

INTERNATIONAL MONETARY FUND

WORLD ECONOMIC OUTLOOK

Global Economy in Flux,
Prospects Remain Dim

2025
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Errata

November 7, 2025

This web version of the WEO has been updated to reflect the following changes to the version published online on October 14, 2025:

- Chapter 1, Commodity Special Feature, page 35: “Vida Maver” was added to the contributor list footnote.
- Chapter 2, section titled “The Contribution of Policy Frameworks to Macroeconomic Stabilization,” page 62: “Easterly and others (1993)” was added to the first sentence. The full reference was added to the reference list on page 72.
- Chapter 2, Figure 2.3.1, panel 2, page 70: “(Percent)” was corrected to “(Percentage points).”
- Chapter 3, Figure 3.10, Note, sixth sentence, page 87: “above-average distance” was corrected to “below-average distance.”
- Statistical Appendix, Table A2, page 125: The data for the first 12 columns for the Czech Republic and Norway were corrected.

December 3, 2025

The web version of the WEO was further updated to reflect the following changes to the version published online on November 7, 2025:

- Chapter 1, Appendix Table 1.1.6, page 47: The reference year in the unit statement was changed from 2017 to 2021.
- Statistical Appendix, Table B9, page 13: The 2025–26 values for Zimbabwe were corrected.

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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 August 1–August 29, 2025, 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 \$68.92 a barrel in 2025 and \$65.84 a barrel in 2026; that the three-month government bond yield for the United States will average 4.3 percent in 2025 and 3.7 percent in 2026, that for the euro area will average 2.0 percent in 2025 and 2.1 percent in 2026, and that for Japan will average 0.4 percent in 2025 and 0.8 percent in 2026; and that the 10-year government bond yield for the United States will average 4.3 percent in 2025 and 4.1 percent in 2026, that for the euro area will average 2.5 percent in 2025 and 2.6 percent in 2026, and that for Japan will average 1.5 percent in 2025 and 1.7 percent in 2026. 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 September 30, 2025, 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, 2024–25 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, 2024/25) 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 2024 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:

- Data for Liechtenstein have been added to the database and are included in the advanced economies group composites.

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.
- The boundaries, colors, denominations, and any other information shown on maps do not imply, on the part of the IMF, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries.

As used in this report, the terms “country” and “economy” do not in all cases refer to a territorial entity that is a state as understood by international law and practice. As used here, the term also covers some territorial entities that are not states but for which statistical data are maintained on a separate and independent basis.

FURTHER INFORMATION

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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 Deniz Igan, 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, Kristina Harwood, Lucy Scott Morales, James Unwin, MPS Limited, and Absolute Service, Inc.

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 September 29, 2025. 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.

An Unchanged Outlook Masks Complex Forces as the Policy Landscape Shifts

In April of this year, the United States announced the imposition of sizable tariffs against most of its trading partners, in a major departure from trade policy rules and norms. Given the complexity and fluidity of the moment, as well as the lack of certainty about announced policies, the April 2025 *World Economic Outlook* (WEO) offered a range of estimates of the downward revision in global growth, from modest to significant, depending on the ultimate severity of the trade shock.

Six months later, where do we stand? The good news is that the negative impact on the global economy is at the modest end of the range. Thanks to the agility of the private sector, which front-loaded imports in the first half of the year and speedily reorganized supply chains to redirect trade flows, the negotiation of trade deals between various countries and the US and the overall restraint from the rest of the world, which by and large kept the trading system open, global growth is now projected at 3.2 percent this year and 3.1 percent next year.

Should we conclude that the shock triggered by the tariff surge had no effect on global growth? That would be both premature and incorrect.

Premature because the US effective tariff rate remains high (at about 19 percent), and trade tensions continue to cast a shadow over the global economy, with trade policy uncertainty remaining high. The effect of these tensions could well increase over time as firms gradually pass the tariffs on to customers as trade is rerouted more permanently and the global economy gradually becomes less efficient. Past experience suggests that it may take a long time before the full picture emerges.

Incorrect because other important forces, besides trade policy, are shaping a complex outlook. In the United States, stricter immigration policies are reducing the labor supplied by foreign-born workers, another negative supply shock. Yet, so far, this has been offset by a roughly equivalent decline in labor demand,

coming from a cyclical cooling after many years of strong job growth. This leaves the labor market in a precarious balance, with a mostly unchanged unemployment rate. Second, financial conditions remain very accommodative, with a dollar that has lost some of its strength. And third, we are witnessing a strong boom in artificial intelligence (AI)-related investment coupled with a modestly expansionary fiscal policy in 2026. These demand forces are supporting output while adding to the price pressures from the tariffs.

In the rest of the world, other drivers besides tariffs—both temporary and structural—are at play too. In China, the country hardest hit by US tariffs, growth is projected to decline only modestly, owing to a sharp depreciation of the real effective exchange rate, a front-loaded surge in exports toward Asian and European partners, and some fiscal expansion. In the euro area, fiscal expansion in Germany has played a role in boosting growth in 2025. Emerging market and developing economies have benefited from easier financial conditions, on the back of a depreciated dollar. They have also continued to demonstrate significant resilience, in part because of strong and improving policy frameworks, a theme explored in Chapter 2.

Incorrect also because, despite the offsets from other drivers, the tariff shock is dimming lackluster growth prospects. Global growth is projected to slow in the second half of this year, with only a partial recovery next year. Compared with the projections in the October 2024 WEO, this results in a cumulative global output loss of about 0.2 percent by the end of 2026. In the US, growth is revised down and inflation is revised up compared with last year's projections, clearly suggesting a negative supply shock.

Thus, despite a steady first half, the outlook remains insufficiently bright, with risks tilted to the downside. These are some of the risks that are key to the balance of the evolving outlook:

First, the current AI boom presents some parallels with the dot-com boom of the late 1990s. Market optimism about a new technology—the internet then, AI now—is pushing up stock valuations, fueling

a tech-centered investment boom, and sustaining consumption on the back of strong capital gains. This could push the neutral interest rate up. Should the AI boom continue unabated, the risk is that demand pressures accentuate further, requiring tighter policies. Indeed, between June 1999 and May 2000, the Federal Reserve needed to raise its policy rate by a cumulative 175 basis points to contain inflationary pressures. But the risk is also that lofty profit expectations will ultimately be unmet—as often happens when new general-purpose technologies are introduced. A significant market repricing, explored in more detail in the October 2025 *Global Financial Stability Report*, could impact aggregate wealth and consumption and spill over to broader financial markets.

Second, China's prospects remain weak. More than four years after the property bubble burst, the sector has still not been put on a firm footing. Real estate investment continues to shrink while the economy teeters on the verge of a debt-deflation cycle. Even more concerning, it is difficult to see how the strong contribution of manufacturing exports to the country's growth can be sustained. The signs are mounting that large-scale subsidies to the manufacturing sector have reached their limit and are contributing to significant misallocation of resources in the economy. This is evident in the contrast between strong productivity gains in some key industrial sectors, such as electric vehicles and solar panels, and the absence of *aggregate* productivity gains. As documented in Chapter 3, while industrial policy is increasingly used by countries to reshape their economies, this often comes with many fiscal and hidden costs.

Third, countries need to seriously address the strains on their public finances. With lower growth prospects, higher real interest rates, more elevated debt levels, and new spending needs for some countries on items such as defense or national security, the fiscal equation is becoming more challenging to solve and leaves countries vulnerable, should a large external shock occur. All major advanced economies saw their spreads rise during the April sell-off, and only a handful of safe haven countries, such as Switzerland, experienced a pronounced fall in longer-term yields—reflecting broader fiscal concerns in core bond markets. Low-income countries are even more vulnerable, given reduced official aid flows. For a rising number of countries, the lack of job opportunities could quickly translate into rising social unrest,

especially among an unemployed and disenfranchised young population.

Fourth, we are witnessing increased pressure on policy-setting institutions such as central banks. Should these pressures succeed, many of the hard-won credibility gains achieved in policymaking over many decades could be lost. Trust in central banks and in their ability to deliver price stability allows inflation expectations to remain well anchored even when the economy is hit by large shocks, such as during the recent cost-of-living crisis, as previous WEO reports have documented.

While downside risks dominate, all is not gloomy. A few important upside risks could quickly brighten the outlook. First, resolving and reducing policy uncertainty would provide a significant lift to the global economy. The October 2025 WEO shows that a material decrease in global economic policy uncertainty as a result of clearer and more stable bilateral and multilateral trade agreements can raise global output by 0.4 percent in the very near term. Lowering tariffs based on these agreements adds even more upside, of about 0.3 percent. Second, AI, beyond its effects on investment, could well improve total factor productivity. This WEO report finds that, under modest assumptions, this factor could add another 0.4 percent to global output in the near term.

This reiterates that policies can and should help restore confidence and predictability, which would improve growth prospects. For trade policy, the objective should be to update trade rules to reflect the changing nature of trade relations, looking to deepen trade relations where possible.

Fiscal policy should aim to reduce fiscal vulnerabilities gradually and credibly. Improving the efficiency of public spending is key and can help address crowding in private investment, as discussed in the October 2025 *Fiscal Monitor*. Monetary policy should remain tailored and transparent. Preserving the independence of monetary policy institutions is a precondition for macroeconomic stability. Technocratic institutions should be allowed to focus on their core mandate and provided with the tools to do so, including in terms of data provision.

Efforts to improve longer-term prospects must continue. While macroeconomic stability is a necessary precondition, governments should ensure that private entrepreneurs can innovate, thrive, and generate the growth of tomorrow. While it might be tempting to

implement sectoral industrial policies, the evidence suggests that their effectiveness can be very limited and the side effects considerable. The use of horizontal policies should instead be preferred: investment in education, public research, public infrastructure, good governance, financial and macroeconomic stability, and a regulatory environment that balances carefully the need for flexibility and innovation in the private sector and the need to contain risks.

Finally, work to strengthen the multilateral frameworks and institutions that have helped deliver considerable gains over the past decades must continue. If anything, an important reason for global resilience

so far is also that most countries have exercised restraint in trade policy retaliation, have sought to forge better trade deals, and are still operating under well-established global trading norms. The recent geopolitical tensions highlight how the need for an adaptive and pragmatic multilateral system is even greater than before. Because while it is easy to focus on the short-term costs and interests, cooperation in the face of global challenges remains the bedrock upon which to build a more prosperous and resilient global economy.

Pierre-Olivier Gourinchas
Economic Counsellor

EXECUTIVE SUMMARY

The rules of the global economy are in flux. Details of newly introduced policy measures are slowly coming into focus, and growth prospects are shifting along with them. After the United States introduced higher tariffs starting in February, subsequent deals and resets have tempered some extremes. But uncertainty about the stability and trajectory of the global economy remains acute. Meanwhile, substantial cuts to international development aid and new restrictions on immigration have been rolled out in some advanced economies. Several major economies have adopted a more stimulative fiscal stance, raising concerns about the sustainability of public finances and possible cross-border spillovers. The world's economies, institutions, and markets have been adjusting to a landscape marked by greater protectionism and fragmentation, with dim medium-term growth prospects and calling for a recalibration of macroeconomic policies.

At the onset of trade policy shifts and the surge in uncertainty, the April 2025 *World Economic Outlook* (WEO) revised the 2025 global growth projection downward by 0.5 percentage point to 2.8 percent. This was predicated on tariffs being supply shocks for tariff-imposing countries and demand shocks for the targeted, with uncertainty being a negative demand shock all around. By July, announcements that lowered tariffs from their April highs prompted a modest upward revision to 3.0 percent. Inflation projections, while little changed overall, went up for the United States and down for many other economies.

After a resilient start, the global economy is showing signs of a moderate slowdown, as predicted. Incoming data in the first half of 2025 showed robust activity. Inflation in Asian economies was subdued, while it remained steady in the United States. This apparent resilience, however, seems to be largely attributable to temporary factors—such as front-loading of trade and investment and inventory management strategies—rather than to fundamental strength. As these factors fade, weaker data are surfacing. The front-loading is unwinding, and labor markets are softening. Pass-through of tariffs to US consumer prices, previously muted, appears increasingly likely. Advanced

economies, traditionally reliant on immigration, are seeing sharp declines in net labor inflows, with implications for potential output.

Global growth is projected to slow from 3.3 percent in 2024 to 3.2 percent in 2025 and to 3.1 percent in 2026. This is an improvement relative to the July WEO *Update*—but cumulatively 0.2 percentage point below forecasts made before the policy shifts in the October 2024 WEO, with the slowdown reflecting headwinds from uncertainty and protectionism, even though the tariff shock is smaller than originally announced. On an end-of-year basis, global growth is projected to slow down from 3.6 percent in 2024 to 2.6 percent in 2025. Advanced economies are forecast to grow about 1½ percent in 2025–26, with the United States slowing to 2.0 percent. Emerging market and developing economies are projected to moderate to just above 4.0 percent. Inflation is expected to decline to 4.2 percent globally in 2025 and to 3.7 percent in 2026, with notable variation: above-target inflation in the United States—with risks tilted to the upside—and subdued inflation in much of the rest of the world. World trade volume is forecast to grow at an average rate of 2.9 percent in 2025–26—boosted by front-loading in 2025 yet still much slower than the 3.5 percent growth rate in 2024—with persistent trade fragmentation limiting gains.

Risks to the outlook remain tilted to the downside, as they were in previous WEO reports. Prolonged policy uncertainty could dampen consumption and investment. Further escalation of protectionist measures, including nontariff barriers, could suppress investment, disrupt supply chains, and stifle productivity growth. Larger-than-expected shocks to labor supply, notably from restrictive immigration policies, could reduce growth, especially in economies facing aging populations and skill shortages. Fiscal vulnerabilities and financial market fragilities may interact with rising borrowing costs and increased rollover risks for sovereigns. An abrupt repricing of tech stocks could be triggered by disappointing results on earnings and productivity gains related to artificial intelligence (AI), marking an end to the AI investment boom and

the associated exuberance of financial markets, with the possibility of broader implications for macrofinancial stability. Pressure on the independence of key economic institutions, such as central banks, could erode hard-earned policy credibility and undermine sound economic decision making, including as a result of reduced data reliability. Commodity price spikes—stemming from climate shocks or geopolitical tensions—pose additional risks, especially for low-income, commodity-importing countries. On the upside, a breakthrough in trade negotiations could lower tariffs and reduce uncertainty. Renewed reform momentum in an effort to navigate the intensifying challenges could give a boost to medium-term growth. Faster productivity growth because of AI could bring economy-wide gains.

The task ahead is to restore confidence through credible, predictable, and sustainable policy actions. Policymakers should establish clear, transparent, and rules-based trade policy road maps to reduce uncertainty and support investment and to reap the productivity and growth benefits that more trade brings. Trade rules should be modernized for the digital age and offer opportunities for stronger multilateral cooperation. Pairing trade diplomacy with macroeconomic adjustment is crucial for correcting persistent external imbalances by addressing their underlying causes and securing lasting gains. Rebuilding fiscal buffers and safeguarding debt sustainability remain a priority.

Medium-term fiscal consolidation should involve realistic, balanced plans that combine spending rationalization and revenue generation. Any new support measures should be temporary, well-targeted, and offset by clear savings. Monetary policy should be calibrated to balance price stability and growth risks, in line with central banks' mandates. Preserving the independence of central banks remains critical for anchoring inflation expectations and enabling them to achieve their mandates. As Chapter 2 shows, past actions to improve policy frameworks have served emerging market and developing economies well in increasing resilience to risk-off shocks. Countries should embrace reform without any further delay to enhance resilience as a new global economic landscape takes shape. Efforts on structural reforms—promoting labor mobility, encouraging workforce participation, investing in digitalization, and strengthening institutions—should be redoubled now to lift growth prospects. As Chapter 3 demonstrates, industrial policy may have a role in improving resilience and growth, but full consideration should be given to opportunity costs and trade-offs involved in its use. For low-income countries, mobilizing domestic resources, including through governance and administrative reforms, is essential as external aid declines. In times of uncertainty, scenario planning and predesigned policy playbooks can improve preparedness and credibility, ensuring that policy responses are both effective and timely.

A New Global Economic Landscape Slowly Takes Shape

The year 2025 has been fluid and volatile, with much of the dynamics driven by a reordering of policy priorities in the United States and the adaptation of policies in the other economies to new realities. Trade news has dominated the headlines, and, along with them, perceived prospects for the global economy have fluctuated. As observed in the April 2025 *World Economic Outlook* (WEO), a series of new tariff measures by the United States lifted tariff rates to levels not seen in a century. Countermeasures by US trading partners were limited, barely moving the effective tariff rate on US exports. A flurry of announcements followed, including trade deals between the United States and several of its trading partners and a reset to higher tariff rates for countries without a trade deal (see the WTO-IMF Tariff Tracker for a summary). As a whole, the announcements brought down the US effective tariff rates from their April highs, gravitating toward a range between 10 percent and 20 percent for most countries (Figure 1.1). Nonetheless, tariffs are very far from falling back to their 2024 levels. Trade policy uncertainty remains elevated in the absence of clear, transparent, and durable agreements among trading partners—and with attention starting to shift from the eventual level of tariffs to their impact on prices, investment, and consumption (Figure 1.2).

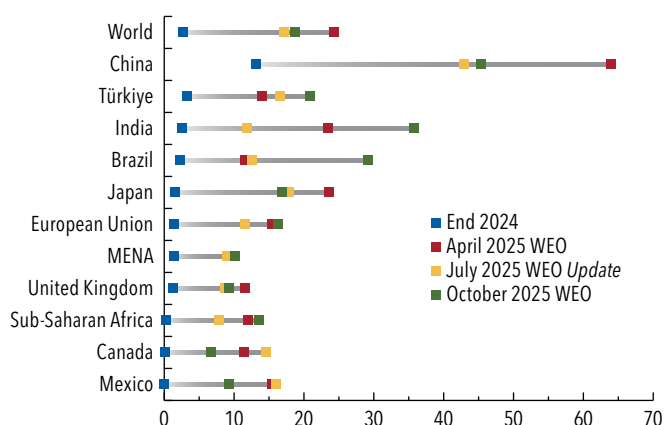
There have also been changes in other policy domains. On the international side, sizable cuts in development aid and more restrictive stances on immigration have been introduced. Official development assistance dropped by 9 percent in 2024 and, based on announced cuts by major donors, a drop of similar magnitude is expected in 2025 (OECD 2025). Low-income developing countries face the largest impact, although with different effects among members of this group. Meanwhile, net migration into several advanced economies that have been traditional recipients of migrant inflows has declined sharply. On the domestic side, in major economies—most notably, the United States—a shift toward a more stimulative fiscal stance, including from changes in defense

spending in some cases, has also raised concerns about the lack of adjustment toward more sustainable public finances and has broad cross-border spillovers. Meanwhile, progress on long-overdue growth-enhancing structural reforms continues to be stalled.

As the new landscape takes shape, the world is adapting. The evolution of WEO projections painted a picture of a significant, though not massive, impact of shifting policies on the economic outlook. The tariff shock in April and the associated uncertainty with which it unfolded prompted a downward revision of the global growth projection for 2025, by 0.5 percentage point to 2.8 percent, in the April 2025 WEO. In the July 2025 WEO *Update*, it was mainly the lowering of tariff rates and the implications thereof for uncertainty and financial conditions that drove a modest 0.2 percentage point upward revision of the 2025 global growth projection to 3.0 percent. Global inflation projections were revised little in April and July, but revisions in different directions across countries offset each other. Specifically, inflation forecasts were revised upward in the United States but downward in many other jurisdictions, consistent with the expectation that the shifting international trade landscape would imply a supply shock in the tariffing country and a demand shock in the tariffed countries.

To date, more protectionist trade measures have had a limited impact on economic activity and prices. Growth held up in the first half of the year, with year-over-year quarterly annualized growth rates persisting at about 3½ percent. Inflation has shown more mixed signals. Globally, sequential headline and core inflation edged up. Relative to WEO projections, inflation readings surprised on the upside in Mexico and the United Kingdom. By contrast, inflation in India, Malaysia, the Philippines, and Thailand surprised on the downside. In China, inflation developments were broadly in line with expectations, with consumer price inflation remaining at very low levels and producer price inflation continuing to be negative. In the United States, headline inflation held steady, driven by moderating price increases in core services and with disinflationary dynamics in goods prices receding.

Figure 1.1. US Effective Tariff Rates by Country
(Percent)

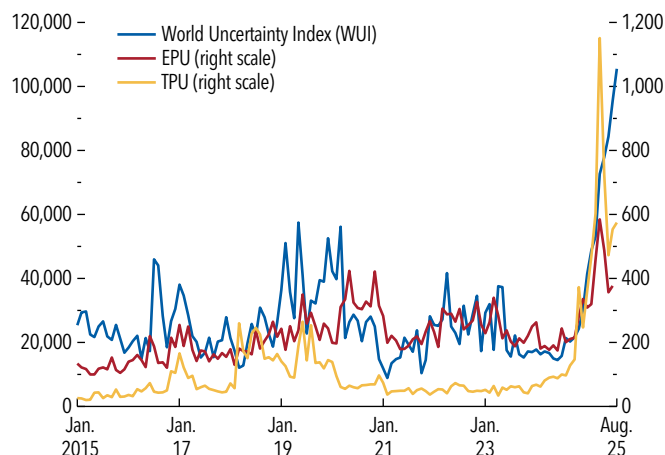


Sources: US International Trade Commission; WTO-IMF Tariff Tracker; and IMF staff calculations.

Note: The effective tariff rate is a weighted average of announced statutory rates. MENA = Middle East and North Africa; WEO = *World Economic Outlook*; WTO = World Trade Organization.

The unexpected resilience in activity and muted inflation response reflect—in addition to the fact that the tariff shock has turned out to be smaller than originally announced—a range of factors that provide temporary relief, rather than underlying strength in economic fundamentals. Households and businesses front-loaded their consumption and investment in anticipation of higher tariffs. This gave a temporary boost to global activity in early 2025. Trade flows started adjusting, with diversion to third countries captured in high-frequency data. At the same time, implementation delays in newly announced tariffs allowed firms to postpone price increases, as they waited for clarity on when and by how much tariffs on certain goods from certain countries would increase. Inventory buildup and its subsequent drawdown, presales, orders put on hold or goods placed in bonded warehouses, and infrequent pricing because of long-term contracts also slowed the pace of pass-through of rising costs (Bauer, Haltom, and Martin 2025). Healthy profit margins in the wake of the inflation surge following the COVID-19 pandemic provided buffers for suppliers in source countries and importers in destination countries to absorb the higher tariffs. Rather than appreciating, as happened in previous episodes of trade tensions, the US dollar depreciated, reflecting increased hedging demand by non-US investors and a potential market reassessment of the dollar's bull run over the past decade (October 2025 *Global Financial*

Figure 1.2. Overall, Economic Policy, and Trade Policy Uncertainty
(Index)



Sources: Ahir, Bloom, and Furceri 2022; Caldara and others 2020; Davis 2016; and IMF staff calculations.

Note: The uncertainty measures are news- and media-outlet-based indices that quantify media attention to global news related to overall uncertainty (WUI), economic policy uncertainty (EPU), and trade policy uncertainty (TPU).

Stability Report). While a weaker dollar amplified the tariff shock, it also supported global trade, contributed to favorable global financial conditions, and eliminated inflationary pressure from exchange rate pass-through, hence providing policymakers (especially those in emerging market and developing economies) with room to support their economies.

There are increasing signs that the adverse effects of protectionist measures are starting to show. Patterns in net exports and inventories driven by front-loading behavior have largely reversed. Core inflation has risen in the United States, and unemployment has edged up. Inflation is stabilizing above central bank targets in several other countries, and inflation expectations are still fragile, worsening the trade-offs for monetary policymakers as uncertainty and tariffs start weighing on activity.

