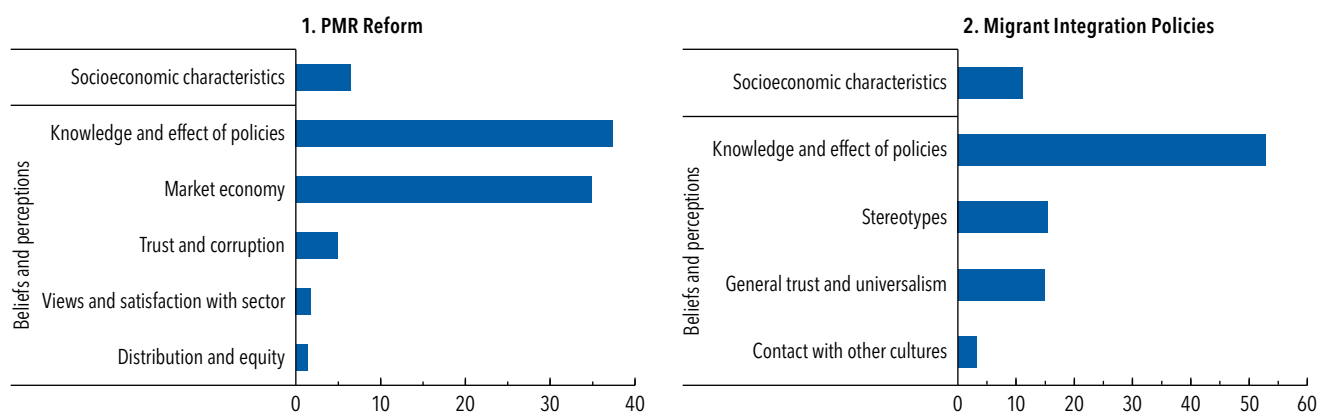
Note: The figure shows the relative predictive power of each set of factors for the implementation of reform proposals across different areas. Estimates are obtained through dominance analysis based on a multinomial logistic regression (Online Annex 3.2). PMR = product market regulation; LP = labor participation.

incorporate their concerns when designing reforms. To shed light on this matter, the chapter uses surveys of 12,600 individuals from six countries covering two different policy areas (Online Annex 3.3; Albrizio and others 2024a, 2024b):

- *PMR reforms* to enhance private participation and foster competition in the electricity and telecommunications sectors in emerging market and developing economies (the survey is conducted in Mexico, Morocco, and South Africa). Attracting private investment is critical to narrowing infrastructure gaps that can affect the ability of these economies to harness benefits from digitalization and artificial intelligence technologies (for example, Balza and others 2020; Devine and others 2021; Cazzaniga and others 2024). Public attitudes toward these policies, however, have been notably negative in the past (for example, Fay and Morrison 2007; Andrés, Schwartz, and Guasch 2013).
- *Migrant integration policies* to integrate foreign-born workers into labor markets in advanced economies (the survey covers Canada, Italy, and the United Kingdom), such as improving the recognition of immigrants' qualifications and experiences, offering free language courses and professional training, and

Figure 3.5. Drivers of Reform Support
(Share of support explained, percent)

Individuals' reform support is driven primarily by beliefs and perceptions, especially about the effect of policies.



Source: IMF staff calculations based on IMF-YouGov survey.

Note: The figure shows the results of a dominance analysis that quantifies the share of variance in support for reforms or policies explained by individuals' socioeconomic characteristics and different sets of beliefs and perceptions based on an ordinary least squares regression (Online Annex 3.3.1). The regression controls for country fixed effects and treatment indicators, whose contributions are not shown. PMR = product market regulation.

providing job placement programs that connect immigrants with employers looking for their specific expertise. These policies can boost labor supply and productivity amid aging populations (for example, Aiyar and others 2016; Mitaritonna, Orefice, and Peri 2017; Chapter 4 of the April 2020 WEO) but are often resisted on account of various concerns (for example, Dennison and Dražanová 2018; Grigorieff, Roth, and Ubfal 2020; Alesina and Tabellini 2024).

Predicting Policy Support: The Role of Beliefs

What drives individuals' attitudes toward reforms? Policy preferences can be determined, first, by people's socioeconomic characteristics (such as age, education level, employment, income level, and geographic location), which underpin their economic self-interest. They can also be influenced by a wide range of perceptions and beliefs, including those regarding policies (that is, how much individuals know about policies and how they think policies may affect outcomes they care about, such as jobs, prices, and crime rates).

The results from both surveys reveal that individual characteristics do play a role but account for only 6 percent of individuals' support for *PMR reforms* and 11 percent of support for *migrant integration policies* (Figure 3.5; Online Annex Figure 3.3.2). Instead, policy views are driven primarily by individuals' beliefs and (mis)perceptions, some of which can

be affected by the design of reforms (Online Annex 3.3.1):

- Not surprisingly, those who believe that productive activities should be handled primarily by private firms and that the government should not intervene in price-setting decisions support *PMR reforms*, and overall, market-oriented beliefs account for a substantial share (35 percent) of policy views. Respondents who perceive the distribution of income in their country as unfair are less supportive. And distributional concerns, together with trust and perceptions on corruption, weigh as much as individual characteristics in explaining support.
- Stereotypes about immigrants play a key role in explaining individuals' support for *migrant integration policies*. Respondents who have a positive view of immigrants (for example, that they are hardworking), associate immigrants with refugees, or think that immigration can have a positive economic and cultural effect are more likely to support these policies, whereas the opposite is true for those who associate immigrants with illegal workers or a negative economic or cultural outcome.
- Importantly, knowledge about and perceptions of the effect of policies explain more than 50 percent of support for *migrant integration policies*. Respondents who correctly identify policies for better integrating foreign-born workers or who believe that integrating immigrants can be beneficial for the

Table 3.1. Hypotheses to Boost Policy Support

Survey	Treatment: Information Provided	Hypothesis
PMR Reform	<i>Status quo</i> : Factual evidence on the cost, quality, and access to electricity or telecommunications services.	Status quo
	<i>Status quo + effects of policies</i> : Adds research-based evidence on the effect of policies to foster competition in network sectors on cost, quality, and access to electricity and telecommunications services.	
Migrant Integration Policies	<i>Effect of policies</i> : Research-based evidence on the effect of policies to integrate foreign workers on labor market outcomes for native workers, public finances, and immigrants' crime rates.	Effect of policies
	<i>Effect of policies + mechanisms</i> : Adds detailed information explaining the mechanisms through which immigration policies lead to those outcomes.	
	<i>Immigrants' stories</i> : Three stories sourced from newspaper articles about immigrants' struggles in the labor market, their perseverance, and their success.	Empathy

Source: IMF staff compilation.

Note: PMR = product market regulation.

economy are more likely to support such policies. Knowledge and perceptions of policies also explain the lion's share (37 percent) of support for *PMR reforms*. Individuals are more likely to support the reform if they believe that private firms competing in the sector will lead to lower prices, higher quality, or broader access to electricity or telecommunications services.

The importance of beliefs in shaping policy support extends beyond the areas included in this study. For example, Duval and others (2024) find that beliefs play a bigger role in explaining attitudes toward employment protection legislation than individual socioeconomic characteristics (such as employment status or education level). Dechezleprêtre and others (2022) and Dabla-Norris and others (2023) find similar results for climate policies.

Information Strategies to Boost Reform Acceptability

Because knowledge and perceptions of policies strongly influence individuals' attitudes toward structural reforms, this section uses an experimental setup to investigate how providing information about policies affects support for reforms. Survey respondents are randomly assigned at the country level to different groups before their perceptions of and views about policies are elicited in order to test three hypotheses, reported in Table 3.1, regarding the role of information strategies in boosting policy support: (1) providing information on the costs of not reforming (*status quo hypothesis*), (2) explaining the effect of policies (*effect-of-policies hypothesis*), and (3) providing a real-life narrative of immigrants' experiences (*empathy hypothesis*). Comparing responses on policy support by

individuals who receive an information treatment at random with responses of those who do not makes it possible to causally test these hypotheses.⁶

Testing the *status quo hypothesis* is particularly relevant for *PMR reforms*, because these often entail opportunity costs (for example, a missed opportunity to improve competitiveness), which individuals find harder to visualize than actual costs of not reforming, as in the case of unsustainable pension programs (Tompson 2009). The results show that raising awareness of the need for reform has a positive impact on support for *PMR reforms* in the electricity sector (Figure 3.6). Compared with that in the control group, support increases by 4.5 percentage points for respondents who receive the *status quo* treatment.⁷ The effect is also positive, but not statistically significant, for the telecommunications sector. This may reflect that, on average, respondents perceive private participation as higher in the telecommunications sector, so simply informing them that there is room for improvement does not necessarily change their views on allowing private firms to operate in the sector.

However, when information about the need for reform is complemented with research-based evidence on the effect that *PMR reforms* have had on

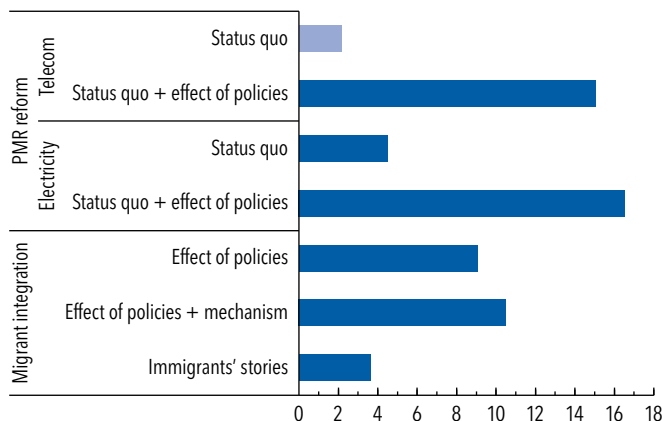
⁶The analysis controls for a rich set of individual characteristics, beliefs and perceptions, and country fixed effects (Online Annex 3.3.2). Moreover, although the survey questions can elicit individuals' policy support directly, one concern is that self-reported preferences may not match real behavior. Several studies have nonetheless shown that when both survey responses and real-world behaviors can be measured, they tend to correlate (for example, Fehr, Epper, and Senn 2021). Although the setting here does not allow real-world behavior to be measured, the survey includes real-stakes questions (for example, gathering willingness to sign a petition) that can serve as a proxy. The results are reported in Online Annex 3.3.2.

⁷In all treatments, respondents are given the sources for the evidence on the effect of policies and links to the relevant publications. Examples of treatments are reported in Online Annex 3.3.2.

Figure 3.6. Effect of Information Strategies on Reform Support

(Additional support relative to the control group, percentage points)

Information strategies that raise awareness about the need for reform and correct misperceptions about how policies work can significantly boost reform support.



Source: IMF staff calculations based on IMF-YouGov survey.

Note: The figure shows the difference in support shares between each treatment group and the control group. Dark-blue bars denote that the difference is statistically significant at the 90 percent confidence level according to the regression analyses in Online Annexes 3.3.1 and 3.3.2. PMR = product market regulation.

price, quality, and access to electricity and telecommunications services in other countries, the effect is stronger and statistically significant in regard to both sectors (the *status quo + effect of policies* treatment in Figure 3.6), lending support to the *effect-of-policies hypothesis*. The share of respondents who would support *PMR reforms* increases by almost 16 percentage points, on average, across sectors, from 41.4 percent in the control group to 57.1 percent among those who receive the treatment.⁸ This additional support is equivalent to 46.7 percent of the share of respondents who oppose *PMR reforms* in the control group.

Similarly, the share of respondents who would support *migrant integration policies* increases by about 9 percentage points between the control group and those who receive the *effect-of-policies* treatment (and the effect is statistically significant).⁹ The treatment effect is also equivalent to 30 percent of the share of respondents who

⁸Providing information about the benefits of easing regulation has also been found to increase support for labor market reforms (see Duval and others 2024).

⁹The *effect-of-policies* treatment is designed to address four potential misperceptions related to key drivers of attitudes toward immigration identified in the literature: labor market concerns, welfare concerns, security concerns, and cultural concerns (Alesina and Tabellini 2024; Dustmann and Preston 2007; Dennison and Dražanová 2018; Dražanová 2020; Haaland and Roth 2020).

oppose *migrant integration policies* in the control group. Moreover, the effect on reform support is even larger (10.5 percentage points) when respondents are given an explanation of the mechanisms underlying the policy effects under the *effect of policies + mechanism* treatment (equivalent to about 42 percent of the share opposed in the control group). Importantly, heterogeneous analysis shows that explaining how policies work is particularly effective in shifting support among respondents with negative stereotypes of immigrants and politically right-leaning respondents (Online Annex Table 3.3.2).

Additional results confirm that the information treatment in both surveys influences reform support by addressing individuals' misperceptions about the effect of policies. It has a statistically significant and large effect on the share of respondents in the PMR survey who perceive competition in the provision of electricity and telecommunications services as beneficial for consumers (Online Annex Table 3.3.1). Similarly, respondents who receive either of the two treatments on the effects of policies are significantly more likely to believe that policies to integrate immigrant workers can have a positive effect on natives' jobs, public finances, and crime rates (Online Annex Table 3.3.2). The effect is stronger in particular for crime rates, suggesting that misperceptions about foreign-born workers and crime are a key channel for support for policies related to migrants.

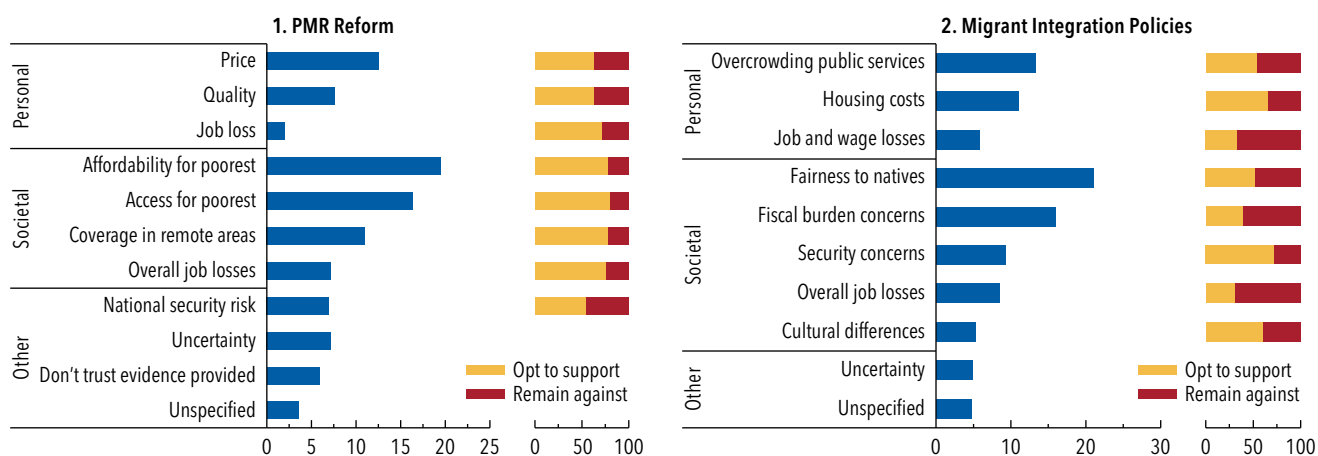
The *empathy hypothesis* is particularly relevant in the context of immigration, in which negative attitudes are often driven by concerns about cultural and work ethic differences (Dennison and Dražanová 2018; Alesina, Miano, and Stantcheva 2023). The treatment evaluates whether appealing to empathy, by highlighting real-life examples of policy-related obstacles faced by immigrants in entering the labor market, has a different impact than providing information on the benefits of integration policies. The treatment is indeed effective in increasing support for *migrant integration policies*, but with a less pronounced effect than for the *effect-of-policies* treatment.

Taken together, the survey experiments show that beliefs not only play a key role in driving reform support but can also be shaped by policy interventions. Providing clear information on the impact of policies is particularly effective in increasing support for reforms.¹⁰

¹⁰Although misinformation campaigns can induce misperceptions and decrease policy support (for instance, Di Tella, Galiani, and Schargrodsky 2012; Alesina and Tabellini 2024), this does not lessen the case for enhancing information efforts by policymakers seeking reform.

Figure 3.7. Reasons for Nonsupport and the Role of Compensatory and Complementary Measures
(Share of responses, percent)

Concerns about the effects of reforms on others, especially the vulnerable, are key obstacles for reform, but adequate mitigating measures can boost support.



Source: IMF staff calculations based on IMF-YouGov survey.

Note: The blue bars show the distribution of respondents' reasons for not supporting the reform (control group only). The yellow (red) bars display the proportion of these respondents that would opt to support (remain against) policies if offered mitigating measures (Online Annex 3.3.3). PMR = product market regulation.

Understanding Individuals' Concerns to Improve Policy Design

Merely explaining the need to reform and how policies can improve outcomes is not enough to secure comprehensive support. Addressing distributional concerns, unintended side effects, and the short-term costs of reforms requires additional strategies, as reflected by the evidence that compensatory or complementary measures have often helped tilt the balance toward securing reform implementation. To shed light on these strategies, the surveys zoom in on individuals who say they would not support policy change. This helps to (1) identify the main reasons for nonsupport and (2) test whether complementing reforms with mitigating measures would change their support.

When responses are grouped according to whether individuals are concerned that policy changes would hurt them directly (personal concerns) or would hurt their communities (societal concerns), the results from the two surveys indicate that societal concerns play a much larger role (Figure 3.7).

- The two most cited concerns against *PMR reforms* are consequences for the poorest households in terms of service affordability and access if private companies are permitted to manage the sector. Taken together, all societal concerns account for more than half of total responses. In turn, self-interest or personal

concerns about the price or quality of services or the possibility of losing one's job represent 22 percent of responses.

- The primary reasons for not supporting *migrant integration policies* are concerns about fairness—specifically, the belief that it is unfair to assist immigrants when many locals struggle to find jobs—followed by worries that public services like hospitals, schools, and public transport may become overcrowded. Self-interest concerns account for 30 percent of responses, with access to public services or housing featuring more prominently than jobs.

Importantly, the results indicate that, irrespective of the concerns raised by respondents, offering tailored complementary and compensatory measures can significantly foster support for reforms (Online Annex 3.3.3). Although results should be interpreted as indicative rather than causal evidence, 50–80 percent of respondents in the control group initially opposed to *PMR reforms* indicate they would change their stance toward support if mitigating measures were taken to address their concerns—for example, respondents who express concerns about the cost and quality of utility services following *PMR reforms* are asked if they would change their support, assuming the government committed to creating an independent regulatory agency (Figure 3.7, panel 1). Further analysis

shows that mitigating measures play an important role in boosting support from individuals who may fear job losses from *PMR reforms*, such as workers in public utility companies or individuals with close connections to them.

The share of respondents who would change their stance varies more across specific concerns and is generally somewhat lower for those initially against *migrant integration policies*, but still sizable, at about 50 percent, on average (Figure 3.7, panel 2). One of the complementary policies that would significantly increase support is international coordination and cooperation. The EU Temporary Protection Directive, enacted in response to the massive inflow of immigrants during the war in Ukraine, is a good example of a cross-country agreement that, together with member states' policies aimed at removing barriers to accessing labor markets, has helped achieve high employment rates for foreign-born workers in record time (Box 3.1).

Individuals who say they would still oppose reforms mostly cite reasons related to trust in the parties involved and doubts about institutions' ability to implement reforms or mitigating measures effectively (Online Annex Table 3.3.3). This is in line with results in OECD (2024) showing that, on average, only 39 percent of the population in a country finds it likely that the government will clearly explain how individuals will be affected by a reform, with lower shares in countries where trust in government is weaker. These findings highlight the importance of designing mechanisms that build trust in the reform process. Examples of such mechanisms include the use of crowdsourcing or participatory budgeting to allow collective understanding, design, and oversight of the reform and compensatory measures (OECD 2022), or the use of pilot cases, as discussed in the next section. The findings also underscore that strengthening trust in public institutions through reforms to address governance and corruption vulnerabilities, as advocated in IMF engagement with member countries (see IMF 1997, 2018), can also pave the way for the successful implementation of labor and product market reforms.

Tools and Strategies for Sustainably Advancing Reform Agendas: Lessons from 11 Country Cases

A historical overview of product and labor market reform attempts suggests that strategies to build consensus are associated with higher chances of implementation. Survey analysis presented earlier in the chapter

Table 3.2. Historical Employment Protection Legislation Reform Episodes

Country Cases	Country Classification at Reform	Reform Status
Bolivia (1985)	LIC	Reversed in 2006
Brazil (2017)	EME	Implemented with some resistance
Denmark (1990s)	AE	Implemented and sustained
France (2015–17)	AE	Implemented with some resistance
Georgia (2006)	LIC	Reversed in 2013
Germany (2003–05)	AE	Implemented with some resistance
India (2014–2020)	EME	Legislated in 2020 but not yet fully implemented
Korea (2016)	AE	Largely withdrawn as a result of resistance
Mexico (2012)	EME	Implemented and sustained
Peru (2008)	EME	Implemented with adjustments
Vietnam (2012)	LIC	New labor code enacted in 2012 and sustained

Source: IMF staff compilation.

Note: AE = advanced economy; EME = emerging market economy; LIC = low-income country.

confirms that effective communication of the need for reform and how policies work can shift individuals' attitudes toward reforms. It also highlights the need to complement reforms with additional measures to address concerns. But how have these strategies been deployed in practice? And what other tools and institutions have helped policymakers sustain reform efforts? To shed light on these questions, this section examines 11 reform episodes in countries of different income levels (Table 3.2; Online Annex 3.4). To facilitate comparability, the analysis focuses on one policy field, employment protection legislation (EPL), in which it has proved particularly difficult to enact reforms over the past four decades. It is also a policy area in which intertemporal trade-offs can lead to strong resistance and political gridlock: the benefits of deregulation accrue only gradually over time, whereas deregulation can lead to higher unemployment and lower wages in the short term (Blanchard and Giavazzi 2003). Understanding what has helped to build consensus and overcome political resistance in this context can be particularly useful for other reform areas that entail similar trade-offs.

Building Consensus for Reform

Despite varying outcomes in terms of implementation status, a commonality among the majority of the successfully legislated reforms has been the achievement of some level of consensus prior to legislation.

In some instances, the necessity for reform was demonstrated by economic crises, such as *Bolivia's* hyperinflation crisis in the 1980s or high unemployment rates in countries such as *Denmark* (early 1990s), *Germany* (early 2000s), and *France* (after the euro area crisis). These situations made it clear that the status quo was unsustainable and changes were needed to revive the labor market and the economy. However, the macroeconomic context alone was neither a sufficient nor a necessary condition for the reforms. Governments needed to employ multiple approaches to successfully garner consensus:

- *Securing explicit electoral mandates for reform.* A strong electoral mandate for policy changes, underpinned by effective communication and far-reaching efforts to convince voters and stakeholders of the need for reform during an electoral campaign, was instrumental in several instances for EPL reform success (Tompson 2009). For example, the economic policy agenda that President Emmanuel Macron proposed for the 2017 *French* presidential election included a labor reform aimed at introducing flexibility in hours worked and collective bargaining, with the goal of reducing unemployment to 7 percent by 2022. In *India's* 2014 elections, the Bharatiya Janata Party campaigned on the “Gujarat model” for growth and development, featuring business-friendly policies with simplified regulatory frameworks and relatively flexible labor laws to attract industries. Successful election outcomes may have signaled some public buy-in of the new government’s economic policy agenda. Strong electoral campaigns also helped in regard to reforms in *Georgia*, *Mexico*, and *Peru*.
- *Extensive communication with key stakeholders.* Engaging early with key stakeholders, such as trade unions and business associations, has also been an effective approach toward communicating the need for EPL reforms. In *Denmark*, continuous social dialogue and tripartite negotiations involving workers, employers, and the government have been a long-standing practice with respect to labor market issues (Petersen 1998). In *France*, the 2007 Larcher Act mandated national-level negotiations between the government and social partners regarding labor law matters, but the 2016 El Khomri law was adopted without prior negotiations and was followed by protests (Gazier 2019).
- *Pilot cases.* Using pilot cases, with key measures usually deployed first in only a few regions, can help

demonstrate the benefits of reforms and build public confidence, particularly for EPL reforms, which often involve substantial up-front costs with delayed and indirect benefits. For instance, pilot projects and evaluations have commonly been employed in *Denmark* when introducing new labor market measures, such as paid leave arrangements (Madsen 1999) and public employment services (Hendeliowitz and Woollhead 2007). Similarly, in *India*, key principles deployed in the states of Gujarat and Rajasthan, which pioneered more flexible labor laws, skill development initiatives, and job creation strategies, were later adopted for national labor law reforms.

- *Policy research and international comparisons.* In *Bolivia* and *Brazil*, for instance, policy analysis by independent researchers helped raise awareness about how much more rigid these countries’ labor markets were compared with those of peers and how deregulation could enhance productivity growth and competitiveness. International financial institutions also played a crucial role in some cases by raising awareness and providing analysis that local authorities could leverage. For example, the IMF stressed the importance of easing restrictive labor laws in *India* during bilateral consultations (see IMF 2012, 2013, 2014). Similarly, the IMF identified labor market rigidities as the most challenging structural problem in *Germany* (IMF 2001) in the early 2000s, and the Organisation for Economic Co-operation and Development identified comprehensive labor reform in *Germany* (OECD 2001) and *France* (OECD 2015) as top priorities.

No single approach has been sufficient on its own to build a strong case for reforms. In nearly all episodes, governments have had to adopt multiple strategies to build consensus, especially when facing strong resistance. This has been particularly evident when trade unions were politically influential yet fragmented—with each representing a small fraction of the labor force and thus hesitant to support any reform that did not directly benefit its own members, even if beneficial for the broader workforce—as in *Bolivia* and *India*, or when achieving consensus required agreements at multiple levels. For example, in *India*, full implementation of new labor codes required both federal and state-level agreements. And sometimes reform adoption has built on numerous previous reform attempts across different administrations, as in *Brazil*, where attempts to increase labor market flexibility can be traced back to the 1990s (de Oliveira 2018).

Carefully Crafted Policy Design

The case studies reviewed indicate that, besides securing strong consensus, a well-articulated policy design that balances the needs of different social interest groups is critical to implementing sustainable reforms. One particularly effective approach is to involve social partners in negotiations during the policy design stage. In *Denmark*, for instance, key policy changes have often been the result of tripartite negotiations among business associations, trade unions, and the government. Similarly, key principles in *Mexico*'s 2012 labor reform were based on extensive parliamentary negotiations among political parties representing diverse social interest groups.

To ease the negative effect of less stringent employment protection on workers, several countries have supplemented flexibility-enhancing reforms with compensatory measures, such as improved social security and unemployment benefits (Online Annex Table 3.4.1). Examples include *Brazil*, *Denmark*, *France*, *Germany*, and *Korea*. Complementary measures to facilitate the reallocation of workers, such as enhanced active labor market policies and training programs, have been included in episodes in *Denmark*, *France*, *Germany*, and *Vietnam*. These measures have often helped garner support for EPL reforms.

Independent research institutes and think tanks can also play a crucial role in facilitating better policy design and communicating the benefits of labor reforms to the public. For instance, during *Germany*'s Hartz reforms, the economic research institutes RWI and ZEW were commissioned to develop a conceptual framework for evaluating draft policies (Hopp 2019). In *France*, independent institutions such as France Stratégie and the CESE not only conduct labor market analyses and policy evaluation but also advise the government and facilitate dialogue with various sectors of society.

Incremental Implementation

Incremental rollout of reform measures, starting with focused areas that do not immediately threaten core benefits of several social groups, is often associated with stronger sustainability of reforms. For instance, an important focus of *Brazil*'s reform was on reducing excessive labor litigation costs, *India*'s labor reform efforts began with consolidating and standardizing minimum wage regulations across all sectors, and *France* started with simplifying collective bargaining. In *Denmark*, although the first wave of labor reforms occurred in the early to mid-1990s, subsequent reforms, including measures targeting youth and long-term unemployment,

extended into the 2010s. Conversely, when governments have pursued multiple substantial market-oriented reforms simultaneously (Online Annex Table 3.4.1), reform implementation has usually been less successful: in *Bolivia* and *Georgia*, for instance, some of the reforms that were enacted were eventually reversed. This could reflect the fact that negotiating extensively in several reform areas at the same time eventually exhausts governments' political capital or that fast-track implementation of multiple substantial reforms does not allow governments to adequately balance social interests.

Conclusions and Policy Implications

Policymakers worldwide are under pressure to revive improvements in living standards and ensure their economies flourish amid ongoing structural changes that present both opportunities and challenges. In this context, it is critical to implement policies and reforms that boost labor participation and facilitate the reallocation of labor and capital to high-productivity firms and growing sectors. Historically, gaining the necessary social and political support to enact and sustain these policies and reforms has been a formidable challenge. This chapter presents several strategies that policymakers can employ to navigate this challenge, enhance the social acceptability of their reform agendas, and thereby increase the chances of successful implementation.

Although the context in which reforms are attempted can sometimes influence the outcomes, it is by no means determinant. Historical evidence shows that active use of multipronged strategies to build consensus is a more reliable predictor of implementation success. These strategies include consultation and communication efforts and mitigating measures to compensate those affected by reforms. However, whether individuals see themselves as winners or losers with regard to prospective policy changes is not determined solely by objective socioeconomic characteristics—such as employment status, education level, or income. Individuals' views on policies—and thus the social acceptability of reforms—are driven largely by beliefs such as trust in government and institutions, distributional concerns, and perceptions about the effects of policies on themselves and their communities (for example, the overall availability of jobs, access to public services for the neediest, and national security).

Importantly, the chapter's analysis, based on randomized survey experiments, shows that certain communication interventions can shift individuals' perceptions and policy views. First, informing them about the cost of not

undertaking necessary structural reforms raises awareness of the need for the reforms and increases support for policy change. Second, trustworthy communication on the economic effects of policies is effective in correcting misperceptions. For instance, providing research-based evidence on the impact on crime rates of granting work permits to foreign-born workers significantly boosts support for policies to facilitate these workers' integration into labor markets. Although the survey experiments conducted for this chapter focus on specific policies, the consistency of results across distinct policy fields and countries at different stages of development lends support to the general applicability of their policy implications.

The lessons from the chapter's survey analysis and review of country-specific reform episodes extend far beyond simply improving communication or market-reforming reforms. An effective communication strategy must be supported by a strong institutional framework that fosters trust among all stakeholders and the general population. For instance, the chapter's review of historical cases underscores the importance of independent policy research to build awareness of the need for reform and to achieve consensus. Establishing credible and independent public bodies—such as the CPB Netherlands Bureau for Economic Policy Analysis, the Productivity Commission in Australia, or the Conseil d'orientation des retraites in France—that conduct and validate policy analysis can be particularly helpful (Tompson 2009).

At the same time, dialogue needs to take place in both directions. For instance, the case studies examined in the chapter indicate that not only consultation with stakeholders, but also their involvement in the reform design stage, plays a key role for reform sustainability. Policymakers across the globe are appropriately scaling up their toolkits to incorporate citizens' views into the policy design process. Examples of tools deployed to foster an effective two-way dialogue include large-scale surveys (Blanchard and Tirole 2021), scenario planning (Volkery and Ribeiro 2009), participatory budgeting (OECD 2022; Nicol and Burn-Murdoch 2024), laboratories to evaluate policies through focus groups and pilots (such as the Avaluu-lab in Valencia), and open town hall meetings (such as the Grand débat national organized in response to the Yellow Vest movement in France). New civic technologies, such as digital community engagement platforms, are also opening the potential to improve representation and citizen participation processes (see further discussion and examples in Stankova 2019 and OECD 2022). These tools can help identify individuals' concerns and find

mitigating measures that increase reforms' acceptability. As the chapter's survey results show, these measures do not always involve compensating those who lose out, which needs to be balanced against fiscal constraints. Sometimes they entail providing the necessary institutional framework and participatory mechanisms to build trust regarding a reform, which can be achieved even in a fiscally constrained environment.

Finally, the chapter's findings underscore how lack of trust can drive resistance to policy change, even when the benefits of reforms are explained and mitigating measures are considered. For instance, in the context of the experimental surveys discussed in the chapter, the main reason cited by respondents for ultimately not supporting policy change is lack of trust in the parties involved in the reform and, notably, skepticism about governments' ability to implement an adequate reform or deliver mitigating measures. Some mechanism designs have proved useful for reducing mistrust in the context of specific reforms. For instance, the Islamic Republic of Iran handed out cash transfers ahead of phasing out subsidies in a 2010 reform (Guillaume, Zytek, and Farzin 2011). Although funds from the transfers could not be withdrawn until the reform was implemented, the fact that individuals could see the deposits in their accounts raised confidence regarding the compensation plan. However, changing deep-rooted values, like trust, is not an easy task and takes time (Tabellini 2008). Countries that manage to leverage early engagement and effective communication to unlock reform support typically have a high degree of mutual trust rooted in many decades of dialogue among social partners.

Previous IMF studies have underscored the importance of “first-generation” governance reforms—such as enhancing the rule of law, controlling corruption, and establishing an impartial public administration—for economic growth (see Chapter 3 of the October 2019 WEO; and Budina and others 2023). The findings in this chapter indicate that strengthening governance can also be critical to successful passage of second-generation reforms in product and labor markets. The importance of carefully designing policy changes and advancing governance reforms to overcome trust deficits also needs to be reflected in IMF program design.

In summary, effective reform design should involve thorough consultation and communication. Expanding policymaking toolkits to enable a more participative reform process not only strengthens public understanding of reform proposals but also reinforces trust in public institutions, leading to greater social acceptance and successful implementation of policies.

Box 3.1. Policies to Facilitate the Integration of Ukrainian Refugees into the European Labor Market: Early Evidence

The integration of immigrants into the EU labor market during 2022–23 was significantly faster than in the past. Following a slump in global migration as the pandemic shut down borders, immigration into the EU reached a historic high in 2022—driven by more than 4 million refugees from Ukraine—and remained above prepandemic levels in 2023. About two-thirds of jobs created between the end of 2019 and the end of 2023 were filled by non-EU citizens, even as the unemployment rate for EU citizens remained at record lows.¹ Available data suggest that Ukrainian refugees integrated into EU labor markets noticeably faster than previous waves of refugees. Several countries have already estimated employment rates among Ukrainian refugees at about or above 50 percent, which is usually achieved only five or more years after arrival (OECD 2023). Migrants have helped meet unprecedented labor demand during this period.

Among other factors, the EU Temporary Protection Directive (TPD), along with member states' efforts, played a crucial role in the swift integration of foreign-born workers in the recent episode. The TPD provided immediate protection and rights across countries, including residency rights, access to housing and social welfare assistance, medical or other assistance, and means of subsistence. At the same time, many EU member states removed barriers to ensure

access to the labor market.² For instance, they simplified entry requirements for certain regulated professions and provided a range of measures to facilitate access to the labor market, including language courses, skills validation and recognition of qualifications, skills mapping, financial incentives for employers to recruit TPD beneficiaries, and on-the-job training (EMN 2024). Other factors also facilitated swift labor market integration during the recent episode. First, survey data show that individuals displaced from Ukraine are highly educated, with most having a tertiary education (Caselli and others 2024). Second, a tight labor market in many EU countries also supported fast integration. Nevertheless, as is common in regard to immigrants, there is evidence of widespread worker overqualification and skills mismatches (EMN 2024), which points to further room for improvement in immigrant integration policies.

The recent experience offers important policy lessons. Granting asylum seekers early access to private and public sector labor markets and self-employment, as the current TPD has done for Ukrainian refugees, is a key prerequisite for their speedy integration into workforces (Aiyar and others 2016). The availability of language courses is also crucial to enabling immigrants to overcome one of the most important barriers to obtaining a job. Finally, simplified entry requirements for certain regulated professions, skills validation, and recognition of qualifications are also important elements for successful integration of refugees.

The authors of this box are Francesca Caselli and Frederik Toscani.

¹It is still too early to assess the effect of the recent immigration wave on native workers' wages.

²For specific country examples, see EMN (2024) and Caselli and others (2024).

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STATISTICAL APPENDIX

The Statistical Appendix presents historical data as well as projections. It comprises eight sections: Assumptions, What's New, Data and Conventions, Country Notes, Classification of Economies, General Features and Composition of Groups in the *World Economic Outlook* Classification, Key Data Documentation, and Statistical Tables.

The first section summarizes the assumptions underlying the estimates and projections for 2024–25. The second section briefly describes the changes to the database and statistical tables since the April 2024 *World Economic Outlook* (WEO). The third section offers a general description of the data and the conventions used for calculating country group composites. The fourth section presents selected key information for each country. The fifth section summarizes the classification of economies in the various groups presented in the WEO, and the sixth section explains that classification in further detail. The seventh section provides information on methods and reporting standards for the member countries' national account and government finance indicators included in the report.

The last, and main, section comprises the statistical tables. Statistical Appendix A is included here; Statistical Appendix B is available online at www.imf.org/en/Publications/WEO.

Data in these tables have been compiled on the basis of information available through October 7, 2024, but may not reflect the latest published data in all cases. For the date of the last data update for each economy, please refer to the notes provided in the online WEO database. The figures for 2024–25 are shown with the same degree of precision as the historical figures solely for convenience; because they are projections, the same degree of accuracy is not to be inferred.

Assumptions

Real *effective exchange* rates for the advanced economies are assumed to remain constant at their average levels measured during July 30, 2024–August 27, 2024. For 2024 and 2025 these assumptions imply average US dollar–special drawing right conversion rates of 1.331 and 1.341, US dollar–euro conversion

rates¹ of 1.090 and 1.097, and yen–US dollar conversion rates of 150.0 and 143.6, respectively.

It is assumed that the *price of oil* will average \$81.29 a barrel in 2024 and \$72.84 a barrel in 2025.

National authorities' established *policies* are assumed to be maintained. Box A1 describes the more specific policy assumptions underlying the projections for selected economies.

With regard to *interest rates*, it is assumed that the *three-month government bond yield* for the United States will average 5.4 percent in 2024 and 3.9 percent in 2025, that for the euro area will average 3.5 percent in 2024 and 2.8 percent in 2025, and that for Japan will average 0.1 percent in 2024 and 0.5 percent in 2025. Further it is assumed that the *10-year government bond yield* for the United States will average 4.1 percent in 2024 and 3.5 percent in 2025, that for the euro area will average 2.4 percent in 2024 and 2.5 percent in 2025, and that for Japan will average 1.0 percent in 2024 and 1.3 percent in 2025.

What's New

- Following the recent release of the 2021 survey by the World Bank Group's International Comparison Program for new purchasing-power-parity benchmarks, the WEO's estimates of purchasing-power-parity weights and GDP valued at purchasing power parity have been updated. For more details, see Box A2.
- For *Bangladesh*, fiscal year estimates of real GDP and purchasing-power-parity GDP are now used in country group aggregates.
- For *Zimbabwe*, the authorities have recently redenominated their national accounts statistics following the introduction on April 5, 2024, of a new national currency, the Zimbabwe gold, replacing the Zimbabwe dollar. The use of the Zimbabwe dollar ceased on April 30, 2024.

¹In regard to the introduction of the euro, on December 31, 1998, the Council of the European Union decided that, effective January 1, 1999, the irrevocably fixed conversion rates between the euro and currencies of the member countries adopting the euro are as described in Box 5.4 of the October 1998 WEO. See that box as well for details on how the conversion rates were established. For the most recent table of fixed conversion rates, see the Statistical Appendix of the April 2023 WEO.

Data and Conventions

Data and projections for 196 economies form the statistical basis of the WEO database. The data are maintained jointly by the IMF's Research Department and regional departments, with the latter regularly updating country projections based on consistent global assumptions.

Although national statistical agencies are the ultimate providers of historical data and definitions, international organizations are also involved in statistical issues, with the objective of harmonizing methodologies for the compilation of national statistics, including analytical frameworks, concepts, definitions, classifications, and valuation procedures used in the production of economic statistics. The WEO database reflects information from both national source agencies and international organizations.