As the global economy slides into a more fragmented landscape, risks to the outlook increase. The tactics that keep activity seemingly resilient in the short term, such as trade diversion and rerouting, are costly. Suboptimal reallocation of productive resources, technological decoupling, and limitations on knowledge diffusion are bound to restrain growth over the longer term. More restrictive stances on the cross-border flow of labor add to pressure on countries already facing challenges from aging populations

(see Chapter 2 of the April 2025 WEO) and would entail output declines on a global scale over the longer term (Chapter 3 of the April 2025 WEO). Dim medium-term growth prospects amplify concerns about fiscal sustainability. The scaling back of international aid worsens these dynamics for the most vulnerable countries while eroding standards of living and, paradoxically, strengthening incentives for migration in source countries.

Recent Developments: Resilience Giving Way to Warning Signs

Slowing Activity

The global economy has shown resilience to the trade policy shocks, including because these shocks materialized on a smaller scale than expected at their onset, but the drag from shifting policies is becoming visible in more recent data. There have been several common drivers of growth patterns across countries but also some important idiosyncratic factors.

The last round of tariffs came in as the US economy started to show signs of a material slowdown. GDP grew at an annualized 3.8 percent in the second quarter of 2025, but mainly because imports and inventories fully reversed the outturn observed in the first quarter, which had seen a contraction of –0.6 percent. Investment slowed, with a reduction in spending on commercial and residential construction and broader weakness masked by a surge in spending on equipment and intellectual property, including those related to AI. The jobs reports since July were much weaker than expected, with significant decline in the number of jobs added. The unemployment rate edged up to 4.3 percent in August. Signs of slowing activity and a weakening labor market appeared in the context of ongoing shifts in labor supply. Net international migration flows plunged in the first half of 2025 and, if the current trends continue, it could imply about 1.0–1.6 million fewer immigrants than in 2024 and 2.5 million fewer than in 2023 (Duzhak and New-Schmidt 2025).

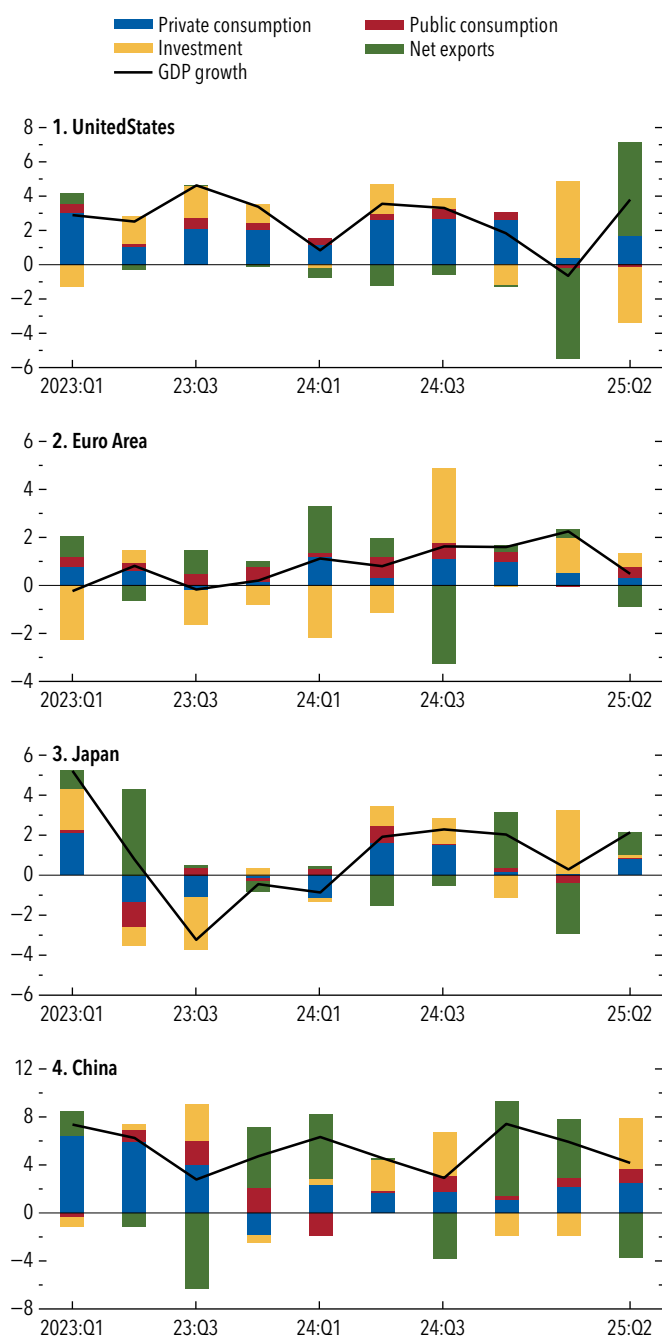
Other major economies are showing signs of waning of the front-loading that drove stronger-than-expected outcomes in the first quarter of 2025. Growth in China in the second quarter slowed to 4.2 percent from 6.1 percent in the first quarter (based on staff seasonally adjusted estimates), with the contribution of net exports receding. This partly offset the acceleration in domestic demand, possibly driven by policy stimu-

lus. High-frequency indicators point to a deceleration in economic activity in July and August. In the euro area, GDP growth slowed to 0.5 percent, from 2.3 percent in the first quarter. Declines in growth rates were recorded in Germany and Italy, as well as in Ireland, which had disproportionately contributed to euro area growth in the first quarter, with export performance driven by pharmaceutical sector transactions, partly as a result of front-loading. In Japan, the economy grew at an annualized rate of 2.2 percent in the second quarter, accelerating from 0.3 percent in the first quarter. In addition to solid capital spending, this was propelled by strong exports, especially of cars. However, new export orders fell in July, for the first time since December, and export values dropped, led by sectors most affected by tariffs.

The composition of contributions to GDP growth in major economies indicates few signs of underlying strength in demand. It clearly illustrates the distortions in trade flows in the past few quarters (Figure 1.3). Importantly, consumption growth has been subdued in all key jurisdictions. And investment has weakened, notwithstanding bursts of activity before the tariff news in April. This is broadly in line with depressed consumer and business confidence (Figure 1.4).

Beyond China, emerging market and developing economies more broadly showed strength, sometimes because of particular domestic reasons, but recent signals point to a fragile outlook there as well. Growth for the group of emerging market economies excluding China was stronger than expected in the first half of 2025, thanks in part to record agricultural output in Brazil, robust service sector expansion in India, and resilient domestic demand in Türkiye. The stronger-than-expected economic performance adds to a more general trend of resilience in emerging markets, which originates in improvements in domestic institutions and favorable external conditions (see Chapter 2). However, external conditions are becoming more challenging, and in some cases, domestic momentum is slowing. For instance, in Brazil, signs of moderation are appearing amid tight monetary and fiscal policies. Higher tariffs imposed by the United States are curtailing external demand, with profound implications for several large export-oriented economies, while heightened trade policy uncertainty is dampening firms' appetite for investment. At the same time, constrained fiscal space is reducing governments' ability to stimulate domestic demand where needed. Among the group of low-income countries, some of the world's poorest economies continue to see feeble

Figure 1.3. Contributions to Quarterly GDP Growth
(Percent, quarter over quarter, annualized)

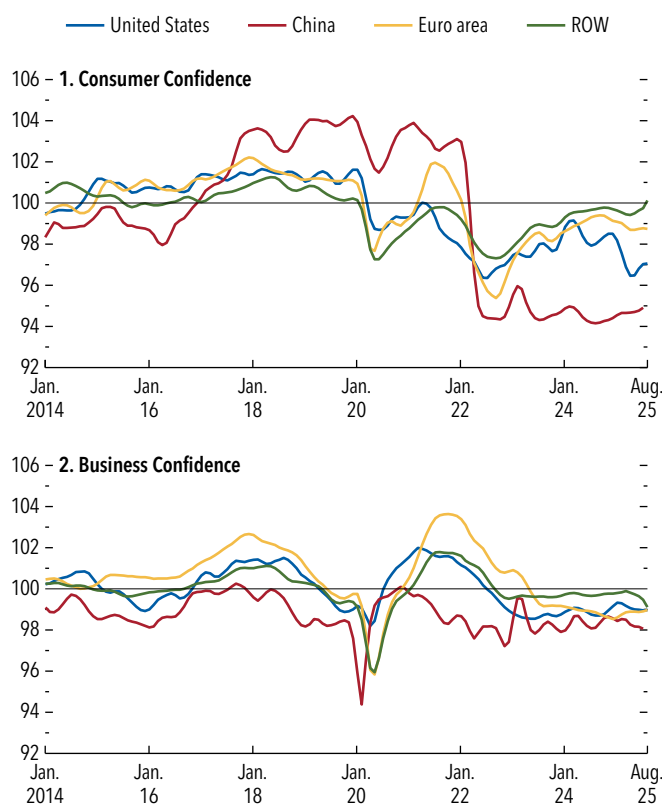


Source: IMF staff calculations.

Note: Figures are calculated using seasonally adjusted series. Residuals are included in the investment contribution.

growth—about 2 percentage points lower than other peers in this group—adversely affected by a dearth of external financing flows and cuts to international aid. Other fragile countries, caught up in internal

Figure 1.4. Consumer and Business Confidence
(Index, OECD harmonized)



Sources: OECD; and IMF staff calculations.

Note: An indicator above 100 signals a boost in confidence; below 100 indicates a pessimistic view. The rest of the world (ROW) represents the average value for data across 22 economies. OECD = Organisation for Economic Co-operation and Development.

or regional conflicts, are falling even more behind (Chabert and Powell 2025).

Renewed economic fears, especially in the United States, briefly set a risk-off tone in financial markets (October 2025 *Global Financial Stability Report*). Global equity indices declined in early August following the US jobs report, and US Treasury yields plunged. Still, these movements were reversed quickly. Equity prices rallied in one of the fastest recoveries on record. At least so far, markets have taken the changes in trade and fiscal policies mostly in stride, despite recent steepening of the US yield curve. Global financial conditions remain accommodative by historical standards. Much of the year's equity market gains has come from a rally in artificial intelligence (AI) stocks. The stretched valuations and calm relative to the challenges raise the risk of market volatility and asset price correction should uncertainty start biting and

economic indicators, including productivity gains from generative AI investments, start to disappoint. The decline in aggregate investment could be rather sharp, given that investment in data centers and AI was a significant contributor to investment growth recently.

Uncertainty Impact Still in the Pipeline

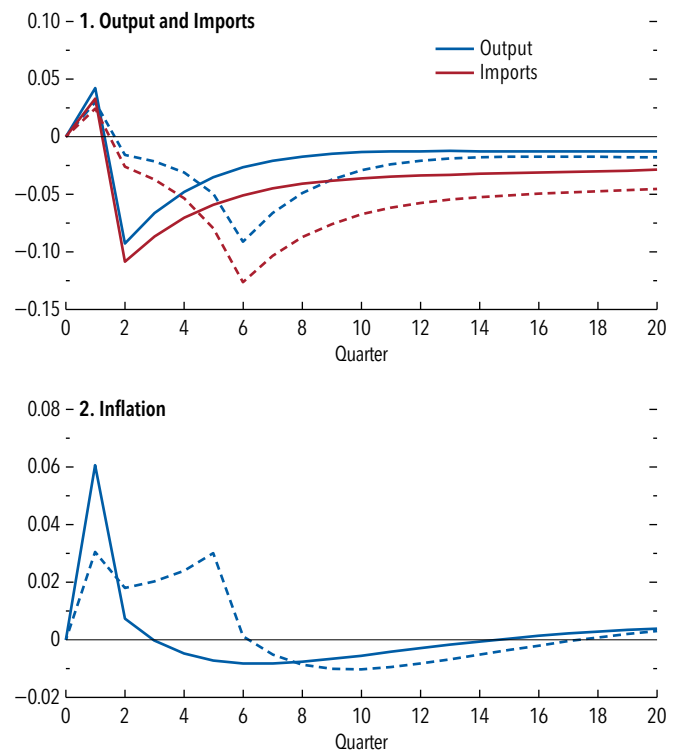
Several factors explain why the impact of higher uncertainty may have been delayed or mitigated. Uncertainty, acting as a negative demand shock, typically starts weighing on activity almost immediately. Its effect continues to build over time and eventually disappears as uncertainty lifts. Empirical estimates suggest that a one-standard-deviation increase in economic policy uncertainty leads to a 2 percent drop in investment, peaking about two years after the shock and fading in about three years (Londono, Ma, and Wilson 2025). Estimates for trade policy uncertainty range between 0.7 percent and 2 percent, peaking in the first couple of quarters and fading in the second year. So far, at the current juncture, the behavior of investment seems to be on the upper end of standard confidence bands.

There are two main channels through which the negative effects of uncertainty materialize. First, under the classic real-options mechanism (Bernanke 1983), firms defer irreversible projects when the outlook is clouded because waiting is cheaper than committing to a potentially costly mistake. Households display a similar pattern, postponing durable purchases while maintaining spending on essentials. A second channel operates through precautionary behavior. When perceived income risk increases, households save more, thereby softening consumption growth (Bansal and Yaron 2004).

Yet these need not translate into weaker output in the near term. Front-loading to avoid what potentially will be higher prices resulting from future tariffs is a clear force temporarily offsetting the wait-and-see and precautionary motives. At the same time, firms may choose to keep prices unchanged and absorb higher costs in margins to retain their customer base while waiting for uncertainty to lift. Strategic complementarities—whereby pricing decisions of one firm strengthen the incentive for other firms to take similar action—may reinforce such short-term stickiness in prices.

The Brexit experience is a case in point. Measures of uncertainty rose sharply before the 2016 referendum. Business investment continued to grow in the period immediately following the UK's withdrawal from the

Figure 1.5. Impulse Responses to a Tariff-Uncertainty Shock
(Percent deviations from the stochastic steady state)



Sources: Ghironi and Ozhan, forthcoming; and IMF staff calculations.

Note: Figure shows impulse responses of selected variables for the tariff-imposing economy to a tariff-uncertainty shock. Solid lines show a shock that materializes in the first quarter ("realized uncertainty"), and dashed lines show a news shock announced in the first quarter that materializes in the fourth quarter. Inflation is annualized.

European Union and started to fall steadily only beginning in 2018 (BOE 2019).

Tariff uncertainty moves activity mainly across time—front-loading provides a brief offset, but once it fades, uncertainty acts as a drag on demand. To illustrate the mechanisms in play, tariff-uncertainty shocks are examined in isolation from tariffs themselves in an open-economy New Keynesian model (Ghironi and Ozhan, forthcoming). Two exercises consider temporary increases in uncertainty about import tariffs (Figure 1.5). In the first exercise (solid lines), uncertainty rises on impact. Given a wider distribution of tariffs, agents try to avoid potentially larger price changes by front-loading imports, temporarily lifting output. Faced with uncertainty about costs, firms raise prices to protect margins, generating a small, short-lived increase in consumer price inflation. Once the front-loading effect fades, uncertainty operates like a negative demand shock—activity softens and inflation eases as firms compress margins.

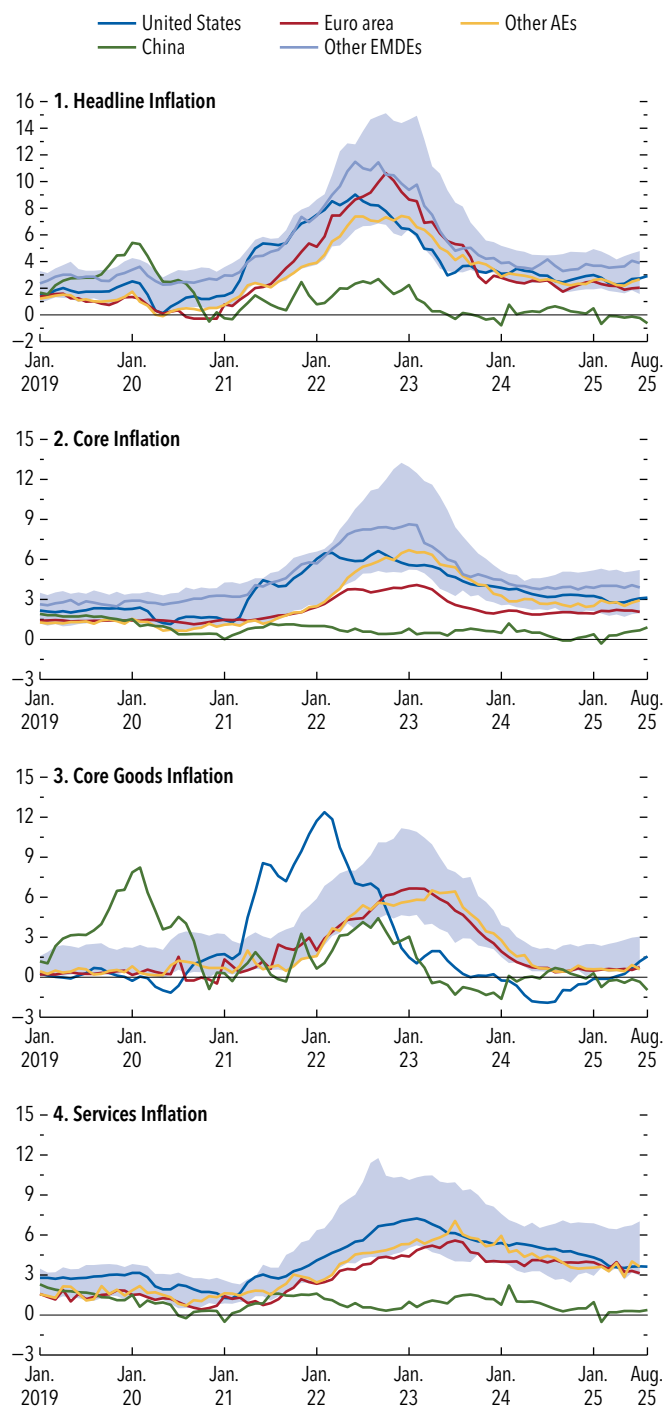
In the second exercise (dashed lines), agents receive news today that tariff uncertainty is going to rise later—akin to pauses or deadline extensions that push uncertainty into the future. Front-loading of imports is similar, but now it is motivated by anticipated larger potential price changes in the future rather than an immediate increase in the variation of costs. Because the timing of uncertainty is known (for example, the expiration of a pause, the date for a bilateral negotiation meeting), firms can plan: They build inventories and reprice slowly. Hence, when uncertainty is known to increase in the future, inflation increases in gradual increments and may look like it is more stubborn than when uncertainty increases right away (though less pronounced in magnitude).

Rising Prices in the United States?

To date, the impact of tariffs and associated rewiring of supply chains on inflationary pressures remains muted. In the tariffing country—the United States—headline and core inflation have ticked up only slightly (Figure 1.6). A deeper look into core inflation, however, reveals a more visible climb in core goods prices in the United States, but not in other countries (blue line in Figure 1.6, panel 3). Notably, this climb occurred at a time of persistent services inflation.

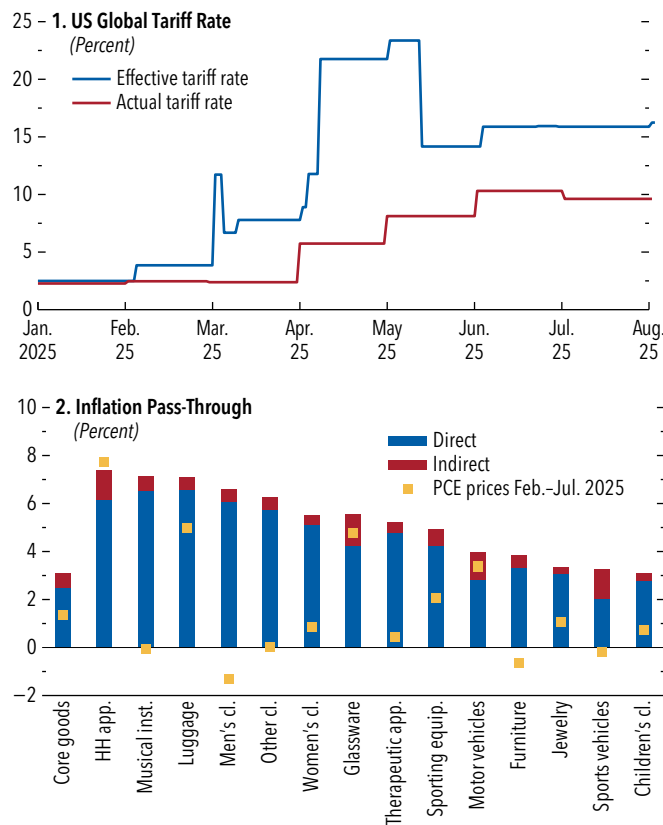
The muted response to date could also mean delayed pass-through. Indeed, stockpiling and tariff pauses, among other factors such as trade diversion and rerouting, mean that the *actual* effective tariff rate—that is, the actual duty paid on imports at customs as a share of the value of imports—lagged the effective rate based on the announcements and calculated as a weighted average of statutory rates using pre-substitution trade weights (Figure 1.7, panel 1). An examination of certain categories of goods suggests that very little of what would be expected to pass through to consumer prices has actually passed through so far (Figure 1.7, panel 2). Household appliances, for instance, have reflected the cost of tariffs, but many categories, including food and clothing, have not. High-frequency retail pricing data indicate that, in categories with exposure to tariffs, the prices of both imported and domestic goods are affected (Cavallo, Llamas, and Vazquez 2025). This suggests broader pricing and supply-chain spillovers. Although firms in the United States enjoyed higher profitability after the pandemic shock, they may not be able to absorb the cost increases that result from the tariff hikes and the

Figure 1.6. Global Inflation Trends
(Percent, year over year)



Sources: Haver Analytics; and IMF staff calculations.

Note: Panels 1 and 2 plot the median of a sample of 57 economies that account for 78 percent of the 2024 world GDP (in weighted purchasing-power-parity terms) in the *World Economic Outlook*. The bands depict the 25th to 75th percentiles of data across economies. "Core inflation" is the percent change in the consumer price index for goods and services, excluding food and energy (or the closest available measure). AEs = advanced economies; EMDEs = emerging market and developing economies.

Figure 1.7. Impact of Tariffs on Prices

Sources: Haver Analytics; US International Trade Commission; WTO-IMF Tariff Tracker; and IMF staff calculations.

Note: In panel 1, actual tariff rate is the actual duty paid on imports at customs as a share of the value of imports, and the effective tariff rate is a weighted average of announced statutory rates using pre-tariff (hence, pre-substitution) import weights. Actual rate may be biased downward if a product is misclassified or under-invoiced or if tariffs are prohibitively high. In panel 2, the full pass-through is estimated using country- and product-specific tariffs and direct and indirect import intensities from the input-output tables and personal consumption expenditure (PCE) bridge. The estimates assume that margins are unchanged and there are no offsetting effects from factors such as the exchange rate. app. = appliances; cl. = clothing; equip. = equipment; HH = household; inst. = instruments; WTO = World Trade Organization.

rewiring of global value chains and may, at some point, start to pass on cost increases to consumers (see also the October 2025 *Global Financial Stability Report* for an analysis of implications of higher tariffs for corporate earnings and debt-servicing capacity).

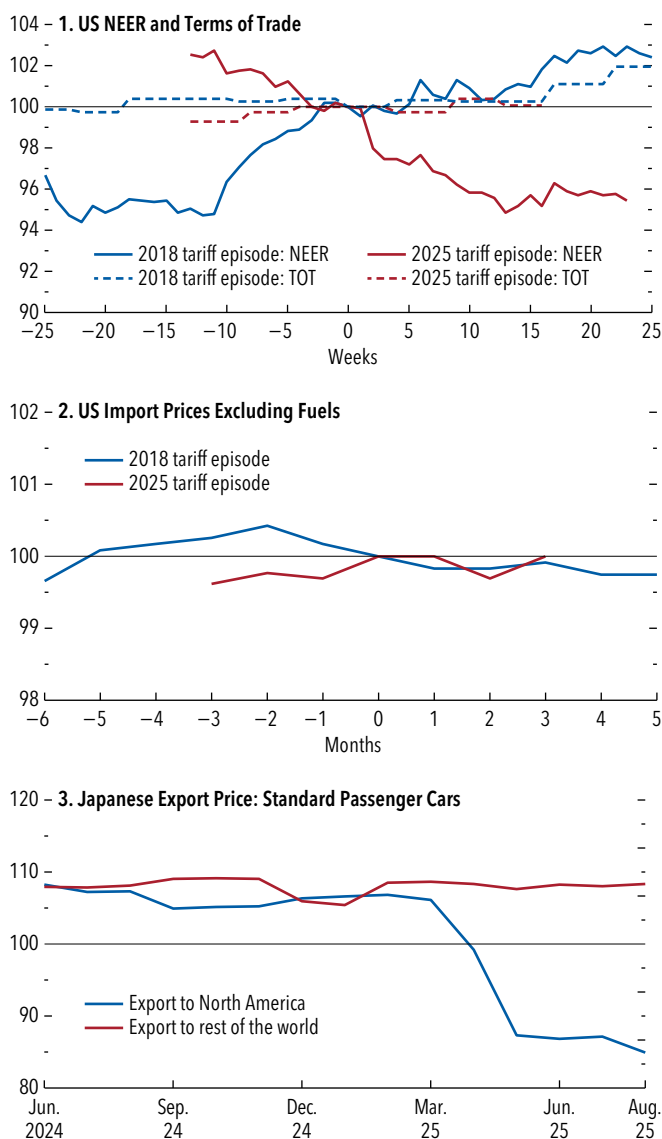
One crucial point about the assessment of recent price developments is the movement of the US dollar. A well-established finding regarding tariffs is that the currency of a tariff-imposing country appreciates (Mundell 1960; Jeanne and Son 2024). On the one hand, with the currency appreciation, the direct impact of tariffs on prices through higher import prices would be somewhat mitigated. On the other hand,

prolonged currency appreciation could offset the direct improvement in trade balances from tariffs—hence leaving trade balances mostly unchanged—and hamper economic activity. This so-called exchange rate offset has been largely absent in the current episode, with the US dollar (the currency of the tariff-imposing country) weakening markedly in April and May and staying mostly stable at the weaker level since then, unlike in the 2018–19 episode (Figure 1.8, panel 1). Interestingly, the aggregate US ex-tariff import price has remained broadly stable since April 2025 (Figure 1.8, panel 2).

The relative lack of movement in US import prices is set in the context of the notable increase in the average effective tariff rate and the sharp depreciation of the US dollar during this time. In a standard setting, the dollar appreciation boosts the margin of exporters, especially if they invoice in dollars, as is common practice. Hence, they have room to absorb some of the tariffs without a deterioration in profitability. And, if they are absorbing the tariffs, import prices decline. This time around, the depreciation of the dollar makes matters more challenging. Under dominant currency pricing, a weaker dollar directly reduces the margin of exporters, separately from the tariffs. Furthermore, the universal nature of the tariffs may make margin reduction less likely, as exporters, who know their competitors are also tariffed, will be reluctant to cut margins.

The lack of a decline in import prices this time—at least to date—indicates that exporters on the whole have not absorbed tariffs through markups or export price adjustment, leaving US firms and households to bear the burden. But the aggregate price movements may mask important variations in US sectoral import prices, considering the varying intensity of tariffs across goods, as well as factors such as demand elasticity and pricing power. For instance, the US import price of capital goods has increased significantly, consistent with recovering some of the margin lost to depreciation of the US dollar, whereas that of automobiles—in one of the hardest-hit sectors—has seen only a moderate increase since April. For exporting countries, some sectors appear to be more sensitive to tariffs than others in terms of export prices. For instance, in Japan the export price of standard passenger cars bound for North America has plummeted more than 20 percent, while that of cars bound for the rest of the world has remained stable, where both are invoiced in US dollars (Figure 1.8, panel 3). A similar pattern is observed for

Figure 1.8. Tariffs, US Dollar, and Prices
(Index)



Sources: Bank of Japan; Federal Reserve Board; US Bureau of Labor Statistics; and IMF staff calculations.

Note: In panels 1 and 2, week and month 0 for the 2018 tariff episode correspond to the week and month of July 6, when the US imposed a 25 percent tariff on \$34 billion in Chinese goods, and China implemented a 25 percent tariff on \$34 billion in US goods. For the 2025 tariff episode, week and month 0 correspond to April 4, following the April 2 "Liberation Day" announcement. In panel 2, the import prices include the transaction value of the goods and the value of services performed to deliver the goods from the border of the exporting country to the border of the importing country, hence they include cost, insurance, and freight but not tariffs. In panel 3, the base year is 2020, and the exports are recorded at border values. NEER = nominal effective exchange rate; TOT = terms of trade.

Korea's automobile export prices. In contrast, export prices of German cars sold to non-EU countries have remained relatively stable so far. Exporters may not be able to maintain lower prices for much longer, given

margin pressures. When firms' pricing decisions are based on beliefs about when competitors will be raising prices, the price increases tend to be gradual, rather than a one-off jump. That said, an appreciation of the dollar—which has been range-bound recently—may put the exchange rate offset back in action to mitigate the impact of tariffs on US consumer prices.

Evolving External Balances

Global trade activity was robust in the first quarter of 2025, driven by strong growth in US imports and in exports from Asia and the euro area because of front-loading in anticipation of higher tariffs in the United States. Some of this strength could be related to a weaker dollar (Boz and others 2020). Subsequent higher-frequency data show signs of deceleration in the second quarter. Goods exports to the United States from major European economies—particularly Germany, Spain, and the United Kingdom—have fallen notably. Total euro area exports remain resilient, however, supported by larger trade flows within Europe. In China, the decline in exports to the United States has been partly offset by higher exports to the euro area and countries in the Association of Southeast Asian Nations (ASEAN), in part supported by the depreciation of the renminbi against most currencies (excluding the US dollar). Bilateral trade decoupling between the United States and China appears to be happening sooner when compared with the 2018–19 tariff shock (see Box 1.1).

Along with changes in the global trade landscape and other policy shifts, current account balances for the world's largest economies have also evolved. The US current account deficit was 4.6 percent of GDP in the first half of 2025, 1.9 percentage points wider than the 2013–24 average, mainly reflecting an increase in goods imports. The euro area current account surplus stood at 1.9 percent of GDP in the first half of 2025 compared with 3 percent over the same period in 2024 and 2.3 percent during 2013–24, largely as a result of an increase in the primary income deficit. Current account surpluses stood at 3.2 percent of GDP in China and 4.7 percent of GDP in Japan, which are larger than in the same period of 2024 and when compared with the historical averages during 2013–24.

While witnessing some improvement in the first quarter of 2025, the net international investment position (NIIP) of the United States has generally seen a stronger rise in US liabilities in recent years

as the economy continues to attract record inflows of foreign direct investment (April 2025 WEO), as well as inflows into equities and US Treasuries. By contrast, the euro area's and Japan's NIIP continue to see assets building faster than liabilities. For China, low-frequency trends indicate relative stability in the NIIP.

Policy Mix: Loose Fiscal and Divergent Monetary

Against the backdrop of slowing global growth and varying domestic inflation developments, policy space is constrained and vulnerabilities are high.

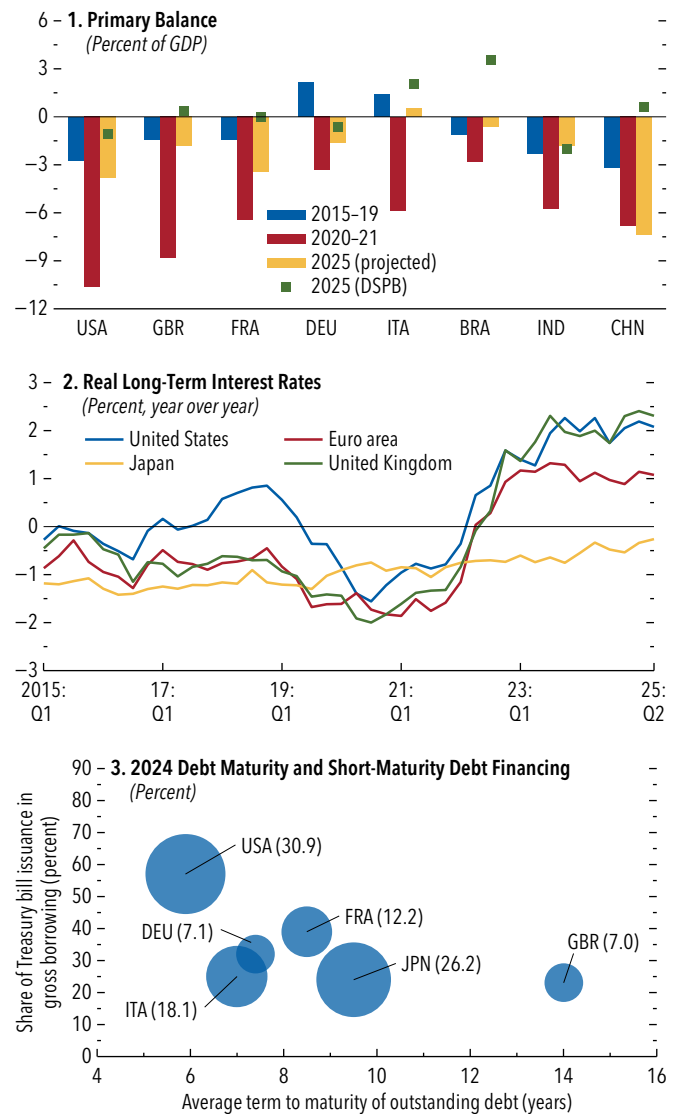
Fiscal policy remains too loose in many of the largest advanced and developing economies. Even though 2025 projected primary deficits in most cases are lower than the record-setting deficits of 2020–21, when large fiscal stimulus packages were deployed to counter the pandemic shock, they remain sizably larger than prior to the pandemic, except in Brazil and India (Figure 1.9, panel 1). In China, the fiscal policy stance remains appropriately expansionary, given the weakness in domestic demand, but marks a continued departure from the stance that is needed to avoid rising debt to GDP over the medium term.

Stabilizing debt to GDP at its 2024 level requires significant consolidation for most countries. In other words, given the projected primary balances for 2025, debt ratios are set to rise, and in some cases—Brazil, China, France, and the United States—significantly so. Further, globally, the level of debt under an extreme adverse scenario would be even higher (see assessment based on the debt-at-risk framework in the October 2024 *Fiscal Monitor*). Spending pressures from aging populations, defense, and energy security add to the risks, especially in Europe.

The calculus of postpandemic debt sustainability is complicated by elevated debt ratios, worsening primary balances, higher interest rates, and a weakening growth outlook. As policy rates were hiked in light of the inflation surge in 2021–22, interest rates at the short end of the yield curve were suddenly much higher and contributed significantly to the rising cost of debt servicing. Since the end of 2023, mid-segment yields and those at the long end have also crept upward (Figure 1.9, panel 2).

The overall rising cost of borrowing is a reason for concern—particularly given the significant refinancing requirements, as a share of GDP, for some of the

Figure 1.9. Fiscal Policy



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

Note: In panel 1, the debt-stabilizing primary balance (DSPB) is calculated as the primary balance required to stabilize the debt given projected effective interest rate on debt and GDP growth, and accounting for stock-flow adjustments. In panel 2, the real long-term interest rate is calculated as the nominal yield on 10-year government bonds minus 10-year-ahead expected inflation from Consensus Economics. In panel 3, bubble size and labels refer to countries' refinancing requirements as a share of GDP. Country labels in the figure use International Organization for Standardization (ISO) codes.

largest economies (Figure 1.9, panel 3). In addition, increased reliance on financing through Treasury bills—short-term debt securities with maturity of one year or less—tends to shorten average debt maturity over time and increasingly exposes governments to refinancing risks or fluctuations in short-term interest rates. Emerging markets with weaker credit ratings and

low-income economies face challenging conditions in bond markets (Chapter 1 of the October 2025 *Global Financial Stability Report*).

Globally, monetary policy's shift from aggressive tightening to a more nuanced stance leaning toward easing or neutral continues. In some of these countries where the fiscal policy stance is loosening, the monetary policy rate is expected to remain steady. But the high uncertainty could prompt fluctuations in interest rates. Concerns about excessive market volatility arising from sovereign refinancing risks make it a challenge for central banks to maintain both price and financial stability (Chapter 2 of the October 2024 *Global Financial Stability Report*).

At the same time, monetary policy stances are bound to become more divergent. While this reflects differing inflation outlooks and central banks' reaction to domestic economic developments within their mandate, it may lead to sharp movements in exchange rates as markets reassess relative currency values.

The Outlook: Dim Prospects

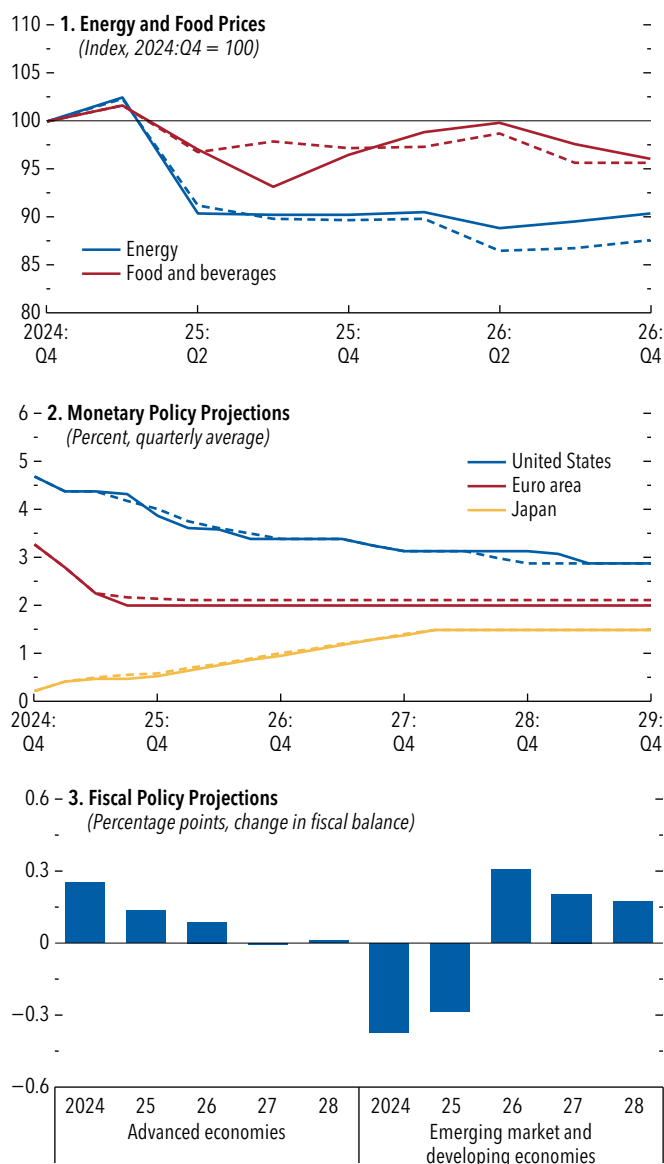
Looking past apparent resilience resulting from trade-related distortions in some of the incoming data and whipsawing growth forecasts from wild swings in trade policies, the outlook for the global economy continues to point to dim prospects, both in the short and the long term.

Global Assumptions

The baseline forecasts are predicated on several projections for global commodity prices, interest rates, and fiscal and trade policies (Figure 1.10). Box 1.2 assesses the impact on growth and inflation of plausible deviations from the baseline assumptions.

- Commodity price projections:** Prices of fuel commodities are projected to decline in 2025 by 7.9 percent and in 2026 by 3.7 percent. This is driven by a decline in oil prices, although at a slower pace than assumed in the April 2025 WEO. The oil futures curve suggests that the petroleum spot price index is expected to average \$68.90 a barrel in 2025 and decrease to \$67.30 by 2030. Barring the temporary spike related to the Israel-Iran war in mid-June, prices have traded in the \$60–\$70 range established since the start of the accelerated production schedule of OPEC+ (Organization of the Petroleum

Figure 1.10. Global Assumptions



Source: IMF staff calculations.

Note: In panels 1 and 2, solid lines denote projections from the October 2025 *World Economic Outlook* (WEO) and dashed lines those from the April 2025 WEO. In panel 3, the fiscal balance used is the general government structural primary balance in percent of potential GDP. The structural primary balance is the cyclically adjusted primary balance excluding net interest payments and corrected for a broader range of noncyclical factors such as changes in asset and commodity prices.

Exporting Countries plus selected nonmember countries, including Russia) in April. Nonfuel commodity prices are projected to increase by 7.4 percent in 2025 and by 4.1 percent in 2026. This implies a slightly lower path than assumed in April, driven by lower projected food and beverage prices, with

- wheat, rice, coffee, and cocoa prices retreating faster from their historical highs than previously forecast.
- **Monetary policy projections:** Central banks in major jurisdictions are projected to take different paths in their policy rate decisions, reflecting differences in the extent of inflationary pressures. In the United States, the federal funds rate is projected to be reduced along a slightly more front-loaded path than expected in the April WEO, dropping to 3.50–3.75 percent at the end of 2025, still reaching its terminal range of 2.75–3.0 percent around the end of 2028. In the euro area, policy rates are expected to hold steady at 2 percent, which is broadly the same as that projected in April. In Japan, policy rates are expected to be lifted, along broadly the same path as that assumed in April, gradually rising 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 projections:** Advanced economies as a group are expected to maintain a broadly neutral fiscal policy stance, which marks a significant departure from the tighter fiscal policy stance assumed in the April 2025 WEO. In the United States, the general government fiscal-balance-to-GDP ratio is expected to deteriorate by 0.5 percentage point in 2026, largely reflecting the passage of the One Big Beautiful Bill Act (OBBBA) and despite an offset of about 0.7 percentage point of GDP from projected tariff revenues. The fiscal balance is projected to worsen in the euro area—including a 0.8 percentage point widening of the deficit in Germany resulting from increased spending on infrastructure and military capability. Under current policies, US public debt fails to stabilize, rising from 122 percent of GDP in 2024 to 143 percent of GDP in 2030, 15 percentage points higher than projected in April. In the euro area, the debt-to-GDP ratio is expected to reach 92 percent in 2030, up from 87 percent in 2024. By contrast, governments in emerging market and developing economies, on average, are projected to modestly tighten fiscal policy in 2026 by about 0.2 percentage point of GDP, reversing the widening expected in 2025. In China, the deficit is expected to narrow slightly through 2030, following a widening of 1.2 percentage points in 2025. Public debt in emerging market and developing economies continues to rise, reaching 82 percent of GDP in 2030, compared with just under 70 percent in 2024.

- **Trade policy assumptions:** Tariffs that have been announced and implemented as of the beginning of September are included in the baseline. These measures are assumed to remain in effect indefinitely, even when they are explicitly stated to have an expiration date, meaning that pauses on higher tariffs are assumed to remain in place past their expiration dates and higher rates are assumed not to take effect. Trade policy uncertainty is assumed to remain elevated through 2025 and 2026, including on account of the additional pause of higher tariffs between China and the United States through November and because legal proceedings are currently underway in the United States concerning use of the International Emergency Economic Powers Act as a legal basis for the imposition of tariffs.

Growth Forecast

Global growth is projected to decelerate from 3.3 percent in 2024 to 3.2 percent in 2025 and to 3.1 percent in 2026 (Table 1.1). On a fourth-quarter-to-fourth-quarter basis, growth is projected to decline from 3.6 percent in 2024 to 2.6 percent in 2025 and recover to 3.3 percent in 2026. At market exchange rates, world output is projected to grow by 2.6 percent in both 2025 and 2026, slowing down from 2.8 percent in 2024 (Table 1.2).

The growth forecast is little changed from the July 2025 WEO *Update*, reflecting gradual adaptation to trade tensions, but is decisively below the prepan-demic average of 3.7 percent. Looking at sequential growth from the second half of 2025 into 2026 gives a clearer picture by removing the distortion from front-loading in the first half of 2025: The global economy is projected to grow at an annualized average rate of 3.0 percent over these six quarters, a slowdown of 0.6 percentage point from the 3.6 percent average rate in 2024. The forecast for 2025–26 is also lower, by a cumulative 0.2 percentage point, than projected in the October 2024 WEO, before the major shifts in policy stances in key jurisdictions. Given the fluidity of trade policy assumptions during 2025, comparisons of current forecasts with those in the April 2025 WEO or in the July 2025 WEO *Update* may obscure the direction the world economy has traveled. Hence, the forecasts are discussed in comparison with those in the October 2024 WEO, which provides a clearer picture.

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

	2024	Projections		Difference from July 2025 WEO Update ¹		Difference from April 2025 WEO ¹	
		2025	2026	2025	2026	2025	2026
World Output	3.3	3.2	3.1	0.2	0.0	0.4	0.1
Advanced Economies	1.8	1.6	1.6	0.1	0.0	0.2	0.1
United States	2.8	2.0	2.1	0.1	0.1	0.2	0.4
Euro Area	0.9	1.2	1.1	0.2	-0.1	0.4	-0.1
Germany	-0.5	0.2	0.9	0.1	0.0	0.2	0.0
France	1.1	0.7	0.9	0.1	-0.1	0.1	-0.1
Italy	0.7	0.5	0.8	0.0	0.0	0.1	0.0
Spain	3.5	2.9	2.0	0.4	0.2	0.4	0.2
Japan	0.1	1.1	0.6	0.4	0.1	0.5	0.0
United Kingdom	1.1	1.3	1.3	0.1	-0.1	0.2	-0.1
Canada	1.6	1.2	1.5	-0.4	-0.4	-0.2	-0.1
Other Advanced Economies ²	2.3	1.8	2.0	0.2	-0.1	0.0	0.0
Emerging Market and Developing Economies	4.3	4.2	4.0	0.1	0.0	0.5	0.1
Emerging and Developing Asia	5.3	5.2	4.7	0.1	0.0	0.7	0.1
China	5.0	4.8	4.2	0.0	0.0	0.8	0.2
India ³	6.5	6.6	6.2	0.2	-0.2	0.4	-0.1
Emerging and Developing Europe	3.5	1.8	2.2	0.0	0.0	-0.3	0.1
Russia	4.3	0.6	1.0	-0.3	0.0	-0.9	0.1
Latin America and the Caribbean	2.4	2.4	2.3	0.2	-0.1	0.4	-0.1
Brazil	3.4	2.4	1.9	0.1	-0.2	0.4	-0.1
Mexico	1.4	1.0	1.5	0.8	0.1	1.3	0.1
Middle East and Central Asia	2.6	3.5	3.8	0.1	0.3	0.5	0.3
Saudi Arabia	2.0	4.0	4.0	0.4	0.1	1.0	0.3
Sub-Saharan Africa	4.1	4.1	4.4	0.1	0.1	0.3	0.2
Nigeria ⁴	4.1	3.9	4.2	0.5	1.0	0.9	1.5
South Africa	0.5	1.1	1.2	0.1	-0.1	0.1	-0.1
<i>Memorandum</i>							
World Growth Based on Market Exchange Rates	2.8	2.6	2.6	0.1	0.0	0.3	0.2
European Union	1.1	1.4	1.4	0.1	0.0	0.2	-0.1
ASEAN-5 ⁵	4.6	4.2	4.1	0.1	0.0	0.2	0.2
Middle East and North Africa	2.1	3.3	3.7	0.1	0.3	0.7	0.3
Emerging Market and Middle-Income Economies	4.3	4.1	3.9	0.1	0.0	0.4	0.1
Low-Income Developing Countries	4.2	4.4	5.0	0.0	0.0	0.2	-0.2
World Trade Volume (goods and services)	3.5	3.6	2.3	1.0	0.4	1.9	-0.2
Imports							
Advanced Economies	2.1	3.1	1.3	0.7	0.3	1.2	-0.7
Emerging Market and Developing Economies	5.6	4.3	4.0	1.6	0.0	2.3	0.6
Exports							
Advanced Economies	1.8	2.1	1.7	0.9	0.4	0.9	-0.3
Emerging Market and Developing Economies	6.5	5.9	3.3	1.0	1.0	4.3	0.3
Commodity Prices							
Oil ⁶	-1.8	-12.9	-4.5	1.0	1.2	2.6	2.3
Nonfuel (average based on world commodity import weights)	3.7	7.4	4.1	-0.5	2.1	3.0	3.9
World Consumer Prices⁷	5.8	4.2	3.7	0.0	0.1	-0.1	0.1
Advanced Economies ⁸	2.6	2.5	2.2	0.0	0.1	0.0	0.0
Emerging Market and Developing Economies ⁷	7.9	5.3	4.7	-0.1	0.2	-0.2	0.1

Source: IMF staff estimates.