Most countries' macroeconomic data as presented in the WEO conform broadly to the 2008 version of the *System of National Accounts* (SNA 2008). The IMF's sector statistical standards—the sixth edition of the *Balance of Payments and International Investment Position Manual* (BPM6), the *Monetary and Financial Statistics Manual and Compilation Guide*, and the *Government Finance Statistics Manual 2014* (GFSM 2014)—have been aligned with the SNA 2008. These standards reflect the IMF's special interest in countries' external positions, monetary developments, financial sector stability, and public sector fiscal positions. The process of adapting country data to the new standards begins in earnest when revised versions of the manuals are released. However, full concordance with the most recent versions of the manuals is ultimately dependent on the provision by national statistical compilers of revised country data; hence, the WEO estimates are only partly adapted to the most recent versions of these manuals. Nonetheless, for many countries, conversion to the updated standards will have only a small impact on major balances and aggregates. Many other countries have partly adopted the latest standards and will continue implementation over a number of years.²

The fiscal gross and net debt data reported in the WEO are drawn from official data sources and IMF

staff estimates. While attempts are made to align data on gross and net debt with the definitions in the GFSM 2014, as a result of data limitations or specific country circumstances, these data can sometimes deviate from the formal definitions. Although every effort is made to ensure the WEO data are relevant and internationally comparable, differences in both sectoral and instrument coverage mean that the data are not universally comparable. As more information becomes available, changes in either data sources or instrument coverage can give rise to data revisions that are sometimes substantial. For clarification on the deviations in sectoral or instrument coverage, please refer to the metadata for the online WEO database.

Composite data for country groups in the WEO are either sums or weighted averages of data for individual countries. Unless noted otherwise, multiyear averages of growth rates are expressed as compound annual rates of change.³ Arithmetically weighted averages are used for all data for the emerging market and developing economies group—except data on inflation and money growth, for which geometric averages are used. The following conventions apply:

Country group composites for exchange rates, interest rates, and growth rates of monetary aggregates are weighted by GDP converted to US dollars at market exchange rates (averaged over the preceding three years) as a share of group GDP.

Composites for other data relating to the domestic economy, whether growth rates or ratios, are weighted by GDP valued at purchasing power parity as a share of total world or group GDP.⁴ For the aggregation of inflation in advanced economies (and subgroups), annual rates are simple percent changes from the previous years; for the aggregation of world inflation and inflation in emerging market and developing economies (and subgroups), annual rates are based on logarithmic differences.

³Averages for real GDP, inflation, GDP per capita, and commodity prices are calculated based on the compound annual rate of change, except in the case of the unemployment rate, which is based on the simple arithmetic average.

⁴See Box A2 in the Statistical Appendix of the October 2024 WEO for a summary of the revised purchasing-power-parity-based weights as well as Box 1.1 of the October 2020 WEO, "Revised Purchasing Power Parity Weights" in the July 2014 WEO *Update*, Appendix 1.1 of the April 2008 WEO, Box A2 of the April 2004 WEO, Box A1 of the May 2000 WEO, and Annex IV of the May 1993 WEO. See also Anne-Marie Gulde and Marianne Schulze-Ghattas, "Purchasing Power Parity Based Weights for the *World Economic Outlook*," in *Staff Studies for the World Economic Outlook* (Washington, DC: International Monetary Fund, December 1993), 106–23.

²Many countries are implementing the SNA 2008 or European System of National and Regional Accounts 2010, and a few countries use versions of the SNA older than that from 1993. A similar adoption pattern is expected for the BPM6 and GFSM 2014. Please refer to Table G, which lists the statistical standards to which each country adheres.

Composites for real GDP per capita in *purchasing-power-parity* terms are sums of individual country data after conversion to international dollars in the years indicated.

Unless noted otherwise, composites for all sectors for the euro area are corrected for reporting discrepancies in transactions within the area. Unadjusted annual GDP data are used for the euro area and for the majority of individual countries, except Cyprus, Ireland, Portugal, and Spain, which report calendar-adjusted data. For data prior to 1999, data aggregations apply 1995 European currency unit exchange rates.

Composites for fiscal data are sums of individual country data after conversion to US dollars at the average market exchange rates in the years indicated.

Composite unemployment rates and employment growth are weighted by labor force as a share of group labor force.

Composites relating to external sector statistics are sums of individual country data after conversion to US dollars at the average market exchange rates in the years indicated for balance of payments data and at end-of-year market exchange rates for debt denominated in currencies other than US dollars.

Composites of changes in foreign trade volumes and prices, however, are arithmetic averages of percent changes for individual countries weighted by the US dollar value of exports or imports as a share of total world or group exports or imports (in the preceding year).

Unless noted otherwise, group composites are computed if 90 percent or more of the share of group weights is represented.

Data refer to calendar years, except in the case of a few countries that use fiscal years; Table F lists the economies with exceptional reporting periods for national accounts and government finance data.

For some countries, the figures for 2023 and earlier are based on estimates rather than actual outturns; Table G lists the latest actual outturns for the indicators in the national accounts, prices, government finance, and balance of payments for each country.

Country Notes

Afghanistan: Data for 2021–23 are reported for selected indicators, with estimates for fiscal data. Estimates and projections for 2024–29 are omitted because of an unusually high degree of uncertainty given that the IMF has paused its engagement with Afghanistan

owing to a lack of clarity within the international community regarding the recognition of a government in the country. Data reported in the WEO contain a structural break in 2021 as a result of the change from calendar year to solar year reporting; the actual reported GDP growth rate for solar year 2021 is –20.7 percent.

Algeria: Total government expenditure and net lending/borrowing include net lending by the government, which mostly reflects support to the pension system and other public sector entities.

Argentina: The official national consumer price index (CPI) starts in December 2016. For earlier periods, CPI data for Argentina reflect the Greater Buenos Aires Area CPI (prior to December 2013); the national CPI (IPCNU, December 2013 to October 2015); the City of Buenos Aires CPI (November 2015 to April 2016); and the Greater Buenos Aires Area CPI (May 2016 to December 2016). Given limited comparability of these series because of differences in geographic coverage, weights, sampling, and methodology, the WEO does not report average CPI inflation for 2014–16 and end-of-period inflation for 2015–16. Also, Argentina discontinued the publication of labor market data starting in the fourth quarter of 2015, and new series became available starting in the second quarter of 2016.

Costa Rica: The central government definition was expanded as of January 1, 2021, to include 51 public entities in accordance with Law 9524. Data back to 2019 are adjusted for comparability.

Dominican Republic: The fiscal series have the following coverage: public debt, debt service, and the cyclically adjusted/structural balances are for the consolidated public sector (which includes the central government, the rest of the nonfinancial public sector, and the central bank); the remaining fiscal series are for the central government.

Eritrea: Data and projections for 2020–29 are excluded from the database because of constraints in data reporting.

India: Real GDP growth rates are calculated in accordance with national accounts with base year 2011/12.

Iran: Historical figures for nominal GDP in US dollars are computed using the official exchange rate up to 2017. From 2018 onward, the NIMA (the country's domestic Forex Management Integrated System) exchange rate, rather than the official exchange rate, is used to convert nominal rial GDP figures into US dollars. The IMF staff assesses that the NIMA rate better reflects the transaction-value-weighted exchange rate in the economy over that period of time.

Israel: Projections are subject to heightened uncertainty owing to the conflict in the region and thus may undergo revisions.

Lebanon: Fiscal and national accounts data for 2022–23 as well as debt data for 2023 are IMF staff estimates and not provided by the national authorities. Estimates and projections for 2024–29 are omitted owing to an unusually high degree of uncertainty.

Sierra Leone: Although the currency was redenominated on July 1, 2022, local currency data are expressed in the old leone for the October 2024 WEO.

Sri Lanka: Data and projections for 2023–29 are excluded from publication owing to ongoing discussions on restructuring of sovereign debt.

Sudan: Projections reflect the IMF staff’s analysis based on the assumption that the ongoing conflict will terminate by the end of 2024 and that reengagement and reconstruction will commence shortly thereafter. Data for 2011 exclude South Sudan after July 9; data for 2012 and onward pertain to the current Sudan.

Syria: Data are excluded from 2011 onward because of the uncertain political situation.

Timor-Leste: Published data for real GDP refer to non-oil real GDP, while published data for nominal GDP refer to total nominal GDP.

Turkmenistan: Real GDP data are IMF staff estimates compiled in line with international methodologies (SNA), using official estimates and sources as well as United Nations and World Bank databases. Estimates of and projections for the fiscal balance exclude receipts from domestic bond issuances as well as privatization operations, in line with GFSM 2014. The authorities’ official estimates for fiscal accounts, which are compiled using domestic statistical methodologies, include bond issuance and privatization proceeds as part of government revenues.

Ukraine: Revised data for national accounts are available for 2000 and after and exclude Crimea and Sevastopol from 2010 onward.

Uruguay: In December 2020 the authorities began reporting national accounts data according to the SNA 2008, with base year of 2016. The new series begin in 2016. Data prior to 2016 reflect the IMF staff’s best effort to preserve previously reported data and avoid structural breaks.

Starting in October 2018 *Uruguay’s* public pension system received transfers in the context of Law 19,590 of 2017, which compensates persons affected by the creation of the country’s mixed pension system. These funds are recorded as revenues, consistent with the

IMF’s methodology. Therefore, data for 2018–22 are affected by these transfers, which amounted to 1.2 percent of GDP in 2018, 1.0 percent of GDP in 2019, 0.6 percent of GDP in 2020, 0.3 percent of GDP in 2021, 0.1 percent of GDP in 2022, and 0 percent thereafter. See IMF Country Report 19/64 for further details.⁵ The disclaimer about the public pension system applies only to the revenues and net lending/borrowing series.

The coverage of the fiscal data for *Uruguay* was changed from consolidated public sector to nonfinancial public sector with the October 2019 WEO. In *Uruguay*, nonfinancial public sector coverage includes the central government, local government, social security funds, nonfinancial public corporations, and Banco de Seguros del Estado. Historical data were also revised accordingly. Under this narrower fiscal perimeter—which excludes the central bank—assets and liabilities held by the nonfinancial public sector for which the counterpart is the central bank are not netted out in debt figures. In this context, capitalization bonds issued in the past by the government to the central bank are now part of the nonfinancial public sector debt.

Venezuela: Projecting the economic outlook, including assessing past and current economic developments used as the basis for the projections, is rendered difficult by the lack of discussions with the authorities (the most recent Article IV consultation took place in 2004), incomplete metadata for limited reported statistics, and difficulties in reconciling reported indicators with economic developments. The fiscal accounts include the budgetary central government; social security; FOGADE (the country’s deposit insurance institution); and a reduced set of public enterprises, including *Petróleos de Venezuela, S.A.* Following some methodological upgrades to achieve a more robust nominal GDP, historical data and indicators expressed as a percentage of GDP have been revised from 2012 onward. For most indicators, data for 2018–22 are IMF staff estimates. The effects of hyperinflation and the paucity of reported data mean that the IMF staff’s projected macroeconomic indicators should be interpreted with caution. Broad uncertainty surrounds these projections. *Venezuela’s* consumer prices are excluded from all WEO group composites.

West Bank and Gaza: Projections for 2024–29 are excluded from publication owing to the unusually high

⁵*Uruguay: Staff Report for the 2018 Article IV Consultation*, Country Report 19/64 (Washington, DC: International Monetary Fund, February 2019).

degree of uncertainty. Annual data for the unemployment rate are available up to 2022.

Zimbabwe: The Zimbabwe authorities have recently redenominated their national accounts statistics following the introduction on April 5, 2024, of a new national currency, the Zimbabwe gold, replacing the Zimbabwe dollar. The use of the Zimbabwe dollar ceased on April 30, 2024.

Classification of Economies

Summary of the Economy Classification

The economy classification in the WEO divides the world into two major groups: advanced economies and emerging market and developing economies.⁶ This classification is not based on strict criteria, economic or otherwise, and has evolved over time. The objective is to facilitate analysis by providing a reasonably meaningful method of organizing data. Table A provides an overview of the classification, showing the number of economies in each group by region and summarizing some key indicators of their relative size (GDP valued at purchasing power parity, total exports of goods and services, and population).

Some economies remain outside the classification and therefore are not included in the analysis. Cuba and the Democratic People's Republic of Korea are examples of economies that are not IMF members, and the IMF therefore does not monitor them.

General Features and Composition of Groups in the World Economic Outlook Classification

Advanced Economies

Table B lists the 41 advanced economies. The seven largest in terms of GDP based on market exchange rates—the United States, Japan, Germany, France, Italy, the United Kingdom, and Canada—constitute the subgroup of major advanced economies, often referred to as the Group of Seven. The members of the euro area are also distinguished as a subgroup. Composite data shown in the tables for the euro area cover the current members for all years, even though the membership has increased over time.

⁶As used here, the terms “country” and “economy” do not always refer to a territorial entity that is a state as understood by international law and practice. Some territorial entities included here are not states, although their statistical data are maintained on a separate and independent basis.

Table C lists the member countries of the European Union, not all of which are classified as advanced economies in the WEO.

Emerging Market and Developing Economies

The group of emerging market and developing economies (155) comprises all those that are not classified as advanced economies.

The regional breakdowns of emerging market and developing economies employed in the WEO are emerging and developing Asia; emerging and developing Europe (sometimes also referred to as “central and eastern Europe”); Latin America and the Caribbean; Middle East and Central Asia (which comprises the regional subgroups Caucasus and Central Asia; and Middle East, North Africa, Afghanistan, and Pakistan); and sub-Saharan Africa.

Emerging market and developing economies are also classified according to *analytical criteria* that reflect the composition of export earnings and a distinction between net creditor and net debtor economies. Tables D and E show the detailed composition of emerging market and developing economies in the regional and analytical groups.

The analytical criterion *source of export earnings* distinguishes between the categories *fuel* (Standard International Trade Classification [SITC] 3) and *nonfuel* and then focuses on *nonfuel primary products* (SITCs 0, 1, 2, 4, and 68). Economies are categorized into one of these groups if their main source of export earnings exceeded 50 percent of total exports on average between 2019 and 2023.

The financial and income criteria focus on *net creditor economies*, *net debtor economies*, *heavily indebted poor countries* (HIPC), *low-income developing countries* (LIDCs), and *emerging market and middle-income economies* (EMMIEs). Economies are categorized as net debtors when their latest net international investment position, where available, was less than zero or their current account balance accumulations from 1972 (or earliest available data) to 2023 were negative. Net debtor economies are further differentiated on the basis of *experience with debt servicing*.⁷

The HIPC group comprises the countries that are or have been considered by the IMF and the World Bank for participation in their debt initiative known as

⁷During 2019–23, 41 economies incurred external payments arrears or entered into official or commercial bank debt-rescheduling agreements. This group is referred to as *economies with arrears and/or rescheduling during 2019–23*.

the HIPC Initiative, which aims to reduce the external debt burdens of all the eligible HIPCs to a “sustainable” level in a reasonably short period of time.⁸ Many of these countries have already benefited from debt relief and have graduated from the initiative.

⁸See David Andrews, Anthony R. Boote, Syed S. Rizavi, and Sukwinder Singh, “Debt Relief for Low-Income Countries: The Enhanced HIPC Initiative,” IMF Pamphlet Series 51 (Washington, DC: International Monetary Fund, November 1999).

The LIDCs are countries that have per capita income levels below a certain threshold (based on \$2,700 in 2017 as measured by the World Bank’s Atlas method and updated following new information in early 2024), structural features consistent with limited development and structural transformation, and external financial linkages insufficiently close for them to be widely seen as emerging market economies.

The EMMIEs are those emerging market and developing economies not classified as LIDCs.

Table A. Classification by World Economic Outlook Groups and Their Shares in Aggregate GDP, Exports of Goods and Services, and Population, 2023¹*(Percent of total for group or world)*

	Number of Economies	GDP ¹		Exports of Goods and Services		Population	
		Advanced Economies	World	Advanced Economies	World	Advanced Economies	World
Advanced Economies	41	100.0	40.7	100.0	61.8	100.0	13.8
United States		37.0	15.0	16.1	9.9	30.7	4.2
Euro Area	20	29.3	11.9	42.6	26.3	31.8	4.4
Germany		7.8	3.2	11.2	6.9	7.7	1.1
France		5.6	2.3	5.5	3.4	6.0	0.8
Italy		4.7	1.9	4.1	2.5	5.4	0.7
Spain		3.4	1.4	3.2	2.0	4.4	0.6
Japan		8.5	3.5	4.8	3.0	11.4	1.6
United Kingdom		5.5	2.2	5.6	3.5	6.2	0.9
Canada		3.3	1.4	3.7	2.3	3.7	0.5
Other Advanced Economies	17	16.4	6.7	27.2	16.8	16.2	2.2
<i>Memorandum</i>							
Major Advanced Economies	7	72.4	29.5	50.9	31.5	71.2	9.9
		Emerging Market and Developing Economies	World	Emerging Market and Developing Economies	World	Emerging Market and Developing Economies	World
Emerging Market and Developing Economies	155	100.0	59.3	100.0	38.2	100.0	86.2
Regional Groups							
Emerging and Developing Asia	30	56.7	33.6	49.4	18.9	55.3	47.6
China		31.6	18.7	29.7	11.3	20.7	17.9
India		13.4	7.9	6.6	2.5	21.0	18.1
Emerging and Developing Europe	15	13.2	7.8	15.6	6.0	5.4	4.6
Russia		6.0	3.5	3.9	1.5	2.2	1.9
Latin America and the Caribbean	33	12.3	7.3	14.1	5.4	9.5	8.2
Brazil		4.1	2.4	3.3	1.3	3.1	2.7
Mexico		2.9	1.7	5.5	2.1	1.9	1.7
Middle East and Central Asia	32	12.3	7.3	16.8	6.4	13.1	11.3
Saudi Arabia		1.9	1.1	3.1	1.2	0.5	0.4
Sub-Saharan Africa	45	5.4	3.2	4.1	1.6	16.8	14.4
Nigeria		1.3	0.8	0.5	0.2	3.3	2.8
South Africa		0.9	0.5	1.1	0.4	0.9	0.8
Analytical Groups²							
By Source of Export Earnings							
Fuel	26	9.8	5.8	16.0	6.1	9.7	8.4
Nonfuel	127	90.2	53.5	84.0	32.1	90.2	77.7
Of which, Primary Products	35	4.9	2.9	5.0	1.9	9.3	8.0
By External Financing Source							
Net Debtor Economies	118	48.8	28.9	42.5	16.2	67.1	57.8
Of which, Economies with Arrears and/or Rescheduling during 2019-23	41	5.7	3.4	3.9	1.5	12.6	10.9
Other Groups²							
Emerging Market and Middle-Income Economies	96	92.9	55.1	96.0	36.7	77.2	66.5
Low-Income Developing Countries	58	7.1	4.2	4.0	1.5	22.8	19.7
Heavily Indebted Poor Countries	39	2.9	1.7	2.1	0.8	12.8	11.1

¹ GDP shares are based on the purchasing-power-parity valuation of economies' GDP. The number of economies comprising each group reflects those for which data are included in the group aggregates.

² Syria and West Bank and Gaza are omitted from group composites for source of export earnings, and Syria is omitted from group composites for net external position, because of insufficient data. Syria is not included in Emerging Market and Middle-Income Economies or Low-Income Developing Countries.

Table B. Advanced Economies by Subgroup

Major Currency Areas		
United States		
Euro Area		
Japan		
Euro Area		
Austria	Germany	Malta
Belgium	Greece	The Netherlands
Croatia	Ireland	Portugal
Cyprus	Italy	Slovak Republic
Estonia	Latvia	Slovenia
Finland	Lithuania	Spain
France	Luxembourg	
Major Advanced Economies		
Canada	Italy	United States
France	Japan	
Germany	United Kingdom	
Other Advanced Economies		
Andorra	Israel	San Marino
Australia	Korea	Singapore
Czech Republic	Macao SAR ²	Sweden
Denmark	New Zealand	Switzerland
Hong Kong SAR ¹	Norway	Taiwan Province of China
Iceland	Puerto Rico	

¹ On July 1, 1997, Hong Kong was returned to the People's Republic of China and became a Special Administrative Region of China.

² On December 20, 1999, Macao was returned to the People's Republic of China and became a Special Administrative Region of China.

Table C. European Union

Austria	France	Malta
Belgium	Germany	The Netherlands
Bulgaria	Greece	Poland
Croatia	Hungary	Portugal
Cyprus	Ireland	Romania
Czech Republic	Italy	Slovak Republic
Denmark	Latvia	Slovenia
Estonia	Lithuania	Spain
Finland	Luxembourg	Sweden

Table D. Emerging Market and Developing Economies by Region and Main Source of Export Earnings¹

	Fuel	Nonfuel Primary Products
Emerging and Developing Asia		
	Brunei Darussalam	Kiribati
	Timor-Leste	Marshall Islands
		Mongolia
		Papua New Guinea
		Solomon Islands
		Tuvalu
Latin America and the Caribbean		
	Ecuador	Argentina
	Guyana	Bolivia
	Venezuela	Chile
		Paraguay
		Peru
		Suriname
		Uruguay
Middle East and Central Asia		
	Algeria	Afghanistan
	Azerbaijan	Mauritania
	Bahrain	Somalia
	Iran	Sudan
	Iraq	Tajikistan
	Kazakhstan	
	Kuwait	
	Libya	
	Oman	
	Qatar	
	Saudi Arabia	
	Turkmenistan	
	United Arab Emirates	
	Yemen	
Sub-Saharan Africa		
	Angola	Benin
	Chad	Botswana
	Republic of Congo	Burkina Faso
	Equatorial Guinea	Burundi
	Gabon	Central African Republic
	Nigeria	Democratic Republic of the Congo
	South Sudan	Eritrea
		Ghana
		Guinea
		Guinea-Bissau
		Liberia
		Malawi
		Mali
		Sierra Leone
		South Africa
		Zambia
		Zimbabwe

¹ Emerging and developing Europe is omitted from the table because no economies in the group have fuel or nonfuel primary products as the main source of export earnings.

Table E. Emerging Market and Developing Economies by Region, Net External Position, Heavily Indebted Poor Countries, and Per Capita Income Classification

	Net External Position ¹	Heavily Indebted Poor Countries ²	Per Capita Income Classification ³		Net External Position ¹	Heavily Indebted Poor Countries ²	Per Capita Income Classification ³
Emerging and Developing Asia							
Bangladesh	*		*	Poland	*		•
Bhutan	*		*	Romania	*		•
Brunei Darussalam	•		•	Russia	•		•
Cambodia	*		*	Serbia	*		•
China	•		•	Türkiye	*		•
Fiji	*		•	Ukraine	*		•
India	*		•	Latin America and the Caribbean			
Indonesia	*		•	Antigua and Barbuda	*		•
Kiribati	•		*	Argentina	•		•
Lao P.D.R.	*		*	Aruba	*		•
Malaysia	•		•	The Bahamas	*		•
Maldives	*		•	Barbados	*		•
Marshall Islands	•		•	Belize	*		•
Micronesia	•		•	Bolivia	*	•	•
Mongolia	*		•	Brazil	*		•
Myanmar	*		*	Chile	*		•
Nauru	•		•	Colombia	*		•
Nepal	*		*	Costa Rica	*		•
Palau	*		•	Dominica	*		•
Papua New Guinea	*		*	Dominican Republic	*		•
Philippines	*		•	Ecuador	*		•
Samoa	*		•	El Salvador	*		•
Solomon Islands	*		*	Grenada	*		•
Sri Lanka	*		•	Guatemala	*		•
Thailand	•		•	Guyana	•	•	•
Timor-Leste	•		*	Haiti	*	•	*
Tonga	*		•	Honduras	*	•	*
Tuvalu	•		•	Jamaica	*		•
Vanuatu	*		•	Mexico	*		•
Vietnam	•		•	Nicaragua	*	•	*
Emerging and Developing Europe				Panama	*		•
Albania	*		•	Paraguay	*		•
Belarus	*		•	Peru	*		•
Bosnia and Herzegovina	*		•	St. Kitts and Nevis	*		•
Bulgaria	*		•	St. Lucia	*		•
Hungary	*		•	St. Vincent and the Grenadines	*		•
Kosovo	*		•	Suriname	*		•
Moldova	*		*	Trinidad and Tobago	•		•
Montenegro	*		•	Uruguay	*		•
North Macedonia	*		•	Venezuela	•		•

Table E. Emerging Market and Developing Economies by Region, Net External Position, Heavily Indebted Poor Countries, and Per Capita Income Classification (continued)

	Net External Position ¹	Heavily Indebted Poor Countries ²	Per Capita Income Classification ³		Net External Position ¹	Heavily Indebted Poor Countries ²	Per Capita Income Classification ³
Middle East and Central Asia				Cameroon	*	•	*
Afghanistan	•	•	*	Central African Republic	*	•	*
Algeria	•		•	Chad	*	•	*
Armenia	*		•	Comoros	*	•	*
Azerbaijan	•		•	Democratic Republic of the Congo	*	•	*
Bahrain	•		•	Republic of Congo	*	•	*
Djibouti	*		*	Côte d'Ivoire	*	•	*
Egypt	*		•	Equatorial Guinea	•		•
Georgia	*		•	Eritrea	•	*	*
Iran	•		•	Eswatini	•		•
Iraq	•		•	Ethiopia	*	•	*
Jordan	*		•	Gabon	•		•
Kazakhstan	*		•	The Gambia	*	•	*
Kuwait	•		•	Ghana	*	•	*
Kyrgyz Republic	*		*	Guinea	*	•	*
Lebanon	*		•	Guinea-Bissau	*	•	*
Libya	•		•	Kenya	*		*
Mauritania	*	•	*	Lesotho	*		*
Morocco	*		•	Liberia	*	•	*
Oman	*		•	Madagascar	*	•	*
Pakistan	*		•	Malawi	*	•	*
Qatar	•		•	Mali	*	•	*
Saudi Arabia	•		•	Mauritius	•		•
Somalia	*	•	*	Mozambique	*	•	*
Sudan	*	*	*	Namibia	*		•
Syria ⁴	Niger	*	•	*
Tajikistan	*		*	Nigeria	*		*
Tunisia	*		•	Rwanda	*	•	*
Turkmenistan	•		•	São Tomé and Príncipe	*	•	*
United Arab Emirates	•		•	Senegal	*	•	*
Uzbekistan	•		*	Seychelles	*		•
West Bank and Gaza	*		•	Sierra Leone	*	•	*
Yemen	*		*	South Africa	•		•
Sub-Saharan Africa				South Sudan	*		*
Angola	*		•	Tanzania	*	•	*
Benin	*	•	*	Togo	*	•	*
Botswana	•		•	Uganda	*	•	*
Burkina Faso	*	•	*	Zambia	*	•	*
Burundi	*	•	*	Zimbabwe	*		*
Cabo Verde	*		•				

¹ Dot (star) indicates that the country is a net creditor (net debtor).

² Dot (star) indicates that the country has (has not) reached the initiative's completion point, which allows it to receive the full debt relief committed to at the initiative's decision point.

³ Dot (star) indicates that the country is classified as an emerging market and middle-income economy (low-income developing country).

⁴ Syria is omitted from group composites for net external position and per capita income classification for lack of a fully developed database.

Table F. Economies with Exceptional Reporting Periods¹

	National Accounts	Government Finance
Afghanistan	Apr/Mar	Apr/Mar
The Bahamas		Jul/Jun
Bangladesh	Jul/Jun	Jul/Jun
Barbados		Apr/Mar
Bhutan	Jul/Jun	Jul/Jun
Botswana		Apr/Mar
Dominica		Jul/Jun
Egypt	Jul/Jun	Jul/Jun
Eswatini		Apr/Mar
Ethiopia	Jul/Jun	Jul/Jun
Fiji		Aug/Jul
Haiti	Oct/Sep	Oct/Sep
Hong Kong SAR		Apr/Mar
India	Apr/Mar	Apr/Mar
Iran	Apr/Mar	Apr/Mar
Jamaica		Apr/Mar
Lesotho	Apr/Mar	Apr/Mar
Marshall Islands	Oct/Sep	Oct/Sep
Mauritius		Jul/Jun
Micronesia	Oct/Sep	Oct/Sep
Myanmar	Oct/Sep	Oct/Sep
Nauru	Jul/Jun	Jul/Jun
Nepal	Aug/Jul	Aug/Jul
Pakistan	Jul/Jun	Jul/Jun
Palau	Oct/Sep	Oct/Sep
Puerto Rico	Jul/Jun	Jul/Jun
Samoa	Jul/Jun	Jul/Jun
Singapore		Apr/Mar
St. Lucia		Apr/Mar
Thailand		Oct/Sep
Tonga	Jul/Jun	Jul/Jun
Trinidad and Tobago		Oct/Sep

¹ Unless noted otherwise, all data refer to calendar years.

Table G. Key Data Documentation

Country	Currency	National Accounts				Prices (CPI)		
		Historical Data Source ¹	Latest Actual Annual Data	Base Year ²	System of National Accounts	Use of Chain-Weighted Methodology ³	Historical Data Source ¹	Latest Actual Annual Data
Afghanistan	Afghan afghani	NSO	2023/24	2016	SNA 2008		NSO	2023/24
Albania	Albanian lek	IMF staff	2022	1996	ESA 2010	From 1996	NSO	2022
Algeria	Algerian dinar	NSO	2023	2001	SNA 1993	From 2005	NSO	2023
Andorra	Euro	NSO	2023	2010	...		NSO	2023
Angola	Angolan kwanza	NSO and MEP	2022	2015	ESA 1995		NSO	2023
Antigua and Barbuda	Eastern Caribbean dollar	CB	2022	2018	SNA 1993		NSO	2023
Argentina	Argentine peso	NSO	2023	2004	SNA 2008		NSO	2023
Armenia	Armenian dram	NSO	2022	2005	SNA 2008		NSO	2022
Aruba	Aruban florin	NSO	2023	2013	SNA 1993	From 2000	NSO	2023
Australia	Australian dollar	NSO	2023	2023	SNA 2008	From 1980	NSO	2023
Austria	Euro	NSO	2023	2015	ESA 2010	From 1995	NSO	2023
Azerbaijan	Azerbaijan manat	NSO	2022	2005	SNA 1993	From 1994	NSO	2022
The Bahamas	Bahamian dollar	NSO	2023	2018	SNA 1993		NSO	2023
Bahrain	Bahraini dinar	NSO and IMF staff	2023	2010	SNA 2008		NSO	2023
Bangladesh	Bangladesh taka	NSO	2022/23	2015/16	SNA 2008		NSO	2022/23
Barbados	Barbados dollar	NSO and CB	2016	2010	SNA 2008		NSO	2023
Belarus	Belarusian ruble	NSO	2022	2018	SNA 2008	From 2005	NSO	2023
Belgium	Euro	CB	2023	2015	ESA 2010	From 1995	CB	2023
Belize	Belize dollar	NSO	2022	2014	SNA 2008		NSO	2023
Benin	CFA franc	NSO	2023	2015	SNA 2008		NSO	2023
Bhutan	Bhutanese ngultrum	NSO	2021/22	2016/17	SNA 2008		NSO	2022/23
Bolivia	Bolivian boliviano	NSO	2023	1990	SNA 2008		NSO	2023
Bosnia and Herzegovina	Bosnian convertible marka	NSO	2022	2015	ESA 2010	From 2000	NSO	2023
Botswana	Botswana pula	NSO	2023	2016	SNA 2008		NSO	2023
Brazil	Brazilian real	NSO	2023	1995	SNA 2008		NSO	2023
Brunei Darussalam	Brunei dollar	MoF	2023	2010	SNA 2008		MoF	2023
Bulgaria	Bulgarian lev	NSO	2023	2015	ESA 2010	From 1996	NSO	2023
Burkina Faso	CFA franc	NSO and MEP	2022	2015	SNA 2008		NSO	2023
Burundi	Burundi franc	NSO and IMF staff	2022	2005	SNA 1993		NSO	2022
Cabo Verde	Cabo Verdean escudo	NSO	2022	2015	SNA 2008	From 2011	NSO	2022
Cambodia	Cambodian riel	NSO	2022	2014	SNA 1993		NSO	2023
Cameroon	CFA franc	NSO	2022	2016	SNA 2008	From 2016	NSO	2022
Canada	Canadian dollar	NSO	2023	2017	SNA 2008	From 1980	MoF and NSO	2023
Central African Republic	CFA franc	NSO	2021	2005	SNA 1993		NSO	2022
Chad	CFA franc	NSO	2022	2017	SNA 2008		NSO	2022
Chile	Chilean peso	CB	2023	2018	SNA 2008	From 2003	NSO	2023
China	Chinese yuan	NSO	2023	2015	SNA 2008		NSO	2023
Colombia	Colombian peso	NSO	2023	2015	SNA 2008	From 2005	NSO	2023
Comoros	Comorian franc	NSO	2022	2007	SNA 1993		NSO	2023
Democratic Republic of the Congo	Congolese franc	NSO	2020	2005	SNA 1993	From 2005	NSO	2023
Republic of Congo	CFA franc	NSO	2021	2005	SNA 1993		NSO	2023

Table G. Key Data Documentation (continued)

Country	Government Finance					Balance of Payments		
	Historical Data Source ¹	Latest Actual Annual Data	Statistics Manual in Use at Source	Subsectors Coverage ⁴	Accounting Practice ⁵	Historical Data Source ¹	Latest Actual Annual Data	Statistics Manual in Use at Source
Afghanistan	MoF, NSO, and IMF staff	2023/24	2001	CG	C	CB	2020	BPM 6
Albania	IMF staff	2022	1986	CG,LG,SS,MPC, NFPC	...	CB	2022	BPM 6
Algeria	MoF	2023	1986	CG	C	CB	2023	BPM 6
Andorra	NSO and MoF	2023	...	CG,LG,SS	C	NSO	2022	BPM 6
Angola	MoF	2022	2001	CG,LG	Mixed	CB	2022	BPM 6
Antigua and Barbuda	MoF	2023	2001	CG	Mixed	CB	2023	BPM 6
Argentina	MEP	2023	1986	CG,SG,SS	C	NSO	2023	BPM 6
Armenia	MoF	2022	2001	CG	C	CB	2022	BPM 6
Aruba	MoF	2023	2001	CG	C	CB	2023	BPM 6
Australia	MoF	2022	2014	CG,SG,LG,TG	A	NSO	2023	BPM 6
Austria	NSO	2023	2014	CG,SG,LG,SS	A	CB	2023	BPM 6
Azerbaijan	MoF	2022	2001	CG	C	CB	2022	BPM 6
The Bahamas	MoF	2022/23	2014	CG	C	CB	2023	BPM 6
Bahrain	MoF	2023	2001	CG	C	CB	2023	BPM 6
Bangladesh	MoF	2022/23	2001	CG	C	CB	2022/23	BPM 6
Barbados	MoF	2023/24	2001	CG	C	CB	2023	BPM 6
Belarus	MoF	2022	2001	CG,LG,SS	C	CB	2022	BPM 6
Belgium	CB	2023	ESA 2010	CG,SG,LG,SS	A	CB	2023	BPM 6
Belize	MoF	2022	1986	CG,MPC	Mixed	CB	2023	BPM 6
Benin	MoF	2023	1986	CG	C	CB	2021	BPM 6
Bhutan	MoF	2022/23	1986	CG	C	CB	2022/23	BPM 6
Bolivia	MoF	2022	2001	CG,LG,SS	C	CB	2023	BPM 6
Bosnia and Herzegovina	MoF	2022	2014	CG,SG,LG,SS	Mixed	CB	2022	BPM 6
Botswana	MoF	2022/23	1986	CG	C	CB	2022	BPM 6
Brazil	MoF	2023	2014	CG,SG,LG,SS	C	CB	2023	BPM 6
Brunei Darussalam	MoF	2023	1986	CG,BCG	C	NSO and MEP	2023	BPM 6
Bulgaria	MoF	2023	2001	CG,LG,SS	C	CB	2023	BPM 6
Burkina Faso	MoF	2023	2001	CG	CB	CB	2022	BPM 6
Burundi	MoF	2022	2001	CG	Mixed	CB	2022	BPM 6
Cabo Verde	MoF	2022	2001	CG	A	NSO	2022	BPM 6
Cambodia	MoF	2023	2001	CG,LG	C	CB	2023	BPM 6
Cameroon	MoF	2022	2001	CG	Mixed	MoF	2022	BPM 6
Canada	MoF and NSO	2023	2001	CG,SG,LG,SS	A	NSO	2023	BPM 6
Central African Republic	MoF	2022	2001	CG	C	CB	2021	BPM 5
Chad	MoF	2022	1986	CG	C	CB	2022	BPM 5
Chile	MoF	2023	2001	CG,LG	A	CB	2023	BPM 6
China	MoF, NAO and IMF staff	2023	...	CG,LG,SS	C	GAD	2023	BPM 6
Colombia	MoF	2023	2001	CG,SG,LG,SS	...	CB and NSO	2023	BPM 6
Comoros	MoF	2022	1986	CG	Mixed	CB and IMF staff	2022	BPM 5
Democratic Republic of the Congo	MoF	2022	2001	CG,LG	A	CB	2022	BPM 6
Republic of Congo	MoF	2023	2001	CG	A	CB	2021	BPM 6

Table G. Key Data Documentation (continued)

Country	Currency	National Accounts					Prices (CPI)	
		Historical Data Source ¹	Latest Actual Annual Data	Base Year ²	System of National Accounts	Use of Chain-Weighted Methodology ³	Historical Data Source ¹	Latest Actual Annual Data
Costa Rica	Costa Rican colón	CB	2023	2017	SNA 2008	From 2016	CB	2023
Côte d'Ivoire	CFA franc	NSO	2022	2015	SNA 2008	From 2015	NSO	2023
Croatia	Euro	NSO	2023	2015	ESA 2010		NSO	2023
Cyprus	Euro	NSO	2023	2010	ESA 2010	From 1995	NSO	2023
Czech Republic	Czech koruna	NSO	2023	2020	ESA 2010	From 1995	NSO	2023
Denmark	Danish krone	NSO	2022	2010	ESA 2010	From 1980	NSO	2022
Djibouti	Djibouti franc	NSO	2021	2013	SNA 2008		NSO	2023
Dominica	Eastern Caribbean dollar	NSO	2023	2006	SNA 1993		NSO	2023
Dominican Republic	Dominican peso	CB	2023	2007	SNA 2008	From 2007	CB	2023
Ecuador	US dollar	CB	2023	2018	SNA 2008	From 2018	NSO and CB	2023
Egypt	Egyptian pound	MEP	2022/23	2021/22	SNA 2008		NSO	2023/24
El Salvador	US dollar	CB	2023	2014	SNA 2008		NSO	2023
Equatorial Guinea	CFA franc	MEP and CB	2023	2006	SNA 1993		MEP	2023
Eritrea	Eritrean nakfa	IMF staff	2019	2011	SNA 1993		IMF staff	2019
Estonia	Euro	NSO	2023	2020	ESA 2010	From 2010	NSO	2023
Eswatini	Swazi lilangeni	NSO	2022	2011	SNA 2008		NSO	2023
Ethiopia	Ethiopian birr	NSO	2022/23	2015/16	SNA 2008		NSO	2023
Fiji	Fijian dollar	NSO	2022	2014	SNA 2008		NSO	2023
Finland	Euro	NSO	2023	2015	ESA 2010	From 1980	NSO	2023
France	Euro	NSO	2023	2020	ESA 2010	From 1980	NSO	2023
Gabon	CFA franc	MEP	2021	2001	SNA 1993		NSO	2023
The Gambia	Gambian dalasi	NSO	2023	2013	SNA 2008		NSO	2022
Georgia	Georgian lari	NSO	2023	2019	SNA 2008	From 1996	NSO	2023
Germany	Euro	NSO	2023	2020	ESA 2010	From 1991	NSO	2023
Ghana	Ghanaian cedi	NSO	2023	2013	SNA 2008		NSO	2023
Greece	Euro	NSO	2023	2015	ESA 2010	From 1995	NSO	2023
Grenada	Eastern Caribbean dollar	NSO	2022	2006	SNA 1993		NSO	2023
Guatemala	Guatemalan quetzal	CB	2023	2013	SNA 2008	From 2001	NSO	2023
Guinea	Guinean franc	NSO	2021	2010	SNA 1993		NSO	2023
Guinea-Bissau	CFA franc	NSO	2022	2015	SNA 2008		NSO	2022
Guyana	Guyanese dollar	NSO	2023	2012 ⁶	SNA 1993		NSO	2023
Haiti	Haitian gourde	NSO	2022/23	2011/12	SNA 2008		NSO	2022/23
Honduras	Honduran lempira	CB	2023	2000	SNA 1993		CB	2023
Hong Kong SAR	Hong Kong dollar	NSO	2023	2021	SNA 2008	From 1980	NSO	2023
Hungary	Hungarian forint	NSO	2023	2015	ESA 2010	From 1995	NSO	2023
Iceland	Icelandic króna	NSO	2023	2015	ESA 2010	From 1990	NSO	2023
India	Indian rupee	NSO	2023/24	2011/12	SNA 2008		NSO	2023/24
Indonesia	Indonesian rupiah	NSO	2023	2010	SNA 2008		NSO	2023
Iran	Iranian rial	CB	2023/24	2016/17	SNA 2008		CB	2023/24
Iraq	Iraqi dinar	NSO	2023	2007	...		NSO	2023
Ireland	Euro	NSO	2023	2022	ESA 2010	From 1995	NSO	2023

Table G. Key Data Documentation (continued)

Country	Government Finance					Balance of Payments		
	Historical Data Source ¹	Latest Actual Annual Data	Statistics Manual in Use at Source	Subsectors Coverage ⁴	Accounting Practice ⁵	Historical Data Source ¹	Latest Actual Annual Data	Statistics Manual in Use at Source
Costa Rica	MoF and CB	2023	1986	CG,NFPC	C	CB	2023	BPM 6
Côte d'Ivoire	MoF	2023	1986	CG	A	CB	2022	BPM 6
Croatia	MoF	2023	2014	CG,LG	A	CB	2023	BPM 6
Cyprus	NSO	2023	ESA 2010	CG,LG,SS	A	CB	2023	BPM 6
Czech Republic	MoF	2023	2014	CG,LG,SS	A	NSO	2023	BPM 6
Denmark	NSO	2022	2014	CG,LG,SS	A	NSO	2022	BPM 6
Djibouti	MoF	2023	2001	CG	A	CB	2023	BPM 5
Dominica	MoF	2022/23	1986	CG	C	CB	2022	BPM 6
Dominican Republic	MoF	2023	2014	CG,LG,SS	A	CB	2023	BPM 6
Ecuador	MoF	2023	2014	CG,SG,LG,SS	Mixed	CB	2023	BPM 6
Egypt	MoF	2021/22	...	CG,LG,SS,NFPC	C	CB	2022/23	BPM 5
El Salvador	MoF and CB	2023	1986	CG,LG,SS	C	CB	2023	BPM 6
Equatorial Guinea	MoF and MEP	2023	1986	CG	C	CB	2022	BPM 5
Eritrea	IMF staff	2019	2001	CG	C	IMF staff	2019	BPM 5
Estonia	MoF	2023	1986/2001	CG,LG,SS	C	CB	2023	BPM 6
Eswatini	MoF	2022/23	2001	CG	C	CB	2023	BPM 6
Ethiopia	MoF	2022/23	1986	CG,SG,LG	C	CB	2022/23	BPM 5
Fiji	MoF	2022/23	1986	CG	C	CB	2023	BPM 6
Finland	MoF	2023	2014	CG,LG,SS	A	NSO	2023	BPM 6
France	NSO	2023	2014	CG,LG,SS	A	CB	2023	BPM 6
Gabon	IMF staff	2021	2001	CG	A	IMF	2021	BPM 6
The Gambia	MoF	2023	1986	CG	C	CB and IMF staff	2023	BPM 6
Georgia	MoF	2023	2001	CG,LG	C	CB	2023	BPM 6
Germany	NSO	2023	ESA 2010	CG,SG,LG,SS	A	CB	2023	BPM 6
Ghana	MoF	2023	2001	CG	CB	CB	2023	BPM 5
Greece	NSO	2023	ESA 2010	CG,LG,SS	A	CB	2023	BPM 6
Grenada	MoF	2022	...	CG	CB	NSO and CB	2022	BPM 6
Guatemala	MoF	2023	2001	CG	C	CB	2023	BPM 6
Guinea	MoF	2023	1986	CG	C	CB and MEP	2022	BPM 6
Guinea-Bissau	MoF	2022	2001	CG	A	CB	2022	BPM 6
Guyana	MoF	2023	1986	CG,SS	C	CB	2023	BPM 6
Haiti	MoF	2022/23	1986	CG	C	CB	2022/23	BPM 5
Honduras	MoF	2023	2014	CG,LG,SS	Mixed	CB	2023	BPM 5
Hong Kong SAR	MoF	2023/24	2001	CG	C	NSO	2023	BPM 6
Hungary	MEP and NSO	2023	ESA 2010	CG,LG,SS	A	CB	2023	BPM 6
Iceland	NSO	2023	2014	CG,LG,SS	A	CB	2023	BPM 6
India	MoF and IMF staff	2022/23	1986	CG,SG	C	CB	2023/24	BPM 6
Indonesia	MoF	2023	2014	CG,LG	A	CB	2023	BPM 6
Iran	MoF	2021/22	2001	CG	C	CB and IMF staff	2022/23	BPM 5
Iraq	MoF	2023	2001	CG	C	CB	2023	BPM 6
Ireland	MoF and NSO	2023	2001	CG,LG,SS	A	NSO	2023	BPM 6

Table G. Key Data Documentation (continued)

Country	Currency	National Accounts					Prices (CPI)	
		Historical Data Source ¹	Latest Actual Annual Data	Base Year ²	System of National Accounts	Use of Chain-Weighted Methodology ³	Historical Data Source ¹	Latest Actual Annual Data
Israel	Israeli new shekel	NSO	2023	2015	SNA 2008	From 1995	NSO	2023
Italy	Euro	NSO	2023	2020	ESA 2010	From 1980	NSO	2023
Jamaica	Jamaican dollar	NSO	2023	2007	SNA 1993		NSO	2023
Japan	Japanese yen	GAD	2023	2015	SNA 2008	From 1980	GAD	2023
Jordan	Jordanian dinar	NSO	2023	2016	SNA 2008		NSO	2023
Kazakhstan	Kazakhstani tenge	NSO	2023	2005	SNA 1993	From 1994	NSO	2023
Kenya	Kenyan shilling	NSO	2023	2016	SNA 2008		NSO	2023
Kiribati	Australian dollar	NSO	2022	2019	SNA 2008		IMF staff	2023
Korea	South Korean won	CB	2023	2020	SNA 2008	From 1980	NSO	2023
Kosovo	Euro	NSO	2023	2016	ESA 2010		NSO	2023
Kuwait	Kuwaiti dinar	MEP and NSO	2023	2010	SNA 1993		NSO and MEP	2023
Kyrgyz Republic	Kyrgyz som	NSO	2023	2005	SNA 2008	From 2010	NSO	2023
Lao P.D.R.	Lao kip	NSO	2023	2012	SNA 2008		NSO	2023
Latvia	Euro	NSO	2023	2015	ESA 2010	From 1995	NSO	2023
Lebanon	Lebanese pound	NSO	2021	2019	SNA 2008	From 2019	NSO	2023
Lesotho	Lesotho loti	NSO	2022/23	2012/13	SNA 2008		NSO	2023
Liberia	US dollar	IMF staff	2023	2000	SNA 1993		CB	2023
Libya	Libyan dinar	MEP	2021	2013	SNA 1993		NSO	2023
Lithuania	Euro	NSO	2023	2015	ESA 2010	From 2005	NSO	2023
Luxembourg	Euro	NSO	2023	2015	ESA 2010	From 1995	NSO	2023
Macao SAR	Macanese pataca	NSO	2023	2022	SNA 2008	From 2001	NSO	2023
Madagascar	Malagasy ariary	NSO	2022	2007	SNA 1993		NSO	2023
Malawi	Malawian kwacha	NSO	2022	2017	SNA 2008		NSO	2023
Malaysia	Malaysian ringgit	NSO	2023	2015	SNA 2008		NSO	2023
Maldives	Maldivian rufiyaa	MoF and NSO	2022	2019	SNA 2008		CB	2022
Mali	CFA franc	NSO	2022	1999	SNA 1993		NSO	2023
Malta	Euro	NSO	2023	2010	ESA 2010	From 2000	NSO	2023
Marshall Islands	US dollar	NSO	2021/22	2014/15	SNA 2008		NSO	2021/22
Mauritania	New Mauritanian ouguiya	NSO	2023	1998	SNA 2008	From 2014	NSO	2023
Mauritius	Mauritian rupee	NSO	2023	2006	SNA 2008	From 1999	NSO	2023
Mexico	Mexican peso	NSO	2023	2018	SNA 2008		NSO	2023
Micronesia	US dollar	NSO	2021/22	2003/04	SNA 2008		NSO	2022/23
Moldova	Moldovan leu	NSO	2023	1995	SNA 2008		NSO	2023
Mongolia	Mongolian tögrög	NSO	2023	2015	SNA 2008		NSO	2023
Montenegro	Euro	NSO	2023	2006	ESA 2010		NSO	2023
Morocco	Moroccan dirham	NSO	2023	2014	SNA 2008	From 2007	NSO	2023
Mozambique	Mozambican metical	NSO	2022	2019	SNA 2008		NSO	2023
Myanmar	Myanmar kyat	MEP and IMF staff	2020/21	2015/16	...		NSO and IMF staff	2020/21
Namibia	Namibian dollar	NSO	2023	2015	SNA 1993		NSO	2023
Nauru	Australian dollar	IMF staff	2020/21	2006/07	SNA 2008		NSO and IMF staff	2022/23
Nepal	Nepalese rupee	NSO	2022/23	2010/11	SNA 2008		CB	2022/23
The Netherlands	Euro	NSO	2023	2021	ESA 2010	From 1980	NSO	2023
New Zealand	New Zealand dollar	NSO	2023	2009 ⁶	SNA 2008	From 1987	NSO and IMF staff	2023

Table G. Key Data Documentation (continued)

Country	Government Finance					Balance of Payments		
	Historical Data Source ¹	Latest Actual Annual Data	Statistics Manual in Use at Source	Subsectors Coverage ⁴	Accounting Practice ⁵	Historical Data Source ¹	Latest Actual Annual Data	Statistics Manual in Use at Source
Israel	MoF and NSO	2023	2014	CG,LG,SS	...	NSO	2023	BPM 6
Italy	NSO	2023	2001	CG,LG,SS	A	CB	2023	BPM 6
Jamaica	MoF	2023/24	1986	CG	C	CB	2023	BPM 6
Japan	GAD	2022	2014	CG,LG,SS	A	MoF	2023	BPM 6
Jordan	MoF	2023	2001	CG,NFPC	C	CB	2023	BPM 6
Kazakhstan	MoF	2023	2001	CG,LG	C	CB	2023	BPM 6
Kenya	MoF	2023	2001	CG	C	CB	2023	BPM 6
Kiribati	MoF	2022	1986	CG	C	NSO and IMF staff	2022	BPM 6
Korea	MoF	2023	2001	CG,SS	C	CB	2023	BPM 6
Kosovo	MoF	2023	1986	CG,LG	C	CB	2023	BPM 6
Kuwait	MoF	2023	2014	CG,SS	Mixed	CB	2023	BPM 6
Kyrgyz Republic	MoF	2023	...	CG,LG,SS	C	CB	2023	BPM 6
Lao P.D.R.	MoF	2023	2001	CG	C	CB	2023	BPM 6
Latvia	MoF	2023	ESA 2010	CG,LG,SS	C	CB	2023	BPM 6
Lebanon	MoF	2021	2001	CG	C	CB and IMF staff	2023	BPM 6
Lesotho	MoF	2022/23	2014	CG,LG	C	CB	2022/23	BPM 6
Liberia	MoF	2023	2001	CG	A	CB	2023	BPM 5
Libya	CB	2023	1986	CG,SG,LG	C	CB and IMF staff	2022	BPM 5
Lithuania	MoF	2023	2014	CG,LG,SS	A	CB	2023	BPM 6
Luxembourg	MoF	2023	2001	CG,LG,SS	A	NSO	2023	BPM 6
Macao SAR	MoF	2022	2014	CG,SS	C	NSO	2023	BPM 6
Madagascar	MoF	2022	1986	CG	CB	CB	2022	BPM 6
Malawi	MoF	2023	2014	CG	C	NSO and GAD	2022	BPM 6
Malaysia	MoF	2023	2001	CG,SG,LG	C	NSO	2023	BPM 6
Maldives	MoF	2022	1986	CG	C	CB	2022	BPM 6
Mali	MoF	2022	2001	CG	Mixed	CB	2022	BPM 6
Malta	NSO	2023	2001	CG,SS	A	NSO	2023	BPM 6
Marshall Islands	MoF	2021/22	2001	CG,LG,SS	A	NSO	2021/22	BPM 6
Mauritania	MoF	2023	1986	CG	C	CB	2023	BPM 6
Mauritius	MoF	2022/23	2001	CG,LG	C	CB	2022	BPM 6
Mexico	MoF	2022	2014	CG,SS	C	CB	2023	BPM 6
Micronesia	MoF	2020/21	2001	CG,SG	A	NSO	2017/18	BPM 6
Moldova	MoF	2023	1986	CG,LG	C	CB	2023	BPM 6
Mongolia	MoF	2023	2001	CG,SG,LG,SS	C	CB	2023	BPM 6
Montenegro	MoF	2023	1986	CG,LG,SS	C	CB	2023	BPM 6
Morocco	MEP	2023	2001	CG	A	GAD	2023	BPM 6
Mozambique	MoF	2023	2001	CG,SG,LG	Mixed	CB	2022	BPM 6
Myanmar	IMF staff	2019/20	2014	CG	C	IMF staff	2021/22	BPM 6
Namibia	MoF	2023	2001	CG	C	CB	2023	BPM 6
Nauru	MoF	2021/22	2001	CG	Cash	IMF staff	2022/23	BPM 6
Nepal	MoF	2022/23	2001	CG	C	CB	2022/23	BPM 5
The Netherlands	MoF	2023	2001	CG,LG,SS	A	CB	2023	BPM 6
New Zealand	NSO	2023	2014	CG,LG	A	NSO	2023	BPM 6

Table G. Key Data Documentation (continued)

Country	Currency	National Accounts					Prices (CPI)	
		Historical Data Source ¹	Latest Actual Annual Data	Base Year ²	System of National Accounts	Use of Chain-Weighted Methodology ³	Historical Data Source ¹	Latest Actual Annual Data
Nicaragua	Nicaraguan córdoba	CB	2022	2006	SNA 2008	From 1994	CB	2023
Niger	CFA franc	NSO	2023	2015	SNA 2008		NSO	2023
Nigeria	Nigerian naira	NSO	2023	2010	SNA 2008		NSO	2023
North Macedonia	Macedonian denar	NSO	2023	2005	ESA 2010		NSO	2023
Norway	Norwegian krone	NSO	2023	2021	ESA 2010	From 1980	NSO	2023
Oman	Omani rial	NSO	2023	2018	SNA 2008		NSO	2023
Pakistan	Pakistan rupee	NSO	2023/24	2015/16	SNA 2008		NSO	2023/24
Palau	US dollar	MoF	2022/23	2018/19	SNA 1993		MoF	2022/23
Panama	US dollar	NSO	2022	2018	SNA 1993	From 2018	NSO	2023
Papua New Guinea	Papua New Guinea kina	NSO and MoF	2022	2013	SNA 2008		NSO	2022
Paraguay	Paraguayan guaraní	CB	2022	2014	SNA 2008		CB	2023
Peru	Peruvian sol	CB	2023	2007	SNA 2008		CB	2023
Philippines	Philippine peso	NSO	2023	2018	SNA 2008		NSO	2023
Poland	Polish zloty	NSO	2023	2015	ESA 2010	From 2015	NSO	2023
Portugal	Euro	NSO	2023	2016	ESA 2010	From 1980	NSO	2023
Puerto Rico	US dollar	NSO	2022/23	2017	...		NSO	2023
Qatar	Qatari riyal	NSO and MEP	2023	2018	SNA 1993		NSO and MEP	2023
Romania	Romanian leu	NSO	2023	2015	ESA 2010	From 2000	NSO	2023
Russia	Russian ruble	NSO	2023	2021	SNA 2008	From 1995	NSO	2023
Rwanda	Rwandan franc	NSO	2023	2017	SNA 2008		NSO	2023
Samoa	Samoa tala	NSO	2022/23	2012/13	SNA 2008		NSO	2022/23
San Marino	Euro	NSO	2022	2007	ESA 2010		NSO	2023
São Tomé and Príncipe	São Tomé and Príncipe dobra	NSO	2023	2008	SNA 1993		NSO	2023
Saudi Arabia	Saudi riyal	NSO	2023	2018	SNA 2008	From 2018	NSO	2023
Senegal	CFA franc	NSO	2022	2014	SNA 2008		NSO	2022
Serbia	Serbian dinar	NSO	2023	2015	ESA 2010	From 2010	NSO	2023
Seychelles	Seychelles rupee	NSO	2022	2014	SNA 1993		NSO	2023
Sierra Leone	Sierra Leonean leone	NSO	2023	2018	SNA 2008	From 2010	NSO	2023
Singapore	Singapore dollar	NSO	2023	2015	SNA 2008	From 2015	NSO	2023
Slovak Republic	Euro	NSO	2023	2015	ESA 2010	From 1997	NSO	2023
Slovenia	Euro	NSO	2023	2010	ESA 2010	From 2000	NSO	2023
Solomon Islands	Solomon Islands dollar	NSO and CB	2022	2012	SNA 1993		CB	2023
Somalia	US dollar	NSO	2022	2022	SNA 2008		NSO	2023
South Africa	South African rand	NSO	2023	2015	SNA 2008		NSO	2023
South Sudan	South Sudanese pound	NSO and IMF staff	2023	2010	SNA 1993		NSO	2022
Spain	Euro	NSO	2023	2020	ESA 2010	From 1995	Other	2023
Sri Lanka	Sri Lankan rupee	NSO	2022	2015	SNA 2008		NSO	2022
St. Kitts and Nevis	Eastern Caribbean dollar	NSO	2022	2006	SNA 1993		NSO	2022

Table G. Key Data Documentation (continued)

Country	Government Finance					Balance of Payments		
	Historical Data Source ¹	Latest Actual Annual Data	Statistics Manual in Use at Source	Subsectors Coverage ⁴	Accounting Practice ⁵	Historical Data Source ¹	Latest Actual Annual Data	Statistics Manual in Use at Source
Nicaragua	MoF	2022	1986	CG,LG,SS	C	CB	2022	BPM 6
Niger	MoF	2023	1986	CG	A	CB	2023	BPM 6
Nigeria	MoF	2023	2001	CG,SG,LG	C	CB	2023	BPM 6
North Macedonia	MoF	2023	1986	CG,SG,SS	C	CB	2023	BPM 6
Norway	NSO and MoF	2023	2014	CG,LG,SS	A	NSO	2023	BPM 6
Oman	MoF	2023	2001	CG	C	CB	2023	BPM 6
Pakistan	MoF	2023/24	1986	CG,SG,LG	C	CB	2023/24	BPM 6
Palau	MoF	2022/23	2001	CG	A	MoF	2022/23	BPM 6
Panama	MoF	2023	2014	CG,SG,LG,SS	C	NSO	2022	BPM 6
Papua New Guinea	MoF	2022	2014	CG	C	CB	2022	BPM 6
Paraguay	MoF	2023	2001	CG,SG,LG,SS, MPC,NFPC	C	CB	2022	BPM 6
Peru	CB and MoF	2023	2001	CG,SG,LG,SS	Mixed	CB	2023	BPM 5
Philippines	MoF	2023	2014	CG,LG,SS	C	CB	2023	BPM 6
Poland	MoF and NSO	2023	ESA 2010	CG,LG,SS	A	CB	2023	BPM 6
Portugal	NSO	2023	2001	CG,LG,SS	A	CB	2023	BPM 6
Puerto Rico	MEP	2022/23	2001	CG	A	...	...	...
Qatar	MoF	2023	1986	CG	C	CB and IMF staff	2023	BPM 6
Romania	MoF	2023	2014	CG,LG,SS	C	CB	2023	BPM 6
Russia	MoF	2023	2014	CG,SG,SS	Mixed	CB	2023	BPM 6
Rwanda	MoF	2023	2014	CG	Mixed	CB	2023	BPM 6
Samoa	MoF	2022/23	2001	CG	A	CB	2022/23	BPM 6
San Marino	MoF	2022	...	CG	A	Other	2022	BPM 6
São Tomé and Príncipe	MoF and Customs	2023	1986	CG	C	CB	2023	BPM 6
Saudi Arabia	MoF	2023	2014	CG	C	CB	2023	BPM 6
Senegal	MoF	2022	2001	CG	C	CB and IMF staff	2022	BPM 6
Serbia	MoF	2023	2014	CG,SG,LG,SS,other	C	CB	2023	BPM 6
Seychelles	MoF	2023	2001	CG,SS	C	CB	2022	BPM 6
Sierra Leone	MoF	2023	1986	CG	C	CB	2023	BPM 6
Singapore	MoF and NSO	2022/23	2014	CG	C	NSO	2023	BPM 6
Slovak Republic	NSO	2023	2001	CG,LG,SS	A	CB	2023	BPM 6
Slovenia	MoF	2023	2001	CG,LG,SS	A	CB	2023	BPM 6
Solomon Islands	CB	2022	1986	CG	C	CB	2023	BPM 6
Somalia	MoF	2023	2001	CG	C	CB and IMF staff	2023	BPM 5
South Africa	MoF	2022	2001	CG,SG,SS	C	CB	2023	BPM 6
South Sudan	MoF and MEP	2023	2014	CG	C	MoF, NSO, MEP, and IMF staff	2023	BPM 6
Spain	MoF and NSO	2023	ESA 2010	CG,SG,LG,SS	A	CB	2023	BPM 6
Sri Lanka	MoF	2022	1986	CG	C	CB	2022	BPM 6
St. Kitts and Nevis	MoF	2022	1986	CG,SG,LG	C	CB	2022	BPM 6

Table G. Key Data Documentation (continued)

Country	Currency	National Accounts				Prices (CPI)		
		Historical Data Source ¹	Latest Actual Annual Data	Base Year ²	System of National Accounts	Use of Chain-Weighted Methodology ³	Historical Data Source ¹	Latest Actual Annual Data
St. Lucia	Eastern Caribbean dollar	NSO	2022	2018	SNA 2008		NSO	2022
St. Vincent and the Grenadines	Eastern Caribbean dollar	NSO	2022	2018	SNA 1993		NSO	2023
Sudan	Sudanese pound	NSO	2019	1982	...		NSO	2022
Suriname	Surinamese dollar	NSO	2022	2015	SNA 2008		NSO	2022
Sweden	Swedish krona	NSO	2023	2023	ESA 2010	From 1993	NSO	2023
Switzerland	Swiss franc	NSO	2023	2015	ESA 2010	From 1980	NSO	2023
Syria	Syrian pound	NSO	2010	2000	SNA 1993		NSO	2011
Taiwan Province of China	New Taiwan dollar	NSO	2023	2016	SNA 2008		NSO	2023
Tajikistan	Tajik somoni	NSO	2023	1995	SNA 1993		NSO	2023
Tanzania	Tanzanian shilling	NSO	2023	2015	SNA 2008		NSO	2023
Thailand	Thai baht	MEP	2023	2002	SNA 1993	From 1993	MEP	2023
Timor-Leste	US dollar	NSO	2022	2015	SNA 2008		NSO	2023
Togo	CFA franc	NSO	2023	2016	SNA 2008		NSO	2023
Tonga	Tongan pa'anga	CB	2022/23	2016/17	SNA 2008		CB	2023/24
Trinidad and Tobago	Trinidad and Tobago dollar	NSO	2022	2012	SNA 2008		NSO	2023
Tunisia	Tunisian dinar	NSO	2023	2015	SNA 1993	From 2009	NSO	2023
Türkiye	Turkish lira	NSO	2023	2009	ESA 2010	From 2009	NSO	2023
Turkmenistan	New Turkmen manat	IMF staff	2022	2006	SNA 2008	From 2007	NSO	2022
Tuvalu	Australian dollar	PFTAC advisors	2021	2016	SNA 1993		NSO	2023
Uganda	Ugandan shilling	NSO	2023	2016	SNA 2008		CB	2023
Ukraine	Ukrainian hryvnia	NSO	2023	2016	SNA 2008	From 2005	NSO	2023
United Arab Emirates	U.A.E. dirham	NSO	2023	2010	SNA 2008		NSO	2023
United Kingdom	British pound	NSO	2023	2022	ESA 2010	From 1980	NSO	2023
United States	US dollar	NSO	2023	2012	SNA 2008	From 1980	NSO	2023
Uruguay	Uruguayan peso	CB	2023	2016	SNA 2008		NSO	2023
Uzbekistan	Uzbek som	NSO	2023	2020	SNA 1993		NSO and IMF staff	2023
Vanuatu	Vanuatu vatu	NSO	2022	2006	SNA 1993		NSO	2023
Venezuela	Venezuelan bolívar	CB	2018	1997	SNA 1993		CB	2023
Vietnam	Vietnamese dong	NSO	2023	2010	SNA 1993		NSO	2023
West Bank and Gaza	Israeli new shekel	NSO	2023	2015	SNA 2008		NSO	2023
Yemen	Yemeni rial	IMF staff	2022	1990	SNA 1993		NSO, CB, and IMF staff	2022
Zambia	Zambian kwacha	NSO	2022	2010	SNA 2008		NSO	2022
Zimbabwe	Zimbabwe gold	NSO	2022	2019	SNA 2008		NSO	2023

Table G. Key Data Documentation (continued)

Country	Government Finance					Balance of Payments		
	Historical Data Source ¹	Latest Actual Annual Data	Statistics Manual in Use at Source	Subsectors Coverage ⁴	Accounting Practice ⁵	Historical Data Source ¹	Latest Actual Annual Data	Statistics Manual in Use at Source
St. Lucia	MoF	2022/23	1986	CG	C	CB	2022	BPM 6
St. Vincent and the Grenadines	MoF	2023	1986	CG	C	CB	2022	BPM 6
Sudan	MoF	2021	2001	CG	Mixed	CB	2021	BPM 6
Suriname	MoF	2022	1986	CG	Mixed	CB	2022	BPM 6
Sweden	MoF	2022	2001	CG,LG,SS	A	NSO	2023	BPM 6
Switzerland	MoF	2023	2001	CG,SG,LG,SS	A	CB	2023	BPM 6
Syria	MoF	2009	1986	CG	C	CB	2009	BPM 5
Taiwan Province of China	MoF	2023	2001	CG,LG,SS	C	CB	2023	BPM 6
Tajikistan	MoF	2023	1986	CG,LG,SS	C	CB	2023	BPM 6
Tanzania	MoF	2023	1986	CG,LG	C	CB	2023	BPM 6
Thailand	MoF	2022/23	2014	CG,BCG,LG,SS	A	CB	2023	BPM 6
Timor-Leste	MoF	2023	2001	CG	C	CB	2023	BPM 6
Togo	MoF	2023	2001	CG	C	CB	2021	BPM 6
Tonga	MoF	2022/23	2014	CG	C	CB and NSO	2022/23	BPM 6
Trinidad and Tobago	MoF	2022/23	1986	CG	C	CB	2023	BPM 6
Tunisia	MoF	2023	1986	CG	C	CB	2023	BPM 6
Türkiye	MoF	2023	2001	CG,LG,SS,other	A	CB	2023	BPM 6
Turkmenistan	MoF	2022	1986	CG,LG	C	NSO	2022	BPM 6
Tuvalu	MoF	2023	...	CG	Mixed	IMF staff	2021	BPM 6
Uganda	MoF	2023	2001	CG	C	CB	2023	BPM 6
Ukraine	MoF	2023	2001	CG,LG,SS	C	CB	2023	BPM 6
United Arab Emirates	MoF	2023	2014	CG,SG,SS	Mixed	CB	2023	BPM 5
United Kingdom	NSO	2023	2001	CG,LG	A	NSO	2023	BPM 6
United States	MEP	2023	2014	CG,SG,LG	A	NSO	2023	BPM 6
Uruguay	MoF	2023	1986	CG,LG,SS,NFPC, NMPC	C	CB	2023	BPM 6
Uzbekistan	MoF	2023	2014	CG,SG,LG,SS	C	CB and MEP	2023	BPM 6
Vanuatu	MoF	2022	2001	CG	C	CB	2023	BPM 6
Venezuela	MoF	2017	2001	BCG,NFPC,SS,other	C	CB	2018	BPM 6
Vietnam	MoF	2022	2001	CG,SG,LG	C	CB	2023	BPM 6
West Bank and Gaza	MoF	2023	2001	CG	Mixed	NSO	2023	BPM 6
Yemen	MoF	2022	2001	CG,LG	C	IMF staff	2022	BPM 5
Zambia	MoF	2022	1986	CG	C	CB	2022	BPM 6
Zimbabwe	MoF	2023	1986	CG	C	CB and MoF	2022	BPM 6

Note: BPM = Balance of Payments Manual; CPI = consumer price index; ESA = European System of National Accounts; SNA = System of National Accounts.

¹ CB = central bank; Customs = Customs Authority; GAD = General Administration Department; MEP = Ministry of Economy, Planning, Commerce, and/or Development; MoF = Ministry of Finance and/or Treasury; NAO = national audit office; NSO = National Statistics Office; PFTAC = Pacific Financial Technical Assistance Centre.

² National accounts base year is the period with which other periods are compared and the period for which prices appear in the denominators of the price relationships used to calculate the index.

³ Use of chain-weighted methodology allows countries to measure GDP growth more accurately by reducing or eliminating the downward biases in volume series built on index numbers that average volume components using weights from a year in the moderately distant past.

⁴ BCG = budgetary central government; CG = central government; LG = local government; MPC = monetary public corporation, including central bank; NFPC = nonfinancial public corporation; NMPC = nonmonetary financial public corporation; SG = state government; SS = social security fund; TG = territorial governments.

⁵ Accounting standard: A = accrual accounting; C = cash accounting; CB = commitments basis accounting; Mixed = combination of accrual and cash accounting.

⁶ Base year deflator is not equal to 100 because the nominal GDP is not measured in the same way as real GDP or the data are seasonally adjusted.

Box A1. Economic Policy Assumptions underlying the Projections for Selected Economies

Fiscal Policy Assumptions

The short-term fiscal policy assumptions used in the *World Economic Outlook* (WEO) are normally based on officially announced budgets, adjusted for differences between the national authorities and the IMF staff regarding macroeconomic assumptions and projected fiscal outturns. When no official budget has been announced, projections incorporate policy measures judged likely to be implemented. The medium-term fiscal projections are similarly based on a judgment about policies' most likely path. For cases in which the IMF staff has insufficient information to assess the authorities' budget intentions and prospects for policy implementation, an unchanged structural primary balance is assumed unless indicated otherwise. Specific assumptions used in regard to some of the advanced economies follow. (See also Tables B5 to B9 in the online section of the Statistical Appendix for data on fiscal net lending/borrowing and structural balances.)¹

Argentina: Fiscal projections are based on the available information regarding budget outturn, budget plans, and IMF-supported program targets for the federal government; on fiscal measures announced by the authorities; and on IMF staff macroeconomic projections.

Australia: Fiscal projections are based on data from the Australian Bureau of Statistics, the fiscal year (FY)2024/25 budgets published by the Commonwealth government and the respective state/territory governments, and the IMF staff's estimates and projections.

¹The output gap is actual minus potential output, as a percentage of potential output. Structural balances are expressed as a percentage of potential output. The structural balance is the actual net lending/borrowing minus the effects of cyclical output, corrected for one-time and other factors, such as asset and commodity prices and output composition effects. Changes in the structural balance consequently include effects of temporary fiscal measures, the impact of fluctuations in interest rates and debt-service costs, and other noncyclical fluctuations in net lending/borrowing. The computations of structural balances are based on the IMF staff's estimates of potential GDP and revenue and expenditure elasticities. (See Annex I of the October 1993 *World Economic Outlook*.) Estimates of the output gap and of the structural balance are subject to significant margins of uncertainty. Net debt is calculated as gross debt minus financial assets corresponding to debt instruments.

Austria: IMF staff fiscal projections are based on the authorities' latest medium-term plans, adjusted to reflect the IMF staff's macroeconomic assumptions and assuming some moderate expenditure restraint over the medium term in line with historical patterns.

Belgium: Projections are based on the 2024 Budgetary Plan, and other available information on the authorities' fiscal plans, with adjustments for the IMF staff's assumptions.

Brazil: Fiscal projections are based on the authorities' budget proposal, fiscal measures announced by the authorities, and staff estimates and assumptions.

Canada: Projections use the baseline forecasts from the Government of Canada's Budget 2024, the one-time disbursement for the compensation and agreement-in-principle for long-term reform of First Nations Child and Family Services and Jordan's Principle, and the latest provincial budget updates.

Chile: Fiscal projections are based on the authorities' budget projections, adjusted to reflect the IMF staff's macroeconomic projections.

China: IMF staff fiscal projections incorporate the 2024 budget as well as estimates of off-budget financing.

Denmark: Estimates for the current year are aligned with the latest official budget numbers, adjusted where appropriate for the IMF staff's macroeconomic assumptions. Beyond the current year, the projections incorporate key features of the medium-term fiscal plan as embodied in the authorities' latest budget. Structural balances are net of temporary fluctuations in some revenues (for example, North Sea revenue, pension yield tax revenue) and one-offs (COVID-19-related one-offs are, however, included).

France: Projections for 2024 onward are based on the country's 2018–24 budget laws, Stability Programme 2024–27, draft medium-term programming bill, and other available information on the authorities' fiscal plans, adjusted for differences in revenue projections and assumptions on macroeconomic and financial variables.

Germany: Projections are based on the latest approved federal budget, draft federal budget (if applicable), EU Stability Programme, and

Box A1 (continued)

medium-term budget plan. They also take into account data updates from the federal statistical office (Destatis) and the Ministry of Finance.

Greece: Data since 2010 reflect adjustments in line with the primary balance definition under the enhanced surveillance framework for Greece.

Hong Kong Special Administrative Region: Projections are based on the authorities' medium-term fiscal projections for expenditures.

Hungary: Fiscal projections include the IMF staff's projections for the macroeconomic framework and fiscal policy plans announced in the 2024 budgets.

India: Projections are based on available information on the authorities' fiscal plans, with adjustments for the IMF staff's assumptions. Subnational data are incorporated with a lag of up to one year; general government data are thus finalized well after central government data. IMF and Indian presentations differ, particularly regarding disinvestment and license-auction proceeds, net versus gross recording of revenues in certain minor categories, and some public sector lending. Starting with FY2020/21 data, expenditure also includes the off-budget component of food subsidies, consistent with the revised treatment of food subsidies in the budget. The IMF staff adjusts expenditure to take out payments for previous years' food subsidies, which are included as expenditure in budget estimates for FY2020/21.

Indonesia: The IMF staff's projections are based on the latest budget, extrapolating using projected nominal GDP (and its components as needed) with application of judgment to reflect the authorities' spending and revenue policies over the medium term.

Ireland: Fiscal projections are based on the country's Budget 2024.

Israel: Projections for Israel are subject to significant risks given the unpredictability of the impact of the conflict in the region. Fiscal projections are based on the assumption that in the short-term higher government spending is used to support the economy and cover military costs, but after 2024 fiscal measures are expected to help contain the fiscal deficit. The general government balance

is projected based on the 2024 state budget and partial information on the other components.

Italy: The IMF staff's estimates and projections are informed by the fiscal plans included in the government's 2024 Economic and Financial Document (DEF). All historical national accounts data and projections reflect the official published series, updated as of October 4, 2024.

Japan: The projections reflect fiscal measures the government has already announced, with adjustments for the IMF staff's assumptions.

Korea: The forecast incorporates the latest annual budget, any supplementary budget, any proposed new budget and medium-term fiscal plan, and IMF staff estimates.

Mexico: The 2020 public sector borrowing requirements estimated by the IMF staff adjust for some statistical discrepancies between above-the-line and below-the-line numbers. Fiscal projections for 2024 are informed by the estimates in Pre-Criteria 2025; projections for 2024 onward assume continued compliance with rules established in the Federal Budget and Fiscal Responsibility Law.

The Netherlands: Fiscal projections for 2024–29 are based on the IMF staff's forecast framework and are also informed by the authorities' 2024 budget, the 2024 Spring Memorandum, the new government's coalition agreement, and Bureau for Economic Policy Analysis projections.

New Zealand: Fiscal projections are based on the FY2023/24 Half-Year Economic and Fiscal Update.

Portugal: The projections for the current year are based on the authorities' approved budget, adjusted to reflect the IMF staff's macroeconomic forecast. Projections thereafter are based on the assumption of unchanged policies. Projections for 2024 reflect information available in the 2024 budget proposal.

Puerto Rico: Fiscal projections are informed by the Certified Fiscal Plan for the Commonwealth of Puerto Rico, which was prepared in October 2023, certified by the Financial Oversight and Management Board.

Russia: The fiscal rule was suspended in March 2022 by the government in response to the sanctions imposed after the invasion of Ukraine, allowing for windfall oil and gas revenues above

Box A1 (continued)

benchmark to be used to finance a larger deficit in 2022 as well as savings accumulated in the National Welfare Fund. The 2023–25 budget was based on a modified rule with a two-year transition period which set the benchmark oil and gas revenues fixed in rubles at Rub 8 trillion, compared with a fixed benchmark oil price at \$40 a barrel under the 2019 fiscal rule. However, in late-September 2023, the Ministry of Finance proposed reverting to the earlier version of the fiscal rule from 2024 onward to determine the price of oil and gas revenues but set the benchmark oil price at \$60 a barrel. The new rule allows for higher oil and gas revenues to be spent, but it simultaneously targets a smaller primary structural deficit.

Saudi Arabia: The IMF staff's baseline fiscal projections are based primarily on its understanding of government policies as outlined in the 2024 budget and recent official announcements. Export oil revenues are based on WEO baseline oil price assumptions and the IMF staff's understanding of oil production adjustments under the OPEC+ (Organization of the Petroleum Exporting Countries, including Russia and other non-OPEC oil exporters) agreement and those unilaterally announced by Saudi Arabia.

Singapore: FY2023 projections are based on revised figures based on budget execution through the end of 2023. FY2024 projections are based on the initial budget of February 16, 2024. IMF staff projections include (1) an increase in the goods and services tax from 8 percent to 9 percent on January 1, 2024; and (2) an increase in the carbon tax from S\$5 a tonne to S\$25 a tonne in 2024 and 2025 and S\$45 a tonne in 2026 and 2027.

South Africa: Fiscal assumptions are informed by the 2024 budget. Nontax revenue excludes transactions in financial assets and liabilities, as they involve primarily revenues associated with the realized exchange rate valuation gains from the holding of foreign currency deposits, sale of assets, and conceptually similar items. The Eskom debt relief is treated as a capital transfer above-the-line item.

Spain: Fiscal numbers for 2023 include energy support measures amounting to 1 percent of GDP,

which are phased out throughout 2024. Forecasts reflect grants and loans under the EU Recovery and Resilience Facility disbursed over 2023–27.

Sweden: Fiscal estimates are based on the authorities' budget projections, adjusted to reflect the IMF staff's macroeconomic forecasts. Cyclical adjustment on the fiscal accounts is calculated by accounting for output gap.

Switzerland: The projections assume that fiscal policy is adjusted as necessary to keep fiscal balances in line with the requirements of Switzerland's fiscal rules.

Türkiye: The basis for the projections is the IMF-defined fiscal balance, which excludes some revenue and expenditure items that are included in the authorities' headline balance.

United Kingdom: Fiscal projections are based on the March 2024 forecast from the Office for Budget Responsibility (OBR) and the January 2024 release on public sector finances from the Office for National Statistics. The IMF staff's projections take the OBR forecast as a reference and overlay adjustments (for differences in assumptions) to both revenues and expenditures. The IMF staff's forecasts do not necessarily assume that the fiscal rules announced on November 17, 2022, will be met at the end of the forecast period. Data are presented on a calendar year basis.

United States: Fiscal projections are based on the June 2024 Congressional Budget Office baseline and the latest treasury monthly statement, adjusted for the IMF staff's policy and macroeconomic assumptions. Projections incorporate the effects of the Fiscal Responsibility Act.