Note: Real effective exchange rates are assumed to remain constant at the levels prevailing during August 1, 2025–August 29, 2025. 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 2025 WEO Update, and April 2025 WEO forecasts.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 Nigeria's national accounts data have been revised and rebased, with 2019 as the new base year. The rebasing provides an updated current view of the economy and the revisions increased the level of GDP by 40.8 percent in 2019.⁵ Indonesia, Malaysia, the Philippines, Singapore, and Thailand.⁶ 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 \$79.17 in 2024; the assumed price, based on futures markets, is \$68.92 in 2025 and \$65.84 in 2026.⁷ Excludes Venezuela. See the country-specific note for Venezuela in the "Country Notes" section of the Statistical Appendix.⁸ The assumed inflation rates for 2025 and 2026, respectively, are as follows: 2.1 percent and 1.9 percent for the euro area, 3.3 percent and 2.1 percent for Japan, and 2.7 percent and 2.4 percent for the United States.

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

	2024	Q4 over Q4 ⁹					
		Projections		Difference from July 2025 WEO Update ¹		Difference from April 2025 WEO ¹	
		2025	2026	2025	2026	2025	2026
World Output	3.6	2.6	3.3	-0.1	0.1	0.2	0.3
Advanced Economies	1.9	1.3	1.8	-0.1	0.1	0.1	0.3
United States	2.4	1.9	2.0	0.2	0.0	0.4	0.3
Euro Area	1.3	0.7	1.7	0.0	0.0	0.0	0.3
Germany	-0.2	0.3	1.0	-0.2	0.0	0.0	0.0
France	0.6	0.8	1.0	0.1	-0.1	0.0	0.0
Italy	0.6	1.0	0.1	0.3	-0.9	0.2	-0.8
Spain	3.7	2.5	1.8	0.2	0.2	0.5	0.1
Japan	1.3	0.2	1.1	0.4	0.3	0.6	-0.2
United Kingdom	1.5	1.4	1.4	-0.1	0.2	-0.3	0.5
Canada	2.3	0.5	2.3	-0.6	-0.2	-0.1	0.1
Other Advanced Economies ²	2.1	1.2	2.8	-1.0	1.1	-1.0	1.1
Emerging Market and Developing Economies	4.9	3.7	4.4	0.1	0.1	0.4	0.4
Emerging and Developing Asia	5.9	4.5	5.3	0.0	0.1	0.5	0.6
China	5.4	3.7	5.0	-0.1	0.3	0.5	0.8
India ³	7.4	6.0	6.2	-0.4	-0.2	-0.2	-0.1
Emerging and Developing Europe	3.4	1.3	2.3	-0.2	0.3	-0.5	0.3
Russia	4.5	-0.5	0.5	-0.4	0.0	-0.9	-0.3
Latin America and the Caribbean	2.4	2.1	2.6	0.2	-0.2	0.5	-0.2
Brazil	3.3	2.4	2.3	0.0	0.0	0.4	0.1
Mexico	0.4	1.5	1.7	1.2	-0.5	1.7	-0.3
Middle East and Central Asia	...	...	...	...	...	...	...
Saudi Arabia	4.4	4.0	4.0	0.4	0.1	1.5	0.3
Sub-Saharan Africa	...	...	...	...	...	...	...
Nigeria ⁴	4.0	3.9	4.3	-0.1	0.1	0.2	1.5
South Africa	0.5	1.5	1.0	0.1	0.1	0.7	-0.6
<i>Memorandum</i>							
World Growth Based on Market Exchange Rates	3.0	2.2	2.8	0.0	0.1	0.3	0.3
European Union	1.6	1.0	1.7	-0.1	0.0	-0.1	0.0
ASEAN-5 ⁵	4.8	4.9	4.5	0.9	-0.5	1.3	0.2
Middle East and North Africa	...	...	...	...	...	...	...
Emerging Market and Middle-Income Economies	4.9	3.7	4.4	0.1	0.1	0.4	0.4
Low-Income Developing Countries	...	...	...	...	...	...	...
Commodity Prices (US dollars)							
Oil ⁶	-10.1	-8.3	-2.2	3.0	-1.5	5.8	-1.5
Nonfuel (average based on world commodity import weights)	8.3	7.1	1.2	0.5	1.7	5.9	0.8
World Consumer Prices⁷	4.9	3.6	3.0	0.1	0.1	0.1	0.0
Advanced Economies ⁸	2.4	2.4	2.0	0.0	0.0	0.0	-0.1
Emerging Market and Developing Economies ⁷	6.7	4.4	3.7	0.0	0.2	0.0	0.1

⁹For 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.

Growth Forecast for Advanced Economies

For *advanced economies*, growth is projected to be 1.6 percent in 2025 and 2026, both 0.2 percentage point lower than recorded in 2024 and projected in the October 2024 WEO.

- In the *United States*, growth is projected to slow to 2.0 percent in 2025 and remain steady at 2.1 percent in 2026, broadly the same as in July and an improvement relative to April on account of lower effective tariff rates, a fiscal boost from the passage of the OBBBA, and easing financial

conditions. This projection marks a significant slowdown from 2024 as well as a cumulative downward revision of 0.1 percentage point relative to the October 2024 WEO and 0.7 percentage point relative to the January 2025 WEO Update. The downward revision is mainly a result of greater policy uncertainty, higher trade barriers, and lower growth in both the labor force and employment.

- Growth in the *euro area* is expected to pick up modestly to 1.2 percent in 2025 and to 1.1 percent in 2026. While an improvement relative to April and

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

	2024	Projections		Difference from July 2025 WEO Update ¹		Difference from April 2025 WEO ¹	
		2025	2026	2025	2026	2025	2026
World Output	2.8	2.6	2.6	0.1	0.0	0.3	0.2
Advanced Economies	1.8	1.6	1.7	0.1	0.0	0.2	0.2
Emerging Market and Developing Economies	4.2	4.0	3.8	0.0	0.0	0.5	0.1
Emerging and Developing Asia	5.2	5.0	4.5	0.1	0.0	0.7	0.1
Emerging and Developing Europe	3.4	1.9	2.3	0.0	0.1	-0.2	0.0
Latin America and the Caribbean	2.2	2.3	2.2	0.2	0.0	0.4	0.0
Middle East and Central Asia	2.3	3.6	4.0	0.2	0.3	0.7	0.4
Sub-Saharan Africa	3.9	4.0	4.2	0.2	-0.1	0.3	0.0
<i>Memorandum</i>							
European Union	1.0	1.3	1.3	0.1	-0.1	0.3	-0.1
Middle East and North Africa	1.9	3.4	3.9	0.1	0.3	0.7	0.4
Emerging Market and Middle-Income Economies	4.2	4.0	3.8	0.1	0.1	0.5	0.2
Low-Income Developing Countries	4.0	4.5	5.0	0.1	-0.1	0.3	-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 2025 WEO Update, and April 2025 WEO forecasts.

July, this is a cumulative downward revision of 0.4 percentage point compared with the October 2024 WEO. Elevated uncertainty on multiple fronts and higher tariffs are the main drivers. Recovering private consumption from higher real wages and fiscal easing in *Germany* in 2026 provide only a partial offset, whereas strong performance in *Ireland* lifts growth in 2025. The euro area economy is expected to grow at potential in 2026.

- Forecasts for other advanced economies also mark significant downward revisions compared with those in the October 2024 WEO, largely a reflection of the shifting international trade landscape. In *Canada*, the growth forecast for 2025 is 1.2 percent, and for 2026 it is 1.5 percent—cumulatively 1.7 percentage points below the October 2024 projection. In *Japan*, growth is expected to accelerate from 0.1 percent in 2024 to 1.1 percent in 2025 and moderate to 0.6 percent in 2026. These dynamics are driven by an expected pickup in real wage growth supporting private consumption, despite headwinds from elevated trade policy uncertainty and softening external demand. This constitutes a cumulative downward revision of 0.2 percentage point relative to October 2024. In the *United Kingdom*, growth in 2025 and 2026 is expected to be 1.3 percent, revised, on a cumulative basis, slightly upward relative to April. While this reflects strong activity in the first half of 2025 and an improvement in the external environment, including

through the UK-US trade deal announced in May, the projected growth in 2025–26 is still lower by a cumulative 0.4 percentage point compared with the forecast in October 2024.

Growth Forecast for Emerging Market and Developing Economies

For *emerging market and developing economies*, growth is projected to moderate from 4.3 percent in 2024 to 4.2 percent in 2025 and 4.0 percent in 2026. This is virtually unchanged from the July WEO Update and is a cumulative upward revision of 0.6 percentage point from the April 2025 WEO. That said, it is lower than the forecast in October 2024 by a cumulative 0.2 percentage point, with low-income developing countries experiencing a larger downward revision than middle-income economies.

- Growth in *emerging and developing Asia* is expected to decline from 5.3 percent in 2024 to 5.2 percent in 2025 and further to 4.7 percent in 2026. For quite a few countries in the region—particularly in ASEAN, among the most affected—the evolution of growth forecasts largely mimicked that of effective tariff rates. In *China*, the 2025 GDP growth forecast was revised downward by 0.6 percentage point in the April 2025 WEO, with the escalation of trade tensions between China and the United States, and then upward by 0.8 percentage point in the July WEO Update, following the pause on higher rates in May. Compared with the October 2024 WEO

projection, growth, at 4.8 percent, is expected to be 0.3 percentage point higher. Growth is expected to moderate in 2026 to 4.2 percent. A stronger-than-expected outturn in the past few quarters, reflecting front-loading in international trade and relatively robust domestic consumption supported by fiscal expansion in 2025, more than offset the headwinds from higher uncertainty and tariffs. In *India*, growth is projected to be 6.6 percent in 2025 and 6.2 percent in 2026. Compared with the July WEO *Update*, this is an upward revision for 2025, with carryover from a strong first quarter more than offsetting the increase in the US effective tariff rate on imports from India since July, and a downward revision for 2026. Compared with the pre-tariff forecast in October 2024, growth is projected to be cumulatively 0.2 percentage point lower.

- In *Latin America and the Caribbean*, growth is projected to remain stable at 2.4 percent in 2025 and fall slightly to 2.3 percent in 2026. The forecast for 2025 is revised upward by 0.4 percentage point relative to April on account of lower tariff rates for most countries in the region and stronger-than-expected incoming data. The revision is driven largely by *Mexico*, which is expected to grow at 1.0 percent in 2025, 1.3 percentage points higher than forecast in the April 2025 WEO. For *Brazil*, the projection for 2025 is revised upward, but that for 2026 is revised downward, in part because of the higher tariff rate on the country's exports to the United States. For the region as a whole, a forecast for this year and next that is cumulatively 0.5 percentage point lower than forecast in the October 2024 WEO reflects trade policy changes and uncertainty.
- Growth in *emerging and developing Europe* is projected to decline substantially, from 3.5 percent in 2024 to 1.8 percent in 2025, and to recover modestly to 2.2 percent in 2026. This is driven mainly by a sharp drop in the growth forecast in *Russia*, from 4.3 percent in 2024 to 0.6 percent in 2025 and to 1.0 percent in 2026. Growth for 2025 is 0.9 percentage point lower than in the April 2025 WEO forecast. The downward revision is largely a result of recent data releases that show a concentration of fiscal expenditures in the fourth quarter of 2024, which pushed estimated GDP growth in 2024 from 4.1 percent to 4.3 percent. The payback is incorporated in the 2025 projection. Growth projections for *Türkiye* are revised upward for both 2025 and 2026, on account of stronger-than-expected

outturns, and provide a partial offset. Still, for the region as a whole, the growth forecast is lower than projected in the October 2024 WEO by a cumulative 0.7 percentage point.

- Growth in the *Middle East and Central Asia* is projected to accelerate, from 2.6 percent in 2024 to 3.5 percent in 2025 and to 3.8 percent in 2026, as the effects of disruptions to oil production and shipping dissipate and the impacts of ongoing conflicts abate. Compared with April, the projection for 2025 is revised upward by 0.5 percentage point. This largely reflects developments in Gulf Cooperation Council countries, in particular *Saudi Arabia*, where the unwinding of oil production cuts was faster than expected, and *Egypt*, where the outturn in the first half of 2025 was better than expected. Despite the region's relatively smaller exposure to the new US tariff regime, compared with the October 2024 WEO, its growth projection is cumulatively 0.8 percentage points lower for 2025 and 2026, as a result of the indirect effects of subdued world demand on commodity prices.
- In *sub-Saharan Africa*, growth is expected to remain subdued, unchanged in 2025 from 4.1 percent in 2024, before picking up to 4.4 percent in 2026. This is an upward revision relative to the April 2025 WEO forecast by a cumulative 0.5 percentage point, but a downward revision of 0.1 percentage point compared with the October 2024 WEO. Whereas growth in *Nigeria* is revised upward on account of supportive domestic factors, including higher oil production, improved investor confidence, a supportive fiscal stance in 2026, and given its limited exposure to higher US tariffs, many other economies see significant downward revisions because of the changing international trade and official aid landscape. Many low-income countries in sub-Saharan Africa benefited from preferential access to the US market under the African Growth and Opportunity Act, which expired in September. Halting this preferential access is expected to have sizable negative effects, particularly on *Lesotho* and *Madagascar*.

Inflation Forecast

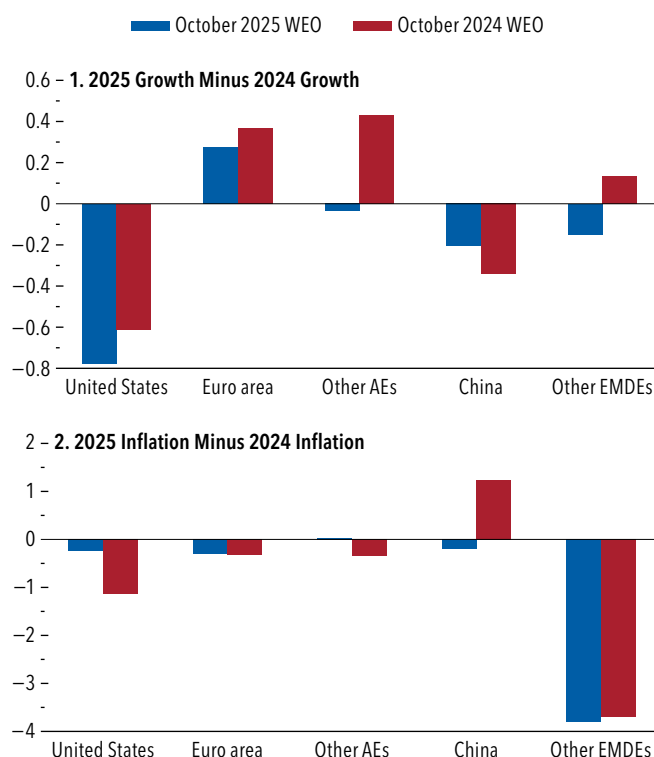
Under the baseline, global headline inflation is projected to decline to 4.2 percent in 2025 and to 3.7 percent in 2026. This path is virtually the same as depicted in the previous projections, but there is variation across countries and regions.

Inflation forecasts are revised upward in quite a few economies, relative to the October 2024 WEO, which serves as a pre-policy-shift benchmark. Among advanced economies, the most notable cases are the United Kingdom and the United States. In the United Kingdom, headline inflation, which started picking up in 2024, is expected to continue rising in 2025 partly because of changes in regulated prices. This is projected to be temporary, with a loosening labor market and moderating wage growth eventually helping inflation return to target at the end of 2026. In the United States, inflation is expected to pick up beginning in the second half of 2025, as the impact of tariffs is no longer absorbed within supply chains and instead passed on to consumers. Inflation then is expected to return to the Federal Reserve's 2 percent target during 2027. This forecast assumes only modest second-round effects, implying potential upside risks to US inflation in the baseline amid downside risks to employment. Among emerging market and developing economies, inflation forecasts for Brazil and Mexico are revised upward. For Brazil, the revision is more pronounced and in part reflects the stabilization of inflation expectations above target rates, reflecting credibility challenges associated with fiscal policy uncertainties last year, although relief from more recent currency appreciation is expected to arrive in late 2025 and in 2026. For Mexico, volatile categories such as food and more-persistent-than-expected services inflation contribute to the upward revision.

For several other economies, inflation forecasts are revised downward, compared with the October 2024 WEO. In much of emerging and developing Asia, that is the case. This is largely a reflection of lower-than-expected outturns, with food, energy, and administrative prices playing a significant role (for example, in China, India, and Thailand).

Taken together with the GDP growth forecasts, the picture varies across countries. US growth in 2025, forecast at 2.0 percent, is lower than the 2.2 percent projected in the October 2024 WEO. Inflation in 2025, forecast at 2.7 percent, is higher than the 1.9 percent projected in the October 2024 WEO. Relative to forecasts prior to the policy shifts, the US economy is expected to slow more sharply in 2025 than was projected a year ago (Figure 1.11). Meanwhile, inflation is expected to remain largely unchanged and elevated, compared with the notable decline projected in October 2024. This combination

Figure 1.11. Changes in GDP Growth and Inflation
(Percentage points)



Source: IMF staff calculations.

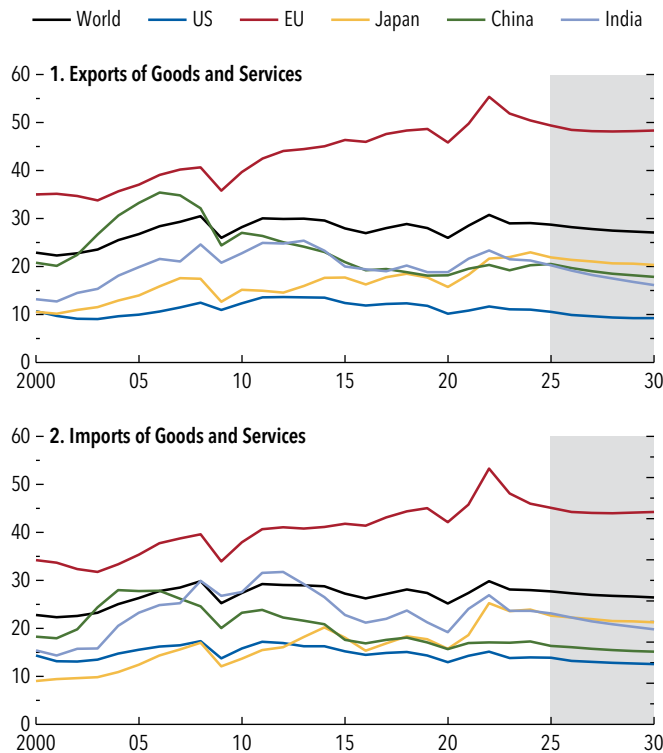
Note: AEs = advanced economies; EMDEs = emerging market and developing economies; WEO = World Economic Outlook.

of a sharper growth slowdown and a slower pace in disinflation in the United States contrasts with the less sharp growth slowdown and muted inflation in China. Elsewhere, in most cases, a pickup in growth is no longer expected or is projected to be much weaker, while inflation is still expected to decline at about the same pace as before. This is broadly in line with what would be anticipated from the introduction of higher US tariffs, with small deviations in the inflation outlook attributable to idiosyncratic offsetting factors.

World Trade Outlook and Global Imbalances

World trade is expected to decline modestly over the five-year forecast horizon (Figure 1.12). Compared with the April 2025 WEO, world trade volume is expected to grow faster in 2025 but more slowly in 2026. This reflects the front-loading patterns observed. Trade volume growth at an average rate of 2.9 percent in 2025–26, even with the temporary boost from

Figure 1.12. World Trade
(Percent of GDP)

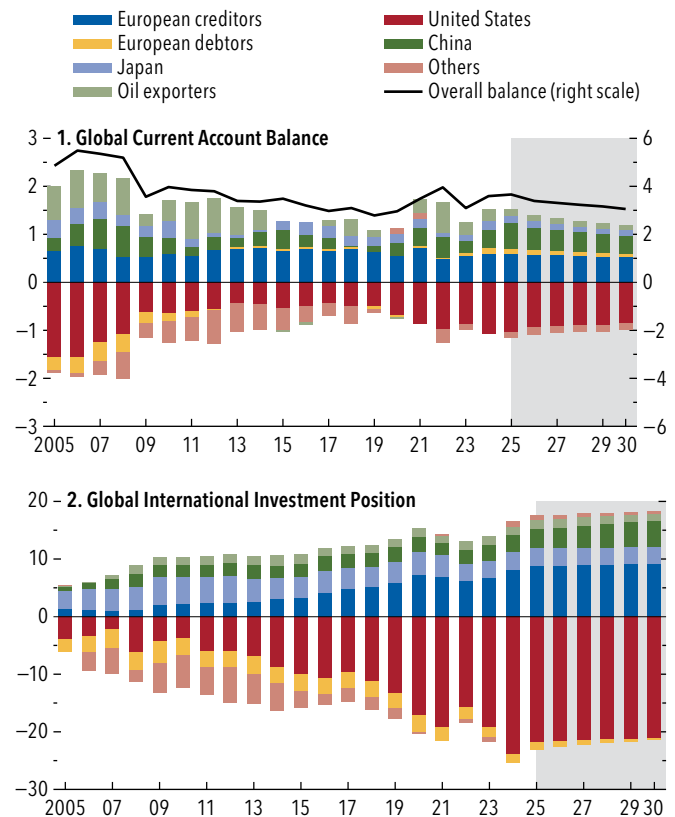


front-loading in 2025, is lower than projected in the October 2024 WEO, which envisioned an average growth rate of 3.3 percent.

Global current account imbalances in 2025 are expected to exceed those in the October 2024 WEO and to narrow thereafter (Figure 1.13). Among the three largest contributors to the overall balance (China, Germany, United States), preemptive trade ahead of prospective tariffs widens the US deficit and the surplus for China, before unwinding as pull-forward behavior dissipates (Figure 1.14).

The narrowing of global imbalances works through three main channels. The first is trade policy shifts. In the United States, the rise in import costs and greater uncertainty dampen investment, softening import demand. At the same time, tariffs on intermediate inputs act as a tax on US manufacturers, raising production costs for exports of final products and US products that compete against imports—leaving the net effects on the current account ambiguous.

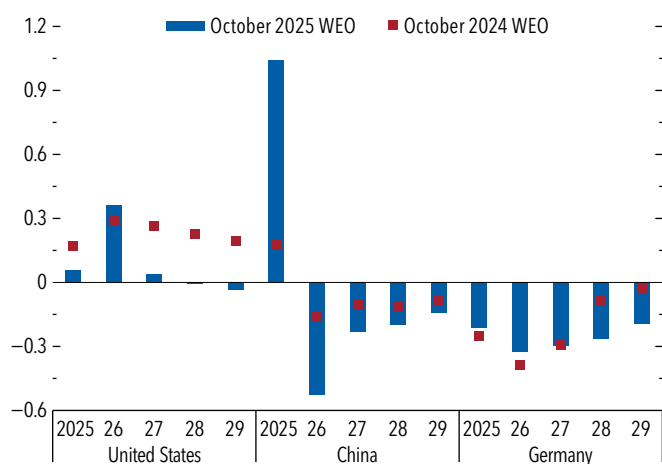
Figure 1.13. Current Account and International Investment Positions
(Percent of global GDP)



Further, even as higher tariff receipts are likely to lift public savings, decreasing private savings are likely to offset this increase. Overall, the impact on the current account of this channel is likely to be limited, consistent with both model-based and empirical analysis (2025 *External Sector Report*).

Second, exchange rate movements are an additional channel of external adjustment. Higher unilateral tariffs would normally be associated with a stronger currency for the tariffing country, helping with the absorption of the tariff shock. The recent depreciation of the US dollar, instead, enhances export price competitiveness and restrains import-intensive consumption—possibly helping to narrow US external deficits. A weaker dollar also tends to ease global financial

Figure 1.14. Projected Change in Current Account Balance
(Percentage points)



Source: IMF staff calculations.