Monetary Policy Assumptions

Monetary policy assumptions are based on the established policy framework in each economy. In most cases, this implies a nonaccommodative stance over the business cycle: official interest rates will increase when economic indicators suggest that inflation will rise above its acceptable rate or range; they will decrease when indicators suggest inflation will not exceed the acceptable rate or range, that output growth is below its potential rate, and that the margin of slack in the economy is significant.

Box A1 (continued)

With regard to *interest rates*, please refer to the Assumptions section at the beginning of the Statistical Appendix.

Argentina: Monetary projections are consistent with the overall macroeconomic framework, the fiscal and financing plans, and the monetary and foreign exchange policies.

Australia: Monetary policy assumptions are based on the IMF staff's analysis and the expected inflation path.

Brazil: Monetary policy assumptions are consistent with the convergence of inflation within the tolerance band by the end of 2024.

Canada: Projections reflect the gradual unwinding of monetary policy tightening by the Bank of Canada as inflation slowly returns to its mid-range target of 2 percent by early 2025.

Chile: Monetary policy assumptions are consistent with attaining the inflation target.

China: Monetary policy assumptions are consistent with inflation gradually rising and the output gap closing over the medium term.

Denmark: Monetary policy is to maintain the peg to the euro.

Euro area: Monetary policy assumptions for euro area member countries are drawn from a suite of models (semi-structural, DSGE [dynamic stochastic general equilibrium], Taylor rule), market expectations, and European Central Bank Governing Council communications.

Hong Kong Special Administrative Region: The IMF staff assumes that the currency board system will remain intact.

Hungary: The IMF staff's estimates and projections are informed by expert judgment based on recent developments.

India: Monetary policy projections are consistent with achieving the Reserve Bank of India's inflation target over the medium term.

Indonesia: Monetary policy assumptions are in line with inflation within the central bank's target band over the medium term.

Israel: Monetary policy assumptions are based on gradual normalization of monetary policy.

Japan: Monetary policy assumptions for Japan are based on the IMF staff's assessment of the most likely path for interest rates, considering the broader macroeconomic outlook, the Bank of Japan's communications, and market expectations.

Korea: Projections assume that the policy rate will evolve in line with the Bank of Korea's forward guidance.

Mexico: Monetary policy assumptions are consistent with inflation converging to the central bank's target over the projection period.

New Zealand: Monetary projections are based on the IMF staff's analysis and expected inflation path.

Russia: Monetary policy projections assume that the Central Bank of the Russian Federation is adopting a tight monetary policy stance.

Saudi Arabia: Monetary policy projections are based on the continuation of the exchange rate peg to the US dollar.

Singapore: Broad money is projected to grow in line with the projected growth in nominal GDP.

South Africa: Monetary policy assumptions are consistent with maintaining inflation within the 3–6 percent target band over the medium term.

Sweden: Monetary policy assumptions are based on IMF staff estimates.

Switzerland: Monetary policy should remain responsive to incoming data, while taking into account international monetary policy developments.

Türkiye: The baseline assumes that the monetary policy stance will remain in line with announced and observed policies.

United Kingdom: Monetary policy assumptions for the UK are based on the IMF staff's assessment of the most likely path for interest rates, considering the broader macroeconomic outlook, model results, the Bank of England's inflation forecasts and communications, and market expectations.

United States: The IMF staff expects the Federal Open Market Committee to continue to adjust the federal funds target rate in line with the broader macroeconomic outlook.

Box A2. Revised *World Economic Outlook* Purchasing-Power-Parity Weights

Comparing output, income, and other key economic indicators across countries is essential for analyzing global economic performance and guiding policy decisions. To facilitate this comparison, one approach is to convert nominal values from local currencies into a common currency, such as the US dollar. However, this approach falls short of recognizing differences in price levels across countries: the same income, when expressed in US dollars, will buy more goods and services in a country where prices are lower.

To adjust for differences in price levels across countries, purchasing-power-parity exchange rates (PPPs) are used. PPPs both convert different currencies to a common currency and show, with reference to a base economy (the United States), the relative price of the same basket of goods and services across countries. In the *World Economic Outlook*, PPPs are used to convert nominal GDP expressed in local currency to PPP-based GDP, thus enabling comparison of economic output across countries.¹ PPP GDP is further used as weights when computing regional and global real GDP growth rates and other real sector aggregates. The same weights are also used to derive regional and global inflation measures.

PPPs are sourced from the International Comparison Program (ICP), maintained and published by the World Bank in coordination with other international institutions, including the International Monetary Fund. In May 2024, new PPPs were released for the 2021 reference year. Revised results for the preceding reference year, 2017, and estimates of annual PPPs for 2018–20 were also released. In the October 2024 *World Economic Outlook*, following the standard methodology, PPPs are derived by taking the new 2017–21 data and extrapolating it to all preceding and subsequent years using growth rates in relative GDP deflators (the GDP deflator of a country divided by the GDP deflator of the United States).

The author of this box is Evgenia Weaver.

¹PPP GDP = NGDP / PPPEX, where NGDP is nominal GDP in local currency and PPPEX is the purchasing-power-parity (PPP) exchange rate. See *World Economic Outlook* frequently asked questions for more information on the use of PPPs. <https://www.imf.org/en/Publications/WEO/frequently-asked-questions>.

This PPP data update leads to revisions in PPP GDP weights and to revisions in regional and global aggregates, as outlined in more detail below. Overall, the magnitude of the revisions resulting from the new ICP release was smaller compared with the previous ICP release (see, for example, Box 1.1 of the October 2020 *World Economic Outlook*).

PPP Weight Changes for Regions and Economies

Based on the results of the new ICP release extrapolated to 2024, price levels are estimated to be lower for most countries compared with the extrapolated data based on the previous ICP release. As a result, PPP-based GDP is estimated to be higher for both advanced economies and emerging market and developing economies.

However, in relative terms, the increase in PPP GDP experienced by emerging market and developing economies was bigger than that experienced by advanced economies. For this reason, the share of advanced economies in world GDP decreased from 40.9 percent, based on the previous PPP measures (Table A2.1, column 3), to 40.2 percent, based on new PPPs (column 6) in 2024. This corresponds to a 0.7 percentage point decline for the advanced economies (column 7). The share of emerging market and developing economies increased from 59.1 to 59.8 percent, a mirror 0.7 percentage point increase.²

The revisions for advanced economies are driven mostly by the decline in the US share. Among emerging market and developing economies, Russia and India drove most of the upward revision. But not all emerging market and developing economy regions experienced an upward revision. The Middle East and Central Asia share of world GDP decreased by 0.3 percentage point in 2024.

Impact of PPP Revision on Aggregate Growth

Given the relatively small changes in world GDP shares, the impact of the new weights on world and

²The PPP-based share of world GDP for emerging market and developing economies is in general higher than the market exchange rate share of 41.2 percent (column 8), whereas for advanced economies it is lower than the market exchange rate share of 58.8 percent, reflecting the role of PPPs in accounting for price level differences between advanced economies and emerging market and developing economies.

Box A2 (continued)

regional aggregates is negligible. Table A2.2 shows aggregate real GDP growth rates for 2023–25 derived using previous and new weights. The differences are small (columns 7–9), not exceeding

0.1 percentage point in either direction, and are driven by changes in weights for some of the slower-, or conversely faster-, growing economies within those economy groups.

Table A2.1. Changes in World GDP Shares from Purchasing-Power-Parity Revisions
(Percent, unless noted otherwise)

	Previous Weights			New Weights			Difference ²	US Dollar GDP Share
	2017 (1)	2021 ¹ (2)	2024 ¹ (3)	2017 (4)	2021 (5)	2024 ¹ (6)	2024 (7)	2024 (8)
Advanced Economies	44.0	42.3	40.9	43.6	41.6	40.2	-0.7	58.8
United States	16.0	15.9	15.6	15.9	15.2	15.0	-0.6	26.5
Germany	3.7	3.4	3.1	3.6	3.4	3.1	0.0	4.3
France	2.4	2.3	2.2	2.4	2.4	2.2	0.0	2.9
Italy	2.1	1.9	1.8	2.0	1.9	1.8	0.0	2.2
Spain	1.5	1.4	1.4	1.5	1.3	1.4	0.0	1.6
Japan	4.3	3.8	3.6	4.3	3.6	3.4	-0.2	3.7
United Kingdom	2.5	2.3	2.2	2.5	2.3	2.2	0.0	3.3
Canada	1.4	1.4	1.3	1.4	1.4	1.3	0.0	2.0
Other Advanced Economies ³	6.9	6.8	6.6	6.9	6.8	6.6	0.0	8.3
Emerging Market and Developing Economies	56.0	57.7	59.1	56.4	58.4	59.8	0.7	41.2
Emerging and Developing Asia	29.6	32.2	33.9	30.1	32.5	34.3	0.4	23.9
China	16.1	18.4	18.9	16.6	18.5	19.1	0.2	16.6
India	6.7	7.0	7.9	6.8	7.3	8.2	0.3	3.5
Emerging and Developing Europe	7.5	7.6	7.4	7.4	8.1	7.8	0.4	5.0
Russia	3.1	3.1	2.9	3.1	3.7	3.6	0.7	2.0
Latin America and the Caribbean	8.0	7.3	7.2	7.9	7.3	7.2	0.0	6.1
Brazil	2.5	2.3	2.3	2.4	2.4	2.4	0.1	2.0
Mexico	2.1	1.9	1.8	2.0	1.7	1.7	-0.1	1.7
Middle East and Central Asia	7.8	7.5	7.5	7.8	7.3	7.2	-0.3	4.5
Saudi Arabia	1.3	1.3	1.2	1.3	1.1	1.1	-0.1	1.0
Sub-Saharan Africa	3.1	3.1	3.1	3.2	3.2	3.2	0.1	1.7
Nigeria	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.2
South Africa	0.6	0.6	0.6	0.6	0.5	0.5	-0.1	0.4
Emerging Market and Middle-Income Economies	52.1	53.7	55.1	52.4	54.3	55.7	0.6	39.2
Low-Income Developing Countries	3.9	4.0	4.1	3.9	4.1	4.2	0.1	2.0

Source: IMF staff calculations.

Note: Columns (1)–(6) show shares of world GDP in purchasing-power-parity (PPP) terms. Previous shares are based on the International Comparison Program (ICP) 2017 release for reference years 2011–17; new shares are based on the ICP 2021 release for reference years 2017–21. Column (8) shows shares of world GDP in US dollar terms.

¹ Extrapolations.

² Difference between column (6) (new) and column (3) (previous); percentage points.

³ Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.

Box A2 (continued)**Table A2.2. Revisions to Real GDP Growth of World Economic Outlook Aggregates***(Percent, unless noted otherwise)*

	Previous Weights			New Weights			Difference ¹		
	2023 (1)	2024 (2)	2025 (3)	2023 (4)	2024 (5)	2025 (6)	2023 (7)	2024 (8)	2025 (9)
World	3.3	3.2	3.2	3.3	3.2	3.2	0.0	0.0	0.0
Advanced Economies	1.8	1.8	1.8	1.7	1.8	1.8	-0.1	0.0	0.0
Other Advanced Economies ²	1.9	2.1	2.2	1.8	2.1	2.2	-0.1	0.0	0.0
Emerging Market and Developing Economies	4.4	4.2	4.2	4.4	4.2	4.2	0.0	0.0	0.0
Emerging and Developing Asia	5.7	5.3	5.0	5.7	5.3	5.0	0.0	0.0	0.0
Emerging and Developing Europe	3.4	3.1	2.3	3.3	3.2	2.2	-0.1	0.1	-0.1
Latin America and the Caribbean	2.3	2.1	2.5	2.2	2.1	2.5	-0.1	0.0	0.0
Middle East and Central Asia	2.0	2.4	4.0	2.1	2.4	3.9	0.1	0.0	-0.1
Sub-Saharan Africa	3.5	3.6	4.1	3.6	3.6	4.2	0.1	0.0	0.1
Emerging Market and Middle-Income Economies	4.4	4.2	4.2	4.4	4.2	4.2	0.0	0.0	0.0
Low-Income Developing Countries	4.0	3.9	4.7	4.1	4.0	4.7	0.1	0.1	0.0

Source: IMF staff calculations.

Note: Columns (1)–(6) show real GDP growth rates aggregated using previous purchasing-power-parity (PPP) shares based on the International Comparison Program (ICP) 2017 release and new PPP shares based on the ICP 2021 release.

¹ Difference between columns (4)–(6) (new) and columns (1)–(3) (previous); percentage points.² Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.

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¹When countries are not listed alphabetically, they are ordered on the basis of economic size.

Table A1. Summary of World Output¹
(Annual percent change)

	Average										Projections		
	2006-15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2029	
World	3.6	3.3	3.8	3.6	2.9	-2.7	6.6	3.6	3.3	3.2	3.2	3.1	
Advanced Economies	1.5	1.8	2.6	2.3	1.9	-4.0	6.0	2.9	1.7	1.8	1.8	1.7	
United States	1.6	1.8	2.5	3.0	2.6	-2.2	6.1	2.5	2.9	2.8	2.2	2.1	
Euro Area	0.8	1.8	2.6	1.8	1.6	-6.1	6.2	3.3	0.4	0.8	1.2	1.2	
Japan	0.5	0.8	1.7	0.6	-0.4	-4.2	2.7	1.2	1.7	0.3	1.1	0.5	
Other Advanced Economies ²	2.4	2.3	3.0	2.5	1.9	-4.0	6.4	3.3	1.4	1.8	2.1	1.9	
Emerging Market and Developing Economies	5.6	4.4	4.8	4.7	3.7	-1.8	7.0	4.0	4.4	4.2	4.2	3.9	
Regional Groups													
Emerging and Developing Asia	7.9	6.8	6.6	6.4	5.3	-0.5	7.7	4.4	5.7	5.3	5.0	4.5	
Emerging and Developing Europe	3.1	1.7	4.2	3.6	2.5	-1.8	7.1	0.6	3.3	3.2	2.2	2.5	
Latin America and the Caribbean	3.0	-0.8	1.4	1.1	0.2	-6.9	7.4	4.2	2.2	2.1	2.5	2.6	
Middle East and Central Asia	4.2	4.3	2.6	2.7	1.9	-2.2	4.4	5.5	2.1	2.4	3.9	3.8	
Sub-Saharan Africa	5.2	1.5	3.0	3.3	3.2	-1.6	4.8	4.1	3.6	3.6	4.2	4.4	
Analytical Groups													
By Source of Export Earnings													
Fuel	4.3	2.2	0.8	0.8	0.2	-3.8	4.2	5.3	2.2	2.7	3.8	3.1	
Nonfuel	5.8	4.7	5.3	5.1	4.1	-1.5	7.3	3.8	4.7	4.4	4.2	4.0	
Of which, Primary Products	3.9	1.3	2.8	1.6	0.8	-6.1	7.6	3.3	0.6	0.6	3.8	2.9	
By External Financing Source													
Net Debtor Economies	4.7	3.9	4.7	4.5	3.3	-3.5	7.0	4.9	4.6	4.3	4.4	4.8	
Net Debtor Economies by Debt-Servicing Experience													
Economies with Arrears and/or Rescheduling during 2019-23	4.1	2.8	4.0	3.6	3.3	-0.7	3.9	1.0	3.2	2.7	4.0	4.9	
Other Groups													
European Union	1.1	2.0	3.0	2.2	2.0	-5.6	6.4	3.7	0.6	1.1	1.6	1.5	
Middle East and North Africa	3.9	4.8	2.2	2.1	1.3	-2.4	4.2	5.5	1.9	2.1	4.0	3.6	
Emerging Market and Middle-Income Economies	5.6	4.5	4.8	4.6	3.6	-1.9	7.2	4.0	4.4	4.2	4.2	3.8	
Low-Income Developing Countries	5.7	3.4	4.5	4.7	5.0	0.1	4.5	4.4	4.1	4.0	4.7	5.2	
<i>Memorandum</i>													
Median Growth Rate													
Advanced Economies	1.6	2.3	3.0	2.8	2.0	-3.9	6.6	3.0	1.2	1.3	2.1	2.0	
Emerging Market and Developing Economies	4.3	3.4	3.8	3.5	3.2	-3.6	5.0	4.2	3.4	3.4	3.7	3.5	
Emerging Market and Middle-Income Economies	3.7	3.0	2.8	2.9	2.5	-5.2	4.9	4.6	2.9	3.0	3.2	2.9	
Low-Income Developing Countries	5.1	4.5	4.3	4.4	4.6	-1.1	5.0	4.0	4.4	4.1	4.5	4.8	
Output per Capita³													
Advanced Economies	0.9	1.3	2.1	1.8	1.4	-4.5	5.8	2.5	1.1	1.3	1.5	1.4	
Emerging Market and Developing Economies	4.0	2.8	3.3	3.4	2.4	-3.1	5.9	2.9	3.3	3.7	3.1	2.9	
Emerging Market and Middle-Income Economies	4.2	3.1	3.6	3.7	2.6	-2.9	6.5	3.3	3.7	3.5	3.4	3.2	
Low-Income Developing Countries	3.1	0.9	2.0	2.2	2.5	-2.3	1.9	2.0	1.7	3.1	2.4	2.9	
World Growth Rate Based on Market Exchange Rates	2.5	2.6	3.4	3.2	2.6	-3.0	6.4	3.2	2.8	2.7	2.8	2.5	
Value of World Output (billions of US dollars)													
At Market Exchange Rates	68,493	76,598	81,479	86,497	87,772	85,519	97,403	101,409	105,685	110,065	115,494	139,652	
At Purchasing Power Parities	91,744	117,123	123,709	131,583	139,434	139,120	155,448	172,267	184,258	194,569	204,473	248,716	

¹ Real GDP.

² Excludes euro area countries, Japan, and the United States.

³ Output per capita is in international dollars at purchasing power parity.

Table A2. Advanced Economies: Real GDP and Total Domestic Demand¹
(Annual percent change)

	Average									Projections			Q4 over Q4 ²		
	2006–15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2029	2023:Q4	2024:Q4	2025:Q4
										Projections			Projections		
Real GDP															
Advanced Economies	1.5	1.8	2.6	2.3	1.9	-4.0	6.0	2.9	1.7	1.8	1.8	1.7	1.7	1.9	1.7
United States	1.6	1.8	2.5	3.0	2.6	-2.2	6.1	2.5	2.9	2.8	2.2	2.1	3.2	2.5	1.9
Euro Area	0.8	1.8	2.6	1.8	1.6	-6.1	6.2	3.3	0.4	0.8	1.2	1.2	0.2	1.2	1.3
Germany	1.4	2.3	2.7	1.1	1.0	-4.1	3.7	1.4	-0.3	0.0	0.8	0.7	-0.2	0.3	1.3
France	1.0	0.7	2.3	1.6	2.1	-7.6	6.8	2.6	1.1	1.1	1.1	1.3	1.3	0.7	1.5
Italy	-0.5	1.2	1.6	0.8	0.4	-8.9	8.9	4.7	0.7	0.7	0.8	0.7	0.3	1.0	0.6
Spain	0.5	2.9	2.9	2.4	2.0	-10.9	6.7	6.2	2.7	2.9	2.1	1.6	2.3	2.9	2.0
The Netherlands	1.1	2.4	2.8	2.3	2.3	-3.9	6.3	5.0	0.1	0.6	1.6	1.4	-0.6	1.4	1.6
Belgium	1.4	1.3	1.6	1.8	2.2	-5.3	6.9	3.0	1.4	1.1	1.2	1.3	1.3	1.0	1.3
Ireland	3.7	1.2	10.0	7.5	5.0	7.2	16.3	8.6	-5.5	-0.2	2.2	2.3	-9.9	7.0	-3.2
Austria	1.2	2.0	2.3	2.4	1.5	-6.6	4.2	4.8	-0.8	-0.6	1.1	0.9	-1.3	-0.2	1.4
Portugal	-0.1	2.0	3.5	2.8	2.7	-8.3	5.7	6.8	2.3	1.9	2.3	1.9	2.1	2.4	2.3
Greece	-2.2	-0.5	1.1	1.7	1.9	-9.3	8.4	5.6	2.0	2.3	2.0	1.3	1.3	2.4	2.1
Finland	0.4	2.6	3.3	1.2	1.3	-2.5	2.7	1.5	-1.2	-0.2	2.0	1.5	-1.5	1.6	1.8
Slovak Republic	3.8	1.9	2.9	4.0	2.5	-3.3	4.8	1.9	1.6	2.2	1.9	2.3	2.1	2.1	1.7
Croatia	0.3	3.6	3.4	3.0	3.4	-8.5	13.0	7.0	3.1	3.4	2.9	2.6	4.4	1.6	5.1
Lithuania	2.5	2.6	4.3	4.0	4.6	0.1	6.2	2.4	-0.3	2.4	2.6	2.2	0.1	3.5	2.0
Slovenia	1.1	3.0	5.2	4.4	3.5	-4.1	8.4	2.7	2.1	1.5	2.6	2.5	2.8	1.7	2.4
Luxembourg	2.5	5.0	1.3	1.2	2.9	-0.9	7.2	1.4	-1.1	1.3	2.7	2.3	-0.6	2.6	2.7
Latvia	1.5	2.4	3.3	4.0	0.6	-3.5	6.7	3.0	-0.3	1.2	2.3	2.5	-0.2	2.6	1.4
Estonia	1.6	3.1	5.6	3.7	3.7	-2.9	7.1	0.1	-3.0	-0.9	1.6	2.0	-2.4	0.0	2.3
Cyprus	0.5	6.6	5.7	5.6	5.5	-3.4	9.9	5.1	2.5	3.3	3.1	3.0	2.2	3.1	3.1
Malta	4.5	4.1	13.0	7.2	4.1	-3.5	13.5	4.1	7.5	5.0	4.0	3.5	6.7	5.4	5.2
Japan	0.5	0.8	1.7	0.6	-0.4	-4.2	2.7	1.2	1.7	0.3	1.1	0.5	0.9	1.8	0.2
United Kingdom	1.2	1.9	2.7	1.4	1.6	-10.3	8.6	4.8	0.3	1.1	1.5	1.3	-0.3	2.1	1.1
Korea	3.7	3.2	3.4	3.2	2.3	-0.7	4.6	2.7	1.4	2.5	2.2	2.0	2.2	2.0	2.9
Canada	1.6	1.0	3.0	2.7	1.9	-5.0	5.3	3.8	1.2	1.3	2.4	1.6	1.0	2.3	2.1
Australia	2.8	2.7	2.4	2.8	1.8	-2.1	5.5	3.9	2.0	1.2	2.1	2.3	1.6	1.5	2.2
Taiwan Province of China	3.6	2.2	3.3	2.8	3.1	3.4	6.6	2.6	1.3	3.7	2.7	2.1	5.1	1.1	2.6
Singapore	5.6	3.6	4.5	3.5	1.3	-3.9	9.7	3.8	1.1	2.6	2.5	2.5	2.1	2.0	2.4
Switzerland	2.0	2.1	1.4	2.9	1.2	-2.3	5.6	3.1	0.7	1.3	1.3	1.2	0.6	1.4	1.9
Sweden	1.9	2.3	1.8	1.9	2.5	-2.0	5.9	1.5	-0.2	0.9	2.4	2.1	0.1	1.6	3.0
Czech Republic	2.0	2.6	5.2	2.8	3.6	-5.3	4.0	2.8	-0.1	1.1	2.3	2.0	0.0	1.7	2.5
Norway	1.3	1.2	2.5	0.8	1.1	-1.3	3.9	3.0	0.5	1.5	1.8	1.4	1.0	1.3	2.0
Hong Kong SAR	3.4	2.2	3.8	2.8	-1.7	-6.5	6.5	-3.7	3.3	3.2	3.0	2.4	4.5	2.5	5.7
Israel ³	4.0	4.4	4.3	4.1	3.8	-1.5	9.5	6.4	2.0	0.7	2.7	3.4	-4.0	6.3	3.0
Denmark	0.7	3.1	3.1	1.9	1.7	-1.8	7.4	1.5	2.5	1.9	1.6	1.4	4.9	0.9	1.3
New Zealand	2.0	3.9	3.3	3.5	3.1	-1.4	5.6	2.4	0.6	0.0	1.9	2.4	-0.2	0.1	2.8
Puerto Rico	-1.0	-1.3	-2.9	-4.4	1.7	-4.2	0.4	3.6	0.6	1.0	-0.8	0.8	...	...	...
Macao SAR	6.8	-0.7	9.9	6.4	-2.6	-54.3	23.5	-21.4	80.5	10.6	7.3	3.0	...	...	...
Iceland	1.9	6.3	4.2	4.9	1.9	-6.9	5.3	9.0	5.0	0.6	2.4	2.4	1.4	2.0	-0.4
Andorra	-1.2	3.7	0.3	1.6	2.0	-11.2	8.3	9.6	1.4	1.4	1.6	1.5	...	...	...
San Marino	-2.1	2.3	0.3	1.5	2.0	-6.8	14.2	7.9	0.4	0.7	1.3	1.3	...	...	...
<i>Memorandum</i>															
Major Advanced Economies	1.2	1.6	2.4	2.1	1.7	-4.2	5.8	2.6	1.9	1.7	1.7	1.6	1.9	1.9	1.5
Real Total Domestic Demand															
Advanced Economies	1.3	2.1	2.6	2.3	2.1	-3.9	6.0	3.4	1.1	1.6	1.7	1.6	1.3	2.2	1.2
United States	1.4	1.9	2.6	3.1	2.6	-1.9	7.1	2.8	2.3	3.0	2.1	1.9	3.1	2.8	1.7
Euro Area	0.5	2.3	2.3	2.0	2.4	-5.7	5.0	3.5	0.2	0.2	1.2	1.2	0.2	0.9	0.3
Germany	1.2	3.0	2.6	2.0	1.6	-3.2	3.0	2.8	-0.4	-0.4	0.8	0.8	-1.0	0.4	1.3
France	1.2	1.3	2.3	1.4	2.0	-6.3	6.0	2.9	0.6	0.0	0.7	1.2	-0.1	0.2	1.1
Italy	-0.8	1.6	1.6	1.0	-0.2	-8.3	9.2	5.4	0.3	0.3	0.6	0.7	-0.5	3.1	-1.8
Spain	-0.3	2.0	3.1	3.2	1.6	-9.0	7.0	3.9	1.7	2.1	2.1	1.6	2.8	1.5	2.6
Japan	0.4	0.3	1.1	0.6	0.0	-3.3	1.7	1.7	0.7	0.4	1.1	0.5	-0.6	2.2	0.1
United Kingdom	1.3	3.1	2.2	0.9	1.9	-11.5	9.1	5.1	-0.1	1.3	1.3	1.2	1.8	1.0	2.7
Canada	2.2	0.4	4.1	2.7	1.1	-6.1	6.5	5.1	-0.3	1.3	2.8	2.0	0.2	2.4	2.3
Other Advanced Economies ⁴	2.7	3.0	3.6	2.7	1.7	-2.5	6.1	3.6	0.7	1.3	2.0	2.0	-0.5	2.6	2.0
<i>Memorandum</i>															
Major Advanced Economies	1.1	1.8	2.3	2.2	1.8	-3.9	6.2	3.1	1.3	1.7	1.6	1.5	1.5	2.1	1.3

¹ In this and other tables, when countries are not listed alphabetically, they are ordered on the basis of economic size.² From the fourth quarter of the preceding year.³ See the country-specific note for Israel in the "Country Notes" section of the Statistical Appendix.⁴ Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.

Table A3. Advanced Economies: Components of Real GDP
(Annual percent change)

	Averages										Projections	
	2006-15	2016-25	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Private Consumer Expenditure												
Advanced Economies	1.4	1.7	2.1	2.3	2.1	1.6	-5.4	6.1	4.1	1.7	1.7	1.6
United States	1.7	2.6	2.5	2.6	2.7	2.1	-2.5	8.8	3.0	2.5	2.6	1.8
Euro Area	0.5	1.1	1.9	1.8	1.5	1.4	-7.9	4.7	4.9	0.7	0.9	1.3
Germany	0.8	0.9	2.2	1.5	1.4	1.7	-6.8	2.3	5.6	-0.4	0.6	1.4
France	1.2	1.0	1.5	1.6	1.1	1.7	-6.5	5.3	3.2	0.9	0.7	1.0
Italy	-0.3	0.4	0.8	1.2	0.5	0.0	-10.6	5.8	5.0	1.0	0.5	1.0
Spain	0.0	1.3	2.7	3.1	1.7	1.1	-12.1	7.1	4.8	1.8	2.2	2.0
Japan	0.5	0.0	-0.4	1.1	0.2	-0.6	-4.4	0.8	2.2	0.6	-0.1	0.8
United Kingdom	1.2	1.1	3.7	1.8	2.0	1.1	-13.1	7.2	7.4	0.7	0.4	1.3
Canada	2.7	2.2	2.1	3.7	2.6	1.6	-6.3	5.1	5.1	1.7	2.9	3.7
Other Advanced Economies ¹	2.7	2.0	2.7	2.9	2.9	1.9	-5.3	4.7	4.3	2.4	1.8	2.0
<i>Memorandum</i>												
Major Advanced Economies	1.3	1.7	1.9	2.1	1.9	1.5	-5.0	6.3	3.8	1.6	1.6	1.6
Public Consumption												
Advanced Economies	1.2	1.9	2.0	0.8	1.6	3.0	2.2	3.4	0.7	1.9	2.2	1.4
United States	0.4	1.6	1.8	-0.1	1.4	3.9	3.0	0.4	-1.1	2.9	2.1	1.6
Euro Area	1.2	1.7	2.0	1.2	1.1	1.8	1.2	4.3	1.1	1.2	1.7	0.9
Germany	2.0	2.1	4.0	1.6	1.0	2.9	4.9	3.4	0.1	-0.1	1.9	1.0
France	1.5	1.3	1.5	1.7	0.8	1.1	-4.3	6.6	2.6	0.8	1.4	0.7
Italy	-0.5	0.5	1.3	0.3	0.0	-0.4	0.3	2.3	0.6	1.9	-0.3	-1.3
Spain	1.4	2.5	0.9	1.0	2.1	2.2	3.5	3.6	0.6	5.2	3.8	2.2
Japan	1.4	1.5	1.6	0.1	1.0	1.9	2.4	3.4	1.7	0.0	1.7	1.7
United Kingdom	1.2	1.8	0.7	0.6	0.6	4.0	-6.8	14.3	0.6	0.6	2.3	1.6
Canada	1.7	2.3	1.8	2.1	3.1	1.1	1.3	5.4	3.2	1.6	2.5	1.6
Other Advanced Economies ¹	2.9	3.1	3.4	2.4	3.5	3.8	4.7	4.6	2.7	1.5	3.0	1.5
<i>Memorandum</i>												
Major Advanced Economies	0.8	1.6	1.9	0.4	1.2	2.9	1.6	3.0	0.1	1.8	1.9	1.3
Gross Fixed Capital Formation												
Advanced Economies	1.0	2.3	2.8	4.0	3.3	3.2	-3.0	6.0	2.0	1.9	1.3	2.2
United States	1.2	3.3	2.9	4.3	5.0	2.9	-0.8	5.4	2.0	3.2	4.5	3.1
Euro Area	-0.1	1.7	3.7	3.9	3.2	7.1	-5.8	3.5	1.9	0.9	-1.6	1.3
Germany	1.9	0.6	3.8	2.6	3.6	2.0	-3.0	0.6	-0.2	-1.2	-2.7	0.4
France	0.4	1.7	2.6	4.1	3.4	4.2	-6.2	9.6	0.1	0.8	-1.3	0.2
Italy	-2.9	4.0	3.8	3.3	3.3	1.6	-7.1	21.5	7.5	8.5	-0.9	0.8
Spain	-2.6	2.4	2.0	6.8	6.5	4.9	-8.9	2.6	3.3	2.1	2.1	3.1
Japan	-0.4	0.4	1.2	1.6	0.6	0.5	-3.7	0.4	-0.5	1.8	0.8	0.9
United Kingdom	1.4	1.3	5.1	3.5	-0.5	2.1	-9.7	7.6	5.1	-0.1	0.1	0.5
Canada	1.7	0.7	-4.7	3.3	2.4	0.8	-3.8	9.3	-2.4	-3.2	1.3	4.3
Other Advanced Economies ¹	2.7	2.3	3.2	4.7	2.2	0.9	-1.1	9.2	2.5	0.3	-0.8	2.3
<i>Memorandum</i>												
Major Advanced Economies	0.8	2.3	2.6	3.6	3.5	2.4	-3.0	6.0	1.7	2.2	2.0	2.1

Table A3. Advanced Economies: Components of Real GDP (continued)

(Annual percent change)

	Averages										Projections	
	2006-15	2016-25	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Final Domestic Demand												
Advanced Economies	1.3	1.9	2.3	2.4	2.2	2.3	-3.5	5.6	2.9	1.7	1.6	1.7
United States	1.4	2.6	2.4	2.6	3.0	2.5	-1.4	6.9	2.3	2.7	2.9	2.1
Euro Area	0.5	1.3	2.3	2.1	1.8	2.7	-5.5	4.3	3.4	0.9	0.5	1.2
Germany	1.3	1.1	3.0	1.8	1.8	2.0	-3.4	2.2	3.0	-0.5	0.2	1.1
France	1.1	1.2	1.7	2.2	1.5	2.1	-5.9	6.6	2.3	0.9	0.4	0.7
Italy	-0.8	1.1	1.4	1.4	0.9	0.2	-7.8	8.0	4.6	2.8	0.0	0.5
Spain	-0.3	1.8	2.2	3.4	2.7	2.1	-8.4	5.4	3.6	2.6	2.5	2.2
Japan	0.4	0.4	0.3	1.0	0.5	0.2	-2.9	1.3	1.4	0.8	0.7	1.2
United Kingdom	1.2	1.3	3.3	1.9	1.3	1.8	-11.3	8.7	5.5	0.5	0.8	1.2
Canada	2.2	1.7	0.5	3.3	2.7	1.3	-4.1	6.1	2.8	0.5	1.9	2.8
Other Advanced Economies ¹	2.7	2.2	3.0	3.4	2.4	1.9	-2.3	5.8	3.4	1.6	1.4	1.9
<i>Memorandum</i>												
Major Advanced Economies	1.1	1.8	2.1	2.2	2.2	1.9	-3.4	5.8	2.7	1.7	1.8	1.6
Stock Building²												
Advanced Economies	0.0	0.0	-0.3	0.2	0.1	-0.1	-0.3	0.4	0.5	-0.6	-0.1	0.0
United States	0.1	0.0	-0.5	0.0	0.1	0.1	-0.5	0.3	0.6	-0.3	0.1	0.0
Euro Area	0.0	0.0	0.0	0.2	0.2	-0.3	-0.3	0.6	0.2	-0.6	-0.3	-0.1
Germany	-0.1	0.1	0.0	0.7	0.1	-0.4	0.1	0.7	-0.1	0.1	-0.5	-0.2
France	0.1	-0.2	-0.5	0.2	-0.1	0.0	-0.4	-0.6	0.5	-0.3	-0.4	0.0
Italy	0.0	-0.1	0.2	0.2	0.1	-0.4	-0.5	1.1	0.8	-2.4	0.2	0.1
Spain	0.0	0.0	-0.1	-0.2	0.4	-0.4	-0.6	1.7	0.4	-0.9	-0.5	-0.2
Japan	0.0	0.0	-0.1	0.1	0.2	-0.1	-0.5	0.5	0.3	-0.1	-0.1	0.0
United Kingdom	0.1	-0.1	-0.3	0.4	-0.5	0.0	0.0	0.0	0.8	-0.9	-0.2	0.1
Canada	-0.1	0.1	0.0	0.9	0.0	-0.2	-0.7	0.8	1.2	-0.7	-0.4	0.0
Other Advanced Economies ¹	0.0	0.0	-0.2	0.2	0.3	-0.1	-0.1	0.3	0.4	-0.8	-0.2	0.0
<i>Memorandum</i>												
Major Advanced Economies	0.0	0.0	-0.3	0.2	0.1	-0.1	-0.4	0.3	0.5	-0.4	-0.1	0.0
Foreign Balance²												
Advanced Economies	0.2	0.0	-0.1	0.1	-0.1	-0.2	-0.2	0.0	-0.4	0.6	0.2	0.1
United States	0.2	-0.2	-0.2	-0.2	-0.3	-0.1	-0.2	-1.3	-0.5	0.6	-0.4	0.0
Euro Area	0.3	0.1	-0.3	0.4	-0.1	-0.7	-0.5	1.4	-0.1	0.2	0.7	0.1
Germany	0.4	-0.2	-0.4	0.3	-0.6	-0.4	-1.1	0.9	-1.2	0.1	0.3	0.0
France	-0.1	0.1	-0.5	0.0	0.2	0.0	-1.3	0.7	-0.3	0.5	1.1	0.3
Italy	0.3	0.0	-0.3	0.1	-0.1	0.7	-0.9	0.0	-0.6	0.4	0.4	0.2
Spain	0.8	0.3	1.0	-0.1	-0.6	0.4	-2.2	-0.3	2.3	1.0	0.9	0.2
Japan	0.1	0.1	0.5	0.6	0.0	-0.5	-0.9	1.1	-0.5	0.9	0.0	0.1
United Kingdom	-0.2	0.1	-0.5	1.0	-0.1	-0.3	1.8	-0.9	-0.3	0.5	-0.4	0.1
Canada	-0.5	-0.2	0.4	-1.1	0.0	0.8	0.3	-1.8	-1.4	1.5	0.0	-0.4
Other Advanced Economies ¹	0.5	0.4	0.0	-0.2	0.3	0.5	0.6	0.4	-0.7	1.2	0.8	0.5
<i>Memorandum</i>												
Major Advanced Economies	0.1	-0.1	-0.1	0.0	-0.2	-0.1	-0.4	-0.5	-0.6	0.6	-0.1	0.1

¹ Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.² Changes expressed as percent of GDP in the preceding period.

Table A4. Emerging Market and Developing Economies: Real GDP
(Annual percent change)

	Average									Projections		
	2006–15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2029
Emerging and Developing Asia	7.9	6.8	6.6	6.4	5.3	-0.5	7.7	4.4	5.7	5.3	5.0	4.5
Bangladesh	6.2	7.1	6.6	7.3	7.9	3.4	6.9	7.1	5.8	5.4	4.5	6.5
Bhutan	7.3	7.5	5.9	3.5	4.6	-2.5	-3.3	4.8	5.0	5.2	7.2	7.2
Brunei Darussalam	0.3	-2.5	1.3	0.1	3.9	1.1	-1.6	-1.6	1.4	2.4	2.5	3.1
Cambodia	7.6	7.9	8.1	8.8	7.9	-3.6	3.1	5.1	5.0	5.5	5.8	6.0
China	9.6	6.8	6.9	6.7	6.0	2.2	8.4	3.0	5.2	4.8	4.5	3.3
Fiji	2.2	2.4	5.4	3.8	-0.6	-17.0	-4.9	19.8	7.5	3.0	3.4	3.1
India ¹	6.8	8.3	6.8	6.5	3.9	-5.8	9.7	7.0	8.2	7.0	6.5	6.5
Indonesia	5.8	5.0	5.1	5.2	5.0	-2.1	3.7	5.3	5.0	5.0	5.1	5.1
Kiribati	3.6	7.1	3.7	3.5	3.3	-0.6	8.5	3.9	4.1	5.8	4.1	2.1
Lao P.D.R.	7.9	7.0	6.9	6.2	4.7	-0.4	2.1	2.3	3.7	4.1	3.5	2.5
Malaysia	4.9	4.4	5.8	4.8	4.4	-5.5	3.3	8.9	3.6	4.8	4.4	4.0
Maldives	6.6	6.6	7.1	8.7	7.3	-32.9	37.7	13.9	4.0	4.7	4.7	4.5
Marshall Islands	0.7	2.5	3.6	5.5	10.5	-2.8	1.2	-1.1	-3.9	5.0	3.5	2.0
Micronesia	-0.1	0.9	2.3	0.1	3.8	-1.9	3.0	-0.9	0.8	1.1	1.7	0.7
Mongolia	8.0	1.5	5.6	7.7	5.6	-4.6	1.6	5.0	7.4	5.5	7.0	5.0
Myanmar	7.8	6.4	5.8	6.4	6.8	-1.2	-10.5	-4.0	2.5	1.0	1.1	1.8
Nauru	5.4	4.4	-6.0	-1.2	8.5	2.0	7.2	3.0	0.6	1.5	1.4	1.8
Nepal	4.4	0.4	9.0	7.6	6.7	-2.4	4.8	5.6	2.0	3.1	4.9	5.0
Palau	0.5	1.5	-3.5	0.3	1.5	-6.0	-11.6	-1.7	0.9	8.1	8.5	1.7
Papua New Guinea	5.6	5.5	3.5	-0.3	4.5	-3.2	-0.8	5.2	2.9	4.6	3.7	3.1
Philippines	5.5	7.1	6.9	6.3	6.1	-9.5	5.7	7.6	5.5	5.8	6.1	6.3
Samoa	1.3	8.0	1.4	-0.6	4.5	-3.1	-7.1	-5.3	8.0	9.7	4.2	2.0
Solomon Islands	4.3	5.6	3.1	2.7	1.7	-3.4	2.6	2.4	3.1	2.3	2.5	3.0
Sri Lanka ¹	6.4	5.1	6.5	2.3	-0.2	-4.6	4.2	-7.3	...	...	...	...
Thailand	3.3	3.4	4.2	4.2	2.1	-6.1	1.6	2.5	1.9	2.8	3.0	2.7
Timor-Leste ¹	5.7	3.4	-3.1	-0.7	2.1	-7.2	1.6	4.0	2.3	3.0	3.1	3.0
Tonga	0.8	6.8	3.4	0.9	-0.2	1.3	-1.3	0.0	2.0	1.8	2.4	1.2
Tuvalu	2.5	4.8	3.3	1.4	13.9	-3.3	0.2	0.4	3.9	3.5	3.0	2.0
Vanuatu	2.9	4.7	6.3	2.9	3.2	-5.0	-1.6	1.9	2.2	0.9	1.5	2.0
Vietnam	6.2	6.7	6.9	7.5	7.4	2.9	2.6	8.1	5.0	6.1	6.1	5.6
Emerging and Developing Europe	3.1	1.7	4.2	3.6	2.5	-1.8	7.1	0.6	3.3	3.2	2.2	2.5
Albania	3.5	3.3	3.8	4.0	2.1	-3.3	8.9	4.9	3.5	3.3	3.4	3.5
Belarus	4.2	-2.5	2.5	3.1	1.4	-0.7	2.4	-4.7	3.9	3.6	2.3	0.9
Bosnia and Herzegovina	2.5	3.2	3.2	3.8	2.9	-3.0	7.4	4.2	1.7	2.5	3.0	3.0
Bulgaria	2.4	3.0	2.7	2.7	4.0	-4.0	7.7	3.9	1.8	2.3	2.5	2.6
Hungary	1.0	2.2	4.3	5.4	4.9	-4.5	7.1	4.6	-0.9	1.5	2.9	3.2
Kosovo	4.6	5.6	4.8	3.4	4.8	-5.3	10.7	4.3	3.3	3.8	4.0	3.8
Moldova	3.5	4.4	4.2	4.1	3.6	-8.3	13.9	-5.0	0.7	2.6	3.7	5.0
Montenegro	2.8	2.9	4.7	5.1	4.1	-15.3	13.0	6.4	6.0	3.7	3.7	3.0
North Macedonia	3.2	2.8	1.1	2.9	3.9	-4.7	4.5	2.2	1.0	2.2	3.6	3.5
Poland	3.9	3.0	5.1	5.9	4.4	-2.0	6.9	5.6	0.2	3.0	3.5	2.9
Romania	2.8	2.9	8.2	6.0	3.9	-3.7	5.7	4.1	2.1	1.9	3.3	3.5
Russia	2.6	0.2	1.8	2.8	2.2	-2.7	5.9	-1.2	3.6	3.6	1.3	1.2
Serbia	1.9	3.3	2.1	4.5	4.3	-0.9	7.7	2.5	2.5	3.9	4.1	4.0
Türkiye	5.1	3.3	7.5	3.0	0.8	1.9	11.4	5.5	5.1	3.0	2.7	3.9
Ukraine ¹	-0.6	2.4	2.4	3.5	3.2	-3.8	3.4	-28.8	5.3	3.0	2.5	4.2
Latin America and the Caribbean	3.0	-0.8	1.4	1.1	0.2	-6.9	7.4	4.2	2.2	2.1	2.5	2.6
Antigua and Barbuda	0.4	4.1	2.5	7.0	3.1	-18.9	8.2	9.5	4.2	5.8	3.5	2.8
Argentina	3.2	-2.1	2.8	-2.6	-2.0	-9.9	10.4	5.3	-1.6	-3.5	5.0	2.4
Aruba	-0.3	1.7	7.0	2.4	-2.3	-24.0	27.6	10.5	5.3	5.5	2.0	1.4
The Bahamas	0.2	-1.0	2.8	2.6	-1.4	-21.4	15.4	10.8	2.6	1.9	1.7	1.5
Barbados	-0.2	1.8	0.1	-1.2	0.7	-15.1	-0.3	17.8	4.1	3.9	3.0	2.0
Belize	2.2	0.0	-1.8	1.1	4.2	-13.7	17.9	9.8	1.1	5.4	2.5	2.0
Bolivia	5.0	4.3	4.2	4.2	2.2	-8.7	6.1	3.6	3.1	1.6	2.2	2.3
Brazil	2.8	-3.3	1.3	1.8	1.2	-3.3	4.8	3.0	2.9	3.0	2.2	2.5
Chile	3.9	1.8	1.4	4.0	0.6	-6.1	11.3	2.1	0.2	2.5	2.4	2.3
Colombia	4.6	2.1	1.4	2.6	3.2	-7.2	10.8	7.3	0.6	1.6	2.5	3.0

Table A4. Emerging Market and Developing Economies: Real GDP (continued)*(Annual percent change)*

	Average	2016	2017	2018	2019	2020	2021	2022	2023	Projections		
	2006-15									2024	2025	2029
Latin America and the Caribbean (continued)	3.0	-0.8	1.4	1.1	0.2	-6.9	7.4	4.2	2.2	2.1	2.5	2.6
Costa Rica	4.3	4.2	4.2	2.6	2.4	-4.3	7.9	4.6	5.1	4.0	3.5	3.5
Dominica	1.7	2.8	-6.6	3.5	5.5	-16.6	6.9	5.6	4.7	4.6	4.2	2.4
Dominican Republic	5.3	6.7	4.7	7.0	5.1	-6.7	12.3	4.9	2.4	5.1	5.0	5.0
Ecuador	4.3	-0.7	6.0	1.0	0.2	-9.2	9.8	6.2	2.4	0.3	1.2	2.5
El Salvador	2.1	2.5	2.2	2.4	2.4	-7.9	11.9	2.8	3.5	3.0	3.0	2.8
Grenada	1.1	3.7	4.4	4.4	0.7	-13.8	4.7	7.3	4.7	3.0	3.9	2.7
Guatemala	3.8	2.7	3.1	3.4	4.0	-1.8	8.0	4.2	3.5	3.5	3.6	3.8
Guyana	3.8	3.8	3.7	4.4	5.4	43.5	20.1	62.3	33.0	43.8	14.4	11.9
Haiti	2.3	1.8	2.5	1.7	-1.7	-3.3	-1.8	-1.7	-1.9	-4.0	1.0	1.5
Honduras	3.6	3.9	4.8	3.8	2.6	-9.0	12.6	4.1	3.6	3.6	3.5	3.8
Jamaica	0.1	1.5	0.7	1.8	1.0	-9.9	4.6	5.2	2.6	1.3	2.1	1.6
Mexico	1.9	1.8	1.9	2.0	-0.4	-8.4	6.0	3.7	3.2	1.5	1.3	2.1
Nicaragua	4.0	4.6	4.6	-3.4	-2.9	-1.8	10.3	3.8	4.6	4.0	3.8	3.5
Panama	7.6	5.0	5.6	3.7	3.3	-17.7	15.8	10.8	7.3	2.5	3.0	4.0
Paraguay	4.7	4.3	4.8	3.2	-0.4	-0.8	4.0	0.2	4.7	3.8	3.8	3.5
Peru	5.8	4.0	2.5	4.0	2.2	-10.9	13.4	2.7	-0.6	3.0	2.6	2.3
St. Kitts and Nevis	2.6	3.9	0.0	2.1	4.1	-14.6	-1.7	10.5	2.3	4.4	4.3	2.9
St. Lucia	1.5	3.8	3.4	2.9	-0.7	-24.4	11.6	20.4	2.2	3.9	2.6	1.5
St. Vincent and the Grenadines	1.1	4.1	1.5	3.2	0.7	-4.3	2.1	3.1	5.8	4.5	4.0	2.7
Suriname	3.1	-4.9	1.6	4.9	1.2	-16.0	-2.4	2.4	2.1	3.0	3.0	3.0
Trinidad and Tobago	3.1	-7.5	-4.8	-0.6	0.4	-9.1	-1.0	1.5	1.1	1.6	2.4	2.8
Uruguay ¹	4.7	1.7	1.7	0.2	0.9	-7.4	5.6	4.7	0.4	3.2	3.0	2.2
Venezuela ¹	1.9	-17.0	-15.7	-19.7	-27.7	-30.0	1.0	8.0	4.0	3.0	3.0	...
Middle East and Central Asia	4.2	4.3	2.6	2.7	1.9	-2.2	4.4	5.5	2.1	2.4	3.9	3.8
Afghanistan ¹	8.0	2.2	2.6	1.2	3.9	-2.4	-14.5	-6.2	2.7	...	...	...
Algeria	3.0	3.9	1.5	1.4	0.9	-5.0	3.8	3.6	4.1	3.8	3.0	2.1
Armenia	4.1	0.2	7.5	5.2	7.6	-7.1	5.8	12.6	8.3	6.0	4.9	4.5
Azerbaijan	9.2	-3.1	0.2	1.5	2.5	-4.2	5.6	4.7	1.1	3.2	2.5	2.4
Bahrain	4.6	3.8	5.0	2.1	2.1	-5.9	4.4	6.0	3.0	3.0	3.2	2.9
Djibouti	5.3	7.1	5.5	4.8	5.5	1.3	4.5	3.9	7.0	6.5	6.0	5.5
Egypt	4.5	4.3	4.2	5.3	5.5	3.6	3.3	6.7	3.8	2.7	4.1	5.7
Georgia	5.4	3.4	5.2	6.1	5.4	-6.3	10.6	11.0	7.5	7.6	6.0	5.0
Iran	2.1	8.8	2.8	-1.8	-3.1	3.3	4.7	3.8	5.0	3.7	3.1	2.0
Iraq	5.7	16.2	-1.5	2.6	5.6	-12.4	1.4	7.7	-2.9	0.1	4.1	4.2
Jordan	4.5	2.0	2.5	1.9	1.8	-1.1	3.7	2.4	2.6	2.4	2.9	3.0
Kazakhstan	5.5	0.9	3.9	4.1	4.5	-2.6	4.1	3.3	5.1	3.5	4.6	3.0
Kuwait	2.4	2.9	-4.7	2.7	2.3	-4.8	2.3	5.9	-3.6	-2.7	3.3	2.6
Kyrgyz Republic	4.6	4.3	4.7	3.5	4.6	-7.1	5.5	9.0	6.2	6.5	5.0	4.1
Lebanon ¹	4.8	1.6	0.9	-1.9	-6.8	-24.6	2.0	1.0	-0.7	...	...	...
Libya	-4.7	-1.5	32.5	7.9	-11.2	-29.5	28.3	-8.3	10.2	2.4	13.7	2.3
Mauritania	4.0	1.3	6.3	4.8	3.1	-0.4	0.7	6.8	6.5	4.4	4.2	4.5
Morocco	4.4	0.5	5.1	3.1	2.9	-7.2	8.2	1.5	3.4	2.8	3.6	3.4
Oman	5.0	5.0	0.3	1.3	-1.1	-3.4	2.6	9.6	1.3	1.0	3.1	3.6
Pakistan	3.6	4.1	4.6	6.1	3.1	-0.9	5.8	6.2	-0.2	2.4	3.2	4.5
Qatar	12.4	3.1	-1.5	1.2	0.7	-3.6	1.6	4.2	1.2	1.5	1.9	1.6
Saudi Arabia	4.3	1.9	0.9	3.2	1.1	-3.6	5.1	7.5	-0.8	1.5	4.6	3.5
Somalia	...	-1.3	9.5	1.4	2.8	-2.8	3.5	2.7	4.2	4.0	4.0	4.5
Sudan ¹	0.6	4.7	0.8	-2.3	-2.5	-3.6	0.5	-2.5	-18.3	-20.3	8.3	4.5
Syria ¹	...	...	...	...	...	...	...	...	...	...	...	...
Tajikistan	6.8	6.9	7.1	7.6	7.4	4.4	9.4	8.0	8.3	6.8	4.5	4.5
Tunisia	3.1	1.1	2.3	2.6	1.6	-9.0	4.7	2.7	0.0	1.6	1.6	1.2
Turkmenistan ¹	8.1	-0.5	2.1	1.7	-3.7	-2.1	-0.3	5.3	2.0	2.3	2.3	2.3
United Arab Emirates	4.0	5.6	0.7	1.3	1.1	-5.0	4.4	7.5	3.6	4.0	5.1	4.3
Uzbekistan	7.7	5.9	4.4	5.6	6.8	1.6	8.0	6.0	6.3	5.6	5.7	5.7
West Bank and Gaza ¹	4.8	8.9	1.4	1.2	1.4	-11.3	7.0	4.1	-5.4	...	...	...
Yemen	-1.8	-9.4	-5.1	0.8	2.1	-8.5	-1.0	1.5	-2.0	-1.0	1.5	5.5

Table A4. Emerging Market and Developing Economies: Real GDP (continued)
(Annual percent change)

	Average									Projections		
	2006–15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2029
Sub-Saharan Africa	5.2	1.5	3.0	3.3	3.2	-1.6	4.8	4.1	3.6	3.6	4.2	4.4
Angola	6.5	-1.7	-0.1	-0.6	-0.2	-4.0	2.1	4.2	1.0	2.4	2.8	3.4
Benin	4.2	3.3	5.7	6.7	6.9	3.8	7.2	6.3	6.4	6.5	6.5	6.0
Botswana	2.7	7.2	4.1	4.2	3.0	-8.7	11.9	5.5	2.7	1.0	5.2	4.0
Burkina Faso	5.5	6.0	6.2	6.6	5.5	1.9	6.9	1.8	3.1	5.5	5.8	5.0
Burundi	3.6	-0.6	0.5	1.6	1.8	0.3	3.1	1.8	2.7	2.2	3.5	5.0
Cabo Verde	3.8	4.3	4.6	3.7	6.9	-20.8	7.0	17.4	5.1	4.7	4.7	4.5
Cameroon	4.0	4.5	3.5	4.0	3.4	0.5	3.0	3.7	3.2	3.9	4.2	4.8
Central African Republic	-1.3	4.7	4.5	3.8	3.0	1.0	1.0	0.5	0.7	1.4	2.9	3.5
Chad	4.4	-6.3	-2.0	5.9	6.6	-2.1	-0.9	3.6	4.9	3.2	3.8	3.1
Comoros	2.5	3.3	3.8	3.6	1.8	-0.2	2.0	2.6	3.0	3.5	4.0	3.8
Democratic Republic of the Congo	6.9	0.4	3.7	4.8	4.5	1.7	5.9	8.8	8.4	4.7	5.0	4.3
Republic of Congo	4.2	-5.0	-5.6	-2.3	1.1	-6.3	1.1	1.8	2.0	2.8	3.7	3.8
Côte d'Ivoire	4.3	7.2	7.4	4.8	6.7	0.7	7.1	6.2	6.2	6.5	6.4	6.2
Equatorial Guinea	3.0	-8.8	-5.7	-6.2	-5.5	-4.8	0.9	3.7	-6.2	5.8	-4.8	2.9
Eritrea ¹	1.8	7.4	-10.0	13.0	3.8	...	...	...	...	...	...	...
Eswatini	3.1	1.1	2.0	2.4	2.7	-1.6	10.7	0.5	4.9	4.6	4.2	2.6
Ethiopia	10.6	8.0	10.2	7.7	9.0	6.1	6.3	6.4	7.2	6.1	6.5	7.8
Gabon	3.6	2.1	0.5	0.9	3.8	-1.8	1.5	3.0	2.4	3.1	2.6	2.6
The Gambia	2.3	1.9	4.8	7.2	6.2	0.6	5.3	4.9	5.3	5.8	5.8	5.0
Ghana	6.6	3.4	8.1	6.2	6.5	0.5	5.1	3.8	2.9	3.1	4.4	5.0
Guinea	3.9	10.8	10.3	6.4	5.6	4.7	5.6	4.0	5.7	4.1	5.7	5.6
Guinea-Bissau	3.4	5.3	4.8	3.8	4.5	1.5	6.2	4.6	5.2	5.0	5.0	4.5
Kenya	4.8	4.2	3.8	5.7	5.1	-0.3	7.6	4.9	5.6	5.0	5.0	5.0
Lesotho	3.5	1.9	-2.7	-1.5	-2.9	-5.3	1.7	1.6	2.2	2.8	2.3	2.1
Liberia	6.4	-1.6	2.5	1.2	-2.5	-3.0	5.0	4.8	4.6	5.1	5.8	6.0
Madagascar	2.7	4.0	3.9	3.2	4.4	-7.1	5.7	4.0	3.8	4.5	4.6	5.0
Malawi	5.7	2.3	4.0	4.4	5.4	1.0	4.6	0.9	1.5	1.8	4.0	4.6
Mali	4.1	5.9	5.3	4.7	4.8	-1.2	3.1	3.5	4.4	3.8	4.4	4.9
Mauritius	4.2	3.9	3.9	4.0	2.9	-14.5	3.4	8.9	7.0	6.1	4.0	4.0
Mozambique	7.4	4.7	2.6	3.5	2.3	-1.2	2.4	4.4	5.4	4.3	4.3	10.0
Namibia	4.3	0.0	-1.0	1.1	-0.8	-8.1	3.6	5.3	4.2	3.1	4.2	2.6
Niger	5.6	5.7	5.0	7.0	6.1	3.5	1.4	11.9	2.4	9.9	7.3	6.0
Nigeria	6.4	-1.6	0.8	1.9	2.2	-1.8	3.6	3.3	2.9	2.9	3.2	3.3
Rwanda	7.8	6.0	3.9	8.5	9.4	-3.4	10.9	8.2	8.2	7.0	6.5	7.3
São Tomé and Príncipe	4.2	5.2	4.1	4.4	2.0	2.6	1.9	0.2	0.4	1.1	3.3	3.5
Senegal	3.5	6.4	7.4	6.2	4.6	1.3	6.5	4.0	4.6	6.0	9.3	4.1
Seychelles	5.2	12.1	7.0	4.9	5.5	-11.7	0.6	15.0	3.2	3.1	3.9	3.5
Sierra Leone	4.2	4.7	3.9	3.4	5.5	-1.3	5.9	5.3	5.7	4.0	4.5	4.6
South Africa	2.6	0.7	1.2	1.6	0.3	-6.2	5.0	1.9	0.7	1.1	1.5	1.5
South Sudan	...	-13.3	-5.8	-2.1	0.9	-6.5	5.3	-5.2	2.5	-26.4	27.2	4.9
Tanzania	6.3	6.9	6.7	7.0	6.9	4.5	4.8	4.7	5.1	5.4	6.0	6.5
Togo	4.8	5.7	4.0	4.8	4.9	2.0	6.0	5.8	5.6	5.3	5.3	5.5
Uganda	6.9	0.2	6.8	5.6	7.6	-1.1	5.5	6.3	4.6	5.9	7.5	5.9
Zambia	6.9	3.8	3.5	4.0	1.4	-2.8	6.2	5.2	5.4	2.3	6.6	4.9
Zimbabwe ¹	3.6	0.8	5.2	5.0	-6.3	-7.8	8.5	6.1	5.3	2.0	6.0	3.5

¹ See the country-specific notes for Afghanistan, Eritrea, India, Lebanon, Sri Lanka, Sudan, Syria, Timor-Leste, Turkmenistan, Ukraine, Uruguay, Venezuela, West Bank and Gaza, and Zimbabwe in the "Country Notes" section of the Statistical Appendix.

Table A5. Summary of Inflation*(Percent)*

	Average									Projections		
	2006–15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2029
GDP Deflators												
Advanced Economies	1.5	1.0	1.4	1.7	1.5	1.6	3.3	5.7	4.1	2.5	2.0	1.9
United States	1.8	1.0	1.8	2.3	1.7	1.3	4.6	7.1	3.6	2.4	1.8	1.8
Euro Area	1.4	0.9	1.1	1.5	1.7	1.8	2.2	5.1	5.8	2.8	2.3	2.0
Japan	-0.4	0.4	-0.1	0.0	0.6	0.9	-0.2	0.4	3.8	2.6	2.1	1.9
Other Advanced Economies ¹	1.8	1.2	1.9	1.7	1.3	2.0	3.9	6.1	3.0	2.4	1.9	1.9
Consumer Prices												
Advanced Economies	1.7	0.7	1.7	2.0	1.4	0.7	3.1	7.3	4.6	2.6	2.0	2.0
United States	2.0	1.3	2.1	2.4	1.8	1.2	4.7	8.0	4.1	3.0	1.9	2.1
Euro Area ²	1.7	0.2	1.5	1.8	1.2	0.3	2.6	8.4	5.4	2.4	2.0	2.0
Japan	0.3	-0.1	0.5	1.0	0.5	0.0	-0.2	2.5	3.3	2.2	2.0	2.0
Other Advanced Economies ¹	2.1	0.9	1.8	1.9	1.4	0.6	2.5	6.6	4.9	2.5	2.1	2.0
Emerging Market and Developing Economies³	6.0	4.3	4.4	4.9	5.1	5.2	5.8	9.6	8.1	7.9	5.9	4.0
Regional Groups												
Emerging and Developing Asia	4.7	2.8	2.4	2.7	3.3	3.2	2.3	3.9	2.4	2.1	2.7	2.8
Emerging and Developing Europe	8.1	5.6	5.6	6.3	6.5	5.1	9.0	25.2	17.1	16.9	11.1	6.2
Latin America and the Caribbean ³	4.8	5.4	6.3	6.7	7.6	6.5	9.9	14.2	14.8	16.8	8.5	3.6
Middle East and Central Asia	8.4	5.3	7.0	9.6	7.4	10.3	11.9	13.4	15.6	14.6	10.7	6.3
Sub-Saharan Africa	8.1	10.0	10.6	8.4	8.7	11.2	11.6	15.2	17.6	18.1	12.3	7.6
Analytical Groups												
By Source of Export Earnings												
Fuel	8.1	7.1	6.3	8.3	6.5	9.4	11.6	13.5	12.5	11.9	10.5	7.7
Nonfuel	5.7	3.9	4.2	4.5	4.9	4.7	5.2	9.2	7.6	7.5	5.4	3.6
Of which, Primary Products ⁴	6.7	6.4	11.6	14.2	17.9	20.5	22.7	29.1	38.1	48.8	19.8	5.6
By External Financing Source												
Net Debtor Economies	6.9	5.5	5.9	5.9	5.7	6.3	7.6	12.9	11.8	10.6	7.6	4.8
Net Debtor Economies by Debt-Servicing Experience												
Economies with Arrears and/or Rescheduling during 2019–23	10.5	10.2	15.1	14.3	11.9	14.1	15.8	20.8	23.4	24.3	15.7	6.2
Other Groups												
European Union	1.8	0.1	1.6	1.9	1.4	0.7	2.9	9.3	6.3	2.6	2.3	2.1
Middle East and North Africa	8.2	5.0	7.0	10.6	7.7	10.9	12.9	13.6	15.0	14.8	11.6	6.5
Emerging Market and Middle-Income Economies	5.8	3.9	4.0	4.6	4.8	4.6	5.2	9.1	7.4	7.2	5.3	3.7
Low-Income Developing Countries	9.0	8.9	10.0	9.7	9.5	13.4	14.3	16.0	17.4	18.1	13.3	7.2
<i>Memorandum</i>												
Median Inflation Rate												
Advanced Economies	1.9	0.4	1.6	1.7	1.4	0.3	2.5	8.1	5.3	2.5	2.1	2.0
Emerging Market and Developing Economies ³	4.9	2.7	3.3	3.1	2.6	2.7	3.9	7.9	5.9	4.1	3.8	3.0

¹ Excludes the United States, euro area countries, and Japan.² Based on Eurostat's harmonized index of consumer prices.³ Excludes Venezuela but includes Argentina from 2017 onward. See the country-specific notes for Argentina and Venezuela in the "Country Notes" section of the Statistical Appendix.⁴ Includes Argentina from 2017 onward. See the country-specific note for Argentina in the "Country Notes" section of the Statistical Appendix.

Table A6. Advanced Economies: Consumer Prices¹

(Annual percent change)

	Average									Projections			End of Period ²		
													Projections		
	2006–15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2029	2023	2024	2025
Advanced Economies	1.7	0.7	1.7	2.0	1.4	0.7	3.1	7.3	4.6	2.6	2.0	2.0	3.1	2.2	2.0
United States	2.0	1.3	2.1	2.4	1.8	1.2	4.7	8.0	4.1	3.0	1.9	2.1	3.2	2.3	1.9
Euro Area ³	1.7	0.2	1.5	1.8	1.2	0.3	2.6	8.4	5.4	2.4	2.0	2.0	2.9	2.0	2.0
Germany	1.6	0.4	1.7	1.9	1.4	0.4	3.2	8.7	6.0	2.4	2.0	2.0	3.0	2.0	2.1
France	1.5	0.3	1.2	2.1	1.3	0.5	2.1	5.9	5.7	2.3	1.6	1.8	4.1	1.5	1.8
Italy	1.8	-0.1	1.3	1.2	0.6	-0.1	1.9	8.7	5.9	1.3	2.1	2.0	0.5	2.1	1.8
Spain	1.8	-0.3	2.0	1.7	0.8	-0.3	3.0	8.3	3.4	2.8	1.9	2.0	3.3	1.9	1.8
The Netherlands	1.6	0.1	1.3	1.6	2.7	1.1	2.8	11.6	4.1	3.2	2.3	2.0	1.0	3.3	1.8
Belgium	1.9	1.8	2.2	2.3	1.2	0.4	3.2	10.3	2.3	4.3	2.1	1.9	0.5	2.7	2.1
Ireland	0.9	-0.2	0.3	0.7	0.9	-0.4	2.4	8.0	5.2	1.7	1.8	2.0	3.2	1.5	1.4
Austria	2.0	1.0	2.2	2.1	1.5	1.4	2.8	8.6	7.7	3.0	2.5	2.1	5.7	1.9	2.6
Portugal	1.6	0.6	1.6	1.2	0.3	-0.1	0.9	8.1	5.3	2.5	2.1	2.0	1.9	2.2	2.0
Greece	1.7	0.0	1.1	0.8	0.5	-1.3	0.6	9.3	4.2	2.9	2.1	2.0	3.7	2.8	2.0
Finland	2.0	0.4	0.8	1.2	1.1	0.4	2.1	7.2	4.3	1.2	1.9	2.0	1.3	2.1	1.7
Slovak Republic	2.0	-0.5	1.4	2.5	2.8	2.0	2.8	12.1	11.0	2.8	5.1	2.0	6.6	2.4	4.8
Croatia	2.3	-0.6	1.3	1.6	0.8	0.0	2.7	10.7	8.4	4.0	2.8	2.2	5.4	3.3	2.2
Lithuania	3.4	0.7	3.7	2.5	2.2	1.1	4.6	18.9	8.7	0.9	2.4	2.4	0.6	1.9	2.4
Slovenia	2.0	-0.1	1.4	1.7	1.6	-0.1	1.9	8.8	7.4	2.0	2.7	2.1	4.2	1.7	2.7
Luxembourg	2.1	0.0	2.1	2.0	1.7	0.0	3.5	8.2	2.9	2.5	2.6	2.1	3.2	1.9	2.7
Latvia	4.0	0.1	2.9	2.6	2.7	0.1	3.2	17.2	9.1	1.4	2.2	2.2	0.9	2.9	1.6
Estonia	3.7	0.8	3.7	3.4	2.3	-0.6	4.5	19.4	9.1	3.4	2.0	2.2	4.3	2.5	2.0
Cyprus	1.7	-1.2	0.7	0.8	0.5	-1.1	2.2	8.1	3.9	2.2	2.0	2.0	2.0	2.0	2.0
Malta	2.0	0.9	1.3	1.7	1.5	0.8	0.7	6.1	5.6	2.7	2.5	2.0	3.7	2.6	2.2
Japan	0.3	-0.1	0.5	1.0	0.5	0.0	-0.2	2.5	3.3	2.2	2.0	2.0	2.9	1.8	1.8
United Kingdom	2.5	0.7	2.7	2.5	1.8	0.9	2.6	9.1	7.3	2.6	2.1	2.0	4.0	2.5	2.0
Korea	2.5	1.0	1.9	1.5	0.4	0.5	2.5	5.1	3.6	2.5	2.0	2.0	3.2	2.1	2.0
Canada	1.7	1.4	1.6	2.3	1.9	0.7	3.4	6.8	3.9	2.4	1.9	2.0	3.2	2.0	1.9
Australia	2.6	1.3	2.0	1.9	1.6	0.9	2.8	6.6	5.6	3.3	3.3	2.5	4.0	3.0	3.6
Taiwan Province of China	1.1	1.4	0.6	1.4	0.6	-0.2	2.0	2.9	2.5	2.1	1.7	1.5	2.7	2.3	1.9
Singapore	2.6	-0.5	0.6	0.4	0.6	-0.2	2.3	6.1	4.8	2.6	2.2	2.0	3.7	2.2	2.1
Switzerland	0.3	-0.4	0.5	0.9	0.4	-0.7	0.6	2.8	2.1	1.3	1.0	1.0	1.7	1.2	1.0
Sweden	1.4	1.1	1.9	2.0	1.7	0.7	2.7	8.1	5.9	2.1	2.0	2.0	3.0	1.6	2.0
Czech Republic	2.1	0.7	2.5	2.1	2.8	3.2	3.8	15.1	10.7	2.3	2.0	2.0	6.9	2.5	1.9
Norway	2.0	3.6	1.9	2.8	2.2	1.3	3.5	5.8	5.5	3.3	2.4	2.0	4.8	2.7	2.2
Hong Kong SAR	3.2	2.4	1.5	2.4	2.9	0.3	1.6	1.9	2.1	1.7	2.3	2.5	2.3	2.3	2.4
Israel ⁴	2.0	-0.5	0.2	0.8	0.8	-0.6	1.5	4.4	4.2	3.1	3.0	2.1	3.0	3.4	2.6
Denmark	1.6	0.0	1.1	0.7	0.7	0.3	1.9	8.5	3.4	1.8	2.2	2.0	0.5	2.3	2.0
New Zealand	2.2	0.6	1.9	1.6	1.6	1.7	3.9	7.2	5.7	2.7	2.2	2.0	4.7	1.9	2.2
Puerto Rico	2.2	-0.3	1.8	1.3	0.1	-0.5	2.4	6.0	3.5	1.6	1.9	1.6	1.9	2.2	1.6
Macao SAR	5.1	2.4	1.2	3.0	2.8	0.8	0.0	1.0	0.9	1.1	2.0	2.2	1.4	1.5	2.0
Iceland	5.8	1.7	1.8	2.7	3.0	2.8	4.5	8.3	8.7	6.0	3.3	2.5	7.8	5.2	2.6
Andorra	1.4	-0.4	2.6	1.0	0.5	0.1	1.7	6.2	5.6	3.6	2.5	1.7	4.6	3.2	2.0
San Marino	2.1	0.6	1.0	1.2	0.5	-0.1	2.1	5.3	5.9	1.3	2.0	2.0	5.9	1.3	2.0
<i>Memorandum</i>															
Major Advanced Economies	1.7	0.8	1.8	2.1	1.5	0.8	3.3	7.3	4.7	2.6	1.9	2.1	3.1	2.1	1.9

¹ Movements in consumer prices are shown as annual averages.

² Monthly year-over-year changes and, for several countries, on a quarterly basis.

³ Based on Eurostat's harmonized index of consumer prices.

⁴ See the country-specific note for Israel in the "Country Notes" section of the Statistical Appendix.

Table A7. Emerging Market and Developing Economies: Consumer Prices¹
(Annual percent change)

	Historical Data										Projections					
	Average										Projections			End of Period ²		
	2006–15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2029	2023	2024	2025	
Emerging and Developing Asia	4.7	2.8	2.4	2.7	3.3	3.2	2.3	3.9	2.4	2.1	2.7	2.8	1.8	2.4	2.9	
Bangladesh	7.6	5.9	5.4	5.8	5.5	5.6	5.6	6.1	9.0	9.7	10.7	5.5	9.7	9.7	9.7	
Bhutan	7.1	3.3	4.3	3.7	2.8	3.0	8.2	5.9	4.6	4.6	4.7	4.0	3.9	4.8	4.7	
Brunei Darussalam	0.5	-0.3	-1.3	1.0	-0.4	1.9	1.7	3.7	0.4	0.5	1.0	1.0	0.6	0.5	1.0	
Cambodia	5.7	3.0	2.9	2.5	1.9	2.9	2.9	5.3	2.1	0.7	2.1	3.0	2.7	2.0	2.1	
China	2.9	2.0	1.6	2.1	2.9	2.5	0.9	2.0	0.2	0.4	1.7	2.0	-0.3	1.0	2.0	
Fiji	3.8	3.9	3.3	4.1	1.8	-2.6	0.2	4.3	2.3	5.2	3.2	2.8	5.1	4.0	3.1	
India	8.0	4.5	3.6	3.4	4.8	6.2	5.5	6.7	5.4	4.4	4.1	4.0	5.0	4.2	4.2	
Indonesia	6.7	3.5	3.8	3.3	2.8	2.0	1.6	4.1	3.7	2.5	2.5	2.5	2.8	2.3	2.5	
Kiribati	2.0	1.9	0.4	0.6	-1.8	2.6	2.1	5.3	9.3	4.1	3.0	1.8	-2.1	4.6	2.5	
Lao P.D.R.	4.8	1.6	0.8	2.0	3.3	5.1	3.8	23.0	31.2	22.0	23.7	31.4	24.4	16.2	37.7	
Malaysia	2.6	2.1	3.8	1.0	0.7	-1.1	2.5	3.4	2.5	2.8	2.5	2.0	2.5	2.8	2.5	
Maldives	6.2	0.8	2.3	1.4	1.3	-1.6	0.2	2.6	2.6	1.5	4.5	2.0	1.9	2.5	2.4	
Marshall Islands	3.4	-1.5	0.1	0.8	-0.1	-0.7	2.2	2.8	7.4	4.6	3.2	2.5	6.1	4.5	2.0	
Micronesia	3.9	-0.9	0.1	1.0	2.2	1.0	1.8	5.0	6.2	4.0	3.0	2.0	4.6	3.0	3.0	
Mongolia	10.9	0.8	4.3	6.8	7.3	3.7	7.4	15.2	10.3	6.5	9.0	6.6	7.9	7.5	9.5	
Myanmar	10.4	9.1	4.6	5.9	8.6	5.7	3.6	18.4	27.1	22.0	14.2	7.8	25.0	20.0	12.0	
Nauru	4.9	8.1	4.5	1.1	4.1	0.9	2.0	1.1	4.8	4.0	4.4	2.4	3.0	5.2	4.0	
Nepal	8.7	9.9	4.5	4.1	4.6	6.1	3.6	6.3	7.8	5.6	5.2	5.4	7.4	5.0	5.4	
Palau	4.0	-1.3	1.1	2.4	0.4	0.7	-0.5	13.2	12.4	4.0	2.8	2.5	9.0	3.7	1.1	
Papua New Guinea	5.1	6.7	5.4	4.4	3.9	4.9	4.5	5.3	2.3	4.4	4.8	4.5	3.9	5.0	4.8	
Philippines	3.9	1.2	2.9	5.3	2.4	2.4	3.9	5.8	6.0	3.3	3.0	3.0	3.9	3.2	2.8	
Samoa	3.7	0.1	1.3	3.7	2.2	1.5	-3.0	8.7	12.0	3.7	3.3	3.0	10.7	2.0	2.2	
Solomon Islands	6.7	0.5	0.5	3.6	2.2	2.9	0.2	5.4	5.1	2.9	3.0	3.3	4.3	2.8	2.8	
Sri Lanka ³	8.2	4.0	6.6	4.3	4.3	4.6	6.0	45.2	...	...	...	...	...	...	...
Thailand	2.5	0.2	0.7	1.1	0.7	-0.8	1.2	6.1	1.2	0.5	1.2	2.0	-0.8	1.1	1.7	
Timor-Leste	6.0	-1.5	0.5	2.3	0.9	0.5	3.8	7.0	8.4	3.3	2.2	2.0	8.7	2.8	2.0	
Tonga	4.1	-0.6	7.2	6.8	3.3	0.4	1.4	8.5	10.2	4.6	3.2	3.0	7.4	5.4	2.9	
Tuvalu	2.3	3.5	4.1	2.2	3.5	1.9	6.2	11.5	7.5	3.9	3.3	3.0	13.6	3.9	3.3	
Vanuatu	2.5	0.8	3.1	2.4	2.7	5.3	2.3	6.7	11.2	4.2	2.8	2.0	7.0	3.2	2.3	
Vietnam	9.3	2.7	3.5	3.5	2.8	3.2	1.8	3.2	3.3	4.1	3.5	3.4	3.6	3.8	3.5	
Emerging and Developing Europe	8.1	5.6	5.6	6.3	6.5	5.1	9.0	25.2	17.1	16.9	11.1	6.2	17.8	13.8	8.6	
Albania	2.5	1.3	2.0	2.0	1.4	1.6	2.0	6.7	4.8	2.2	2.4	3.0	3.9	2.1	2.6	
Belarus	20.2	11.8	6.0	4.9	5.6	5.5	9.5	15.2	5.0	6.0	6.4	5.3	5.8	6.4	6.3	
Bosnia and Herzegovina	2.0	-1.6	0.8	1.4	0.6	-1.1	2.0	14.0	6.1	2.2	2.0	2.0	2.2	2.9	1.6	
Bulgaria	3.5	-1.3	1.2	2.6	2.5	1.2	2.8	13.0	8.6	2.8	2.6	2.0	5.0	2.7	2.5	
Hungary	3.8	0.4	2.4	2.8	3.4	3.3	5.1	14.6	17.1	3.8	3.5	3.0	5.5	4.1	3.3	
Kosovo	2.6	0.2	1.5	1.1	2.7	0.2	3.3	11.6	4.9	2.1	2.0	2.0	2.3	1.9	1.9	
Moldova	7.6	6.4	6.5	3.6	4.8	3.8	5.1	28.6	13.4	5.0	5.0	5.0	4.2	5.0	5.0	
Montenegro	2.9	-0.3	2.4	2.6	0.4	-0.2	2.4	13.0	8.6	4.2	3.7	1.9	4.3	4.1	4.1	
North Macedonia	2.4	-0.2	1.4	1.5	0.8	1.2	3.2	14.2	9.4	3.3	2.3	2.0	3.6	3.0	2.0	
Poland	2.2	-0.7	2.0	1.8	2.2	3.4	5.1	14.4	11.4	3.9	4.5	2.5	6.2	5.1	3.5	
Romania	4.4	-1.6	1.3	4.6	3.8	2.6	5.0	13.8	10.4	5.3	3.6	3.0	6.6	4.2	3.4	
Russia	9.4	7.0	3.7	2.9	4.5	3.4	6.7	13.7	5.9	7.9	5.9	4.0	7.4	7.4	4.8	
Serbia	7.2	1.1	3.1	2.0	1.8	1.6	4.1	12.0	12.4	4.5	3.6	3.0	7.6	3.9	3.4	
Türkiye	8.3	7.8	11.1	16.3	15.2	12.3	19.6	72.3	53.9	60.9	33.0	15.0	64.8	43.0	24.0	
Ukraine	13.4	13.9	14.4	10.9	7.9	2.7	9.4	20.2	12.9	5.8	9.0	5.0	5.1	9.0	7.5	
Latin America and the Caribbean⁴	4.8	5.4	6.3	6.7	7.6	6.5	9.9	14.2	14.8	16.8	8.5	3.6	17.2	13.2	6.9	
Antigua and Barbuda	2.1	-0.5	2.4	1.2	1.4	1.1	1.6	7.5	5.1	6.0	2.8	2.0	3.3	5.4	2.0	
Argentina ³	...	...	25.7	34.3	53.5	42.0	48.4	72.4	133.5	229.8	62.7	8.9	211.4	139.7	45.0
Aruba	2.1	-0.9	-1.0	3.6	3.9	-1.3	0.7	5.5	3.4	2.3	2.3	2.0	2.3	2.7	2.1	
The Bahamas	2.1	-0.3	1.5	2.3	2.5	0.0	2.9	5.6	3.1	1.1	1.6	2.0	1.9	1.2	1.7	
Barbados	4.5	1.5	4.4	3.0	1.7	0.6	1.4	4.5	3.2	2.6	2.4	2.4	3.2	3.0	2.4	
Belize	1.6	0.7	1.1	0.3	0.2	0.1	3.2	6.3	4.4	3.3	1.8	1.3	3.7	2.6	1.3	
Bolivia	6.2	3.6	2.8	2.3	1.8	0.9	0.7	1.7	2.6	4.3	4.2	3.8	2.1	6.0	4.0	
Brazil	5.7	8.7	3.4	3.7	3.7	3.2	8.3	9.3	4.6	4.3	3.6	3.0	4.6	4.3	3.3	
Chile	3.6	3.8	2.2	2.3	2.2	3.0	4.5	11.6	7.6	3.9	4.2	3.0	3.9	4.5	3.5	
Colombia	4.0	7.5	4.3	3.2	3.5	2.5	3.5	10.2	11.7	6.7	4.5	3.0	9.3	5.7	3.5	