Note: Each data point shows difference from previous year of current account balance in percent of GDP series in respective WEOs. WEO = World Economic Outlook.

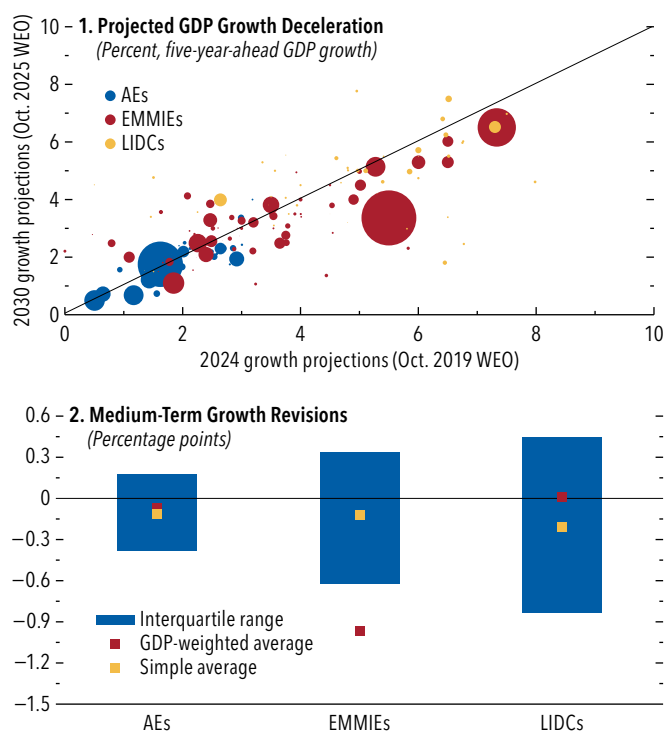
conditions, providing some near-term global demand, but this is likely to be eroded by higher inflation in the United States relative to the rest of the world and the associated adjustment in the real effective exchange rate.

Last but not least, fiscal changes have accompanied trade developments. China and Germany have recently announced and expanded spending measures to boost domestic demand, which will lower net savings and reduce external surpluses. In the United States, the OBBBA is expected to widen the fiscal deficit over the medium term relative to projections in previous WEO reports, despite back-loaded spending cuts and sizable tariff receipts. This weighs on public saving and so tends to widen the current account deficit—or at least temper any narrowing from other channels.

Medium-Term Outlook

A more fragmented international economic landscape adds to the challenges many countries are facing in lifting medium-term growth prospects, including from aging populations and subdued productivity growth. In the absence of durable structural reforms, growth forecasts over the five-year WEO horizon remain mediocre. World output is projected to expand at an average annual pace of 3.2 percent in 2027–30, a persistently lackluster performance compared with the prepandemic (2000–19) historical average of 3.7 percent.

Figure 1.15. Medium-Term Growth Outlook



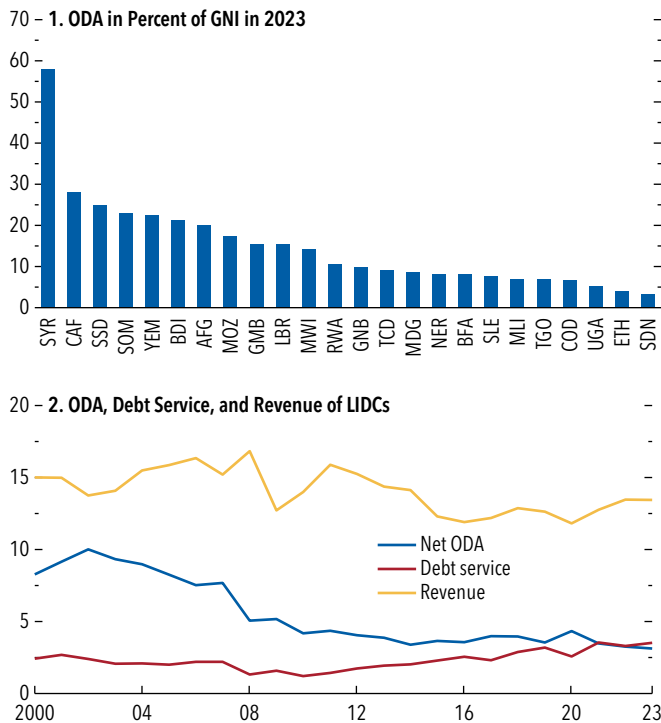
Source: IMF staff calculations.

Note: In panel 1, bubble sizes are based on 2030 GDP at purchasing power parity in October 2025 WEO. In panel 2, the medium-term growth revisions are defined as 2030 real GDP growth from October 2025 WEO minus 2024 growth from October 2019 WEO. AEs = advanced economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries; WEO = World Economic Outlook.

Relative to October 2019, prior to the sequence of shocks that hit the world economy (the pandemic, Russia's invasion of Ukraine, the inflation surge, and now the protectionist trade policies), the medium-term outlook today is decidedly weaker. Medium-term growth prospects are dimming for about two-thirds of the world economy (measured by purchasing power parity), and the decline is more pronounced for emerging market and middle-income economies (Figure 1.15, panel 1).

Despite the heterogeneity in medium-term growth revisions (Figure 1.15, panel 2), particularly within the group of low-income developing countries, the stronger downward revisions for emerging market and developing economies portend challenges to the pace of global income convergence (see also the October 2023 WEO and the April 2024 WEO). The world's poorest economies, including those suffering from prolonged conflict, are particularly at risk of seeing their growth momentum decelerate and their per capita income gap relative to advanced economies

Figure 1.16. Official Development Assistance, Revenues, and Interest Burden
(Percent)

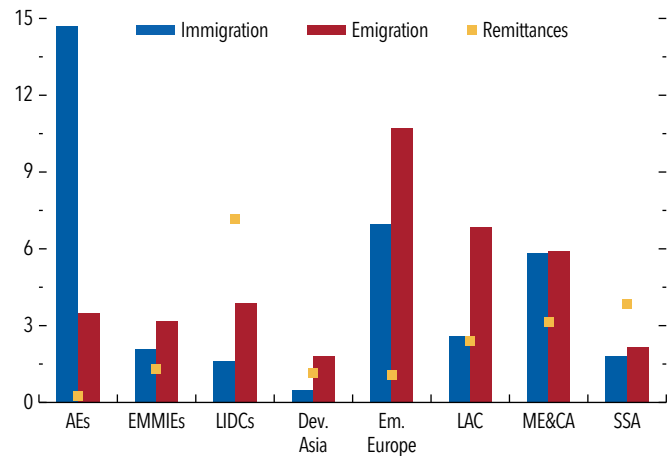


Sources: Organisation for Economic Co-operation and Development; World Bank, *World Development Indicators*; and IMF staff calculations.

Note: In panel 1, data labels in the figure use International Organization for Standardization (ISO) country codes. In panel 2, net ODA and debt service are weighted by and shown as percentages of GNI, and revenue is weighted by and shown as percentage of GDP. Revenue excludes grants. GNI = gross national income; LIDCs = low-income developing countries; ODA = official development assistance.

widen. This comes amid a significant decline in financing flows to these economies, including as a result of cuts in grants and concessional lending (Chabert and Powell 2025) and significantly higher reliance on commercial creditors for external financing (IMF 2025a; October 2025 *Global Financial Stability Report*). Official development assistance constitutes a significant share of gross national income in some of the most vulnerable countries in the Middle East and in Africa (Figure 1.16, panel 1). It affects sectors from health and education to energy. Based on tracking of donor announcements, countries such as Afghanistan, the Central African Republic, and Somalia may be hit hardest by aid cuts in proportion to their gross national income (Huckstep and others 2025). The direct short-term macroeconomic impact of aid cuts may not be large and will ultimately depend on details of the cuts and the response of governments in recipient countries. The options for governments to

Figure 1.17. Migrant Stock and Remittances
(Percent)



Sources: United Nations, *International Migrant Stock 2024*; World Bank, *World Development Indicators 2025*; and IMF staff calculations.

Note: Immigrants are expressed as a percentage of the destination population, emigrants of the origin population, and remittances as a percentage of GDP in US dollars. AEs = advanced economies; Dev. Asia = developing Asia; Em. Europe = emerging Europe; EMMIEs = emerging market and middle-income economies; LAC = Latin America and the Caribbean; LIDCs = low-income developing countries; ME&CA = Middle East and Central Asia; SSA = sub-Saharan Africa.

make up for loss of aid may be limited as debt service burdens climb and government revenues stagnate (Figure 1.16, panel 2). The effects will become visible over time as likely deterioration in energy access and human capital accumulation reduce potential output, on top of the humanitarian costs involved. Declining official development assistance could also heighten geopolitical instability, migration pressures, and security risks in fragile regions, and recipient countries may increasingly rely on a patchwork of smaller, less coordinated, and potentially less accountable donors.

Immigration is another aspect of recent policy shifts that has implications for medium-term growth in both low-income countries and advanced economies. The global stock of international migrants is estimated at 285 million as of 2022, with 168 million participating in the labor force (ILO 2025). About a quarter of those international migrants in the labor force are in North America—primarily the United States—and another quarter are in western Europe. On average, roughly 15 percent of advanced economies' populations are immigrants, while emigrants constitute a significant portion of populations in emerging Europe, Latin America and the Caribbean, and the Middle East and North Africa (Figure 1.17). Crucially, remittances—which alleviate poverty and under some circumstances modestly but permanently

raise GDP (Francois and others 2022)—are a significant resource for many of these source countries. That said, output costs of more restrictive policies on the cross-border flow of labor may also be sizable in the destination countries. In the United States, the new immigration policies could reduce the country's GDP by 0.3 percent to 0.7 percent a year (Edelberg, Veuger, and Watson 2025; Mayda and Peri 2025). A decline in labor supply, especially of immigrant labor, which tends to be associated with business dynamism and innovation, would also lower potential output. When compounded with the negative supply shock imposed by tariff measures, this implies that labor market slack may not increase much and that the disinflationary momentum the US economy has recently experienced may vanish sooner rather than later. Certain sectors of the economy where immigrants form a large portion of the labor force, such as construction, hospitality, personal services, and farm work, could experience stronger inflationary pressures than others. Then, further decreases in the monetary policy rate would need to proceed cautiously, depending critically on incoming data.

Risks to the Outlook: Still Tilted to the Downside

Risks to the outlook remain tilted to the downside, as in the July 2025 WEO *Update*.

Downside Risks

Prolonged trade policy uncertainty and ratcheting up of protectionist trade measures. Further increases in trade policy uncertainty would weigh on firms' investment decisions and worsen the growth outlook. It would also hamper their ability to optimize inventories, potentially leading to short-term output volatility—the front-loading of imports followed by payback periods. Further increases in tariffs could weigh negatively on activity in countries directly impacted by the trade measures. While other countries may benefit from tariff-induced trade diversion, especially if their exports embed a rising share of domestic value added, the aggregate impact is likely to depress global output over the medium term given the disruption to supply chains (April 2025 WEO). The rise in protectionist measures both through tariffs and nontariff measures (including export controls on new technologies) could lead to further disruption and fragmentation of supply

chains, reversing some of the efficiency gains of the past few decades from trade liberalization. Reliance on ad hoc bilateral deals for trade negotiations, which erode previous agreements and whose details and longevity remain unclear, would not meaningfully reduce trade policy uncertainty. If such deals are coupled with further discriminatory measures against third countries, they may generate additional negative spillovers and tit-for-tat dynamics. Over the medium term, more protectionist stances and fragmentation could also stunt global technological diffusion, further hurting growth prospects, especially of emerging market and developing economies. This could in turn give rise to domestic polarization and social unrest.

Shocks to labor supply. Further deterioration in labor supply from more stringent immigration policies in advanced economies could weigh on firms' investment and hiring decisions, especially in economies where certain skills are in short supply and that have recently relied on immigration flows to ease labor market tightness. This would act as a negative supply-side shock with direct bearing on the economy's potential output capacity. Emerging pockets of labor market tightness—as experienced in the aftermath of the COVID-19 pandemic shock—could put upward pressure on the price of services and increase core inflation.

Fiscal vulnerabilities, financial market fragilities, and their interactions. In light of the recent surge in long-term sovereign bond yields in major advanced economies, abrupt market reactions to fiscal vulnerabilities could have an amplified impact. Rising fiscal worries may lead borrowing costs to increase further or, equivalently, could erode the “convenience yield” on the sovereign debt of some large advanced economies, given the sensitivity of government bond yields to changes in debt (Furceri, Goncalves, and Li 2025). In countries where a high share of the outstanding debt stock is rolled over annually, the rise in yields would increase debt-service costs and may reduce other critical spending, such as capital spending or support for shock-prone households. In addition, many low-income countries are reeling from the impact of reduced official aid flows, which increase their reliance on private creditors to meet their gross financing needs and add to their fiscal vulnerability. A repricing of core government bond yields could be amplified by maturity mismatches and leverage among nonbank financial institutions and could ripple through to other assets, triggering disorderly price corrections where asset valuations are above fundamentals. To the extent that

market repricing worsens balance sheets for households and firms, it could weigh down consumption and investment. The rapid rise of stablecoins, as alternatives to traditional safe assets and bank deposits, may encourage currency substitution. And, in the event of a run on a given stablecoin, it may jeopardize the market for the assets that back it—such as short-term government bonds or demand deposits—and pose systemic risks to the financial system (Chapter 1 of the October 2025 *Global Financial Stability Report*).

Repricing of new technologies. Excessively optimistic growth expectations about AI could be revised in light of incoming data from early adopters and could trigger a market correction. Elevated valuations in tech and AI-linked sectors have been fueled by expectations of transformative productivity gains. If these gains fail to materialize, the resulting earnings disappointment could lead to a reassessment of the sustainability of AI-driven valuations and a drop in tech stock prices, with systemic implications. A potential bust of the AI boom could rival the dot-com crash of 2000–01 in severity, especially considering the dominance of a few tech firms in market indices and involvement of less-regulated private credit loans funding much of the industry's expansion. Such a correction could erode household wealth and dampen consumption. To the extent that the AI hype has led to excessive capital flows into a narrow set of firms and sectors, any unwinding of these positions could then entail a slow economic recovery hampered by capital misallocation. These vulnerabilities are compounded by constrained fiscal space, which may limit the effectiveness of policy responses.

Eroding good governance and institutional independence. Intensification of political pressure on policy institutions safeguarded by a country's constitution, statutes, and case law—for example, central banks, whose primacy of independence is upheld by both conventional wisdom and empirical evidence—could erode hard-won public confidence in their ability to fulfill their mandates. This could de-anchor the public's inflation expectations. The evidence shows that political pressure on central banks tends to increase the intensity and persistence of inflationary pressures (Binder 2021; Drechsel 2025). Pressures on technocratic institutions mandated with data collection and dissemination could also erode the public's and markets' trust in statistics from official sources, significantly complicating the tasks of central banks and policymakers in making policy decisions,

while diminishing transparency and hampering price discovery in financial markets. It also raises the likelihood of policy mistakes if political interference leads to compromise in data quality, reliability, and timeliness.

Renewed spikes in commodity prices arise as a result of climate shocks, regional conflicts, or broader geopolitical tensions. Escalation in regional conflicts could result in sustained increases in the prices of food, fuel, and other essential commodities, with commodity-importing nations particularly susceptible to heightened inflationary pressures amid constrained fiscal space. Moreover, extreme heat, prolonged drought, and other natural disasters—exacerbated by climate change—may adversely affect agricultural yields, sparking food supply shocks and amplifying food security challenges. These developments would disproportionately impact low-income countries, where households allocate a substantial share of their expenditures to essential commodities.

Upside Risks

Breakthrough in trade negotiations, leading to lower tariffs and improved policy predictability. The potentially heavy costs associated with global trade fragmentation and dislocation of supply chains may spur breakthroughs in trade negotiations that reduce aggregate tariff rates as part of expanded agreements for regional or multilateral cooperation. In addition, restoring rules-based nondiscriminatory frameworks could measurably improve trade policy predictability and facilitate broad-based efficiency gains (see Box 1.2 for a discussion of the potential output gains from a return to a world of lower tariffs and reduced trade policy uncertainty). Strengthening cooperation in areas such as trade in services, streamlining business regulation, and fostering capital market integration could help unlock investment and boost productivity growth.

A faster pace of structural reforms. In an increasingly challenging global environment, both advanced and emerging market and developing economies could enhance domestic structural reform initiatives to prevent further declines in productivity and growth potential relative to their peers. Accelerating the pace of macrocritical structural reforms—such as those aimed at increasing labor force participation, reducing resource misallocation in labor and capital markets, or promoting business innovation—could contribute to stronger medium-term growth.

Artificial intelligence reigniting productivity growth.

Faster AI adoption could help unleash strong productivity gains as firms increase uptake of the various AI-based tools being developed and deployed at high speed. This may be accompanied by increased business dynamism if the right policies are in place to enable high-productivity firms to continue to grow—and allow unproductive ones to exit the market—prompting an efficiency allocation of resources that supports aggregate productivity growth. Gains from AI could well exceed potential costs from their adverse effects on employment, especially if governments put in place adequate regulatory frameworks and offer supportive labor market programs aimed at upskilling and re-skilling workers at risk of displacement.

Policies: Bringing Confidence, Predictability, and Sustainability

Anchoring Trade in Predictable Rules

Removing trade policy uncertainty. Countries should set out and respect clear and transparent trade policy road maps to reduce volatility, stabilize expectations, and support investment. In periods of heightened uncertainty, pragmatic cooperation and predictable processes help limit costly precautionary adjustments and anchor confidence in a rules-based system.

Modernizing trade rules and cooperating to lower barriers. Policymakers should update trade rules to reflect the evolving structure of commerce—services, digital trade and data flows, complex subsidies, and supply-chain security—thereby improving predictability and the conditions in which firms can compete fairly. Practical avenues include interoperable standards for data and services and trade and investment facilitation platforms. However, modernizing without overreach is essential: Trade rules should be targeted to clearly identified cross-border spillovers and calibrated to respect legitimate prudential objectives. Cooperation across regional and multilateral platforms can keep trade regimes interoperable. Effective, trusted dispute-settlement mechanisms can increase credibility and, hence, uptake of new rules.

Countries should pursue bilateral, regional, and plurilateral negotiations to lower barriers—tariffs, quotas, and behind-the-border frictions—aiming for agreements that remain open to those willing to accept similar obligations while avoiding raising barriers against third parties. Design options include open-accession

clauses to promote inclusivity and minimize fragmentation and disciplinary measures that curb discriminatory procurement. Negotiations should aim to de-escalate tensions and prevent tariff hikes, with an emphasis on nondiscriminatory market opening. The objective should be to lower, not raise, trade and investment barriers and to limit discriminatory elements that risk negative third-country spillovers and renewed tensions. Managed trade provisions—such as purchase commitments and quantitative restrictions—should be avoided because they lead to distortions and diversion and are unlikely to address external imbalances, which are driven by aggregate saving–investment dynamics.

Pairing trade diplomacy with macroeconomic adjustment. To lock in these gains, trade diplomacy should be aligned with domestic policies that address the root causes of large external imbalances (Chapter 1 of the 2025 *External Sector Report*). For Europe, this could include higher public infrastructure investment to raise potential growth and close the postpandemic productivity gap with the United States. For China, rebalancing toward household consumption—including through fiscal measures with a greater focus on social spending and the property sector—and scaling back industrial policies would reduce external surpluses and alleviate domestic deflationary pressures. For the United States, credible fiscal consolidation would ease demand pressures and lower global interest rate spillovers. Aligning trade diplomacy with macroeconomic measures can defuse persistent sources of friction.

Rebuilding Fiscal Buffers and Safeguarding Debt Sustainability

Restoring buffers. Fiscal policy space has significantly declined during the unprecedented series of shocks the global economy has endured in recent years. Additional spending demands are coming from population aging and the need to ensure national and economic security. More than ever, countries should implement credible medium-term fiscal consolidation—designed to rebuild buffers while protecting spending to support the vulnerable. With debt ratios already elevated and projected to rise further over coming decades under current policies, heavy debt burdens will likely weigh on growth, crowd out priority spending, and heighten rollover and interest rate risks. Separately, fiscal strategies that rest on benign baselines or assume extraordinary growth are themselves a source of fragility

and should not anchor plans. Durable adjustment requires a balanced package drawn from a realistic set of available options—spending rationalization and revenue mobilization—rather than reliance on financial repression, monetary financing, or financial market complacency, given that these involve material macrofinancial risks.

Fiscal consolidation should prioritize measures that raise efficiency and crowd in private investment (October 2025 *Fiscal Monitor*). This entails broadening tax bases and strengthening revenue administration and reprioritizing expenditure toward high-multiplier uses—such as infrastructure, skills development, and well-targeted social protection. Automatic stabilizers should be allowed to operate fully over the cycle to support macroeconomic smoothing. Robust frameworks and credible rules, well-resourced independent fiscal institutions, improved fiscal governance, and greater debt transparency are critical to fiscal adjustment efforts (Acalin and others, forthcoming).

Where new discretionary support is warranted—for example, for households or firms severely affected by trade disruptions—it should be tightly targeted, transparently costed, and explicitly temporary. Programs should include clear sunset clauses with a preset expiration date and a preannounced step-down path. To safeguard adjustment, these offsetting measures should be specified before they are introduced, with explicit identification of savings from expenditure reprioritization or additional revenue, particularly where fiscal space is constrained.

Where debt is unsustainable, restructuring may be required, in addition to fiscal consolidation. Continued progress in operationalizing international sovereign debt resolution mechanisms—including the Group of Twenty (G20) Common Framework—and greater convergence of practices through the Global Sovereign Debt Roundtable can make necessary restructuring more timely, predictable, and less costly.

Ensuring debt sustainability. Credibility is central to placing public debt on a clear downward path. Governments should publish medium-term fiscal frameworks with clear anchors, preannounced adjustment paths, and contingency plans to manage shocks (IMF 2025b). Communication should include explicit guardrails against monetary financing to avoid the inflationary risks of fiscal dominance. Together, these elements reinforce market confidence, lower risk premiums, and help ensure that consolidation gains translate into durable debt sustainability.

Monetary Policy Priorities: Tailored, Transparent, Independent

Calibrating monetary policy to country circumstances.

Central banks should calibrate monetary policy to preserve price stability, with due consideration for where activity stands relative to potential output. In economies imposing or retaliating with tariffs, these measures operate as supply shocks—pushing up inflation, at least temporarily, while weighing on activity. Interest rate cuts should be contingent on clear evidence that inflation is durably low and stable. Tariffs targeted at particular industries also warrant close scrutiny, as they are analogous to sector-specific supply shocks for the imposing countries, steepen the Phillips curve, and alter the inflation-output trade-off (Chapter 2 of the October 2024 WEO). By contrast, in economies that have not imposed tariffs, the dominant impulse may be weaker demand; however, any reduction in policy rates should be considered cautiously and is not presumed. Resilient domestic demand can keep inflationary pressures elevated. Only where disinflation is firmly established and slack has clearly widened would a gradual easing of the policy rate be appropriate.

Clear central bank communication. In high-uncertainty environments, transparency boosts predictability for market participants. Central banks should articulate the reaction function (for example, data dependencies, balance of risks) and publish a small number of scenarios for inflation and economic activity, with concise explanations of the transmission mechanism. Messages should be tailored to distinct audiences, and information should be released promptly and with equal accessibility for all intended recipients. A predictable calendar and a consistent format across statements, minutes, and projections further facilitate learning about the reaction function over time (Bernanke 2024).

Independence and credibility as pillars of stability.

Safeguarding central bank independence is essential for macrofinancial stability. Once credibility erodes, re-anchoring expectations usually requires a prolonged period of tight monetary policy and elevated interest rates—which is costlier than preventing credibility loss in the first place (Pastén and Reis 2021). These risks are amplified where fiscal dominance pressures emerge—when elevated public financing needs encroach on monetary decisions. Seeking to influence the central bank to keep policy rates low or tolerating surprise inflation may appear to ease the near-term fiscal arithmetic, but it is eventually self-defeating.