Table A7. Emerging Market and Developing Economies: Consumer Prices¹ (continued)*(Annual percent change)*

	Average										Projections			End of Period ²		
	2006–15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2029	2023	2024	2025	
														Projections		
Latin America and the Caribbean (continued)⁴	4.8	5.4	6.3	6.7	7.6	6.5	9.9	14.2	14.8	16.8	8.5	3.6	17.2	13.2	6.9	
Costa Rica	6.7	0.0	1.6	2.2	2.1	0.7	1.7	8.3	0.5	-0.3	2.0	3.0	-1.8	0.9	2.6	
Dominica	1.7	0.1	0.3	1.0	1.5	-0.7	1.6	7.7	3.5	2.8	2.1	2.0	2.3	2.2	2.0	
Dominican Republic	5.3	1.6	3.3	3.6	1.8	3.8	8.2	8.8	4.8	3.4	4.5	4.0	3.6	3.7	4.0	
Ecuador	4.2	1.7	0.4	-0.2	0.3	-0.3	0.1	3.5	2.2	1.9	2.2	1.5	1.3	2.8	1.7	
El Salvador	2.5	0.6	1.0	1.1	0.1	-0.4	3.5	7.2	4.0	1.0	1.9	1.8	1.2	2.0	1.8	
Grenada	2.3	1.7	0.9	0.8	0.6	-0.7	1.2	2.6	2.7	2.1	2.1	2.0	2.2	2.8	1.8	
Guatemala	5.0	4.4	4.4	3.7	3.7	3.2	4.3	6.9	6.2	3.6	4.2	4.0	4.2	4.0	4.0	
Guyana	4.2	0.8	1.9	1.3	2.1	1.2	3.3	6.5	4.5	2.7	4.5	5.7	2.0	3.5	5.5	
Haiti	6.5	11.4	10.6	11.4	17.3	22.9	15.9	27.6	44.1	26.0	20.7	7.4	31.8	29.0	18.7	
Honduras	6.0	2.7	3.9	4.3	4.4	3.5	4.5	9.1	6.7	4.6	4.6	4.0	5.2	4.7	4.5	
Jamaica	9.7	2.3	4.4	3.7	3.9	5.2	5.9	10.3	6.5	5.8	5.0	5.0	6.9	5.3	5.0	
Mexico	4.0	2.8	6.0	4.9	3.6	3.4	5.7	7.9	5.5	4.7	3.8	3.0	4.7	4.5	3.2	
Nicaragua	8.1	3.5	3.9	4.9	5.4	3.7	4.9	10.5	8.4	5.0	4.0	4.0	5.6	4.8	4.0	
Panama	3.9	0.7	0.9	0.8	-0.4	-1.6	1.6	2.9	1.5	1.3	2.0	2.0	1.9	1.3	2.0	
Paraguay	5.8	4.1	3.6	4.0	2.8	1.8	4.8	9.8	4.6	3.8	4.0	4.0	3.7	4.0	4.0	
Peru	3.1	3.6	2.8	1.3	2.1	1.8	4.0	7.9	6.3	2.5	1.9	2.0	3.2	2.4	2.0	
St. Kitts and Nevis	2.6	-0.7	0.7	-1.0	-0.3	-1.2	1.2	2.7	3.6	2.5	2.2	2.0	1.6	2.3	2.0	
St. Lucia	2.6	-3.1	0.1	2.6	0.5	-1.8	2.4	6.4	4.1	1.3	1.3	2.0	2.1	0.6	1.4	
St. Vincent and the Grenadines	2.6	-0.2	2.2	2.3	0.9	-0.6	1.6	5.7	4.6	3.8	2.1	2.0	4.0	3.0	2.0	
Suriname	7.3	55.5	22.0	6.9	4.4	34.9	59.1	52.4	51.6	19.1	12.8	5.0	32.6	12.7	11.3	
Trinidad and Tobago	7.5	3.1	1.9	1.0	1.0	0.6	2.1	5.8	4.6	1.3	1.9	1.8	0.7	1.8	2.0	
Uruguay	7.8	9.6	6.2	7.6	7.9	9.8	7.7	9.1	5.9	4.9	5.4	4.5	5.1	5.4	5.3	
Venezuela ³	36.3	254.9	438.1	65,374.1	19,906.0	2,355.1	1,588.5	186.5	337.5	59.6	71.7	...	190.0	60.0	60.1	
Middle East and Central Asia	8.4	5.3	7.0	9.6	7.4	10.3	11.9	13.4	15.6	14.6	10.7	6.3	15.4	12.7	9.3	
Afghanistan ³	6.4	4.4	5.0	0.6	2.3	5.6	7.8	10.6	-7.7	...	...	...	-9.0	...	...
Algeria	4.5	6.4	5.6	4.3	2.0	2.4	7.2	9.3	9.3	5.3	5.2	4.4	7.8	5.9	4.1	
Armenia	5.0	-1.4	0.9	2.5	1.5	1.2	7.2	8.7	2.0	0.2	3.1	4.0	-0.6	1.0	3.9	
Azerbaijan	6.8	12.4	12.9	2.3	2.6	2.8	6.7	13.9	8.8	2.1	4.8	4.0	2.1	4.6	5.0	
Bahrain	2.4	2.8	1.4	2.1	1.0	-2.3	-0.6	3.6	0.1	1.4	1.8	2.0	-0.3	1.4	1.8	
Djibouti	3.7	2.4	0.6	0.1	3.3	1.8	1.2	5.2	1.4	1.4	1.5	2.0	3.7	1.4	1.6	
Egypt	10.2	10.2	23.5	20.9	13.9	5.7	4.5	8.5	24.4	33.3	21.2	5.3	35.7	27.5	16.0	
Georgia	5.1	2.1	6.0	2.6	4.9	5.2	9.6	11.9	2.5	1.1	2.6	3.0	0.4	1.3	3.0	
Iran	18.9	6.8	8.2	26.9	34.8	36.5	40.2	45.8	40.7	31.7	29.5	25.0	32.2	30.0	28.0	
Iraq	9.3	0.5	0.2	0.4	-0.2	0.6	6.0	5.0	4.4	3.2	3.5	3.0	4.0	3.7	3.5	
Jordan	4.4	-0.8	3.3	4.5	0.8	0.3	1.3	4.2	2.1	2.1	2.4	2.5	1.6	2.3	2.4	
Kazakhstan	8.3	14.6	7.4	6.0	5.2	6.8	8.0	15.0	14.6	8.6	7.2	5.0	9.8	8.0	6.6	
Kuwait	...	2.9	1.6	0.6	1.1	2.1	3.4	4.0	3.6	3.0	2.4	1.7	3.4	2.9	2.3	
Kyrgyz Republic	9.4	0.4	3.2	1.5	1.1	6.3	11.9	13.9	10.8	5.1	5.0	5.0	7.3	5.0	5.0	
Lebanon ³	3.8	-0.8	4.5	6.1	2.9	84.9	154.8	171.2	221.3	...	...	...	192.3	...	...
Libya	5.9	25.9	25.8	14.0	-2.9	1.5	2.9	4.5	2.4	2.0	2.3	2.3	1.8	2.3	2.3	
Mauritania	4.8	1.5	2.3	3.1	2.3	2.4	3.6	9.6	4.9	2.7	4.0	4.0	1.6	4.0	4.0	
Morocco	1.6	1.5	0.8	1.6	0.2	0.7	1.4	6.6	6.1	1.7	2.3	2.0	3.4	2.2	2.1	
Oman	3.8	0.9	1.5	0.7	0.5	-0.4	1.7	2.5	0.9	1.3	1.5	2.0	0.6	1.0	1.5	
Pakistan	10.2	2.9	4.8	4.7	6.8	10.7	8.9	12.2	29.2	23.4	9.5	6.5	29.4	12.6	10.6	
Qatar	4.3	2.7	0.6	0.1	-0.9	-2.5	2.3	5.0	3.1	1.0	1.4	2.0	1.6	1.0	1.4	
Saudi Arabia	3.4	2.1	-0.8	2.5	-2.1	3.4	3.1	2.5	2.3	1.7	1.9	2.0	0.4	1.7	1.9	
Somalia	...	0.0	4.0	4.3	4.7	4.1	4.6	6.8	6.2	5.0	4.2	3.0	6.6	4.5	3.9	
Sudan ³	20.0	17.8	32.4	63.3	51.0	163.3	359.1	138.8	77.2	200.1	118.9	8.4	113.3	242.2	50.9	
Syria ³	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tajikistan	9.1	5.9	7.3	3.8	7.8	8.6	9.0	6.6	3.7	4.5	5.9	6.5	3.8	5.3	6.5	
Tunisia	4.3	3.6	5.3	7.3	6.7	5.6	5.7	8.3	9.3	7.1	6.7	9.1	8.1	6.7	6.4	
Turkmenistan	6.1	3.6	8.0	13.3	5.1	6.1	19.5	11.2	-1.6	6.3	8.0	8.0	1.4	8.1	8.0	
United Arab Emirates	3.7	1.6	2.0	3.1	-1.9	-2.1	-0.1	4.8	1.6	2.3	2.1	2.0	1.6	2.3	2.1	
Uzbekistan	11.5	8.8	13.9	17.5	14.5	12.9	10.8	11.4	10.0	10.0	9.4	5.0	8.8	10.4	7.9	
West Bank and Gaza ³	3.2	-0.2	0.2	-0.2	1.6	-0.7	1.2	3.7	5.9	...	...	...	15.2	...	...
Yemen	12.2	21.3	30.4	33.6	15.7	21.7	31.5	29.5	0.9	16.3	20.7	10.0	-1.5	28.0	15.0	

Table A7. Emerging Market and Developing Economies: Consumer Prices¹ (continued)

(Annual percent change)

	Average									Projections			End of Period ²		
	2006–15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2029	2023	2024	2025
										Projections			Projections		
Sub-Saharan Africa	8.1	10.0	10.6	8.4	8.7	11.2	11.6	15.2	17.6	18.1	12.3	7.6	18.1	16.3	9.8
Angola	11.5	30.7	29.8	19.6	17.1	22.3	25.8	21.4	13.6	28.4	21.3	10.0	20.0	28.0	18.9
Benin	2.6	-0.8	1.8	0.8	-0.9	3.0	1.7	1.4	2.8	2.0	2.0	2.0	0.4	2.0	2.0
Botswana	7.5	2.8	3.3	3.2	2.7	1.9	6.7	12.2	5.1	3.8	4.5	4.5	3.5	4.4	4.5
Burkina Faso	2.1	0.4	1.5	2.0	-3.2	1.9	3.9	14.1	0.7	2.1	2.0	2.0	1.0	2.6	2.0
Burundi	9.7	5.5	16.6	-2.8	-0.7	7.3	8.3	18.9	27.0	20.0	25.0	8.0	20.1	20.4	28.7
Cabo Verde	2.7	-1.4	0.8	1.3	1.1	0.6	1.9	7.9	3.7	2.0	2.0	2.0	1.3	2.0	2.0
Cameroon	2.8	0.9	0.6	1.1	2.5	2.5	2.3	6.3	7.4	4.4	3.5	2.5	5.9	3.7	3.4
Central African Republic	5.1	4.9	4.2	1.6	2.8	0.9	4.3	5.6	3.0	4.7	4.6	3.0	2.3	5.0	4.2
Chad	2.6	-1.6	-0.9	4.0	-1.0	4.5	-0.8	5.8	4.1	4.9	3.7	3.0	4.2	4.3	3.2
Comoros	3.1	0.8	0.1	1.7	3.7	0.8	0.0	12.4	8.5	4.0	1.5	1.9	-2.0	3.5	3.0
Democratic Republic of the Congo	12.8	3.2	35.7	29.3	4.7	11.4	9.0	9.3	19.9	17.8	9.2	7.0	23.8	13.0	7.0
Republic of Congo	3.3	3.2	0.4	1.2	0.4	1.4	2.0	3.0	4.3	4.0	3.6	3.0	5.6	4.0	3.6
Côte d'Ivoire	1.9	0.6	0.6	0.6	0.8	2.4	4.2	5.2	4.4	3.8	3.0	2.0	4.0	3.0	2.5
Equatorial Guinea	4.0	1.4	0.7	1.3	1.2	4.8	-0.1	4.9	2.5	4.0	2.8	2.1	3.9	3.6	2.2
Eritrea ³	13.4	-5.6	-13.3	-14.4	1.3	...	...	...	...	...	...	...	...	...	...
Eswatini	6.9	7.8	6.2	4.8	2.6	3.9	3.7	4.8	4.9	4.8	4.8	4.2	4.3	4.8	4.7
Ethiopia	16.8	6.6	10.7	13.8	15.8	20.4	26.8	33.9	30.2	23.9	23.3	13.3	28.7	25.3	15.0
Gabon	1.5	2.1	2.7	4.8	2.0	1.7	1.1	4.3	3.6	2.1	2.2	2.4	2.3	2.2	2.2
The Gambia	4.9	7.2	8.0	6.5	7.1	5.9	7.4	11.5	17.0	14.4	9.8	5.0	17.3	11.5	8.1
Ghana	11.7	17.5	12.4	9.8	7.2	9.9	10.0	31.9	39.2	19.5	11.5	8.0	23.2	15.0	8.0
Guinea	16.0	8.2	8.9	9.8	9.5	10.6	12.6	10.5	7.8	11.0	10.2	8.1	9.3	11.5	10.8
Guinea-Bissau	2.4	2.7	-0.2	0.4	0.3	1.5	3.3	7.9	7.2	4.2	2.0	2.0	3.1	6.0	2.0
Kenya	8.2	6.3	8.0	4.7	5.2	5.3	6.1	7.6	7.7	5.1	5.2	5.0	6.6	4.5	5.3
Lesotho	6.0	6.6	4.4	4.8	5.2	5.0	6.0	8.3	6.3	6.7	6.1	5.0	7.4	6.0	5.6
Liberia	9.3	8.8	12.4	23.5	27.0	17.0	7.8	7.6	10.1	7.7	6.0	4.8	10.0	6.6	5.7
Madagascar	8.3	6.1	8.6	8.6	5.6	4.2	5.8	8.2	9.9	7.4	7.1	6.0	7.5	8.3	7.4
Malawi	14.7	21.7	11.5	9.2	9.4	8.6	9.3	20.8	28.8	30.6	15.3	6.5	34.5	21.9	10.1
Mali	2.5	-1.8	2.4	1.9	-3.0	0.5	3.8	9.7	2.1	2.5	2.0	2.0	-0.5	2.5	2.0
Mauritius	5.1	1.0	3.7	3.2	0.5	2.5	4.0	10.8	7.0	3.5	3.5	3.5	3.9	3.8	3.5
Mozambique	7.8	18.4	15.8	3.2	5.7	0.9	6.6	10.4	7.0	3.5	4.3	5.5	4.3	3.6	5.0
Namibia	6.1	6.7	6.1	4.3	3.7	2.2	3.6	6.1	5.9	4.6	4.5	4.5	5.3	3.9	4.5
Niger	1.8	0.2	0.2	2.8	-2.5	2.9	3.8	4.2	3.7	7.8	3.6	2.0	7.2	5.0	4.7
Nigeria	10.0	15.7	16.5	12.1	11.4	13.2	17.0	18.8	24.7	32.5	25.0	14.0	28.9	29.0	21.0
Rwanda	6.6	5.7	4.8	1.4	2.4	7.7	0.8	13.9	14.0	4.9	5.1	5.0	6.4	5.0	5.0
São Tomé and Príncipe	14.8	5.4	5.7	7.9	7.7	9.8	8.1	18.0	21.2	17.1	10.8	5.0	17.1	15.7	10.0
Senegal	1.8	1.2	1.1	0.5	1.0	2.5	2.2	9.7	5.9	1.5	2.0	2.0	0.8	8.0	-13.4
Seychelles	8.2	-1.0	2.9	3.7	1.8	1.2	9.8	2.6	-1.0	0.8	2.5	3.3	-2.7	1.4	2.8
Sierra Leone	8.0	10.9	18.2	16.0	14.8	13.4	11.9	27.2	47.7	36.6	18.0	7.5	52.2	21.0	14.9
South Africa	6.1	6.3	5.3	4.6	4.1	3.3	4.6	6.9	5.9	4.7	4.5	4.5	5.5	3.9	4.5
South Sudan	...	346.1	213.0	83.4	49.3	24.0	30.2	-3.2	40.2	120.6	79.3	8.0	70.3	216.4	17.6
Tanzania	9.2	5.2	5.3	3.5	3.4	3.3	3.7	4.4	3.8	3.2	4.0	4.0	3.0	3.7	4.0
Togo	2.3	0.9	-0.2	0.9	0.7	1.8	4.5	7.6	5.3	2.7	2.0	2.0	2.6	2.2	1.8
Uganda	8.7	5.2	5.6	2.5	2.1	2.8	2.2	7.2	5.4	3.5	4.4	5.0	2.6	3.5	5.1
Zambia	9.4	17.9	6.6	7.5	9.2	15.7	22.0	11.0	10.9	14.6	12.1	7.0	13.1	15.0	7.9
Zimbabwe	0.8	-1.6	0.9	10.6	255.3	557.2	98.5	193.4	667.4	635.3	23.6	5.1	778.8	407.8	9.7

¹ Movements in consumer prices are shown as annual averages.² Monthly year-over-year changes and, for several countries, on a quarterly basis.³ See the country-specific notes for Afghanistan, Argentina, Eritrea, Lebanon, Sri Lanka, Sudan, Syria, Venezuela, and West Bank and Gaza in the "Country Notes" section of the Statistical Appendix.⁴ Excludes Venezuela but includes Argentina from 2017 onward. See the country-specific notes for Argentina and Venezuela in the "Country Notes" section of the Statistical Appendix.

Table A8. Major Advanced Economies: General Government Fiscal Balances and Debt¹*(Percent of GDP, unless noted otherwise)*

	Average									Projections		
	2006–15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2029
Major Advanced Economies												
Net Lending/Borrowing	-5.2	-3.3	-3.4	-3.4	-3.8	-11.6	-8.6	-3.9	-5.9	-6.2	-5.6	-4.7
Output Gap ²	-0.9	-1.0	-0.3	0.3	0.5	-3.2	-0.3	0.4	0.4	0.3	0.1	0.1
Structural Balance ²	-4.6	-3.0	-3.2	-3.3	-3.9	-8.1	-7.7	-5.3	-6.1	-6.0	-5.6	-4.8
United States												
Net Lending/Borrowing ³	-6.6	-4.4	-4.8	-5.3	-5.8	-13.9	-11.0	-3.9	-7.1	-7.6	-7.3	-6.0
Output Gap ²	-1.0	-0.8	-0.5	0.3	0.9	-2.7	0.7	0.6	0.8	0.9	0.4	0.1
Structural Balance ²	-5.8	-4.1	-4.7	-5.3	-6.1	-10.6	-10.5	-6.5	-7.6	-7.7	-7.5	-6.0
Net Debt	67.3	81.9	80.1	80.8	82.7	97.8	97.3	93.2	95.7	98.8	101.7	109.2
Gross Debt	90.0	106.6	105.5	106.8	108.0	131.8	124.5	118.6	118.7	121.0	124.1	131.7
Euro Area												
Net Lending/Borrowing	-3.3	-1.5	-1.0	-0.5	-0.6	-7.0	-5.1	-3.5	-3.6	-3.1	-3.1	-2.7
Output Gap ²	-1.2	-1.8	-0.6	-0.2	0.0	-4.7	-1.7	0.5	-0.1	-0.4	-0.4	0.0
Structural Balance ²	-2.4	-0.5	-0.5	-0.2	-0.4	-3.9	-3.9	-3.4	-3.5	-2.9	-2.9	-2.7
Net Debt	66.4	74.2	72.0	70.3	68.6	78.6	76.7	74.3	73.3	73.9	74.7	76.6
Gross Debt	82.3	89.8	87.5	85.6	83.6	96.6	94.0	89.9	87.8	88.1	88.4	89.0
Germany												
Net Lending/Borrowing	-0.9	1.1	1.3	1.9	1.3	-4.4	-3.2	-2.1	-2.6	-2.0	-1.7	-0.5
Output Gap ²	0.0	0.1	1.0	0.8	0.4	-3.1	-1.1	0.5	-0.4	-1.2	-1.1	0.0
Structural Balance ²	-0.6	1.2	1.1	1.6	1.1	-2.9	-2.6	-1.8	-2.4	-1.4	-1.1	-0.5
Net Debt	55.9	48.3	44.6	42.0	39.6	45.1	46.0	46.1	45.1	45.6	45.7	43.3
Gross Debt	72.4	67.6	64.0	60.7	58.6	67.9	67.9	64.8	62.7	62.7	62.1	57.8
France												
Net Lending/Borrowing	-4.8	-3.8	-3.4	-2.3	-2.4	-8.9	-6.6	-4.7	-5.5	-6.0	-5.9	-5.9
Output Gap ²	-0.9	-2.7	-1.5	-0.8	0.0	-4.5	-2.1	-0.9	-0.9	-0.6	-0.6	-0.1
Structural Balance ²	-4.2	-2.0	-2.3	-1.6	-1.4	-5.9	-5.1	-4.1	-4.9	-5.5	-5.5	-5.8
Net Debt	74.8	89.9	89.5	89.5	89.0	101.6	100.5	101.0	101.7	104.1	107.1	115.9
Gross Debt	82.8	98.1	98.4	98.1	97.6	114.6	112.6	111.1	109.9	112.3	115.3	124.1
Italy												
Net Lending/Borrowing	-3.2	-2.4	-2.5	-2.2	-1.5	-9.4	-8.9	-8.1	-7.2	-4.0	-3.8	-3.1
Output Gap ²	-3.2	-4.0	-2.7	-2.1	-2.0	-6.5	-3.0	0.8	0.7	0.7	0.7	0.4
Structural Balance ²	-1.6	-0.6	-1.2	-1.3	-0.5	-5.4	-8.3	-9.2	-8.0	-4.4	-4.5	-3.3
Net Debt	108.7	121.0	120.8	121.4	121.2	140.8	133.4	126.9	124.1	126.6	128.7	133.4
Gross Debt	119.6	134.1	133.6	134.0	133.6	154.1	145.5	138.1	134.6	136.9	138.7	142.3
Japan												
Net Lending/Borrowing	-6.3	-3.6	-3.1	-2.5	-3.0	-9.1	-6.1	-4.4	-4.2	-6.1	-3.0	-4.0
Output Gap ²	0.1	0.1	1.0	1.9	0.7	-2.9	-1.6	-0.9	0.2	0.2	0.1	0.0
Structural Balance ²	-6.2	-4.4	-3.7	-3.0	-3.3	-8.1	-5.4	-4.4	-4.3	-6.2	-3.1	-4.1
Net Debt	125.8	149.5	148.1	151.1	151.7	162.0	156.3	149.8	154.1	155.8	153.9	151.1
Gross Debt ⁴	206.9	232.4	231.3	232.4	236.4	258.4	253.7	256.3	249.7	251.2	248.7	245.0
United Kingdom												
Net Lending/Borrowing	-6.0	-3.3	-2.5	-2.3	-2.5	-13.1	-7.9	-4.7	-6.0	-4.3	-3.7	-3.3
Output Gap ²	-1.6	-1.3	-0.3	-0.3	0.0	-3.5	0.5	1.9	-0.1	-0.4	-0.4	0.0
Structural Balance ²	-4.9	-2.3	-2.1	-2.1	-2.4	0.5	-3.3	-3.1	-4.7	-3.0	-3.4	-3.3
Net Debt	63.2	78.8	77.2	76.6	75.8	93.1	91.7	89.8	91.5	91.6	92.4	96.4
Gross Debt	70.3	87.8	86.7	86.3	85.7	105.8	105.1	99.6	100.0	101.8	103.8	108.3
Canada												
Net Lending/Borrowing	-1.2	-0.5	-0.1	0.4	0.0	-10.9	-2.9	0.1	-0.6	-2.0	-1.0	-0.6
Output Gap ²	0.0	-0.9	0.4	0.6	0.4	-3.4	-1.4	0.8	0.0	-0.5	-0.1	0.1
Structural Balance ²	-1.2	0.0	-0.3	0.0	-0.2	-8.2	-1.9	-0.4	-0.6	-1.0	-0.9	-0.7
Net Debt ⁵	24.9	18.0	12.7	11.7	8.7	16.1	14.3	15.6	13.1	14.4	14.6	14.6
Gross Debt	81.0	92.4	90.9	90.8	90.2	118.2	113.5	107.4	107.5	106.1	103.2	96.3

Note: The methodology and specific assumptions for each country are discussed in Box A1. The country group composites for fiscal data are calculated as the sum of the US dollar values for the relevant individual countries.

¹ Debt data refer to the end of the year and are not always comparable across countries. Gross and net debt levels reported by national statistical agencies for countries that have adopted the System of National Accounts 2008 (Australia, Canada, Hong Kong SAR, United States) are adjusted to exclude unfunded pension liabilities of government employees' defined-benefit pension plans.

² Percent of potential GDP.

³ Figures reported by the national statistical agency are adjusted to exclude items related to the accrual-basis accounting of government employees' defined-benefit pension plans.

⁴ Nonconsolidated basis.

⁵ Includes equity shares.

Table A9. Summary of World Trade Volumes and Prices*(Annual percent change, unless noted otherwise)*

	Averages		2016	2017	2018	2019	2020	2021	2022	2023	Projections	
	2006–15	2016–25									2024	2025
Trade in Goods and Services												
World Trade¹												
Volume	4.1	2.7	2.2	5.5	4.0	1.2	-8.5	10.8	5.7	0.8	3.1	3.4
Price Deflator												
In US Dollars	1.0	1.9	-4.0	4.5	5.5	-2.5	-1.4	12.7	6.8	-2.6	1.1	0.6
In SDRs	1.5	2.4	-3.3	4.8	3.3	-0.1	-2.2	10.2	13.7	-2.4	1.3	-0.2
Volume of Trade												
Exports												
Advanced Economies	3.7	2.3	2.0	5.0	3.4	1.4	-8.9	9.7	5.7	1.0	2.5	2.7
Emerging Market and Developing Economies	5.2	3.4	2.8	6.3	4.2	0.9	-6.9	13.1	4.6	0.6	4.6	4.6
Imports												
Advanced Economies	3.0	2.5	2.5	4.9	3.8	2.0	-8.4	10.1	7.2	-0.7	2.1	2.4
Emerging Market and Developing Economies	6.7	3.1	1.4	7.1	5.1	-0.5	-9.5	12.0	4.2	3.0	4.6	4.9
Terms of Trade												
Advanced Economies	0.0	0.2	1.1	-0.3	-0.3	0.2	1.0	1.0	-1.7	0.7	0.1	0.0
Emerging Market and Developing Economies	0.4	0.0	-1.5	1.4	1.1	-1.4	-0.7	0.9	1.5	-0.8	-0.7	0.0
Trade in Goods												
World Trade¹												
Volume	3.9	2.5	2.0	5.6	3.8	0.2	-5.2	11.2	3.2	-0.8	2.6	3.3
Price Deflator												
In US Dollars	0.9	1.9	-4.7	5.0	5.8	-3.0	-2.6	14.3	8.6	-4.0	0.8	0.4
In SDRs	1.4	2.3	-4.1	5.3	3.6	-0.6	-3.4	11.7	15.7	-3.8	1.0	-0.3
World Trade Prices in US Dollars²												
Manufactures	1.2	1.1	-5.2	0.1	2.1	0.5	-3.2	6.6	10.3	-1.6	1.6	1.2
Oil	-0.5	3.6	-15.0	22.5	29.4	-10.4	-32.0	65.8	39.2	-16.4	0.9	-10.4
Nonfuel Primary Commodities	3.4	4.3	-0.3	6.4	1.3	0.7	6.6	26.7	7.9	-5.7	2.9	-0.2
Food	2.6	2.4	1.5	3.8	-1.2	-3.1	1.7	27.0	14.8	-6.8	-5.2	-4.5
Beverages	5.2	6.0	-3.0	-3.8	-9.2	-5.7	2.4	22.4	14.1	4.0	65.5	-8.9
Agricultural Raw Materials	1.6	0.6	-0.2	5.4	2.0	-5.4	-3.4	15.5	5.7	-15.6	3.8	1.6
Metal	2.5	5.7	-5.3	22.2	6.6	3.9	3.5	46.7	-5.6	-2.8	-0.2	-1.9
World Trade Prices in SDRs²												
Manufactures	1.7	1.6	-4.6	0.4	-0.1	3.0	-4.0	4.2	17.5	-1.4	1.8	0.5
Oil	0.0	4.1	-14.5	22.8	26.7	-8.2	-32.6	62.1	48.2	-16.2	1.1	-11.1
Nonfuel Primary Commodities	4.0	4.8	0.4	6.7	-0.8	3.2	5.7	23.9	14.9	-5.4	3.1	-0.9
Food	3.1	2.8	2.2	4.1	-3.3	-0.7	0.9	24.1	22.3	-6.5	-5.1	-5.2
Beverages	5.8	6.5	-2.3	-3.5	-11.1	-3.4	1.6	19.7	21.6	4.2	65.9	-9.6
Agricultural Raw Materials	2.1	1.1	0.5	5.7	-0.1	-3.1	-4.2	12.9	12.6	-15.4	4.0	0.9
Metal	3.0	6.2	-4.7	22.5	4.4	6.4	2.6	43.4	0.6	-2.5	0.0	-2.6
World Trade Prices in Euros²												
Manufactures	2.4	1.3	-4.9	-1.9	-2.5	6.1	-5.0	2.8	23.8	-4.2	0.9	0.5
Oil	0.7	3.8	-14.8	20.0	23.6	-5.4	-33.3	59.9	56.3	-18.5	0.1	-11.0
Nonfuel Primary Commodities	4.6	4.4	0.0	4.3	-3.2	6.2	4.5	22.2	21.2	-8.1	2.1	-0.9
Food	3.8	2.5	1.8	1.7	-5.6	2.3	-0.2	22.4	29.0	-9.1	-5.9	-5.2
Beverages	6.5	6.1	-2.7	-5.7	-13.2	-0.5	0.5	18.1	28.2	1.3	64.3	-9.6
Agricultural Raw Materials	2.7	0.8	0.1	3.3	-2.5	-0.2	-5.2	11.3	18.8	-17.7	3.1	0.9
Metal	3.6	5.9	-5.0	19.7	1.9	9.6	1.5	41.5	6.0	-5.2	-1.0	-2.6

Table A9. Summary of World Trade Volumes and Prices (continued)
(Annual percent change, unless noted otherwise)

	Averages										Projections	
	2006-15	2016-25	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Trade in Goods (continued)												
Volume of Trade												
Exports												
Advanced Economies	3.3	2.0	1.6	4.7	3.0	0.5	-6.6	10.0	3.5	-0.6	1.7	2.7
Emerging Market and Developing Economies	5.0	3.2	2.6	6.6	3.8	-0.5	-1.4	12.2	0.9	-0.1	4.4	4.4
Fuel Exporters	2.6	0.9	1.1	1.7	-0.1	-3.3	-8.2	4.7	5.0	0.6	1.5	6.8
Nonfuel Exporters	5.6	3.6	2.9	7.5	4.6	0.0	-0.2	13.2	0.3	-0.2	5.0	4.0
Imports												
Advanced Economies	2.8	2.1	2.0	4.6	3.9	0.6	-6.0	11.2	4.9	-3.0	1.6	2.3
Emerging Market and Developing Economies	6.4	3.2	1.9	7.4	5.0	-0.1	-5.6	11.9	2.3	1.4	3.6	4.5
Fuel Exporters	6.8	0.5	-7.8	-0.7	-3.2	2.8	-12.0	1.2	10.3	8.2	4.2	4.2
Nonfuel Exporters	6.3	3.6	3.6	8.7	6.1	-0.4	-4.7	13.2	1.5	0.7	3.6	4.6
Price Deflators in SDRs												
Exports												
Advanced Economies	0.8	2.2	-2.1	4.4	2.9	-1.3	-2.1	10.3	12.9	-2.4	1.2	0.0
Emerging Market and Developing Economies	2.8	2.4	-6.9	7.2	5.0	0.3	-5.6	15.2	19.4	-6.1	0.4	-1.1
Fuel Exporters	1.4	3.8	-10.5	16.1	14.8	-4.0	-20.8	38.0	38.1	-11.7	0.2	-5.4
Nonfuel Exporters	3.1	2.2	-6.2	5.6	3.1	1.2	-2.8	12.0	16.5	-5.0	0.4	-0.4
Imports												
Advanced Economies	0.8	2.1	-3.4	4.7	3.3	-1.4	-3.3	9.3	15.4	-3.1	1.0	0.2
Emerging Market and Developing Economies	2.4	2.7	-5.5	5.7	3.8	0.6	-3.0	14.2	16.5	-4.3	1.7	-0.8
Fuel Exporters	2.9	3.5	-3.2	3.5	2.0	3.3	-0.9	11.6	16.1	-0.6	3.7	1.3
Nonfuel Exporters	2.3	2.5	-5.8	6.0	4.1	0.3	-3.3	14.6	16.6	-4.7	1.4	-1.1
Terms of Trade												
Advanced Economies	-0.1	0.1	1.3	-0.3	-0.4	0.1	1.2	0.9	-2.2	0.8	0.2	-0.1
Emerging Market and Developing Economies	0.4	-0.2	-1.6	1.4	1.1	-0.3	-2.7	0.8	2.4	-1.9	-1.3	-0.3
Regional Groups												
Emerging and Developing Asia	0.6	-1.3	0.2	-3.4	-2.4	1.2	0.6	-7.0	0.6	-1.7	-2.1	1.5
Emerging and Developing Europe	0.5	0.8	-5.6	3.4	4.3	0.4	-4.3	7.8	3.6	-2.3	1.8	-0.3
Latin America and the Caribbean	0.5	1.1	0.9	4.5	-0.7	-0.7	2.3	4.8	-3.4	6.9	-1.7	-1.5
Middle East and Central Asia	-1.5	0.4	-5.7	10.3	10.7	-5.5	-17.8	20.9	15.6	-9.0	-2.7	-5.6
Sub-Saharan Africa	1.0	1.5	-0.9	9.7	3.7	-1.8	0.8	9.2	-0.6	-6.7	2.4	0.8
Analytical Groups												
By Source of Export Earnings												
Fuel	-1.4	0.2	-7.6	12.1	12.5	-7.1	-20.1	23.7	19.0	-11.2	-3.4	-6.6
Nonfuel	0.8	-0.3	-0.4	-0.5	-0.9	0.9	0.5	-2.2	-0.1	-0.3	-1.0	0.8
Memorandum												
World Exports in Billions of US Dollars												
Goods and Services	20,040	27,273	20,838	23,012	25,209	24,819	22,413	28,119	31,552	30,963	32,263	33,542
Goods	15,796	20,611	15,748	17,477	19,132	18,564	17,192	21,846	24,287	23,133	23,922	24,810
Average Oil Price ³	-0.5	3.6	-15.0	22.5	29.4	-10.4	-32.0	65.8	39.2	-16.4	0.9	-10.4
In US Dollars a Barrel	83.36	66.83	43.26	52.98	68.53	61.43	41.77	69.25	96.36	80.59	81.29	72.84
Export Unit Value of Manufactures ⁴	1.2	1.1	-5.2	0.1	2.1	0.5	-3.2	6.6	10.3	-1.6	1.6	1.2

Note: SDRs = special drawing rights.

¹Average of annual percent change for world exports and imports.

²As represented, respectively, by the export unit value index for manufactures of the advanced economies and accounting for approximately 83 percent of the advanced economies' trade (export of goods) weights; the average of UK Brent, Dubai Fateh, and West Texas Intermediate crude oil prices; and the average of world market prices for nonfuel primary commodities weighted by their 2014-16 shares in world commodity imports.

³Percent change of average of UK Brent, Dubai Fateh, and West Texas Intermediate crude oil prices.

⁴Percent change for manufactures exported by advanced economies.