Term and risk premiums widen and medium- to long-term nominal yields rise because of higher expected inflation (and ultimately higher actual inflation), which offsets any initial interest savings and, in some cases, unsettles demand for sovereign debt (Leeper 2023). Consistent with this observation, Box 2.3 in Chapter 2 documents 134 politically motivated central bank governor exits since 2000 and finds that such interference loosens policy, weakens currencies, and lifts inflation and inflation expectations, with some medium-term activity gains coming at the expense of significant deviations from price stability.

More broadly, macroeconomic performance rests on the quality and independence of institutions across the policy ecosystem—fiscal frameworks, financial supervision, competition and insolvency regimes, the judiciary, and, critically, national statistical systems. High-quality, timely, and professionally independent data are a public good: They reduce uncertainty and improve private sector planning and policy design. By contrast, weak data governance—gaps in coverage, opaque methodologies, infrequent publication, or politically influenced revisions—undermines accountability and blunts the effectiveness of policy.

Best practices combine legal and operational safeguards for central banks with strong supporting institutions. Key elements underpinned by the constitution, statutes, and case law include budgetary autonomy, the ability to set monetary policy free of interference, and the prohibition of short- and long-term direct lending to government.

Tackling excessive exchange rate volatility. The asymmetric effects of tariffs on the imposing and the targeted economies can push monetary policy trade-offs apart, even when business cycles are initially synchronized. In most cases, exchange rates should move flexibly in line with market conditions to facilitate macroeconomic adjustment. If exchange rate movements become disorderly, the IMF's Integrated Policy Framework provides country-specific guidance; where appropriate—and alongside sound monetary and fiscal stances—temporary foreign exchange intervention or targeted capital flow measures may be warranted.

Preserving macrofinancial stability. Financial policies should prioritize containing liquidity risks in nonbank finance and preserving resilience in the core banking system. In line with Financial Stability Board guidance, private credit funds should limit stock creation and redemption frequency. Regulators should

mandate liquidity tools and regular stress tests to ensure resilience in downturns. In the banking sector, fully implementing internationally agreed capital and liquidity standards and strengthening the financial sector safety net will help safeguard intermediation amid elevated uncertainty. A comprehensive, risk-based regulatory and supervisory framework for crypto assets will mitigate macrofinancial stability risks, including robust regulatory frameworks to accommodate the rapid rise in stablecoins (see Chapter 1 of the October 2025 *Global Financial Stability Report*).

Policies for Severe Shock Mitigation

Amid elevated uncertainty, the wider use of scenario analysis can strengthen policy readiness and credibility. Authorities should develop a baseline and a small set of severe but plausible alternatives that jointly span macroeconomic and financial risks. Each scenario should be accompanied by an outline of plausible policy responses that would help frame private sector expectations. This could include, for monetary policy, alternative rate paths and, where relevant, balance sheet options and communication templates; for fiscal policy, calibrated use of automatic stabilizers and time-bound, targeted support; for financial stability, liquidity backstops and activation thresholds for available macroprudential buffers; and, where warranted by country circumstances, capital flow measures consistent with the IMF's Integrated Policy Framework.

Policies with Medium-Term Impact

Given the mounting challenges, there is an urgent need to identify and implement measures that can sustainably lift medium-term growth prospects. Some countries are turning to industrial policies, but these come with opportunity costs and trade-offs—most notably, a large fiscal cost—at a time public finances are already stretched (see Chapter 3). Known as “vertical” policies, these target public support to particular firms and sectors and should be used with care, with keen awareness of their opportunity costs and trade-offs, balancing goals to expand production in certain sectors against fiscal costs, higher consumer prices, and resource misallocation. Consideration should be more prominently given to “horizontal” reforms that aim to improve the general business environment and apply uniformly across the economy.

Disciplined use of industrial policy. To maximize the effectiveness of industrial policy and limit its costs, governments must diagnose market failures clearly, identifying specific areas where intervention can yield the largest benefits. All policies should be embedded in a robust institutional and macroeconomic framework, ensuring coordination among agencies and maintaining fiscal discipline, especially where debt is high and fiscal space limited. Governments should set explicit, measurable goals for industrial interventions, such as job creation, technological advancement, or increased domestic production, and should design policies to focus on areas with the highest potential for positive innovation spillovers and transformative impact (see also Chapter 2 of the April 2024 *Fiscal Monitor*). Strong governance is the key to successful implementation, with transparent selection processes, independent oversight, and accountability mechanisms reducing the risk of wasteful spending and corruption. Policies must include mechanisms for regular evaluation and recalibration. Governments should be prepared to scale back or discontinue ineffective measures. Policymakers should also carefully weigh the costs against potential benefits and be mindful of possible negative spillovers to other sectors or countries.

In the cross-border context, industrial policies should not be deployed to expand exports to compensate for lost markets, as such responses are costly and risk exacerbating trade distortions. If support to affected firms is considered, it should be cautious, narrowly targeted, and time-bound, aimed at specific, well-diagnosed market failures—that is, cases with clearly identified externalities, known magnitude, and well-established key demand and supply elasticities. Where countries face strong pressures to protect the local economy—for example, trade diversion or surges in foreign direct investment—they should prioritize instruments found in international agreements and designed for that purpose, rather than resorting to ad hoc industrial policy.

Implementing structural reforms. With challenges on multiple fronts and persistently dim medium-term prospects, growth-enhancing reforms have more urgency than ever.

Population aging, rapid technological change, and shifting patterns of comparative advantage in skills are reshaping labor markets across advanced and emerging market economies. Comprehensive policy packages that raise labor utilization and potential growth are

therefore central to easing macroeconomic trade-offs and safeguarding fiscal sustainability.

Labor market institutions should facilitate mobility and efficient matching. Modernized public employment services, digital job-matching platforms, and relocation assistance can speed reallocation from declining to expanding sectors. Portable benefits across jobs and contract types, along with affordable childcare and parental leave, can raise participation—especially among women—and smooth earnings risks during transitions. Migration policies calibrated to domestic skill shortages can also clear bottlenecks while protecting domestic workers (see Chapter 3 of the April 2025 WEO).

Pension and retirement systems should support longer, healthier working lives through flexibility and actuarially fair incentives. Gradual retirement—through partial pensions and phased work schedules—can keep older workers engaged while easing physical demands (see Chapter 2 of the April 2025 WEO). Evidence also suggests that voluntary part-time work at older ages can raise well-being and that enabling such options can support both participation and life satisfaction (Nikolova and Graham 2014).

Advances in digitalization and AI can lift productivity and expand potential growth, especially when paired with complementary investments in workforce skills, strong management, interoperable infrastructure, competitive markets, and sound data governance and cybersecurity (Gopinath 2023). Realizing these gains calls for diffusion-oriented policies that both enable adoption and protect workers: Support for the uptake of digital tools by small firms, management upgrading, and data interoperability should complement traditional R&D incentives.

Competition and product market reforms should foster entry and reduce barriers to reallocating resources toward high-productivity firms; where trade shocks are concentrated, time-bound, well-targeted adjustment assistance—training, relocation support, and wage insurance—should replace open-ended protection. Improving the overall business climate—through infrastructure, education, and regulatory reform—can also amplify the impact of industrial policy.

For low-income countries facing challenges from cuts to international aid, strengthening capacity to mobilize domestic resources is crucial. This involves not only rationalization of public spending, increased transparency, and anti-corruption measures but also

administrative reforms to support provision of basic services. In parallel, to help vulnerable economies, donors should explore ways to mobilize more development assistance—meeting and front-loading existing commitments, with priority on grants and highly concessional terms.

Addressing climate change efficiently. A well-designed mix of policies can drive low-carbon, resilient growth. Investing in technologies such as solar and wind and in energy-efficient systems can reduce carbon emissions and create new industries and jobs. Implementing carbon pricing mechanisms, such as carbon taxes or cap-and-trade systems, can incentivize businesses to reduce their carbon footprint. This can be comple-

mented by fiscal incentives like tax breaks or subsidies for green technologies. Providing technical assistance and financial support for adaptation projects, especially in low-income countries, can help them cope with the impacts of climate change. This assistance includes funding for infrastructure improvements and capacity-building initiatives. Transition from fossil fuels to renewables can enhance energy security by reducing dependence on imported fuels, create employment opportunities in the green energy sector, and improve the balance of payments by reducing energy importation costs. It can also enhance economic stability by reducing the volatility associated with fossil fuel markets.

Box 1.1. Trade Reallocation in Response to Tariffs: Will This Time Be Different?

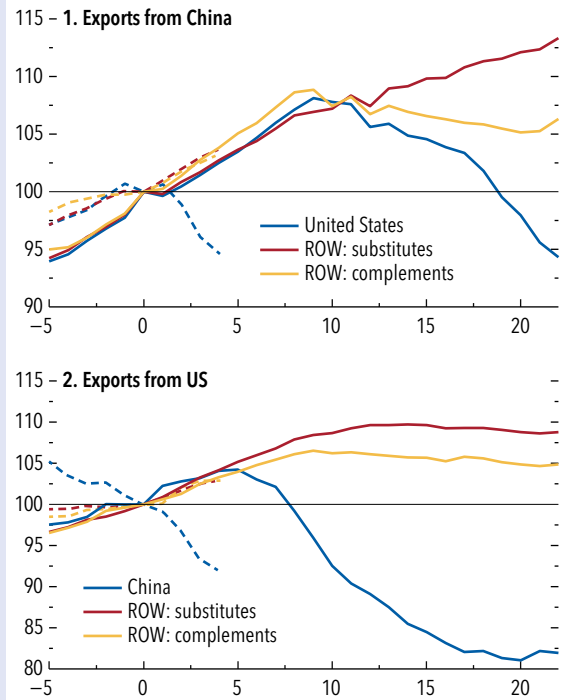
The shift in US trade policy in 2025 differs notably from the changes during 2018–19. For instance, whereas the previous round of tariff increases was directed primarily at a single trading partner—China—the current period is characterized by broader-based tariff hikes affecting a wider range of countries, alongside a marked rise in trade policy uncertainty.¹ This raises an important question: Has the distinct nature of the 2025 tariff shock led to different patterns of adjustment in bilateral trade between the United States and China, both with each other and with third-party countries, relative to the aftermath of 2018–19 tariff hikes? This box sheds some preliminary light on this question based on bilateral monthly trade flow data.

There is ample evidence of changes in international trade, foreign direct investment, and global value chains in response to the tariff increases of 2018–19 and the rise in trade tensions (see, for example, Fajgelbaum and others 2024; Freund and others 2024; Gopinath and others 2025; Graziano and others 2024). The bilateral US-China decoupling was accompanied by increased trade and investment ties with third countries. China's exports to the United States fell by about 6 percent within two years (Figure 1.1.1). This was accompanied by a steady increase in exports to China's substitutes (based on the degree of substitutability between that country's products and Chinese varieties) and less of an increase in China's complements.

Preliminary trade data for 2025 (marked in dashed lines) reveal early signs of further decoupling between

Figure 1.1.1. Exports by Destination Country Type and Tariff Episode

(Index, Feb. 2018 and Feb. 2025 = 100; solid = Feb. 2018 tariff episode, dashed = Feb. 2025 tariff episode)



Sources: Fajgelbaum and others 2024; Trade Data Monitor; and IMF staff calculations.

Note: X-axis value 0 corresponds to the tariff start dates February 2018 and February 2025, respectively. Each series is normalized to its respective date 0, at which the value equals 100. Countries are classified as substitutes or complements to China based on how their exports respond to tariffs on Chinese goods. Substitutes (complements) are countries whose exports increase (decrease) when Chinese exports are taxed, reflecting positive (negative) substitution elasticity with respect to China. See Fajgelbaum and others (2024) for details. Changes are calculated using 12-month rolling sums to smooth seasonal fluctuations. ROW = rest of the world.

The authors of this box are Adam Jakubik and Monika Sztajerowska.

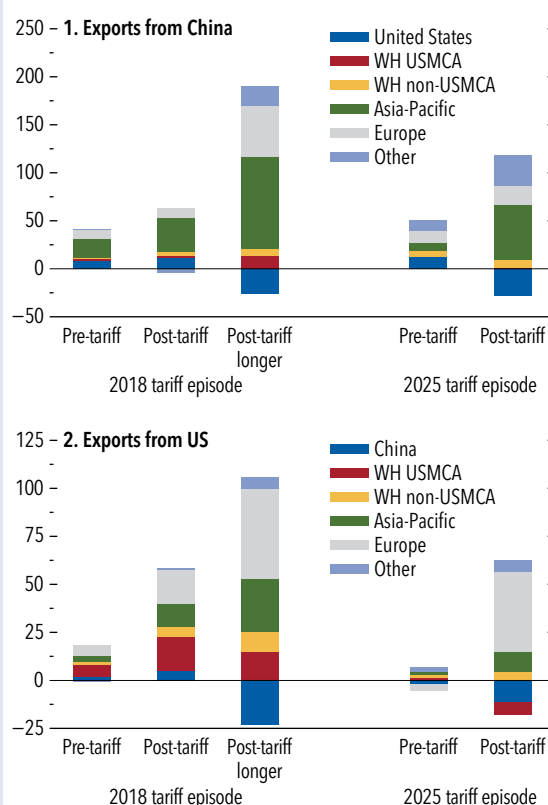
¹Tariff episodes also differ in tariff size, product scope, initial tariff levels, and the speed of implementation, among other ways.

Box 1.1 (continued)

the United States and China—similar to 2018–19 (marked in solid lines). The decoupling also appears to have been happening sooner than it did in the previous episode. Meanwhile, there is an increase in Chinese exports to third countries. Differences between countries that may serve as China's substitutes relative to those that are China's complements are not yet obvious. Looking at the trade patterns through a geographic lens rather than through structural similarities between different countries reveals some of the underlying differences between the two tariff episodes so far. In 2018–19, Asian and U.S.-Mexico-Canada Agreement (USMCA) countries—many of which fall into the China's substitutes category—absorbed China's falling exports to the United States (Figure 1.1.2, panel 1). Meanwhile, falling US exports to China were accompanied by increases in other destinations, such as the European Union, together with stable exports to Canada and Mexico (Figure 1.1.2, panel 2). Early signals from the latest trade data point to potentially faster trade shifts this time. For example, Chinese exports to third-country markets—especially in Asia and Europe—increased more in February–April 2025 than in February–April 2018. At the same time, Canada and Mexico have accounted for a small share of China's change in exports since February 2025 and have made a negative contribution to US export growth, in contrast to 2018–19. High tariffs on non-USMCA-compliant products and on steel and aluminum content on a value-added basis, combined with further tightening and enforcement of rules of origin, may be partially responsible, along with other factors.

It is too soon to assess the magnitude of a longer-term reallocation—which in 2018–19 picked up speed only after about 12 months. The extent of shifts may be different this time because threats of higher tariffs on exports to the United States have affected most countries since January 2025—unlike the China-specific changes to the US trade policy in the 2018 episode—and overall policy uncertainty is

Figure 1.1.2. Change in Exports by Destination Region and Tariff Episode
(Billions of US dollars)



Sources: Trade Data Monitor; and IMF staff calculations.

Note: Bars show the total change in exports within each tariff period (2018 and 2025, respectively). Segments indicate contributions from each destination market. Changes are calculated using 12-month rolling sums to smooth seasonal fluctuations. "Pre-tariff" refers to the change from $t - 3$ months to $t - 1$; "Post-tariff" refers to the change from $t = 0$ to $t + 3$ months; and "Post-tariff longer" refers to the change from $t = 0$ to $t + 22$ months (available for 2018 only). USMCA = U.S.-Mexico-Canada Agreement; WH = Western Hemisphere.

Box 1.1 (continued)

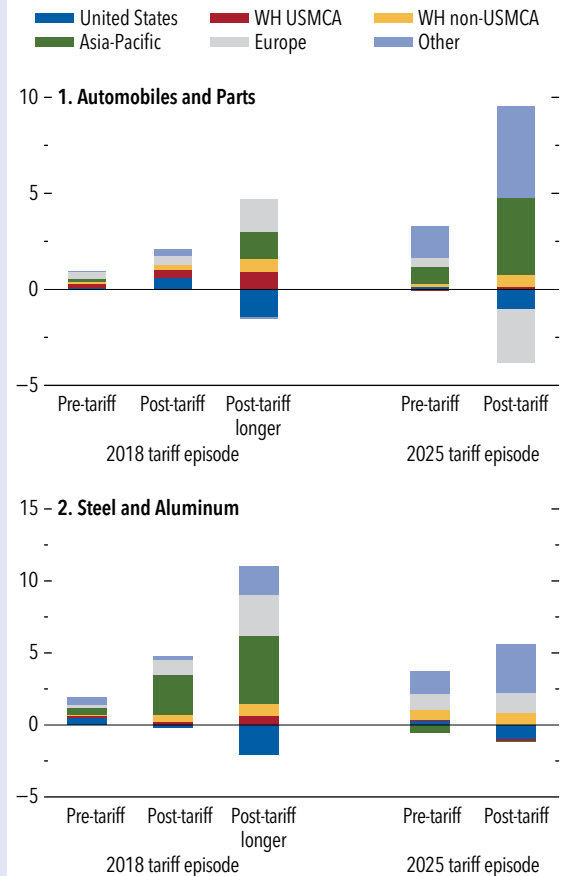
high, complicating firms' reallocation decisions. In addition, further actions are being taken to reduce reallocation, including tighter rules of origin, customs enforcement of transshipment, duties applied on value-added content, and extended screening procedures for foreign direct investment.

Such shifts observed in gross trade data can also be induced by other factors, many of which are unrelated to trade policy, including broader changes in the countries' competitiveness. At the aggregate level, the observed increase in Chinese exports to third countries is also not necessarily for the same products whose exports to the United States dropped. In addition, movements in exchange rates and relative prices may affect the degree of reallocation in real terms. This preliminary analysis is, hence, illustrative, and will require further analysis to isolate the role of different factors once sufficient data become available. The pace and geography of reallocation will also depend on frictions, including policy choices by third countries. Model simulations of long-term reallocation (Rotunno and Ruta 2025) suggest that, once uncertainty is resolved, China's exports to non-US markets could increase by 4–6 percent in the baseline, with the extent and direction of diversion depending crucially on the distribution of tariffs and third-country policies.

While similar caveats apply to trends observed at the sectoral level, early evidence suggests that trade flows are already being redirected to Asia in several important sectors targeted by tariff increases, including automobiles and parts, and to Europe in steel and aluminum (Figure 1.1.3). In addition, there is some evidence that changes in third countries' imports from China in a given sector, including to Asia, are correlated with the change in their exports in the same sector to other regions, including the United States and Europe. This may suggest that trade diversion to other markets is larger than what is captured in gross trade data and could be consistent with either trade reallocation, trade rerouting, or a combination of the two.

Figure 1.1.3. Change in China's Exports by Destination Region and Tariff Episode in Selected Sectors

(Billions of US dollars)



Sources: Trade Data Monitor; and IMF staff calculations.

Note: Bars show the total change in exports within each tariff period (2018 and 2025, respectively). Segments indicate contributions from each destination market. Changes are calculated using 12-month rolling sums to smooth seasonal fluctuations. "Pre-tariff" refers to the change from $t - 3$ months to $t - 1$; "Post-tariff" refers to the change from $t = 0$ to $t + 3$ months; and "Post-tariff longer" refers to the change from $t = 0$ to $t + 22$ months (available for 2018 only). USMCA = U.S.-Mexico-Canada Agreement; WH = Western Hemisphere.

Box 1.2. Risk Assessment Surrounding the Baseline Projection

This box uses the IMF's Group of Twenty (G20) model to derive confidence bands around the *World Economic Outlook* (WEO) baseline forecast and the IMF's Global Integrated Monetary and Fiscal (GIMF) model to analyze shocks that could materialize over the five-year WEO horizon. While the risk scenarios presented in the April 2025 WEO remain relevant, two new scenarios are also considered. Scenario A combines policies and shocks that result in a fall in global output and a *narrowing* in global imbalances relative to the baseline. Policies and shocks in scenario B result in an increase in global output relative to the baseline but do not have strong implications for imbalances.

Confidence Bands

The G20 model is used to generate distributions around the baseline by drawing shocks recovered from the underlying historical data (Andrle and Hunt 2020). The distribution is tilted to align with the growth-at-risk assessment presented in the October 2025 *Global Financial Stability Report*. As in the previous assessment, growth distributions are skewed to the downside, with downside risks more likely than upside risks, and inflation distributions are skewed to the upside.

Panels 1 and 2 in Figure 1.2.1 show the distributions for US growth and headline inflation (90 percent confidence bands represented in the blue-shaded areas). Uncertainty about 2025 outcomes is lower, since data for the first half of the year are in. The probability of a recession occurring in 2026 is assessed at about 30 percent, somewhat smaller than the recession probability estimated in the April 2025 WEO; the risk that 2026 US headline inflation will rise above 3 percent is similar (about 30 percent).¹

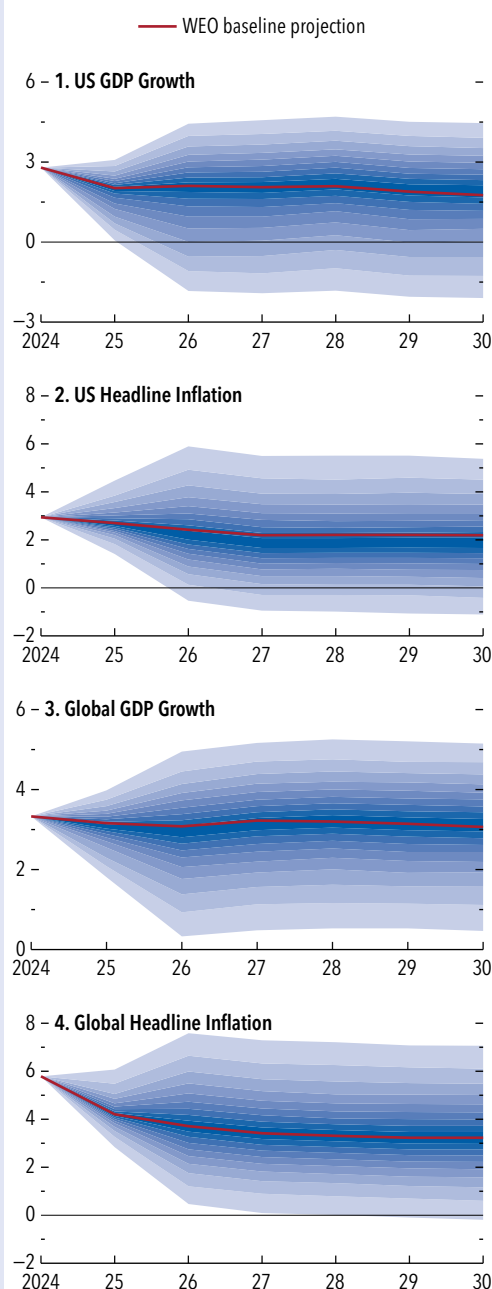
That said, the probability of recession and inflation above 3 percent are larger than at the time of the October 2024 WEO (25 and 20 percent, respectively).

Panels 3 and 4 in Figure 1.2.1 show the distributions for global growth and headline inflation.

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

¹The recession risk for 2026 is the probability that 2026 annual growth will be below 0.8 percent, consistent with a shallow recession starting in the first quarter of 2026. The probability of a short-lived US recession (in 2025) was assessed to be about 37 percent at the time of the April 2025 WEO.

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



Source: IMF staff estimates.

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

Box 1.2 (continued)

The probability that global growth in 2026 will fall below 2 percent is assessed at about 25 percent, slightly lower than in April. The probability that 2026 global headline inflation will rise above 5 percent is broadly similar, at about 25 percent. In summary, downside risks to growth have receded slightly relative to April but remain elevated, while upside risks to inflation are broadly the same.

Scenarios

The GIMF model is used to assess risk scenarios. As in April, the version of the model has 10 regions, including China, the United States, and the euro area. The scenarios assume monetary policy responds endogenously, with floating exchange rates in most regions. In scenario A, China's currency is managed through capital flow measures, with limited overall adjustment of the renminbi relative to the dollar. In scenario B, the renminbi adjusts as in a flexible exchange rate regime. Automatic stabilizers operate on the fiscal side. The model has been modified relative to April to allow higher pass-through to capture inflation risks from tariffs and exchange rate movements.

Layers Considered in Scenario A

Higher tariffs and supply-chain disruptions. The scenario assumes permanently higher US tariffs than in the baseline, starting at the end of 2025. The increase in tariffs is the higher of either the tariff increases announced in April or the tariff rates announced in the letters sent in June and July. Imports from China face the largest tariff hikes relative to the baseline, close to 30 percentage points, followed by emerging Asia, the euro area, and Japan, at about 10 percentage points. The effective tariff rate on US imports increases by 10 percentage points overall, with tariff revenue used to pay down public debt over the WEO horizon. The scenario also assumes that countries do not retaliate. In addition, the cumulative increase in tariffs in both the baseline and the scenario leads to a temporary disruption of global supply chains. Total factor productivity in sectors more involved in global trade (about 20 percent of global value added) falls by 1 percent, globally, in 2026–27, before returning to baseline in 2028.

Higher inflation expectations. A confluence of factors (the post-COVID-19 inflation surge, tariffs, concerns about central bank independence) raises inflation

expectations in many countries in 2026 and 2027. One-year-ahead inflation expectations increase by 60 basis points in emerging markets currently facing inflation above target, 50 basis points in the United States, and about 25 basis points in other advanced economies, excluding Japan, and in the remaining emerging markets, excluding China.

Higher sovereign yields. A reassessment of the global economy's capacity to absorb the historic increase in public debt leads to an increase in sovereign yields. Term premiums on public debt increase in all countries except China by 100 basis points, starting in 2026 and lasting 10 years. The safe/neutral global real rate also increases gradually but permanently relative to baseline, by up to 50 basis points and affecting all countries equally. Fiscal policy does not adjust over the WEO horizon, but public debt is eventually stabilized at higher levels in most countries.

Tighter global financial conditions. The combined effect of shocks and policies considered in this scenario is amplified by additional tightening in global financial conditions. Corporate spreads increase in 2026 by 50 basis points in advanced economies and China, and by 100 basis points in emerging markets, excluding China. The layer also includes a modest decline in equity prices in the US, reflecting in part a correction of AI stock valuations. The tightening lasts for two years.

Lower global demand for US assets. Lower foreign demand raises expected returns on US assets—a partial loss of the “exorbitant privilege” of the United States—by up to 80 basis points relative to baseline. The increase in the US external risk premium lasts for 20 years.

Layers Considered in Scenario B

A return to low tariffs. Tariffs imposed since January 2025 are permanently removed, reducing effective tariff rates on US imports by about 15 percentage points relative to the current baseline. Imports from China see the largest decrease in effective tariff rates (about 22 percentage points), followed by Japan, Europe, and emerging Asia (10–20 percentage points). Trading partners also remove tariffs on US exports, and US exports to China see a decrease in effective tariff rates of about 20 percentage points.

Reduced trade policy uncertainty. Agreements coming out of ongoing bilateral negotiations and multilateral

Box 1.2 (continued)

initiatives provide greater predictability in global trade arrangements, reducing economic uncertainty relative to the baseline. The decrease in uncertainty is equivalent to a two-standard-deviation decrease in the global economic policy uncertainty measure in Davis (2016), or about the absolute size of the spike observed in 2018–19.

Higher-than-expected benefits from AI. The benefits of artificial intelligence (AI) on global productivity and investment are moderately larger than in the current baseline. The layer features two components. First, several countries see a modest increase in investment in new AI-specific capital (information processing equipment, software intellectual property), most notably the United States and China. Second, global productivity increases as AI is gradually deployed to the broader economy. Global total factor productivity increases by about 0.8 percent over a 10-year period, at the lower range of existing estimates, with considerable cross-country variation. Countries more exposed to gains in automation and better prepared for AI adoption see larger productivity gains, drawing on the assessment in Cerutti and others (2025).

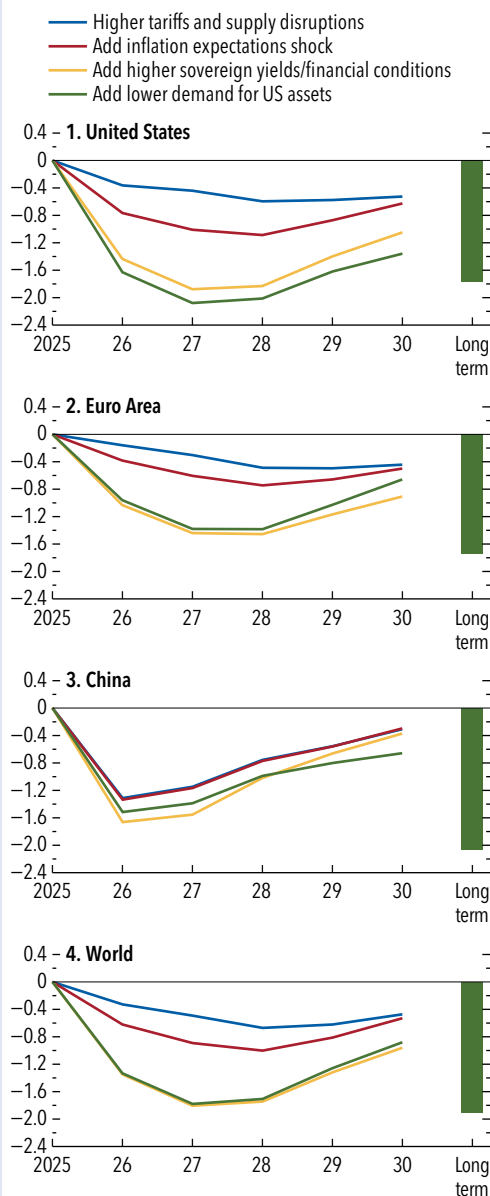
Impact on the World Economy

Figures 1.2.2 and 1.2.4 present the effects, for scenarios A and B, on the level of GDP during 2025–30 and over the long term, for China, the United States, the euro area, and the world. The effects of higher sovereign yields and additional tightening in financial conditions are merged into a single layer. Figure 1.2.3 shows the effects of scenario A on inflation, real interest rates, and current account balances of these three regions, and the impact on the US dollar's real effective exchange rate.² The panels for current accounts and the dollar also show the contribution from higher tariffs and from lower demand for US assets.

In scenario A, *higher tariffs* reduce global goods demand and disrupt supply. Global activity decreases by 0.3 percent relative to baseline in 2026, with the effect building through 2028, and with a permanent loss in global GDP of one-half percent. China is most affected among tariff-facing regions because of the larger tariff hike and the limited adjustment assumed

²The real interest rate presented in Figure 1.2.3, panel 2 is the sum of the one-year safe real rate and half the term premiums.

Figure 1.2.2. Impact of Scenario A on GDP
(Percent deviation from baseline)



Source: IMF staff estimates.

Note: "Long term" is at least 50 years ahead.

Box 1.2 (continued)

Figure 1.2.3. Impact of Scenario A in the United States, China, and the Euro Area

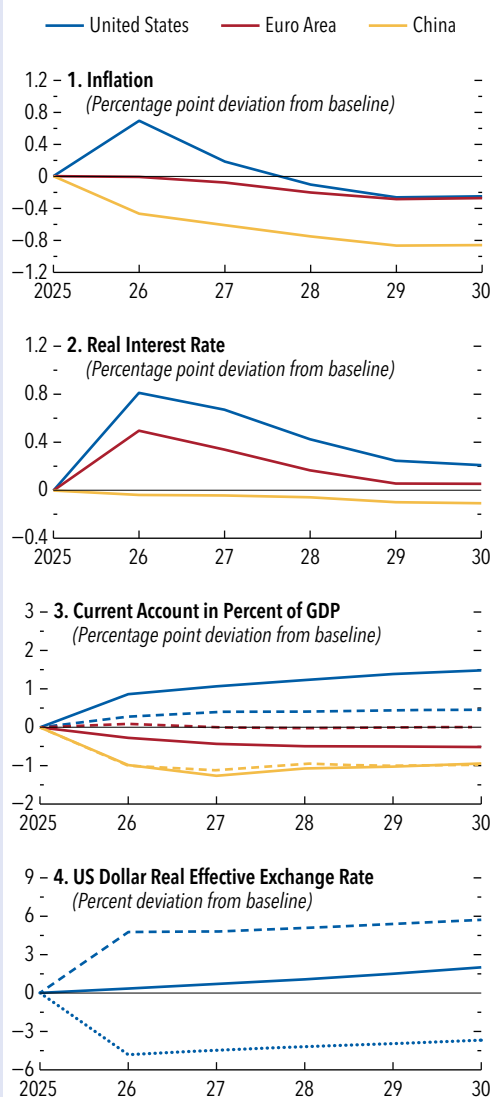
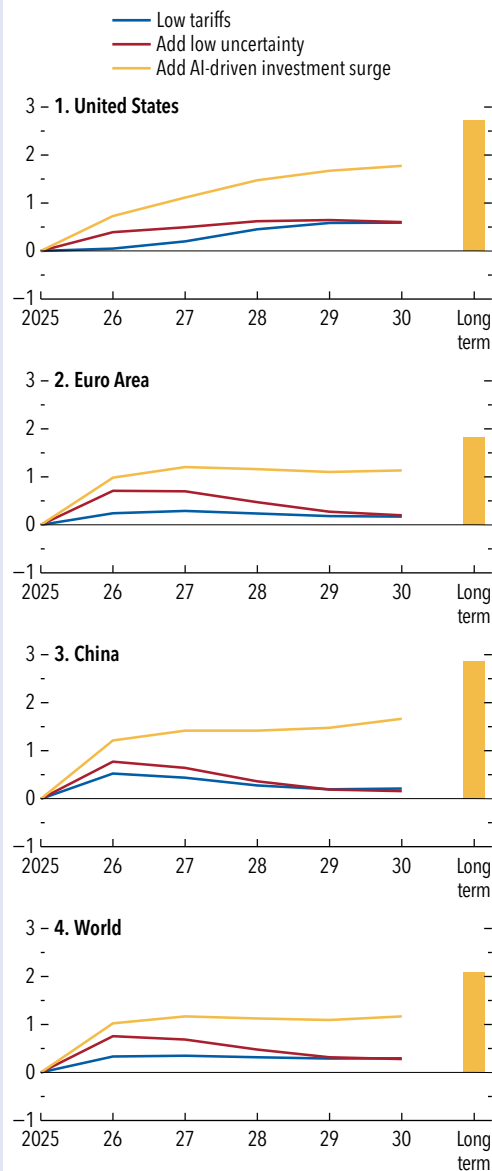


Figure 1.2.4. Impact of Scenario B on GDP (Percent of GDP)



Box 1.2 (continued)

in the renminbi-to-dollar rate, which also results in a lower current account surplus than in the baseline. Higher tariffs reduce production efficiency in the United States and cause dollar appreciation that lowers demand for US exports. The United States experiences a moderate reduction in its current account deficit, in part because the decline in investment is larger than in other countries. The impact on the euro-area-wide current account is limited.

Higher tariffs also lead to a temporary 40 basis point surge in US inflation and a 20 basis point increase in policy rates in 2026. China experiences a sustained reduction in inflation of 40–50 basis points. Other regions, including the euro area, experience a modest increase in inflation of 10–20 basis points.

For countries facing *shocks to inflation expectations*, the resulting inflationary pressures elicit higher nominal and real policy rates. A faster response in prices relative to wages also contributes to a decrease in purchasing power, adding to the negative impact on aggregate demand. The impact is most pronounced in emerging markets facing higher-than-target inflation and in the United States, which in 2026 sees an additional increase of 30 basis points in inflation and policy rates and a decrease in activity of about 0.4 percent from this shock alone. The impact on the euro area is smaller and is negligible on China. Global GDP is reduced by 0.3 percent in 2026, and global inflation increases by 20 basis points. The impact on activity fades as inflation is stabilized.

In the *sovereign yields and global financial conditions* layer, the combination of higher real interest rates and corporate spreads reduces global investment by 3 percent and GDP by 0.6 percent in 2026, relative to the baseline. In the short term, the hit is larger in emerging markets excluding China because corporate spreads widen more, and smaller in China as term premiums do not increase. The layer is also moderately disinflationary, with global inflation falling by about 0.2 percentage point in 2026. The impact on the United States and the euro area is similar to the global average. Over the long term, all countries see a permanent decrease in GDP, of about 1.5 percent.

The impact of *lower global demand for US assets* varies across regions. The United States experiences a combination of higher domestic real interest rates and a depreciation of the US dollar, which raises demand for US exports but compresses domestic absorption, lowers GDP somewhat, and reduces the US current account deficit sizably. As global asset demand shifts

toward other regions, real interest rates outside the United States decrease, including in the euro area. Euro area GDP increases modestly, and its current account surplus is lowered as domestic absorption increases. China benefits more than other regions in the short term. Under the assumption that the exchange rate relative to the dollar is managed, the renminbi depreciates in real effective terms, supporting China's external demand and limiting adjustment in its current account.

The combined effect from shocks in the scenario is a sizable decrease in world GDP in 2026, 1.2 percent lower than baseline, with activity declining further relative to baseline in 2027. The United States is hit harder than China and the euro area as it experiences a larger decrease in GDP, higher inflation, and higher real interest rates. Other countries, including emerging markets, experience a decrease broadly similar in magnitude to the one the world economy experiences. The impact on the US dollar's real effective exchange rate is muted, reflecting the offsetting effect of various shocks, and global imbalances narrow.

In scenario B, *the return to low tariffs* helps support activity globally, with gains in all three large countries but largest in China in the short term. The United States sees a temporary reduction in inflation of about 60 basis points in 2026 and a 7 percent depreciation of the dollar relative to baseline as US demand for imports increase and the renminbi-dollar rate adjusts. Global activity is further supported in the short term by *lower trade policy uncertainty*, which benefits all countries and raises global investment by about 2 percent in 2026–27. *Higher-than-expected benefits from AI* raise global GDP by about 0.3 percent in 2026, with global investment increasing by an additional 1.5 percent over 2026–27. The increase in short-term activity and investment is somewhat larger in the United States and China than in the euro area, and with limited impact on inflation. The economic gains build over time as productivity rises.

The combined effect from layers in scenario B is an increase in global GDP of about 1 percent in 2026 and about 2 percent over the long term, with the return to low tariffs explaining about 0.7 percentage point of the increase and higher-than-expected benefits from AI explaining 1.4 percentage points. Finally, global imbalances do not change much in this scenario, as the shocks considered generate relatively small cross-country variation and exchange rates play a larger role in global adjustment.

Commodity Special Feature: Market Developments and Commodity-Driven Macroeconomic Fluctuations

Primary commodity prices declined by 2.6 percent between March and August 2025, with large gains in precious metals partly offsetting a broad-based decline in other commodity groups, including energy, base metals, and agriculture. In oil markets, strong global supply and tepid global demand growth have contributed to bringing prices down, despite ongoing geopolitical ructions. Tariffs drove some commodities lower, especially base metals. This Special Feature analyzes the importance of interlinkages between commodity sectors and the rest of the economy in understanding cyclical fluctuations following commodity price shocks.

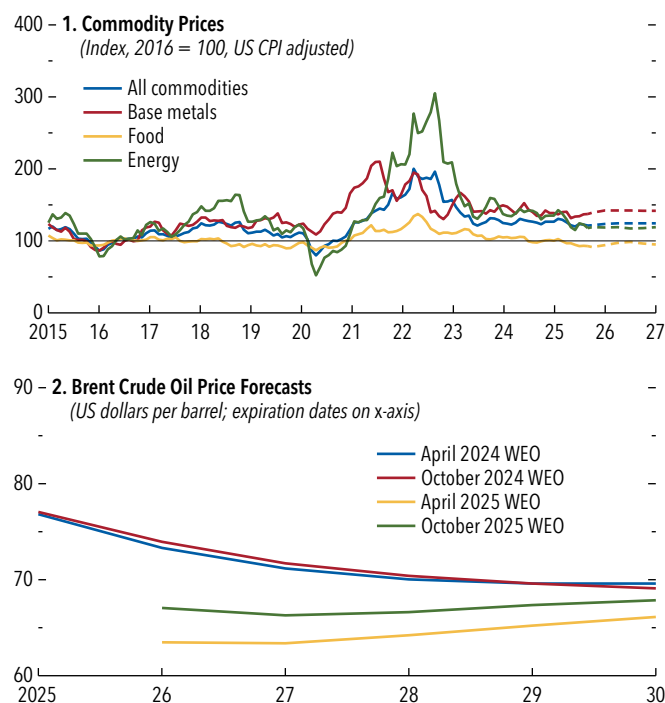
Commodity Market Developments

Oil prices decreased 5.4 percent between March 2025 and August 2025 as tepid global demand growth and strong supply growth from both OPEC+ and non-OPEC+ contributed to bringing prices down. Barring the temporary price spike in mid-June from the Israel-Iran war, oil prices have been range-bound, trading between \$60 and \$70 since the US announcement of tariffs in early April. The tariff announcements induced a decrease in global demand expectations and coincided with the start of an accelerated production schedule from OPEC+ (Organization of the Petroleum Exporting Countries plus selected nonmember countries, including Russia). Bearish fundamentals are now mostly in focus: The International Energy Agency is forecasting 0.7 mb/d (million barrels per day) of global demand growth in 2025 and 1.4 mb/d of non-OPEC+ supply growth, while the latest OPEC+ production schedule gradually brought back 2.5 mb/d through September,¹ one year ahead of schedule, with plans to further increase production. Talks to find a diplomatic solution to the war in Ukraine have stalled, increasing the risk of US secondary sanctions. US futures markets indicate that oil prices will average \$68.90 per barrel

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¹2.2 mb/d of gradual unwinding of production cuts, combined with a 0.3 mb/d higher production quota for the United Arab Emirates.

Figure 1.SF.1. Commodity Market Developments



Sources: Bloomberg Finance L.P.; Haver Analytics; IMF, Primary Commodity Price System; International Energy Agency; and IMF staff calculations.

Note: In panel 1, latest actual CPI value is applied to forecasts, represented by the dashed portions of the graph lines. CPI = consumer price index; WEO = World Economic Outlook.

in 2025, a 12.9 percent decline from the previous year, before decreasing to \$65.80 in 2026 and steadily increasing to \$67.30 through 2030 (Figure 1.SF.1, panel 2). Risks around this forecast are balanced. While potential Russian supply disruptions present an upside risk to prices, the risk of accelerated OPEC+ supply increases, combined with the tariff-induced cloudy global economic environment, continue to pressure prices downward. All the while, higher-cost producers set a loose price floor, with some US break-even prices in the low to mid \$60s.

Natural gas prices fell reflecting tariffs and ample supply. Title Transfer Facility (TTF) trading hub prices in Europe dropped 16.6 percent between March 2025 and August 2025 to \$11.0 per million British thermal units (MMBtu). Despite a temporary spike in June amid the Israel-Iran war, TTF prices fell on lower

energy demand because of tariff-induced business uncertainty, weaker competing demand from Asia, and the approval of more flexible EU gas storage targets. Asian liquefied natural gas prices tracked the decreasing trend in European prices, falling by 12.2 percent. US Henry Hub prices fell by 30 percent to \$2.9 per MMBtu owing to trade-policy-induced demand uncertainty and record-high domestic production. Futures markets suggest that TTF prices will average \$12.1/MMBtu in 2025, steadily decreasing to \$8.4/MMBtu in 2030, reflecting ample global liquefied natural gas supply in the medium term, with US export capacity expected to almost double through 2027. Henry Hub prices are expected to fluctuate around \$3.5/MMBtu between 2025 and 2030.

Safe haven demand lifted precious metals, whereas tariffs drove base metal prices lower. The IMF's metals price index rose 6.8 percent between March and August 2025 (Figure 1.SF.1, panel 1). Precious metals drove this increase, with gold increasing 12.8 percent, reaching record highs above \$3,400/ounce as investors sought safe haven assets amid rising geopolitical uncertainty and central banks increased gold reserves. US import tariffs had mixed effects on base metals. While US tariffs announced in early April pressured global prices downward, 50 percent tariffs on steel, aluminum, and copper triggered front-loading by the United States, providing some support to prices. Futures markets suggest modest increases of 0.3 percent in 2025 and 3.0 percent in 2026.

China's rare earth export controls trigger price spikes. Top producer China launched export licensing requirements for seven critical rare earth elements and their corresponding magnets in April, causing dramatic export slowdowns during April and May. Following a US-China trade agreement on June 11, Chinese magnet exports rebounded in June and had fully recovered by July, rising 5 percent year over year. Price impacts have persisted for key magnet materials however. Rare earth carbonate feedstock prices also jumped 30.2 percent as reduced US raw material exports to China tightened global supplies of processed rare earths amid strengthening demand.

After a strong start to the year, agricultural commodities declined, thanks to ample supplies and the tariffs. From March to August 2025, the IMF's food and beverages price index fell by 4.8 percent, led by sharp declines in coffee, cereal, and sugar prices. This reversed early-year gains, when coffee and cocoa prices surged because of bad weather

in major exporters and tight global supply. Cereal prices dropped by 11.1 percent amid strong harvest prospects in major producing countries, such as the United States, Russia, Brazil, and Argentina. Coffee prices plunged by 16.7 percent, with the IMF Coffee Index retreating from its February historic high as supply prospects improved in top producer Brazil and as US tariff uncertainty grew. Despite this downward trend, prices surged briefly in August, following US tariffs on Brazil that caused trade disruptions. Meanwhile, corn prices fell 11.9 percent, pressured by Brazil's large harvest in the second quarter and promising crop conditions in the United States. Upside risks to the food price outlook could stem from new export restrictions, which might raise global prices by tightening international supply—even as they put downward pressure on food prices in some exporting countries—and because of potential bad weather resulting from La Niña in the fourth quarter. Larger-than-expected harvests and higher tariffs pose the main downside risk.

Commodity-Driven Macroeconomic Fluctuations in Advanced and Emerging Markets: Does Size Matter?

Commodities play a central yet often underappreciated role in shaping macroeconomic fluctuations across both advanced and emerging market and developing economies, with the latter generally experiencing greater macroeconomic volatility. In the context of today's climate-related supply shocks and geopolitical and trade tensions, understanding the macroeconomic impact of commodity price fluctuations matters more than ever. And this requires looking beyond the sheer *size* of the commodity sector. Crucial to understanding the effect of commodity price shocks on output and inflation is how *interconnected* the sector is with the rest of the economy and the rest of the world (for example, Baqaee and Farhi 2019; Bigio and La'O 2020; Silva 2024; Silva and others 2024; Romero 2025; Qiu and others 2025). These interlinkages shape the reallocation of labor and capital across sectors in response to a commodity price movement and play a critical role in driving fluctuations in real activity and inflation. The degree of interconnection between the commodity sector and the broader economy determines the extent of cyclical amplification and persistence following a commodity price shock—and how monetary policy should respond.

Relying on a mix of empirical analysis and general equilibrium modeling, this Commodity Special Feature will seek to answer three questions: (1) How do commodity sectors' linkages with the broader economy differ between emerging market and developing economies and advanced economies and across different commodities? (2) How do these linkages (up- and downstream) affect the propagation of commodity price shocks to the rest of the economy? and (3) How should monetary policy respond?

Size and Interconnectedness of Commodity Sectors in Advanced Economies and Emerging Market and Developing Economies

It is well established that, on average, emerging market and developing economies have much larger commodity sectors than advanced economies (for example, Kohn, Leibovici, and Tretvoll 2021).² The average *size*, or Domar³ weight, of the commodity sectors in emerging market and developing economies is twice as large for metals, three times as large for energy, and almost four times as large for agriculture compared with advanced economies (see Online Annex Table SF.1.1 in Online Annex 1.1).⁴ But are commodity sectors also more *interconnected* in emerging market and developing economies—and could this greater interconnectedness help explain their seemingly larger impact on economic fluctuations?