Table A10. Summary of Current Account Balances*(Billions of US dollars)*

	2016	2017	2018	2019	2020	2021	2022	2023	Projections		
									2024	2025	2029
Advanced Economies	366.9	466.3	383.5	387.3	135.7	456.8	-236.7	139.0	226.5	251.5	497.3
United States	-396.2	-367.6	-439.8	-441.8	-601.2	-868.0	-1,012.1	-905.4	-948.6	-933.9	-746.5
Euro Area	360.2	400.3	389.1	321.5	219.5	367.7	-45.0	248.5	418.8	413.6	453.2
Germany	299.0	289.1	316.2	317.8	253.9	311.8	173.5	278.7	311.7	313.4	310.5
France	-13.0	-14.2	-19.4	16.3	-54.3	8.2	-32.8	-30.4	2.9	-3.9	-4.5
Italy	46.4	48.1	52.5	63.8	71.7	45.8	-36.8	-0.3	25.7	35.0	68.3
Spain	39.1	36.9	26.9	29.9	10.2	11.3	5.1	43.0	58.2	58.7	47.3
Japan	197.8	203.5	177.8	176.3	149.9	196.2	90.0	150.0	154.0	158.7	156.8
United Kingdom	-147.0	-93.7	-112.9	-76.7	-79.2	-13.7	-65.7	-66.3	-100.0	-105.5	-107.3
Canada	-47.2	-46.2	-41.0	-34.1	-33.4	0.3	-7.9	-15.5	-21.2	-29.4	-73.0
Other Advanced Economies ¹	323.9	325.6	327.9	339.7	377.1	590.8	589.3	531.7	553.2	557.4	621.3
Emerging Market and Developing Economies	-110.3	-24.5	-52.4	0.1	146.6	385.4	706.3	278.8	173.4	126.9	-98.9
Regional Groups											
Emerging and Developing Asia	209.4	164.1	-53.2	93.7	320.5	288.6	336.5	247.3	221.8	260.1	135.3
Emerging and Developing Europe	-5.8	-20.2	68.3	53.5	2.8	70.5	130.6	-24.1	-15.8	-42.4	-56.0
Latin America and the Caribbean	-108.5	-98.2	-145.0	-107.9	-9.3	-91.9	-126.0	-69.5	-60.6	-77.6	-98.6
Middle East and Central Asia	-152.1	-37.7	112.6	15.5	-122.8	136.0	409.1	176.7	87.1	42.3	-18.9
Sub-Saharan Africa	-53.3	-32.6	-35.1	-54.7	-44.6	-17.8	-43.9	-51.6	-58.9	-55.5	-60.7
Analytical Groups											
By Source of Export Earnings											
Fuel	-102.6	42.3	204.3	69.4	-101.0	194.8	509.7	236.9	170.0	114.2	57.5
Nonfuel	-5.5	-64.7	-254.6	-67.6	249.6	192.4	198.7	44.8	7.0	15.9	-153.3
Of which, Primary Products	-47.8	-60.2	-72.3	-44.8	-0.8	-13.9	-63.1	-55.9	-31.4	-33.5	-42.3
By External Financing Source											
Net Debtor Economies	-276.4	-307.3	-391.3	-306.0	-131.8	-302.4	-450.0	-264.5	-343.4	-395.9	-532.8
Net Debtor Economies by Debt-Servicing Experience											
Economies with Arrears and/or Rescheduling during 2019-23	-77.4	-64.2	-53.0	-52.6	-34.3	-38.9	-38.8	-48.6	-78.9	-85.2	-64.4
<i>Memorandum</i>											
World	256.6	441.8	331.0	387.3	282.4	842.2	469.6	417.8	400.0	378.4	398.4
European Union	470.5	475.6	485.6	464.9	385.4	584.6	170.6	511.8	648.3	655.1	685.9
Middle East and North Africa	-127.9	-18.6	129.4	34.4	-106.8	136.5	398.0	192.6	97.7	59.7	16.1
Emerging Market and Middle-Income Economies	-66.4	8.0	7.1	67.6	211.1	454.2	810.1	360.6	253.7	204.7	-11.2
Low-Income Developing Countries	-43.9	-32.5	-59.6	-67.6	-64.5	-68.7	-103.8	-81.7	-80.3	-77.9	-87.6

Table A10. Summary of Current Account Balances (continued)
(Percent of GDP)

	2016	2017	2018	2019	2020	2021	2022	2023	Projections		
									2024	2025	2029
Advanced Economies	0.8	1.0	0.7	0.7	0.3	0.8	-0.4	0.2	0.4	0.4	0.6
United States	-2.1	-1.9	-2.1	-2.1	-2.8	-3.7	-3.9	-3.3	-3.3	-3.1	-2.1
Euro Area	3.0	3.1	2.8	2.4	1.7	2.5	-0.3	1.6	2.6	2.4	2.3
Germany	8.5	7.7	7.8	8.0	6.5	7.2	4.2	6.2	6.6	6.4	5.6
France	-0.5	-0.5	-0.7	0.6	-2.1	0.3	-1.2	-1.0	0.1	-0.1	-0.1
Italy	2.5	2.4	2.5	3.2	3.8	2.1	-1.7	0.0	1.1	1.4	2.5
Spain	3.1	2.8	1.9	2.1	0.8	0.8	0.4	2.7	3.4	3.2	2.2
Japan	4.0	4.1	3.5	3.4	3.0	3.9	2.1	3.6	3.8	3.6	3.1
United Kingdom	-5.4	-3.5	-3.9	-2.7	-2.9	-0.4	-2.1	-2.0	-2.8	-2.8	-2.5
Canada	-3.1	-2.8	-2.4	-2.0	-2.0	0.0	-0.4	-0.7	-1.0	-1.3	-2.6
Other Advanced Economies ¹	4.8	4.5	4.3	4.6	5.1	6.8	6.8	6.1	6.1	5.9	5.6
Emerging Market and Developing Economies	-0.4	-0.1	-0.2	0.0	0.4	1.0	1.7	0.6	0.4	0.3	-0.2
Regional Groups											
Emerging and Developing Asia	1.3	0.9	-0.3	0.5	1.5	1.2	1.3	1.0	0.8	0.9	0.4
Emerging and Developing Europe	-0.2	-0.6	1.8	1.4	0.1	1.6	2.7	-0.5	-0.3	-0.7	-0.8
Latin America and the Caribbean	-2.2	-1.8	-2.7	-2.1	-0.2	-1.8	-2.2	-1.1	-0.9	-1.1	-1.2
Middle East and Central Asia	-4.2	-1.0	2.9	0.4	-3.6	3.4	8.4	3.7	1.7	0.8	-0.3
Sub-Saharan Africa	-3.5	-2.0	-2.0	-3.0	-2.6	-0.9	-2.2	-2.7	-3.2	-2.9	-2.4
Analytical Groups											
By Source of Export Earnings											
Fuel	-3.1	1.2	5.5	1.9	-3.3	5.4	11.4	5.6	3.9	2.6	1.0
Nonfuel	0.0	-0.2	-0.8	-0.2	0.8	0.5	0.5	0.1	0.0	0.0	-0.3
Of which, Primary Products	-2.6	-3.0	-3.6	-2.4	0.0	-0.7	-2.9	-2.5	-1.4	-1.4	-1.5
By External Financing Source											
Net Debtor Economies	-2.2	-2.2	-2.8	-2.1	-1.0	-2.0	-2.7	-1.5	-1.8	-2.0	-2.0
Net Debtor Economies by Debt-Servicing Experience											
Economies with Arrears and/or Rescheduling during 2019-23	-5.7	-4.8	-3.8	-3.6	-2.4	-2.4	-2.2	-2.8	-4.5	-4.9	-2.7
<i>Memorandum</i>											
World	0.3	0.5	0.4	0.4	0.3	0.9	0.5	0.4	0.4	0.3	0.3
European Union	3.4	3.2	3.0	2.9	2.5	3.3	1.0	2.8	3.3	3.2	2.9
Middle East and North Africa	-4.3	-0.6	4.1	1.1	-3.9	4.2	10.1	5.1	2.5	1.5	0.3
Emerging Market and Middle-Income Economies	-0.2	0.0	0.0	0.2	0.7	1.2	2.0	0.9	0.6	0.4	0.0
Low-Income Developing Countries	-2.5	-1.8	-3.1	-3.3	-3.2	-3.2	-4.5	-3.5	-3.6	-3.4	-2.7

Table A10. Summary of Current Account Balances (continued)*(Percent of exports of goods and services)*

	2016	2017	2018	2019	2020	2021	2022	2023	Projections		
									2024	2025	2029
Advanced Economies	2.7	3.2	2.4	2.5	1.0	2.6	-1.2	0.7	1.1	1.2	2.1
United States	-17.7	-15.4	-17.3	-17.3	-27.8	-33.8	-33.3	-29.5	-29.8	-28.2	-19.0
Euro Area	11.1	11.2	10.1	8.4	6.3	8.7	-1.0	5.4	...	...	...
Germany	18.7	16.6	16.8	17.3	15.0	15.3	8.3	13.1	14.4	14.1	12.6
France	-1.7	-1.7	-2.1	1.8	-7.3	0.9	-3.2	-2.9	0.3	-0.4	-0.4
Italy	8.5	8.1	8.1	10.2	13.1	6.7	-5.0	0.0	3.2	4.2	7.4
Spain	9.4	8.0	5.4	6.1	2.6	2.3	0.9	7.0	8.9	8.6	5.7
Japan	24.4	23.2	19.1	19.5	18.9	21.3	9.7	16.3	17.0	17.0	15.2
United Kingdom	-18.8	-11.3	-12.4	-8.5	-9.9	-1.5	-6.3	-6.2	-9.1	-9.4	-8.6
Canada	-9.8	-8.9	-7.4	-6.0	-6.8	0.0	-1.1	-2.2	-2.9	-3.9	-8.1
Other Advanced Economies ¹	8.8	8.1	7.6	8.1	9.7	11.9	10.8	10.2	10.1	9.7	9.0
Emerging Market and Developing Economies	-1.4	-0.3	-0.7	-0.1	1.8	3.5	5.6	2.3	1.4	0.9	-0.7
Regional Groups											
Emerging and Developing Asia	5.7	4.0	-1.2	2.1	7.3	5.1	5.5	4.2	3.6	4.0	1.7
Emerging and Developing Europe	-0.5	-1.5	4.6	3.6	0.2	4.0	6.7	-1.3	-0.8	-2.1	-2.3
Latin America and the Caribbean	-10.2	-8.3	-11.3	-8.6	-0.9	-6.6	-7.6	-4.2	-3.5	-4.4	-4.7
Middle East and Central Asia	-12.6	-3.1	6.5	0.7	-10.7	8.6	18.7	8.6	4.1	1.7	-1.0
Sub-Saharan Africa	-16.7	-8.8	-8.3	-13.3	-13.3	-4.0	-8.5	-10.7	-11.5	-10.2	-9.1
Analytical Groups											
By Source of Export Earnings											
Fuel	-8.7	2.9	12.5	4.5	-9.2	12.8	24.0	12.2	8.6	5.5	2.2
Nonfuel	-0.1	-0.9	-3.3	-0.9	3.5	2.1	1.9	0.5	0.1	0.1	-1.2
Of which, Primary Products	-11.9	-13.3	-14.9	-9.5	-0.2	-2.4	-10.1	-9.5	-5.0	-4.9	-5.1
By External Financing Source											
Net Debtor Economies	-9.3	-9.1	-10.5	-8.2	-4.0	-7.2	-9.1	-5.3	-6.6	-7.3	-7.9
Net Debtor Economies by Debt-Servicing Experience											
Economies with Arrears and/or Rescheduling during 2019-23	-25.2	-18.2	-13.2	-13.0	-10.1	-9.1	-8.0	-10.5	-16.3	-16.7	-9.8
<i>Memorandum</i>											
World	1.3	1.9	1.3	1.5	1.3	3.0	1.4	1.3	1.2	1.1	1.0
European Union	7.2	6.6	6.1	5.9	5.3	6.6	1.8	5.2	6.4	6.2	5.6
Middle East and North Africa	-11.7	-1.9	8.5	2.3	-10.4	9.7	20.5	10.6	5.2	2.9	0.5
Emerging Market and Middle-Income Economies	-0.9	0.0	0.0	0.7	2.7	4.4	6.7	3.1	2.1	1.6	-0.1
Low-Income Developing Countries	-15.0	-9.7	-15.6	-16.9	-18.8	-16.8	-21.3	-17.3	-16.1	-14.4	-12.2

¹ Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.

Table A11. Advanced Economies: Current Account Balance
(Percent of GDP)

	2016	2017	2018	2019	2020	2021	2022	2023	Projections		
									2024	2025	2029
Advanced Economies	0.8	1.0	0.7	0.7	0.3	0.8	-0.4	0.2	0.4	0.4	0.6
United States	-2.1	-1.9	-2.1	-2.1	-2.8	-3.7	-3.9	-3.3	-3.3	-3.1	-2.1
Euro Area ¹	3.0	3.1	2.8	2.4	1.7	2.5	-0.3	1.6	2.6	2.4	2.3
Germany	8.5	7.7	7.8	8.0	6.5	7.2	4.2	6.2	6.6	6.4	5.6
France	-0.5	-0.5	-0.7	0.6	-2.1	0.3	-1.2	-1.0	0.1	-0.1	-0.1
Italy	2.5	2.4	2.5	3.2	3.8	2.1	-1.7	0.0	1.1	1.4	2.5
Spain	3.1	2.8	1.9	2.1	0.8	0.8	0.4	2.7	3.4	3.2	2.2
The Netherlands	7.3	8.1	9.0	6.8	5.6	10.0	6.6	9.9	10.0	10.1	10.3
Belgium	0.6	0.7	-0.9	0.1	1.4	1.3	-1.0	-1.0	-0.3	0.0	0.8
Ireland	-1.2	1.1	4.3	-20.7	-7.1	12.2	8.8	8.1	12.0	11.2	7.8
Austria	2.7	1.4	0.9	2.4	3.4	1.6	-0.3	2.7	2.6	2.4	2.2
Portugal	1.2	1.3	0.6	0.4	-1.0	-0.8	-1.1	1.4	2.0	2.3	1.5
Greece	-2.4	-2.6	-3.6	-2.2	-7.3	-7.1	-10.7	-6.9	-6.5	-5.3	-3.4
Finland	-2.0	-0.8	-1.9	-0.3	0.5	0.4	-2.5	-1.1	-1.2	-1.2	-0.9
Slovak Republic	-2.7	-1.9	-2.2	-3.3	0.6	-2.5	-8.1	-1.6	-1.7	-1.4	-0.4
Croatia	2.2	3.3	1.6	2.5	-1.0	1.0	-2.8	1.1	1.5	0.9	0.4
Lithuania	-1.1	0.5	0.3	3.5	7.3	1.1	-5.5	1.9	2.8	2.9	2.8
Slovenia	5.3	6.8	6.5	6.4	7.7	3.8	-1.1	4.5	3.4	2.5	1.9
Luxembourg	4.7	4.5	6.5	8.9	8.6	7.9	7.6	6.8	6.9	7.0	7.0
Latvia	1.6	1.2	-0.2	-0.6	2.9	-3.9	-4.8	-4.0	-3.8	-3.6	-3.2
Estonia	1.0	1.7	0.6	2.0	-2.5	-3.6	-3.9	-1.7	-3.4	-3.3	-2.9
Cyprus	-4.2	-5.0	-4.0	-5.6	-10.0	-6.1	-7.9	-12.1	-10.1	-8.3	-7.8
Malta	-0.6	5.6	5.4	8.8	-0.7	5.5	-3.8	0.9	1.2	2.3	2.5
Japan	4.0	4.1	3.5	3.4	3.0	3.9	2.1	3.6	3.8	3.6	3.1
United Kingdom	-5.4	-3.5	-3.9	-2.7	-2.9	-0.4	-2.1	-2.0	-2.8	-2.8	-2.5
Korea	6.2	4.4	4.2	3.4	4.4	4.4	1.4	1.9	3.9	3.6	4.3
Canada	-3.1	-2.8	-2.4	-2.0	-2.0	0.0	-0.4	-0.7	-1.0	-1.3	-2.6
Australia	-3.3	-2.6	-2.2	0.3	2.2	2.9	0.9	0.3	-0.9	-1.1	-1.3
Taiwan Province of China	13.1	14.1	11.6	10.7	14.5	15.3	13.3	13.8	14.8	14.6	17.8
Singapore	17.8	18.2	16.0	16.0	16.6	19.8	18.0	19.8	17.8	17.7	14.3
Switzerland	7.3	5.3	5.6	4.1	0.5	6.9	9.4	6.9	8.2	7.6	7.6
Sweden	1.9	2.1	2.2	5.3	5.8	6.9	5.0	6.5	6.6	6.1	4.2
Czech Republic	1.8	1.5	0.4	0.3	2.0	-2.7	-4.7	0.4	0.1	0.3	0.7
Norway	5.2	6.3	9.0	3.8	1.1	14.9	30.2	17.9	14.5	12.5	6.6
Hong Kong SAR	4.0	4.6	3.7	5.9	7.0	11.8	10.2	9.2	9.8	9.2	8.5
Israel ²	3.8	3.6	3.0	3.2	4.8	3.9	3.9	4.8	3.4	4.4	4.1
Denmark	7.1	7.3	6.3	7.4	7.2	8.7	11.7	9.8	9.0	9.3	8.3
New Zealand	-2.0	-2.8	-4.2	-2.8	-1.0	-5.8	-8.8	-6.9	-6.3	-5.0	-3.6
Puerto Rico	...	...	...	...	...	...	...	...	...	...	...
Macao SAR	26.5	30.8	32.9	33.5	14.0	8.7	11.6	36.0	33.2	33.3	31.0
Iceland	8.1	4.2	4.3	6.5	1.1	-2.6	-2.1	1.1	0.2	0.1	0.5
Andorra	...	...	...	18.0	15.5	14.1	17.3	17.0	17.2	17.3	17.6
San Marino	...	-0.4	-1.9	2.0	2.8	5.4	15.5	13.9	6.2	4.2	1.6
<i>Memorandum</i>											
Major Advanced Economies	-0.2	0.1	-0.2	0.1	-0.7	-0.7	-2.0	-1.2	-1.2	-1.1	-0.7
Euro Area ³	3.6	3.5	3.4	3.1	2.4	3.7	1.2	2.8	3.6	3.5	3.3

¹ Data corrected for reporting discrepancies in intra-area transactions.

² See the country-specific note for Israel in the "Country Notes" section of the Statistical Appendix.

³ Data calculated as the sum of the balances of individual euro area countries.

Table A12. Emerging Market and Developing Economies: Current Account Balance

(Percent of GDP)

	2016	2017	2018	2019	2020	2021	2022	2023	Projections		
									2024	2025	2029
Emerging and Developing Asia	1.3	0.9	-0.3	0.5	1.5	1.2	1.3	1.0	0.8	0.9	0.4
Bangladesh	1.6	-0.5	-3.0	-1.3	-1.5	-1.1	-4.0	-2.6	-1.4	-1.5	-1.4
Bhutan	-29.4	-22.1	-17.4	-19.2	-14.8	-11.2	-28.1	-34.4	-17.7	-32.1	-14.1
Brunei Darussalam	12.9	16.4	6.9	6.6	4.3	11.2	19.6	12.9	15.9	17.0	12.2
Cambodia	-6.4	-6.0	-8.7	-8.0	-2.5	-29.6	-18.8	1.3	-3.3	-3.6	-3.0
China	1.7	1.5	0.2	0.7	1.7	2.0	2.5	1.4	1.4	1.6	1.2
Fiji	-3.5	-6.6	-8.4	-12.8	-13.7	-15.8	-17.2	-7.7	-7.6	-7.5	-7.6
India	-0.6	-1.8	-2.1	-0.9	0.9	-1.2	-2.0	-0.7	-1.1	-1.3	-2.2
Indonesia	-1.8	-1.6	-2.9	-2.7	-0.4	0.3	1.0	-0.2	-1.0	-1.2	-1.4
Kiribati	9.3	31.6	32.6	40.0	31.8	7.0	-2.4	10.3	9.8	9.7	8.8
Lao P.D.R.	-8.7	-7.4	-9.1	-7.0	-1.6	2.3	-3.0	2.7	2.4	2.2	1.6
Malaysia	2.4	2.8	2.2	3.5	4.2	3.9	3.2	1.5	2.6	2.8	3.0
Maldives	-23.5	-20.7	-27.8	-26.1	-35.1	-8.7	-16.3	-21.3	-18.0	-11.9	-8.0
Marshall Islands	9.9	-0.9	-2.0	-31.2	14.9	22.7	10.0	16.8	2.0	2.8	-3.6
Micronesia	7.3	10.5	21.6	16.1	-5.9	2.2	8.5	3.3	2.7	0.8	-0.5
Mongolia	-6.3	-10.1	-16.7	-15.2	-5.1	-13.8	-13.4	0.6	-6.9	-7.7	-9.3
Myanmar	-4.2	-6.8	-4.7	-2.8	-3.5	-0.3	-4.6	-3.7	-3.9	-4.5	-4.3
Nauru	4.2	12.4	7.6	4.6	2.5	3.8	1.8	1.2	5.7	-2.4	1.9
Nepal	5.5	-0.3	-7.1	-6.9	-1.0	-7.7	-12.6	-1.4	3.2	-1.6	-3.6
Palau	-16.1	-22.9	-18.6	-30.4	-43.9	-40.5	-45.6	-51.8	-30.9	-24.9	-14.1
Papua New Guinea	13.6	15.9	13.6	14.4	14.4	12.6	14.4	13.5	9.9	12.2	10.6
Philippines	-0.4	-0.7	-2.6	-0.8	3.2	-1.5	-4.5	-2.6	-2.2	-1.8	-1.1
Samoa	-4.2	-1.8	0.8	2.8	0.6	-14.5	-11.3	-3.3	-0.3	-1.6	-2.2
Solomon Islands	-3.7	-4.3	-3.0	-9.5	-1.6	-5.1	-13.7	-10.8	-4.0	-8.4	-7.9
Sri Lanka ¹	-2.0	-2.4	-3.0	-2.1	-1.4	-3.7	-1.0	...	...	...	...
Thailand	10.5	9.6	5.6	7.0	4.2	-2.1	-3.5	1.4	1.8	2.0	2.8
Timor-Leste ¹	-33.0	-17.5	-12.1	26.2	21.2	42.1	14.8	-0.7	-21.3	-24.4	-31.8
Tonga	-8.2	-7.9	-7.3	-3.9	-6.5	-6.8	-6.8	-6.6	-7.4	-7.7	-7.3
Tuvalu	29.9	2.1	60.9	-22.1	16.1	23.3	4.3	10.7	4.0	-1.3	-6.3
Vanuatu	-2.4	-10.7	4.8	10.2	-5.1	-6.0	-12.3	-2.2	-7.4	-6.5	-4.4
Vietnam	0.2	-0.6	1.9	3.8	4.3	-2.2	0.3	5.8	3.0	2.7	1.3
Emerging and Developing Europe	-0.2	-0.6	1.8	1.4	0.1	1.6	2.7	-0.5	-0.3	-0.7	-0.8
Albania	-7.6	-7.5	-6.8	-7.6	-8.7	-7.7	-5.9	-1.2	-0.8	-1.0	-0.6
Belarus	-3.4	-1.7	0.0	-1.9	-0.3	3.2	3.5	-1.8	-2.0	-2.4	-2.4
Bosnia and Herzegovina	-4.7	-4.8	-3.2	-2.6	-2.8	-1.8	-4.3	-2.8	-4.8	-4.9	-3.8
Bulgaria	3.1	3.3	0.9	1.9	0.0	-1.7	-1.4	-0.3	-1.0	-1.7	-0.3
Hungary	4.5	2.0	0.2	-0.8	-1.1	-4.3	-8.4	0.2	1.6	0.6	1.5
Kosovo	-8.0	-5.5	-7.6	-5.7	-7.0	-8.7	-10.3	-7.7	-10.0	-9.1	-7.2
Moldova	-3.6	-5.8	-10.8	-9.4	-7.7	-12.4	-15.8	-11.9	-11.2	-10.7	-8.5
Montenegro	-16.2	-16.1	-17.0	-14.3	-26.1	-9.2	-12.9	-11.6	-14.5	-14.0	-13.6
North Macedonia	-2.6	-0.8	0.2	-3.0	-2.9	-2.8	-6.1	0.7	-2.1	-2.5	-2.5
Poland	-1.0	-1.2	-1.9	-0.2	2.5	-1.2	-2.4	1.5	0.8	0.0	-1.0
Romania	-1.6	-3.1	-4.6	-4.9	-4.9	-7.2	-9.2	-7.0	-7.5	-7.0	-5.9
Russia	1.9	2.0	7.0	3.9	2.4	6.8	10.5	2.5	2.7	2.6	1.7
Serbia	-2.9	-5.2	-4.8	-6.9	-4.1	-4.3	-6.9	-2.6	-4.2	-4.8	-5.5
Türkiye	-2.6	-4.1	-1.8	2.0	-4.3	-0.8	-5.1	-4.0	-2.2	-2.1	-1.9
Ukraine	-1.5	-2.2	-3.3	-2.7	3.3	-1.9	5.0	-5.4	-8.1	-14.3	-4.3
Latin America and the Caribbean	-2.2	-1.8	-2.7	-2.1	-0.2	-1.8	-2.2	-1.1	-0.9	-1.1	-1.2
Antigua and Barbuda	-2.4	-7.7	-14.0	-6.5	-15.9	-18.0	-15.9	-12.8	-10.5	-9.8	-8.6
Argentina	-2.7	-4.8	-5.2	-0.8	0.7	1.4	-0.6	-3.2	0.6	0.6	1.5
Aruba	4.6	1.0	-0.5	0.2	-16.6	-2.1	6.0	4.8	6.2	5.8	3.0
The Bahamas	-12.5	-13.5	-9.5	-2.2	-22.9	-21.4	-9.1	-7.7	-7.9	-7.2	-6.8
Barbados	-3.9	-3.4	-3.6	-1.6	-4.9	-10.3	-9.9	-8.6	-6.4	-6.1	-4.8
Belize	-7.3	-7.0	-6.6	-7.7	-6.2	-6.5	-8.3	-0.6	-3.0	-2.6	-2.5
Bolivia	-5.6	-5.0	-4.3	-3.3	0.0	3.9	2.1	-2.6	-5.4	-5.5	-6.1
Brazil	-1.7	-1.2	-2.8	-3.5	-1.7	-2.4	-2.1	-1.0	-1.7	-1.8	-1.6
Chile	-2.6	-2.8	-4.5	-5.2	-1.9	-7.3	-8.7	-3.5	-2.3	-2.7	-3.0
Colombia	-4.5	-3.2	-4.2	-4.6	-3.4	-5.6	-6.1	-2.5	-2.5	-2.6	-3.5

Table A12. Emerging Market and Developing Economies: Current Account Balance (continued)
(Percent of GDP)

	2016	2017	2018	2019	2020	2021	2022	2023	Projections		
									2024	2025	2029
Latin America and the Caribbean (continued)	-2.2	-1.8	-2.7	-2.1	-0.2	-1.8	-2.2	-1.1	-0.9	-1.1	-1.2
Costa Rica	-2.1	-3.6	-3.0	-1.3	-1.0	-3.2	-3.2	-1.4	-2.2	-2.2	-1.4
Dominica	-9.0	-11.0	-46.7	-38.1	-37.4	-32.9	-26.7	-33.9	-33.1	-30.7	-15.0
Dominican Republic	-1.1	-0.2	-1.5	-1.3	-1.7	-2.8	-5.8	-3.6	-3.4	-3.4	-2.8
Ecuador	1.1	-0.2	-1.2	-0.1	2.3	2.9	1.8	1.9	2.8	2.4	2.5
El Salvador	-2.3	-1.9	-3.3	-0.4	1.1	-4.3	-6.8	-1.4	-2.2	-2.4	-2.9
Grenada	-8.8	-11.5	-12.8	-10.4	-16.1	-14.5	-11.0	-9.1	-11.3	-14.6	-8.5
Guatemala	1.0	1.2	0.9	2.4	5.0	2.2	1.3	3.1	2.4	1.8	0.1
Guyana	1.5	-4.9	-29.0	-68.8	-17.3	-26.0	26.2	10.3	36.9	12.6	25.9
Haiti	-1.7	-2.2	-2.9	-1.1	0.4	0.4	-2.3	-3.5	-0.4	-0.9	-1.2
Honduras	-3.2	-1.3	-6.6	-2.6	2.9	-5.5	-6.6	-3.9	-5.3	-5.1	-3.9
Jamaica	-0.3	-2.7	-1.5	-1.9	-1.1	1.0	-0.8	2.9	1.6	0.5	-2.0
Mexico	-2.3	-1.8	-2.1	-0.3	2.4	-0.3	-1.2	-0.3	-0.7	-0.9	-1.0
Nicaragua	-8.5	-7.2	-1.8	5.9	3.7	-3.8	-2.4	7.7	6.8	6.1	0.7
Panama	-7.5	-5.8	-7.9	-5.1	0.7	-1.2	-0.6	-4.5	-0.4	-0.5	-2.5
Paraguay	4.6	3.3	-0.2	-0.6	1.9	-0.9	-7.1	0.3	-0.6	-2.5	-0.2
Peru	-2.2	-0.8	-1.1	-0.6	0.9	-2.1	-4.0	0.8	0.3	-0.1	-1.5
St. Kitts and Nevis	-12.1	-10.2	-5.8	-4.8	-10.8	-5.1	-10.8	-13.6	-10.4	-12.4	-5.3
St. Lucia	-6.5	-2.0	1.4	5.5	-18.9	-11.9	-2.9	-1.9	-1.5	-1.3	-0.4
St. Vincent and the Grenadines	-13.1	-11.9	-10.3	-2.4	-15.9	-22.2	-18.9	-17.5	-18.9	-15.4	-8.9
Suriname	-4.8	1.9	-3.0	-11.2	8.9	5.7	2.1	3.9	1.8	1.6	1.1
Trinidad and Tobago	-3.3	5.9	6.6	4.3	-6.5	10.7	17.4	12.1	5.5	7.2	6.5
Uruguay	0.8	0.0	-0.5	1.2	-0.7	-2.5	-3.9	-3.8	-2.7	-2.6	-2.0
Venezuela ¹	-3.4	7.5	8.4	5.9	-3.5	-1.2	3.6	3.1	4.1	3.3	...
Middle East and Central Asia	-4.2	-1.0	2.9	0.4	-3.6	3.4	8.4	3.7	1.7	0.8	-0.3
Afghanistan ¹	9.0	7.6	12.1	11.7	14.0	...	...	...	...	...	...
Algeria	-14.6	-11.8	-8.7	-8.7	-11.3	-2.4	8.4	2.5	1.3	-0.8	-2.6
Armenia	-1.0	-1.3	-7.2	-7.1	-4.0	-3.5	0.3	-2.3	-4.2	-4.8	-5.0
Azerbaijan	-3.6	4.1	12.8	9.1	-0.5	15.1	29.8	11.5	6.1	5.9	0.4
Bahrain	-4.4	-3.9	-6.2	-2.0	-9.1	6.4	14.6	5.9	5.3	4.5	2.9
Djibouti	-1.0	-4.8	14.7	18.3	11.5	-6.6	17.6	22.4	6.2	4.9	6.1
Egypt	-5.6	-5.8	-2.3	-3.4	-2.9	-4.4	-3.5	-1.2	-6.6	-6.4	-4.1
Georgia	-12.2	-7.9	-6.7	-5.8	-12.4	-10.3	-4.5	-4.3	-5.8	-5.9	-5.8
Iran	2.9	3.1	7.9	-0.7	-1.9	3.9	3.8	2.8	2.9	3.0	3.0
Iraq	-10.7	-5.4	3.7	-0.8	-15.4	6.5	15.4	4.5	-1.9	-3.4	-6.4
Jordan	-9.7	-10.6	-6.8	-1.7	-5.7	-8.0	-7.8	-3.5	-5.0	-4.0	-4.0
Kazakhstan	-5.1	-2.1	-1.0	-3.9	-6.4	-1.4	3.1	-3.3	-1.5	-2.7	-3.4
Kuwait	-4.6	8.0	14.3	12.7	4.4	25.2	34.3	31.4	28.2	23.7	13.9
Kyrgyz Republic	-11.6	-6.2	-12.1	-11.5	4.5	-8.0	-41.9	-48.2	-21.7	-6.5	-5.8
Lebanon ¹	-23.5	-26.5	-28.9	-28.2	-15.8	-18.1	-27.7	-23.5	...	...	...
Libya	-9.4	6.6	14.7	6.7	-10.2	16.1	28.6	14.6	11.1	12.5	10.5
Mauritania	-11.0	-10.0	-13.1	-10.5	-6.8	-8.6	-14.9	-8.8	-7.2	-8.7	-6.1
Morocco	-3.8	-3.2	-4.9	-3.4	-1.2	-2.3	-3.6	-0.6	-2.0	-2.3	-3.0
Oman	-16.6	-13.6	-4.9	-4.9	-16.5	-5.5	3.9	2.4	2.3	1.4	2.0
Pakistan	-1.6	-3.6	-5.4	-4.2	-1.5	-0.8	-4.7	-1.0	-0.2	-0.9	-0.9
Qatar	-5.5	4.0	9.1	2.4	-2.1	14.6	26.8	17.1	13.4	13.3	11.3
Saudi Arabia	-3.7	1.7	8.6	4.6	-3.5	4.8	13.7	3.2	0.4	-1.8	-2.7
Somalia	-5.5	1.7	0.0	-9.7	-4.7	-7.1	-8.2	-11.0	-8.7	-9.0	-10.5
Sudan ¹	-6.5	-9.4	-13.9	-15.2	-16.6	-7.5	-11.3	-3.6	-3.9	-8.6	-10.4
Syria ¹	...	...	...	...	...	...	...	...	...	...	...
Tajikistan	-4.2	2.1	-4.9	-2.2	4.3	8.2	15.6	4.9	0.3	-1.7	-2.8
Tunisia	-9.7	-9.7	-10.8	-8.1	-6.0	-6.0	-9.0	-2.7	-3.5	-3.4	-4.0
Turkmenistan	-22.6	-13.6	6.1	2.9	2.9	6.6	7.0	4.7	4.0	2.7	-1.4
United Arab Emirates	3.6	7.0	9.7	8.9	6.0	11.5	13.2	10.7	8.8	8.2	6.4
Uzbekistan	0.2	2.1	-6.1	-5.0	-4.6	-6.3	-3.2	-7.7	-6.3	-6.1	-4.9
West Bank and Gaza ¹	-13.9	-13.2	-13.2	-10.4	-12.3	-9.8	-10.6	-16.6	...	...	...
Yemen	-5.4	-1.5	-3.2	-4.2	-15.6	-14.2	-17.7	-20.3	-25.0	-25.7	-2.0

Table A12. Emerging Market and Developing Economies: Current Account Balance (continued)

(Percent of GDP)

	2016	2017	2018	2019	2020	2021	2022	2023	Projections		
									2024	2025	2029
Sub-Saharan Africa	-3.5	-2.0	-2.0	-3.0	-2.6	-0.9	-2.2	-2.7	-3.2	-2.9	-2.4
Angola	-2.7	-0.5	6.5	5.4	1.3	10.0	8.3	3.8	3.3	1.5	1.1
Benin	-3.0	-4.2	-4.6	-4.0	-1.7	-4.2	-6.1	-5.9	-6.0	-6.0	-4.5
Botswana	8.0	5.6	0.4	-6.9	-10.3	-1.3	-1.2	-0.6	-2.0	1.5	0.2
Burkina Faso	-6.1	-5.0	-4.2	-3.3	4.2	0.4	-7.4	-8.0	-3.8	-1.2	1.4
Burundi	-11.1	-11.8	-12.8	-11.6	-11.2	-11.9	-15.9	-13.8	-15.1	-21.8	-18.9
Cabo Verde	-3.4	-7.0	-4.8	0.2	-15.3	-11.9	-3.6	-3.1	-5.2	-5.3	-3.2
Cameroon	-3.1	-2.6	-3.5	-4.3	-3.7	-4.0	-3.4	-3.9	-2.8	-3.5	-3.1
Central African Republic	-5.4	-7.8	-8.0	-4.9	-8.2	-11.2	-12.9	-8.8	-8.6	-6.9	-3.9
Chad	-4.6	-6.0	-4.2	-3.3	-2.8	-1.8	5.5	-0.9	-1.7	-2.5	-1.3
Comoros	-4.4	-2.2	-3.0	-3.5	-1.8	-0.3	-0.6	-2.5	-3.2	-3.9	-4.8
Democratic Republic of the Congo	-3.9	-3.1	-3.5	-3.2	-2.1	-1.0	-4.9	-6.3	-4.0	-2.0	-3.0
Republic of Congo	-45.3	-3.9	18.5	11.7	12.6	12.8	17.7	6.4	2.5	2.1	-1.1
Côte d'Ivoire	-0.9	-2.0	-3.9	-2.2	-3.1	-3.9	-7.7	-8.0	-5.4	-1.3	-2.3
Equatorial Guinea	-26.0	-7.8	-2.7	-7.5	-0.8	4.2	2.1	-0.8	-0.4	-2.7	-4.1
Eritrea ¹	13.4	24.8	15.5	13.0	...	...	...	...	...	...	...
Eswatini	7.9	6.2	1.3	3.9	7.1	2.6	-2.7	2.2	3.8	1.7	1.0
Ethiopia	-10.9	-8.5	-6.5	-5.3	-4.6	-3.2	-4.3	-2.9	-3.4	-4.8	-1.9
Gabon	-5.4	-0.7	7.1	4.6	-0.5	3.5	10.9	5.4	5.1	3.1	-0.3
The Gambia	-9.2	-7.4	-9.5	-6.2	-3.0	-4.2	-4.2	-8.6	-4.4	-2.8	-0.9
Ghana	-5.1	-3.3	-3.0	-2.2	-2.5	-2.7	-2.3	-1.4	-2.5	-2.0	-2.1
Guinea	-30.7	-6.7	-18.5	-15.5	-16.2	-2.5	-8.6	-8.8	-9.5	-8.8	-7.3
Guinea-Bissau	1.4	0.3	-3.5	-8.5	-2.6	-0.8	-8.6	-8.7	-6.1	-4.4	-4.0
Kenya	-5.4	-7.0	-5.4	-5.2	-4.7	-5.2	-5.0	-4.0	-4.1	-4.1	-4.0
Lesotho	-10.2	-7.0	-7.0	-6.1	-5.7	-9.0	-13.8	-0.2	-0.7	-2.2	-2.1
Liberia	-23.0	-22.3	-21.3	-19.6	-16.4	-17.8	-19.0	-26.4	-22.6	-21.9	-16.6
Madagascar	0.5	-0.4	0.7	-2.3	-5.4	-4.9	-5.4	-4.5	-6.8	-6.0	-4.8
Malawi	-13.1	-15.5	-12.0	-12.6	-13.8	-15.4	-16.7	-16.3	-13.9	-13.8	-11.0
Mali	-7.2	-7.3	-4.9	-7.5	-2.2	-7.4	-10.8	-7.1	-5.5	-3.5	-4.7
Mauritius	-3.9	-4.5	-3.8	-5.0	-8.8	-13.0	-11.1	-3.3	-5.5	-4.6	-4.1
Mozambique	-31.9	-19.5	-29.5	-16.1	-26.5	-21.3	-36.4	-10.6	-29.9	-30.0	-11.8
Namibia	-16.5	-4.4	-3.6	-1.8	3.0	-11.4	-13.0	-14.8	-15.9	-17.0	-11.2
Niger	-11.4	-11.4	-12.7	-12.2	-13.2	-14.1	-16.2	-14.4	-4.6	-4.3	-4.8
Nigeria	1.3	3.6	1.7	-2.9	-3.7	-0.7	0.2	1.7	-0.5	-0.7	-2.0
Rwanda	-15.3	-9.5	-10.1	-11.9	-12.1	-10.9	-9.4	-11.7	-12.0	-11.0	-7.5
São Tomé and Príncipe	-7.2	-15.3	-13.0	-12.8	-11.2	-13.1	-14.4	-12.3	-7.2	-5.7	-4.9
Senegal	-4.2	-7.3	-8.8	-7.9	-10.9	-12.1	-20.0	-18.8	-12.7	-8.3	-4.5
Seychelles	-18.7	-16.2	-2.4	-2.8	-12.3	-8.7	-7.4	-7.2	-10.1	-10.1	-9.2
Sierra Leone	-4.9	-11.7	-10.9	-12.2	-4.8	-5.7	-2.2	-6.0	-5.5	-5.7	-4.5
South Africa	-2.7	-2.4	-2.9	-2.6	2.0	3.7	-0.5	-1.6	-1.6	-1.9	-2.2
South Sudan	19.6	9.6	11.0	2.1	-18.9	-9.4	9.2	2.9	3.3	2.4	-1.1
Tanzania	-4.2	-2.8	-3.5	-3.0	-2.5	-3.9	-5.7	-5.3	-3.9	-3.4	-2.5
Togo	-7.2	-1.5	-2.6	-0.8	-0.3	-2.2	-3.5	-2.9	-3.0	-2.9	-2.0
Uganda	-2.6	-4.8	-6.1	-6.9	-9.5	-8.4	-8.6	-7.4	-6.6	-6.6	-2.6
Zambia	-3.3	-1.7	-1.3	0.6	11.8	11.9	3.8	-1.9	-0.2	6.9	6.2
Zimbabwe	-3.4	-1.2	-3.7	3.5	2.5	1.0	0.9	0.4	-0.3	0.4	1.1

¹ See the country-specific notes for Afghanistan, Eritrea, Lebanon, Sri Lanka, Sudan, Syria, Timor-Leste, Venezuela, and West Bank and Gaza in the "Country Notes" section of the Statistical Appendix.

Table A13. Summary of Financial Account Balances*(Billions of US dollars)*

	2016	2017	2018	2019	2020	2021	2022	2023	Projections	
									2024	2025
Advanced Economies										
Financial Account Balance	440.0	391.8	456.9	152.1	-38.6	442.5	-37.6	132.7	326.6	275.0
Direct Investment, Net	-209.3	243.5	-174.8	18.0	82.5	699.5	545.4	571.8	284.4	251.9
Portfolio Investment, Net	519.4	26.7	517.4	66.6	110.0	262.1	-740.8	-366.3	-397.2	-156.5
Financial Derivatives, Net	21.3	33.6	57.6	8.6	73.6	37.8	12.7	25.0	119.3	108.7
Other Investment, Net	-70.0	-161.6	-72.9	-9.1	-660.7	-1,194.2	353.8	-59.2	247.2	-96.3
Change in Reserves	190.2	247.6	129.5	68.0	358.2	636.2	-211.5	-49.0	72.2	166.5
United States										
Financial Account Balance	-362.4	-373.2	-302.9	-558.4	-672.0	-823.6	-869.1	-924.1	-895.4	-936.6
Direct Investment, Net	-174.6	28.6	-345.4	-201.1	145.3	-133.8	-20.5	105.3	-15.1	-81.2
Portfolio Investment, Net	-193.8	-250.1	78.8	-244.9	-540.2	97.4	-437.7	-1,149.5	-530.4	-354.3
Financial Derivatives, Net	7.8	24.0	-20.4	-41.7	-5.1	-39.0	-80.7	-15.6	-24.2	-29.4
Other Investment, Net	-4.0	-174.1	-20.8	-75.4	-280.9	-862.2	-336.1	135.7	-328.2	-471.6
Change in Reserves	2.1	-1.7	5.0	4.7	9.0	114.0	5.8	0.0	2.5	0.0
Euro Area										
Financial Account Balance	316.8	373.7	353.0	266.9	219.5	437.7	54.9	351.4	...	...
Direct Investment, Net	124.3	35.5	104.7	118.6	-198.2	498.3	305.5	6.6	...	...
Portfolio Investment, Net	530.4	402.4	273.7	-95.6	607.9	286.2	-263.0	-100.5	...	...
Financial Derivatives, Net	21.7	10.4	46.8	7.0	20.8	66.6	70.3	18.8	...	...
Other Investment, Net	-376.9	-73.5	-102.1	230.2	-225.9	-567.7	-76.6	439.9	...	...
Change in Reserves	17.3	-1.2	29.8	6.7	15.0	154.3	18.8	-13.5	...	...
Germany										
Financial Account Balance	286.5	303.0	287.0	224.3	192.6	247.3	208.9	259.3	311.7	313.4
Direct Investment, Net	48.1	37.7	25.1	98.4	-31.2	96.4	118.2	64.6	101.7	105.4
Portfolio Investment, Net	217.9	220.7	177.4	82.9	19.7	233.4	11.3	1.2	100.7	45.2
Financial Derivatives, Net	31.7	12.6	26.8	23.0	106.3	56.7	43.8	43.2	58.0	55.6
Other Investment, Net	-13.0	33.5	57.2	20.6	97.9	-176.9	30.9	149.3	51.2	107.3
Change in Reserves	1.9	-1.4	0.5	-0.6	-0.1	37.7	4.7	1.0	0.0	0.0
France										
Financial Account Balance	-2.7	-30.5	-9.5	11.4	-70.0	1.8	-38.2	-34.0	10.6	3.8
Direct Investment, Net	37.2	2.8	61.0	31.0	10.5	21.0	-23.2	30.3	34.5	37.2
Portfolio Investment, Net	50.1	9.9	11.6	-64.1	-30.9	9.8	-92.6	-145.6	-31.5	-1.5
Financial Derivatives, Net	-17.6	-1.4	-30.5	4.1	-27.2	21.0	-41.4	-18.0	-12.9	-10.4
Other Investment, Net	-75.3	-40.3	-63.8	37.1	-24.7	-78.2	114.2	121.0	29.1	-19.9
Change in Reserves	2.5	-3.4	12.3	3.2	4.6	27.0	2.0	-21.7	-8.6	-1.6
Italy										
Financial Account Balance	38.1	63.5	44.6	61.6	85.6	53.5	-8.3	34.0	34.0	43.6
Direct Investment, Net	-12.3	2.9	-3.6	4.0	23.9	31.2	-14.3	-11.5	1.2	1.6
Portfolio Investment, Net	157.8	103.1	157.1	-55.7	133.5	148.8	178.5	-26.9	-57.3	-45.2
Financial Derivatives, Net	-3.6	-8.4	-3.3	3.0	-2.9	-0.2	12.2	-5.0	-2.3	-0.9
Other Investment, Net	-102.5	-37.1	-108.7	106.7	-73.4	-150.7	-186.8	74.5	92.4	88.2
Change in Reserves	-1.3	3.0	3.1	3.6	4.6	24.5	2.1	3.0	0.0	0.0
Spain										
Financial Account Balance	37.5	40.2	36.7	30.0	12.1	30.6	23.0	64.7	74.6	75.1
Direct Investment, Net	15.4	14.9	-21.2	10.4	18.8	-13.7	4.2	-3.2	-4.1	-4.6
Portfolio Investment, Net	64.5	36.9	28.3	-56.7	87.8	44.5	36.9	-18.0	33.1	42.3
Financial Derivatives, Net	2.9	8.7	-1.1	-6.2	-8.1	1.0	2.4	-4.5	0.0	0.0
Other Investment, Net	-54.5	-24.5	28.1	81.7	-86.0	-13.4	-25.1	83.8	45.6	37.3
Change in Reserves	9.1	4.1	2.6	0.8	-0.4	12.2	4.7	6.5	0.0	0.0

Table A13. Summary of Financial Account Balances (continued)*(Billions of US dollars)*

	2016	2017	2018	2019	2020	2021	2022	2023	Projections	
									2024	2025
Japan										
Financial Account Balance	266.5	168.3	183.9	228.3	132.2	153.3	53.2	167.5	151.5	156.4
Direct Investment, Net	137.5	155.0	134.6	218.9	87.5	174.7	126.8	162.9	122.4	120.6
Portfolio Investment, Net	276.3	-50.6	92.2	87.4	38.5	-198.3	-142.6	197.7	-27.6	-42.6
Financial Derivatives, Net	-16.1	30.4	0.9	3.2	7.8	19.9	38.0	44.6	44.6	44.6
Other Investment, Net	-125.6	10.0	-67.9	-106.7	-12.4	94.1	78.4	-267.5	99.6	22.2
Change in Reserves	-5.7	23.6	24.0	25.5	10.9	62.8	-47.4	29.8	-87.5	11.5
United Kingdom										
Financial Account Balance	-159.8	-102.4	-124.0	-98.5	-93.8	-14.2	-78.6	-59.9	-104.6	-110.8
Direct Investment, Net	-297.4	46.1	-4.9	-42.2	-140.4	156.8	80.7	154.3	7.2	7.5
Portfolio Investment, Net	-160.1	-92.8	-354.9	34.9	36.5	-261.9	-44.9	226.5	-194.6	-202.4
Financial Derivatives, Net	15.6	19.3	10.3	2.5	33.1	-37.5	-59.8	0.8	6.2	6.5
Other Investment, Net	273.2	-83.7	200.7	-92.5	-19.7	104.0	-53.2	-436.8	76.6	77.6
Change in Reserves	8.8	8.8	24.8	-1.1	-3.3	24.4	-1.3	-4.6	0.0	0.0
Canada										
Financial Account Balance	-45.4	-44.2	-35.8	-37.9	-34.3	8.3	-2.4	-11.6	-12.7	-29.4
Direct Investment, Net	33.5	53.4	20.4	26.9	18.1	44.5	36.8	35.3	35.0	50.6
Portfolio Investment, Net	-103.6	-74.9	3.4	-1.6	-67.7	-44.7	-114.6	15.4	-47.6	-27.5
Financial Derivatives, Net	...	...	...	...	...	...	...	...	...	...
Other Investment, Net	19.1	-23.5	-58.2	-63.3	14.0	-11.8	64.7	-69.3	-0.2	-52.5
Change in Reserves	5.6	0.8	-1.5	0.1	1.3	20.2	10.6	7.0	0.0	0.0
Other Advanced Economies¹										
Financial Account Balance	322.4	307.3	360.1	332.9	382.2	605.5	503.3	503.0	555.5	560.3
Direct Investment, Net	-77.3	-156.9	42.6	-26.6	65.8	-51.6	-15.5	14.8	-84.6	-72.7
Portfolio Investment, Net	245.2	151.2	367.4	309.6	265.3	499.9	312.2	394.2	291.2	350.6
Financial Derivatives, Net	3.3	-5.6	31.8	20.0	-13.3	-15.5	36.3	-3.6	47.9	41.4
Other Investment, Net	1.0	105.5	-131.2	-0.4	-258.2	-84.5	367.9	152.0	135.5	88.1
Change in Reserves	162.0	213.1	49.5	30.3	322.6	257.2	-197.6	-64.8	164.7	152.2
Emerging Market and Developing Economies										
Financial Account Balance	-396.0	-276.3	-264.1	-149.2	42.4	212.0	551.1	175.6	183.5	131.9
Direct Investment, Net	-271.4	-306.5	-375.9	-355.5	-319.8	-483.6	-250.5	-155.9	-185.7	-276.4
Portfolio Investment, Net	-50.2	-210.3	-105.8	-74.3	-13.9	115.2	502.8	150.3	-30.3	-39.7
Financial Derivatives, Net	...	...	...	...	...	...	...	...	...	...
Other Investment, Net	405.1	57.2	96.8	108.1	265.6	74.7	168.2	-30.6	-108.8	-50.6
Change in Reserves	-481.1	186.4	123.0	167.3	83.9	513.6	120.0	197.0	486.7	479.4

Table A13. Summary of Financial Account Balances (continued)*(Billions of US dollars)*

	2016	2017	2018	2019	2020	2021	2022	2023	Projections	
									2024	2025
Regional Groups										
Emerging and Developing Asia										
Financial Account Balance	-29.9	-59.2	-263.2	-52.1	155.1	143.1	207.0	188.3	222.1	265.9
Direct Investment, Net	-25.8	-108.3	-170.3	-144.7	-162.5	-258.6	-63.7	88.7	53.0	-7.8
Portfolio Investment, Net	31.1	-70.1	-100.4	-72.0	-106.8	-20.7	309.8	41.4	-74.6	-72.5
Financial Derivatives, Net	-4.6	2.3	4.7	-2.5	15.8	-2.3	18.3	21.2	20.8	21.0
Other Investment, Net	353.8	-82.3	-18.9	70.4	244.5	146.9	-106.0	-34.2	-62.5	-52.7
Change in Reserves	-384.6	199.2	22.1	97.0	164.4	278.3	49.3	71.0	284.1	377.5
Emerging and Developing Europe										
Financial Account Balance	10.9	-25.4	106.2	60.2	8.7	85.5	162.2	-28.5	-4.7	-33.8
Direct Investment, Net	-42.8	-27.8	-25.8	-50.1	-38.3	-40.3	-35.3	-31.2	-41.1	-50.9
Portfolio Investment, Net	-10.8	-34.9	9.8	-2.8	21.1	40.4	26.8	-19.2	-17.2	-1.7
Financial Derivatives, Net	0.5	-2.2	-3.0	1.4	0.3	-4.6	-5.6	4.9	-0.9	-0.8
Other Investment, Net	28.3	26.0	79.6	19.7	30.1	-37.4	144.6	-31.8	-15.5	-14.9
Change in Reserves	35.7	13.4	45.6	92.2	-4.4	127.2	31.6	48.7	70.0	34.4
Latin America and the Caribbean										
Financial Account Balance	-113.0	-110.8	-166.0	-124.4	-9.2	-106.3	-147.6	-86.5	-70.7	-89.5
Direct Investment, Net	-124.4	-120.6	-148.0	-114.0	-92.9	-101.1	-121.1	-140.5	-104.1	-117.6
Portfolio Investment, Net	-53.2	-45.7	-16.5	-2.4	-8.9	-16.4	11.9	25.0	-0.5	0.5
Financial Derivatives, Net	-2.9	3.9	4.0	4.9	5.7	2.0	2.1	-6.5	0.1	-0.4
Other Investment, Net	46.5	34.1	-16.7	19.8	70.7	-41.1	-23.0	13.7	-4.5	1.3
Change in Reserves	21.0	17.3	11.1	-32.6	16.2	50.3	-17.5	21.8	38.4	26.8
Middle East and Central Asia										
Financial Account Balance	-198.6	-37.5	96.0	21.0	-92.6	107.0	380.8	164.1	86.0	36.6
Direct Investment, Net	-45.1	-14.0	-18.9	-18.6	-17.6	-21.6	-12.3	-37.7	-49.3	-52.6
Portfolio Investment, Net	-0.4	-35.7	6.7	21.5	78.5	66.7	153.3	102.5	60.7	31.3
Financial Derivatives, Net	....	....	....	....	....	....	....	....	....	....
Other Investment, Net	-13.9	79.4	75.9	11.8	-72.2	20.0	177.9	41.0	-13.3	23.3
Change in Reserves	-148.0	-59.6	39.3	4.5	-87.9	43.9	66.0	60.7	85.4	33.6
Sub-Saharan Africa										
Financial Account Balance	-65.3	-43.4	-37.0	-53.9	-19.7	-17.3	-51.1	-61.8	-49.2	-47.4
Direct Investment, Net	-33.2	-35.7	-12.8	-28.1	-8.5	-62.1	-18.0	-35.2	-44.2	-47.5
Portfolio Investment, Net	-17.0	-24.0	-5.4	-18.6	2.2	45.3	1.0	0.7	1.2	2.7
Financial Derivatives, Net	0.5	0.3	-0.6	0.3	-0.1	-0.5	1.6	-2.1	-1.5	-1.4
Other Investment, Net	-9.6	0.0	-23.2	-13.6	-7.5	-13.7	-25.4	-19.4	-13.0	-7.7
Change in Reserves	-5.2	16.1	4.9	6.3	-4.4	13.7	-9.4	-5.2	8.7	7.1

Table A13. Summary of Financial Account Balances (continued)*(Billions of US dollars)*

	2016	2017	2018	2019	2020	2021	2022	2023	Projections	
									2024	2025
Analytical Groups										
By Source of Export Earnings										
Fuel										
Financial Account Balance	-160.5	17.7	165.8	54.6	-56.1	165.0	465.4	194.4	159.2	103.6
Direct Investment, Net	-33.9	13.7	9.6	-4.2	-1.4	-6.8	18.0	-20.6	4.8	-29.0
Portfolio Investment, Net	2.9	-30.3	6.2	19.0	79.5	84.3	120.2	93.9	74.8	38.7
Financial Derivatives, Net	...	...	...	...	...	...	...	...	...	...
Other Investment, Net	25.5	108.0	107.5	30.2	-52.4	44.9	244.1	68.3	13.1	64.3
Change in Reserves	-164.0	-66.8	48.9	8.0	-88.7	43.5	87.5	55.7	64.2	28.6
Nonfuel										
Financial Account Balance	-235.5	-294.0	-429.8	-203.8	98.5	47.1	85.8	-18.8	24.3	28.3
Direct Investment, Net	-237.5	-320.1	-385.5	-351.3	-318.4	-476.8	-268.5	-135.3	-190.5	-247.4
Portfolio Investment, Net	-53.1	-180.0	-112.0	-93.3	-93.3	30.9	382.6	56.4	-105.1	-78.5
Financial Derivatives, Net	-6.5	4.4	5.1	4.0	21.7	-5.4	16.3	17.6	18.4	18.3
Other Investment, Net	379.6	-50.8	-10.7	77.9	318.0	29.8	-76.0	-98.8	-121.9	-115.0
Change in Reserves	-317.1	253.1	74.1	159.3	172.6	470.1	32.5	141.2	422.5	450.8
By External Financing Source										
Net Debtor Economies										
Financial Account Balance	-275.5	-329.3	-359.5	-293.8	-117.9	-304.9	-423.1	-290.1	-327.0	-382.6
Direct Investment, Net	-277.1	-256.4	-290.0	-273.3	-231.3	-283.5	-289.6	-273.6	-315.9	-322.8
Portfolio Investment, Net	-67.4	-128.7	-37.1	-35.8	-57.1	-27.3	68.7	-38.1	-95.7	-60.5
Financial Derivatives, Net	...	...	...	...	...	...	...	...	...	...
Other Investment, Net	15.8	-25.7	-29.4	-64.6	36.3	-201.2	-159.5	-133.0	-117.6	-141.5
Change in Reserves	66.9	77.7	-3.0	80.9	128.2	204.1	-46.6	146.8	191.9	132.8
Net Debtor Economies by Debt-Servicing Experience										
Economies with Arrears and/or Rescheduling during 2019-23										
Financial Account Balance	-81.1	-59.3	-47.0	-46.5	-27.3	-40.0	-36.3	-41.5	-67.7	-78.0
Direct Investment, Net	-35.2	-27.2	-25.5	-32.4	-22.8	-34.0	-22.9	-35.2	-67.3	-44.1
Portfolio Investment, Net	-12.1	-36.7	-21.2	-17.9	4.2	-18.5	32.5	8.8	-13.8	-3.1
Financial Derivatives, Net	...	...	...	...	...	...	...	...	...	...
Other Investment, Net	-35.2	-10.7	-4.4	2.9	10.7	8.4	-24.8	-25.8	-13.9	-44.5
Change in Reserves	1.8	15.9	4.5	0.7	-17.9	5.1	-20.9	10.3	26.3	13.3
Memorandum										
World										
Financial Account Balance	44.1	115.5	192.9	3.0	3.7	654.5	513.6	308.2	510.1	406.8

Note: The estimates in this table are based on individual countries' national accounts and balance of payments statistics. Country group composites are calculated as the sum of the US dollar values for the relevant individual countries. Some group aggregates for the financial derivatives are not shown because of incomplete data. Projections for the euro area are not available because of data constraints.

¹ Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.

Table A14. Summary of Net Lending and Borrowing
(Percent of GDP)

	Averages								Projections		
	2006-15	2010-17	2018	2019	2020	2021	2022	2023	2024	2025	Average 2026-29
Advanced Economies											
Net Lending and Borrowing	-0.3	0.4	0.6	0.7	0.2	0.8	-0.2	0.2	0.4	0.4	0.5
Current Account Balance	-0.2	0.4	0.7	0.7	0.3	0.8	-0.4	0.2	0.4	0.4	0.5
Savings	21.7	22.0	23.1	23.3	22.6	23.5	23.2	22.4	22.3	22.4	22.9
Investment	21.9	21.5	22.5	22.7	22.4	22.7	23.4	22.6	22.2	22.3	22.6
Capital Account Balance	0.0	0.0	-0.1	-0.1	0.0	0.0	0.2	0.0	0.1	0.0	0.0
United States											
Net Lending and Borrowing	-3.3	-2.4	-2.1	-2.1	-2.8	-3.7	-3.9	-3.3	-3.3	-3.1	-2.4
Current Account Balance	-3.3	-2.3	-2.1	-2.1	-2.8	-3.7	-3.9	-3.3	-3.3	-3.1	-2.4
Savings	17.3	18.1	19.1	19.3	18.2	17.6	18.3	17.4	17.9	18.2	19.3
Investment	20.5	20.3	21.6	21.7	21.4	21.3	21.9	21.5	21.8	22.0	22.3
Capital Account Balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Euro Area											
Net Lending and Borrowing	0.6	1.7	2.5	2.2	1.7	2.9	0.8	1.8	...	...	...
Current Account Balance	0.5	1.7	2.8	2.4	1.7	2.5	-0.3	1.6	2.6	2.4	2.3
Savings	22.5	22.8	24.9	25.5	24.5	26.5	25.4	25.5	25.0	24.9	24.9
Investment	21.1	20.3	21.5	22.3	21.9	22.7	23.5	21.9	20.6	20.6	20.8
Capital Account Balance	0.1	0.1	-0.3	-0.2	0.0	0.4	1.1	0.3	...	...	...
Germany											
Net Lending and Borrowing	6.4	7.1	7.8	7.9	6.2	7.1	3.6	5.5	6.6	6.4	5.7
Current Account Balance	6.4	7.1	7.8	8.0	6.5	7.2	4.2	6.2	6.6	6.4	5.7
Savings	26.4	27.1	29.3	29.3	28.1	29.6	27.2	27.8	27.2	26.9	26.8
Investment	19.9	20.0	21.5	21.3	21.7	22.5	23.0	21.7	20.6	20.5	21.1
Capital Account Balance	0.0	0.0	0.0	-0.1	-0.3	-0.1	-0.5	-0.7	0.0	0.0	0.0
France											
Net Lending and Borrowing	-0.6	-0.8	-0.6	0.7	-2.0	0.6	-0.8	-0.7	0.3	0.1	-0.1
Current Account Balance	-0.7	-0.8	-0.7	0.6	-2.1	0.3	-1.2	-1.0	0.1	-0.1	-0.3
Savings	21.5	21.0	21.9	23.6	20.8	23.7	24.6	23.9	22.3	21.8	21.3
Investment	22.1	21.8	22.6	23.0	22.8	23.4	25.8	24.9	22.3	21.9	21.6
Capital Account Balance	0.0	0.0	0.1	0.1	0.1	0.4	0.4	0.3	0.2	0.2	0.2
Italy											
Net Lending and Borrowing	-0.9	0.4	2.5	3.1	3.8	2.2	-1.2	0.7	1.4	1.8	2.2
Current Account Balance	-0.9	0.3	2.5	3.2	3.8	2.1	-1.7	0.0	1.1	1.4	2.1
Savings	18.8	18.7	21.2	21.5	21.7	24.1	23.0	22.7	23.1	23.6	24.7
Investment	19.8	18.3	18.7	18.4	17.9	22.0	24.8	22.8	22.1	22.2	22.6
Capital Account Balance	0.1	0.1	0.0	0.0	0.0	0.1	0.5	0.7	0.3	0.4	0.1
Spain											
Net Lending and Borrowing	-2.7	1.1	2.4	2.5	1.2	1.6	1.3	3.7	4.3	4.1	2.9
Current Account Balance	-3.1	0.7	1.9	2.1	0.8	0.8	0.4	2.7	3.4	3.2	2.6
Savings	19.8	20.1	22.6	23.0	21.4	22.6	23.0	23.7	23.8	23.8	23.3
Investment	23.0	19.4	20.7	20.9	20.6	21.9	22.7	21.0	20.4	20.6	20.7
Capital Account Balance	0.4	0.4	0.5	0.3	0.4	0.9	0.9	1.1	1.0	0.9	0.3
Japan											
Net Lending and Borrowing	2.5	2.4	3.5	3.4	2.9	3.8	2.1	3.5	3.7	3.6	3.3
Current Account Balance	2.6	2.5	3.5	3.4	3.0	3.9	2.1	3.6	3.8	3.6	3.3
Savings	27.1	26.8	29.2	29.2	28.2	29.7	28.9	30.0	30.4	30.3	29.7
Investment	24.5	24.4	25.6	25.8	25.2	25.8	26.8	26.4	26.6	26.6	26.4
Capital Account Balance	-0.1	-0.1	0.0	-0.1	0.0	-0.1	0.0	-0.1	-0.1	-0.1	-0.1
United Kingdom											
Net Lending and Borrowing	-3.6	-4.0	-4.1	-2.7	-3.1	-0.5	-2.2	-2.2	-2.9	-3.0	-2.7
Current Account Balance	-3.6	-3.9	-3.9	-2.7	-2.9	-0.4	-2.1	-2.0	-2.8	-2.8	-2.6
Savings	13.3	13.1	14.1	15.6	14.6	17.2	16.6	15.8	14.3	14.3	14.7
Investment	16.9	17.0	18.1	18.2	17.6	17.7	18.7	17.7	17.1	17.1	17.3
Capital Account Balance	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1

Table A14. Summary of Net Lending and Borrowing (continued)
(Percent of GDP)

	Averages								Projections		
	2006–15	2010–17	2018	2019	2020	2021	2022	2023	2024	2025	Average 2026–29
Canada											
Net Lending and Borrowing	-1.9	-3.1	-2.4	-2.0	-2.0	0.0	-0.4	-0.7	-1.0	-1.3	-2.1
Current Account Balance	-1.9	-3.1	-2.4	-2.0	-2.0	0.0	-0.4	-0.7	-1.0	-1.3	-2.1
Savings	22.0	21.0	21.0	21.1	20.7	24.3	25.0	23.3	22.4	22.2	21.3
Investment	24.0	24.1	23.4	23.0	22.7	24.3	25.4	24.0	23.4	23.4	23.4
Capital Account Balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Advanced Economies¹											
Net Lending and Borrowing	4.1	4.5	4.5	4.5	5.1	6.7	6.8	6.2	6.2	6.0	5.8
Current Account Balance	4.2	4.6	4.3	4.6	5.1	6.8	6.8	6.1	6.1	5.9	5.7
Savings	30.5	30.6	30.3	30.1	31.3	33.3	33.3	31.9	31.2	31.1	31.4
Investment	26.2	25.8	25.8	25.5	25.9	26.2	26.3	25.6	25.1	25.2	25.6
Capital Account Balance	-0.1	-0.1	0.2	0.0	0.0	-0.2	0.0	0.1	0.1	0.1	0.1
Emerging Market and Developing Economies											
Net Lending and Borrowing	1.9	0.6	-0.1	0.0	0.5	1.0	1.6	0.6	0.4	0.3	0.0
Current Account Balance	1.8	0.5	-0.2	0.0	0.4	1.0	1.7	0.6	0.4	0.3	0.0
Savings	32.6	32.4	32.5	32.1	32.8	34.3	34.5	32.5	32.3	32.3	32.4
Investment	31.0	31.9	32.7	32.2	32.4	33.5	33.1	32.0	32.0	32.2	32.5
Capital Account Balance	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Regional Groups											
Emerging and Developing Asia											
Net Lending and Borrowing	3.0	1.4	-0.3	0.5	1.5	1.2	1.4	1.0	0.9	0.9	0.5
Current Account Balance	2.9	1.3	-0.3	0.5	1.5	1.2	1.3	1.0	0.8	0.9	0.5
Savings	43.0	42.1	40.0	39.5	40.3	41.0	41.1	39.3	39.4	39.3	38.9
Investment	40.2	40.8	40.2	39.1	38.7	39.8	39.7	38.3	38.6	38.4	38.3
Capital Account Balance	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Emerging and Developing Europe											
Net Lending and Borrowing	-0.4	-0.1	2.2	1.8	0.6	2.0	2.9	-0.2	-0.2	-0.6	-0.5
Current Account Balance	-0.6	-0.4	1.8	1.4	0.1	1.6	2.7	-0.5	-0.3	-0.7	-0.7
Savings	23.5	23.7	25.7	24.3	24.0	26.2	28.2	24.5	23.1	23.1	24.0
Investment	24.0	24.1	23.8	23.0	23.9	24.5	25.4	24.8	23.4	23.8	24.7
Capital Account Balance	0.2	0.3	0.4	0.4	0.5	0.4	0.2	0.2	0.1	0.2	0.2
Latin America and the Caribbean											
Net Lending and Borrowing	-1.6	-2.5	-2.7	-2.1	-0.1	-1.9	-2.2	-1.2	-1.0	-1.3	-1.3
Current Account Balance	-1.7	-2.6	-2.7	-2.1	-0.2	-1.8	-2.2	-1.1	-0.9	-1.1	-1.2
Savings	20.1	18.6	16.4	16.7	17.8	18.6	18.1	18.6	18.7	18.6	18.9
Investment	21.8	21.2	19.1	18.8	18.1	20.5	20.4	19.7	19.6	19.8	20.1
Capital Account Balance	0.1	0.1	0.0	0.0	0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Middle East and Central Asia											
Net Lending and Borrowing	7.5	4.2	2.5	0.2	-3.5	3.1	8.1	3.5	1.7	0.7	0.1
Current Account Balance	7.6	4.1	2.9	0.4	-3.6	3.4	8.4	3.7	1.7	0.8	0.2
Savings	35.3	31.6	28.6	27.0	22.1	27.8	32.8	29.6	28.1	27.4	26.9
Investment	27.8	27.2	26.0	26.7	25.7	24.7	25.0	26.5	26.6	27.0	27.3
Capital Account Balance	0.2	0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1
Sub-Saharan Africa											
Net Lending and Borrowing	-0.1	-1.8	-1.6	-2.6	-2.2	-0.6	-1.9	-2.2	-2.7	-2.5	-2.1
Current Account Balance	-1.1	-2.5	-2.0	-3.0	-2.6	-0.9	-2.2	-2.7	-3.2	-2.9	-2.5
Savings	20.3	19.1	20.0	20.1	20.3	22.0	20.0	19.5	19.0	19.7	21.2
Investment	21.4	21.4	21.6	23.0	22.8	22.8	21.8	22.0	21.8	22.1	23.4
Capital Account Balance	1.0	0.6	0.4	0.4	0.4	0.4	0.3	0.4	0.5	0.4	0.4

Table A14. Summary of Net Lending and Borrowing (continued)
(Percent of GDP)

	Averages								Projections		
	2006-15	2010-17	2018	2019	2020	2021	2022	2023	2024	2025	Average 2026-29
Analytical Groups											
By Source of Export Earnings											
Fuel											
Net Lending and Borrowing	9.5	5.5	5.2	1.7	-3.4	5.1	11.1	5.2	3.7	2.3	1.5
Current Account Balance	9.6	5.5	5.5	1.9	-3.3	5.4	11.4	5.6	3.9	2.6	1.7
Savings	37.1	33.0	31.3	29.7	24.9	32.0	36.8	33.1	32.3	31.0	30.2
Investment	27.6	27.1	25.8	27.7	28.3	27.1	25.9	28.1	28.8	29.1	29.4
Capital Account Balance	0.1	0.0	-0.2	-0.2	-0.2	-0.3	-0.2	-0.3	-0.1	-0.1	-0.1
Nonfuel											
Net Lending and Borrowing	0.6	-0.2	-0.7	-0.1	0.9	0.6	0.6	0.2	0.0	0.1	-0.1
Current Account Balance	0.4	-0.3	-0.8	-0.2	0.8	0.5	0.5	0.1	0.0	0.0	-0.2
Savings	31.9	32.2	32.6	32.4	33.6	34.5	34.3	32.5	32.3	32.5	32.6
Investment	31.5	32.6	33.4	32.7	32.8	34.0	33.8	32.4	32.3	32.5	32.8
Capital Account Balance	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
By External Financing Source											
Net Debtor Economies											
Net Lending and Borrowing	-2.1	-2.4	-2.5	-1.9	-0.7	-1.8	-2.6	-1.4	-1.7	-1.9	-1.9
Current Account Balance	-2.5	-2.7	-2.8	-2.1	-1.0	-2.0	-2.7	-1.5	-1.8	-2.0	-2.0
Savings	23.4	22.8	22.7	22.5	22.9	23.7	23.2	23.6	22.8	22.9	23.5
Investment	25.9	25.5	25.4	24.7	23.9	25.7	25.9	25.0	24.6	24.9	25.6
Capital Account Balance	0.3	0.3	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1
Net Debtor Economies by Debt-Servicing Experience											
Economies with Arrears and/or Rescheduling during 2019-23											
Net Lending and Borrowing	-2.8	-3.9	-3.4	-3.2	-1.9	-2.0	-1.9	-2.4	-4.1	-4.5	-2.8
Current Account Balance	-3.7	-4.6	-3.8	-3.6	-2.4	-2.4	-2.2	-2.8	-4.5	-4.9	-3.1
Savings	20.9	19.3	20.4	18.9	17.3	18.1	18.1	16.3	14.7	15.1	18.0
Investment	24.9	24.1	24.2	23.3	20.1	20.7	20.3	19.5	19.1	19.8	21.0
Capital Account Balance	0.9	0.7	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.3
Memorandum											
World											
Net Lending and Borrowing	0.4	0.5	0.3	0.4	0.3	0.9	0.6	0.4	0.4	0.4	0.3
Current Account Balance	0.4	0.4	0.4	0.4	0.3	0.9	0.5	0.4	0.4	0.3	0.3
Savings	25.4	25.9	26.8	26.8	26.6	27.9	27.9	26.6	26.4	26.5	26.9
Investment	25.1	25.4	26.5	26.5	26.4	27.1	27.4	26.4	26.2	26.4	26.8
Capital Account Balance	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

Note: The estimates in this table are based on individual countries' national accounts and balance of payments statistics. Country group composites are calculated as the sum of the US dollar values for the relevant individual countries. This differs from the calculations in the April 2005 and earlier issues of the *World Economic Outlook*, in which the composites were weighted by GDP valued at purchasing power parities as a share of total world GDP. The estimates of gross national savings and investment (or gross capital formation) are from individual countries' national accounts statistics. The estimates of the current account balance, the capital account balance, and the financial account balance (or net lending/net borrowing) are from the balance of payments statistics. The link between domestic transactions and transactions with the rest of the world can be expressed as accounting identities. Savings (S) minus investment (I) is equal to the current account balance (CAB) ($S - I = CAB$). Also, net lending/net borrowing (NLB) is the sum of the current account balance and the capital account balance (KAB) ($NLB = CAB + KAB$). In practice, these identities do not hold exactly; imbalances result from imperfections in source data and compilation as well as from asymmetries in group composition due to data availability.

¹ Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.

Table A15. Summary of World Medium-Term Baseline Scenario

	Averages				Projections			
	2006-15	2016-25	2022	2023	2024	2025	Averages	
							2022-25	2026-29
	<i>Annual Percent Change</i>							
World Real GDP	3.6	3.1	3.6	3.3	3.2	3.2	3.3	3.2
Advanced Economies	1.5	1.9	2.9	1.7	1.8	1.8	2.1	1.7
Emerging Market and Developing Economies	5.6	3.9	4.0	4.4	4.2	4.2	4.2	4.0
<i>Memorandum</i>								
Potential Output								
Major Advanced Economies	1.4	1.6	1.8	1.9	1.8	1.9	1.9	1.6
World Trade, Volume¹	4.1	2.7	5.7	0.8	3.1	3.4	3.2	3.3
Imports								
Advanced Economies	3.0	2.5	7.2	-0.7	2.1	2.4	2.7	2.6
Emerging Market and Developing Economies	6.7	3.1	4.2	3.0	4.6	4.9	4.2	4.3
Exports								
Advanced Economies	3.7	2.3	5.7	1.0	2.5	2.7	2.9	2.9
Emerging Market and Developing Economies	5.2	3.4	4.6	0.6	4.6	4.6	3.6	4.1
Terms of Trade								
Advanced Economies	0.0	0.2	-1.7	0.7	0.1	0.0	-0.2	-0.1
Emerging Market and Developing Economies	0.4	0.0	1.5	-0.8	-0.7	0.0	0.0	-0.2
World Prices in US Dollars								
Manufactures	1.2	1.1	10.3	-1.6	1.6	1.2	2.8	1.3
Oil	-0.5	3.6	39.2	-16.4	0.9	-10.4	1.3	-2.1
Nonfuel Primary Commodities	3.4	4.3	7.9	-5.7	2.9	-0.2	1.1	0.6
Consumer Prices								
Advanced Economies	1.7	2.6	7.3	4.6	2.6	2.0	4.1	2.0
Emerging Market and Developing Economies	6.0	6.1	9.6	8.1	7.9	5.9	7.9	4.2
Interest Rates			<i>Percent</i>					
World Real Long-Term Interest Rate ²	1.2	-0.7	-5.0	-1.3	0.8	1.4	-1.0	1.2
Current Account Balances			<i>Percent of GDP</i>					
Advanced Economies	-0.2	0.5	-0.4	0.2	0.4	0.4	0.1	0.5
Emerging Market and Developing Economies	1.8	0.4	1.7	0.6	0.4	0.3	0.7	0.0
Total External Debt								
Emerging Market and Developing Economies	27.3	30.2	29.1	29.6	29.0	28.3	29.0	27.5
Debt Service								
Emerging Market and Developing Economies	9.7	10.3	10.5	10.3	9.9	9.8	10.1	9.6

¹ Data refer to trade in goods and services.

² GDP-weighted average of 10-year (or nearest-maturity) government bond rates for Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

WORLD ECONOMIC OUTLOOK SELECTED TOPICS

World Economic Outlook Archives

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I. Methodology—Aggregation, Modeling, and Forecasting

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Risk Assessment around the <i>World Economic Outlook</i> Baseline Projection	October 2022, Box 1.3
Risk Assessment Surrounding the <i>World Economic Outlook</i> Baseline Projections	April 2023, Box 1.3
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II. Historical Surveys

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Commodity Market Developments and Forecasts	April 2020, Chapter 1, Special Feature
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IMF EXECUTIVE BOARD DISCUSSION OF THE OUTLOOK, OCTOBER 2024

The following remarks were made by the Chair at the conclusion of the Executive Board's discussion of the Fiscal Monitor, Global Financial Stability Report, and World Economic Outlook on October 8, 2024.

Executive Directors broadly agreed with staff's assessment of the global economic outlook, risks, and policy priorities. They welcomed the continued growth resilience of the global economy in the face of recurring shocks. Directors highlighted that monetary policy has managed to bring about disinflation with so-far limited cost to output and employment, increasing the likelihood of a smooth landing. They noted, however, that the recovery remains uneven and that growth, while steady, remains underwhelming, reflecting weak productivity growth. They noted that mediocre medium-term growth and rising debt trajectories increase the risk that the global economy will become entrenched in a low-growth, high-debt environment. Against this backdrop, they agreed that, as monetary policy becomes less restrictive, a renewed emphasis on gradual and sustained fiscal consolidation, coupled with ambitious structural reforms, is needed, with due regard for country-specific conditions.

While most Directors agreed that risks to the outlook are now tilted to the downside, a number of Directors also cautioned against overstating the deterioration in the balance of risks. Directors noted, in particular, risks from potentially more persistent underlying inflation, increased geopolitical conflicts and tensions in different regions, and the intensification of protectionist policies that could weigh down on medium-term growth. Directors noted that while the monetary easing underway has helped keep financial conditions accommodative and near-term financial stability risks at bay, this may in turn facilitate the buildup of financial vulnerabilities. They stressed that the widening disconnect between subdued financial market volatility, relative to elevated economic and geopolitical uncertainty, increases the chances of sharp disorderly repricing. Further volatility surges could impair financial stability as well as

investment and growth, especially in emerging market and developing economies heavily reliant on external financing. Directors also noted still-acute pressures on commercial real estate sectors and ongoing property sector adjustments in some countries. Some Directors highlighted upside risks to the outlook, including a stronger recovery in investment in advanced economies, better performance in some emerging market economies, and economic benefits from artificial intelligence.

Directors called on central banks to carefully calibrate monetary policy to restore price stability, avoiding a tighter-than-necessary stance that could weaken growth and employment. They emphasized the importance of remaining data dependent and clearly communicating policy decisions. Directors stressed that, in economies where core inflation persists at above-target levels, policy rates should remain in restrictive territory until underlying inflation shows clear signs of moving toward target. They agreed that moving to a more neutral stance is appropriate in economies where inflation is unambiguously abating, long-term inflation expectations remain anchored, and output gaps are closing. Given elevated economic and policy uncertainty, Directors called on central banks to stand ready to mitigate the potential disruptive impacts of foreign exchange volatility and capital flows, including by leveraging, where appropriate, the country-specific guidance provided by the IMF's Integrated Policy Framework.

Directors welcomed that the global banking sector has remained resilient and emphasized that further progress on adopting and implementing frameworks for recovery and resolution is critical for addressing weak or failing banks. They concurred that full, timely, and consistent implementation of international standards, including Basel III, remains important to enhance prudential frameworks. Directors stressed the need

to improve non-bank financial institutions' liquidity preparedness, implement the Financial Stability Board's agreed-upon standards, close data gaps, and enhance stress testing for non-banks to reduce systemic risks.

Directors generally called for sustained, gradual, and carefully designed fiscal adjustments amid elevated public debt and associated risks. They noted that larger adjustments than currently envisaged in many countries are needed to stabilize debt and build necessary buffers against adverse shocks. Directors stressed that the pace of adjustment should be calibrated to country-specific economic conditions, should ensure continuous support to the most vulnerable and protect public investment, and should be well communicated and anchored in credible medium-term frameworks. They stressed that strengthening fiscal governance should be a priority and would help reduce the debt buildup from contingent liabilities and arrears.

Directors stressed the importance of advancing structural reforms to boost growth and accelerate the green transition, noting the need to enhance the social acceptability of these reforms through enhanced communication and trust-building mechanisms. They emphasized that targeted reforms are needed to boost productivity, enhance competition, improve human capital, and increase labor force participation. Directors reiterated the need to advance with climate mitigation and adaptation reforms. In this context, some Directors emphasized the need to strengthen efforts to increase climate finance for adaptation, especially for vulnerable countries exposed to significant climate risks.

Directors underscored that stronger multilateral cooperation is essential to facilitate debt restructuring processes, mitigate risks from geoeconomic fragmentation, and accelerate the green transition in a manner consistent with World Trade Organization rules.

INTERNATIONAL MONETARY FUND

GLOBAL FINANCIAL STABILITY REPORT



INTERNATIONAL MONETARY FUND

FISCAL MONITOR

REGIONAL ECONOMIC OUTLOOKS

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