Answering this question requires examining their role within the broader production network—both upstream as suppliers to other sectors and downstream as purchasers of inputs. For example, an increase in copper prices encourages mining and extraction activities in countries that produce copper. This typically results in greater demand for industrial machinery, construction, transportation, and financial services, all inputs to the copper industry. Higher copper prices also affect a wide range of downstream industries. And this matters to the extent these industries may also ultimately influence the overall cost associated with copper extraction. For instance, higher copper prices will increase construction costs, which will in turn

increase industrial machinery's production costs—an input to the production of copper. The degree of interconnectedness of the commodity sector is measured by its *network-adjusted value-added share* (NAVAS) (Silva and others 2024; Qiu and others 2025), or the sector's total (direct and indirect) exposure to the economy's factors of production (see Online Annex 1.1 for a formal definition).⁵

The commodity sector NAVAS is larger than its size (Domar weight) in both advanced and emerging market economies, but the differences in NAVAS across both groups tend to be smaller than the differences in size.⁶ This suggests that its significance for macroeconomic fluctuations in advanced economies may be larger than it appears at first glance (Figure 1.SF.2). There is also a large overlap between the right tail of the distribution of the NAVAS in advanced economies and the left tail in emerging market and developing economies, meaning that commodity sectors in many advanced economies are more interconnected than in emerging market and developing economies and that commodity price shocks in these advanced economies may have a larger and more persistent effect on economic activity (Figure 1.SF.2, panel 2).

Understanding Consumption Patterns Depends on Commodity Sector Interconnectedness, Not Size

Figure 1.SF.3, panel 1, displays the relationship between the NAVAS (horizontal axis) and the correlation between countries' cyclical consumption and commodities' terms of trade (commodity net export price index). As suggested in the previous section, countries with a more interconnected commodity sector (higher NAVAS) display stronger annual correlation between aggregate consumption and commodities terms of trade, and some advanced economies (for example, Australia, New Zealand, Canada) have larger NAVAS and co-movement than emerging market and

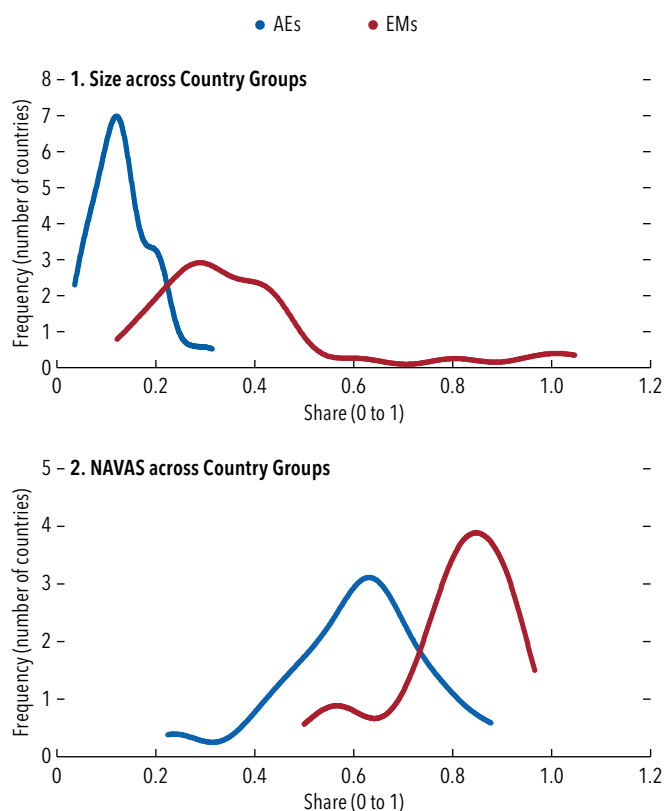
²In this Commodity Special Feature, the commodity sectors are broken down into energy (mining and petroleum products), metals (mining and fabricated metal products), and agricultural products.

³Domar weights are defined as the ratio of sectoral gross output to national GDP (Domar 1961).

⁴All online annexes are available at www.imf.org/en/Publications/WEO.

⁵Online Annex 1.1 shows that varying the importance of the commodity sector as supplier of inputs to the rest of the economy has no impact on the NAVAS provided these sectors do not eventually feedback to the commodity sector's upstream suppliers.

⁶The average commodity sector is three times larger (Domar weight) in emerging market and developing economies than in advanced economies, but its network-adjusted value-added share (NAVAS) is only 31 percent higher, with energy exhibiting the biggest difference across country groups and metals and agricultural products the smallest.

Figure 1.SF.2. Size and Network-Adjusted Value-Added Share across Country Groups

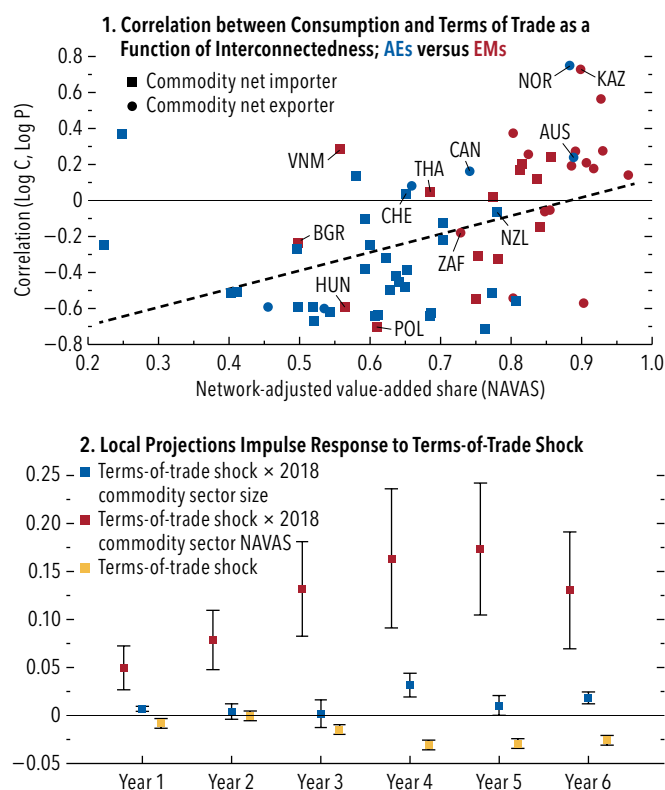
Sources: Organisation for Economic Co-operation and Development, Input-Output Tables, 2018; and IMF staff calculations.

Note: The Domar weight is the ratio of the nominal value of the commodity sector gross output to GDP. NAVAS is the sum of commodity sector value-added (VA) share and commodity suppliers' VA shares weighted by the Leontief inverse elements that capture downstream and upstream linkages of the commodity sector. AEs = advanced economies; EMs = emerging markets; NAVAS = network-adjusted value-added share.

developing economies (for example, Bulgaria, Hungary, Poland, South Africa).

Interestingly, and maybe counterintuitively, the correlation is sometimes negative, even for commodity net exporters (for example South Africa); this point will be discussed further in the next subsection using a general equilibrium model.

Figure 1.SF.3, panel 2, confirms that interconnectedness (NAVAS) matters for the effect of commodity price shocks on consumption, even after controlling for the role of size (Domar weights). Coefficient estimates at different horizons (based on local projection analysis; Jordà 2005) show that the NAVAS interaction coefficient—which measures the marginal impact of deeper interconnectedness on the response of consumption to terms-of-trade changes—is substantially

Figure 1.SF.3. Importance of Interconnectedness over Size

Sources: Global Macro Database (Müller and others 2025); IMF, Commodity Terms of Trade Database; and IMF staff calculations.

Note: Panel 1 shows the correlation between countries' cyclical consumption and cyclical terms of trade, computed for 66 countries covering the period 1990–2023 with an annual frequency. The network-adjusted value-added share (NAVAS) used is from the year 2018. Sectoral value-added shares are measured using the ratio between gross output minus intermediate input usage and gross output. Terms of trade are measured by the Commodity Net Export Price Index, weighted by net exports as a share of GDP and deflated using the US consumer price index. Advanced economies are shown in blue, while emerging markets are shown in red. In addition, squares represent commodity net importers, while circles indicate commodity net exporters. Panel 2 presents consumption coefficient estimates from panel local projections at annual horizons, along with their respective standard deviations, in response to a one-standard-deviation terms-of-trade shock. The terms-of-trade shock is constructed following Schmitt-Grohé and Uribe (2018) using the residual of an autoregressive process of order one for each country's log terms-of-trade index, deflated by US consumer price index. Estimates are shown for the direct terms-of-trade shock, its interaction with the NAVAS, and its interaction with the Domar weight in yellow, red, and blue, respectively. See Online Annex 1.1, Parts I and II for further details. Data labels in the figure use International Organization for Standardization (ISO) country codes. AEs = advanced economies; EMs = emerging markets.

larger than the coefficient for the size interaction and is always significant.

Specific country examples tend to confirm this finding. For instance, although Thailand's commodity sector is six times larger than Switzerland's, their NAVAS values are almost identical (0.68 in Thailand and 0.65 in Switzerland), resulting in a very similar impact of terms-of-trade shocks on consumption (see Figure 1.SF.3,

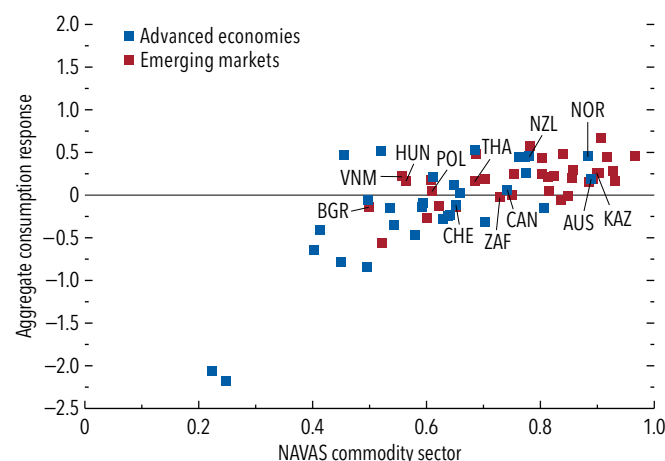
panel 1). Similarly, the Norwegian energy sector exhibits a NAVAS of 0.94, significantly larger than Vietnam's (0.48), despite their similar size. And as expected, shocks to energy prices are more correlated with consumption in Norway than in Vietnam (Online Annex 1.1, Online Annex Figure 1.SF.1).

Model-Based Analysis

The small open economy dynamic stochastic general equilibrium model developed in Silva and others (2024) and Gomez-Gonzalez and others (2025) is employed to unpack the channels through which production network structure affects the transmission of commodity price shocks to the rest of the economy. In the model, households consume a final good produced with labor, commodities, and imported and domestic intermediate goods. Households save in foreign assets, which accumulate according to the small open economy's successive current account surpluses or deficits. The real interest rate is given and fixed. Calibration uses the same Organisation for Economic Co-operation and Development data featured in Figure 1.SF.2, covering 66 countries and 44 sectors and is set to match each country's sectoral final consumption shares, input-output shares, and the commodity sector's net exports, all in 2018.⁷ Once calibrated, the model is used to run two experiments. First, it looks at the relationship between NAVAS and the co-movement between consumption and commodity terms of trade. Model simulations (Figure 1.SF.4) show very similar results to raw data (Figure 1.SF.3, panel 1): The slope is positive (emerging market and developing economies tend to have higher NAVAS and higher correlation of cyclical consumption and terms-of-trade shocks), and some advanced economies do display higher NAVAS and stronger co-movement than emerging market and developing economies. There is some variation in the correlation of consumption with commodity price shocks for the same level of interconnectedness (NAVAS), which suggests a complex propagation mechanism, which is analyzed further below.

⁷The model's rich network structure and dynamic consumption decision make it well equipped to study the transmission of commodity price shocks through factor prices and the valuation of debt. While it abstracts from factors such as unemployment and time-varying profit margins, these simplifications allow for a focused analysis of network propagation mechanisms. Because six commodity sectors are aggregated into one here, the benchmark calibration has 1 commodity sector and 38 non-commodity sectors.

Figure 1.SF.4. Model-Based Consumption Response to a 1 Percent Terms-of-Trade Price Shock
(Percent change)



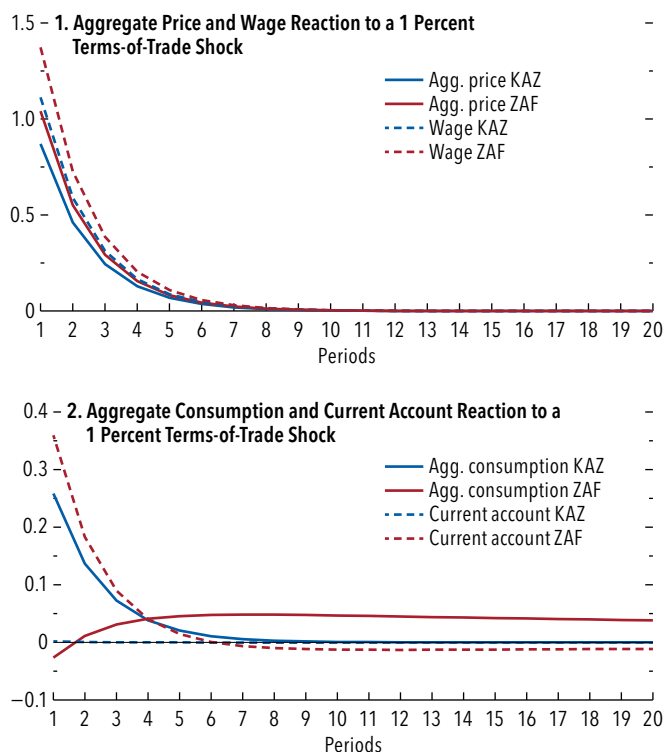
Sources: Organisation for Economic Co-operation and Development; and IMF staff calculations.

Note: NAVAS is the network-adjusted value-added share of the commodity sector. Consumption response is the first-period reaction of real consumption to a 1 percent terms-of-trade shock. Data labels in the figure use International Organization for Standardization (ISO) country codes.

Second, the model is used to look under the hood and better understand the transmission mechanism of shocks to commodity prices. To emphasize the importance of the NAVAS in driving co-movements between commodity terms-of-trade shocks and consumption (Figure 1.SF.3, panel 1), the model is run for two commodity net exporters whose commodity sectors are of similar size (39 percent of GDP)—Kazakhstan and South Africa—but with the Kazakh commodity sector more strongly interconnected (NAVAS of 0.90 versus 0.73 for South Africa). Figure 1.SF.5—which displays impulse response functions to a 1 percent commodity terms-of-trade shock—shows that the impact on aggregate consumption of a commodity price shock is *positive* and large in Kazakhstan but is *negative* in South Africa. Analysis of the transmission mechanism—which runs through both prices and wages—is essential to understanding this seemingly counterintuitive result.

Note first that real wages increase in both countries (nominal wages increase more than prices) because higher revenues in the commodity sector boost labor demand and real wages in equilibrium. However, the final impact of the shock on consumption does not depend only on labor income but also on the impact of the shock on households' real wealth (net foreign

Figure 1.SF.5. Model-Based Impulse Responses to a 1 Percent Terms-of-Trade Shock
(Percent change)



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

Note: The figure illustrates the impact of a commodity price shock on two distinct exporting economies, both calibrated to start with an equal initial trade balance. The calibration is based on each economy's input-output structure. Agg. = aggregate; KAZ = Kazakhstan; ZAF = South Africa.

assets denominated in units of real commodity goods).⁸ In South Africa, the aggregate price index increases more than commodity prices on impact (more than 1 percent; see Figure 1.SF.5, panel 1), leading to a *decline* in the real value of net foreign assets—a negative wealth shock from the perspective of South African consumers—and a decline in consumption.⁹

But what explains this larger increase in aggregate prices in South Africa? The key lies in the way factor price changes propagate and become diluted through the production network. In general equilibrium, any exogenous increase in commodity prices will be met by a commensurate increase in marginal costs in the

⁸This relates to Drechsel and Tenreiro (2018) and Di Pace, Juvenal, and Petrella (2025), who show that increases in export prices have positive effects on net foreign asset position.

⁹The negative co-movement between consumption and commodity terms-of-trade prices in South Africa aligns with the empirical evidence in Figure 1.SF.3.

commodity sector until excess profit is driven to zero. Because higher marginal costs stem from both *factor prices* (wages in the model) and *intermediate input prices*, a higher NAVAS implies greater interconnectedness of the commodity sector, a larger contribution of intermediate input prices to marginal cost fluctuations, and thus a smaller increase in wages required for any given rise in marginal costs. In low-NAVAS economies, such as South Africa, commodity price shocks feed more directly into factor costs—rather than being diluted along the supply chain via intermediate input prices—resulting in larger aggregate price increases.¹⁰ Low-NAVAS countries will tend to see larger increases in aggregate prices, lower *real* net foreign assets, and therefore a smaller *wealth* effect.

To sum up, differences in commodity sector linkages as measured by the NAVAS drive the differences in macroeconomic responses to commodity price fluctuations.¹¹ On balance, the wealth effect could even be negative and could more than offset the positive income effect, leading to a drop in consumption, as in South Africa (Figures 1.SF.3, panel 1, and 1.SF.5), and this is true regardless of the size of the sector as measured by Domar weights.

Implications for Monetary Policy in Small Open Economies

While higher commodity prices typically exert upward pressure on inflation, their effect on consumption varies with the commodity sector's NAVAS—amplifying or dampening the transmission, depending on the economy's structure. This raises important questions about how monetary policy should respond to commodity price shocks.

Standard theory suggests that monetary policy should respond only to inflation occurring in sticky price sectors and should ignore fluctuations in

¹⁰An increase in marginal costs in the commodity sector can arise either from small increments in intermediate input prices—driven by modest wage increases along the supply chain—or from a large direct increase in wages that takes place in all sectors simultaneously given perfect labor mobility across sectors. The latter exerts a stronger effect on aggregate prices.

¹¹For more details see Gomez-Gonzalez and others (2025), in which the authors show how these effects change when the country is instead a commodity importer and when considering productivity shocks to the commodity sector. The authors also discuss the heterogeneity in energy, metals, and agricultural commodity linkages across groups of economies. Finally, the authors show that the relationship between NAVAS and the consumption response to terms-of-trade shocks is robust to denominating foreign assets in units of the importable goods instead of in units of the exportable goods.

commodity prices because these sectors display flexible prices that are not influenced much by monetary policy (Aoki 2001; Woodford 2003). However, while it is true that *global* commodity prices are flexible and highly responsive to shocks, the pass-through to *domestic* commodity sectors is incomplete, and domestic commodity prices are stickier.¹²

The question then becomes how much weight policymakers should assign to commodity price fluctuations in the conduct of monetary policy. As shown by Rubbo (2023), Domar weights may be a good guide in a closed economy.¹³ But relying on them to design monetary policy in small open economies, instead of the *network-adjusted weight* (NAW)—which depends on the NAVAS—would lead to welfare losses that are inversely proportional to the NAVAS (Qiu and others 2025).¹⁴ The reason is that when the commodity sector's NAVAS is low—meaning it relies more on foreign than on domestic factors of production (directly and indirectly)—there is no need to respond to commodity price fluctuations since they do not lead to commensurate output gap fluctuations.

A small open economy policymaker following the prescription for a closed economy (adjusting monetary policy guided by Domar weights) would typically be *overestimating* the importance of commodity price fluctuations in the conduct of monetary policy, and the degree of overreaction would be inversely proportional to the NAVAS. Using the data presented in Figure 1.SF.2, Figure 1.SF.6 reports the distribution of the “policy mistake” made by relying on size instead of the NAW. The figure shows that both groups of economies would make monetary policy mistakes by overweighting the commodity sector by roughly a third.¹⁵

¹²For more on incomplete pass-through, see, for example, Choi and others (2018) for oil (among many others), Miranda-Pinto and others (2024) for metals, and Hyun and Lee (2023) for agricultural products.

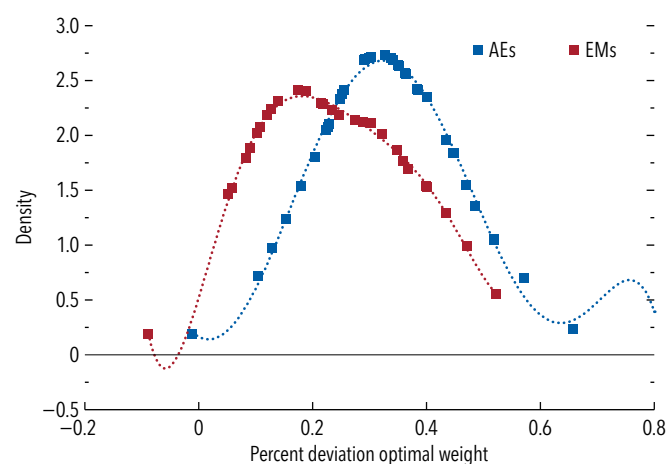
¹³Rubbo (2023) shows that—using sectoral (Domar) weights (and measures of sectoral price stickiness) to adjust the consumer price index (CPI)—a new CPI can be constructed. Stabilizing this new price index also closes the output gap and is therefore optimal from the point of view of monetary policy.

¹⁴The welfare losses from following a closed economy policy prescription in a small open economy environment are described by the monetary policy mistake (PM), defined as $PM = k(1 - NAVAS) + \text{export intensity} - \text{expenditure switching}$. For more details, please refer to Online Annex 1.1, Part IV.

¹⁵For instance, the average size of the commodity sector in advanced economies is 13 percent, but because the average monetary policy mistake is 34 percent, the actual weight should be 8.6 percent. For emerging market and developing economies, the average size of the commodity sector is 39 percent, but given an average monetary policy mistake of 24 percent, the actual weight should be 30 percent.

Figure 1.SF.6. Monetary Policy Mistake Distribution, 2018 (Percent)

Kernel density estimate of the monetary policy mistake in the commodity sector.



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

Note: Underlying calculations, based on the work of Qiu and others (2025), illustrate the monetary policy errors that occur when the focus is solely on the size of the commodity sector. The horizontal axis represents the policy mistakes expressed as the difference between the Domar weight and network-adjusted weight as a proportion of the Domar weight. AEs = advanced economies. EMs = emerging markets.

Specifically, advanced economies tend to overestimate (by 32 percent, on average) the importance of the commodity sector in monetary policy design, compared with emerging market and developing economies (by 27 percent, on average).

Conclusion

The macroeconomic impact of commodity price shocks depends less on the size of the commodity sector than on how interconnected it is with the rest of the economy. The network-adjusted value-added share (NAVAS) captures this interconnectedness and explains cross-country differences in how consumption responds to commodity price fluctuations.

For policymakers, the main takeaway is that macroeconomic frameworks should be adapted to account for the structure of domestic production networks. In particular, central banks should account for production network structures when calibrating their response to commodity price movements. Doing so can reduce the risk of policy miscalibration and enhance macroeconomic stability across both advanced and emerging market economies, regardless of their net commodity trade position.

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		
	2024	Projections		2024	Projections		2024	Projections		2024	Projections	
		2025	2026		2025	2026		2025	2026		2025	2026
Europe	1.9	1.5	1.6	7.8	6.2	4.6	2.5	1.9	1.9	...	...	...
Advanced Europe	1.1	1.3	1.3	2.3	2.2	2.0	3.1	2.7	2.7	5.8	6.0	5.9
Euro Area ^{4,5}	0.9	1.2	1.1	2.4	2.1	1.9	2.6	2.3	2.2	6.4	6.4	6.3
Germany	-0.5	0.2	0.9	2.5	2.1	1.8	5.6	5.4	5.1	3.4	3.7	3.4
France	1.1	0.7	0.9	2.3	1.1	1.5	0.1	-0.1	-0.2	7.4	7.6	7.5
Italy	0.7	0.5	0.8	1.1	1.7	2.0	1.1	1.0	1.0	6.6	6.7	6.7
Spain	3.5	2.9	2.0	2.9	2.4	2.0	3.2	2.7	2.6	11.3	10.8	10.7
The Netherlands	1.1	1.4	1.2	3.2	2.9	2.4	9.1	9.5	9.3	3.7	3.8	4.0
Belgium	1.0	1.1	1.0	4.3	2.6	1.3	-0.9	-0.9	-0.9	5.7	6.1	6.2
Ireland	2.6	9.1	1.3	1.3	1.7	1.7	16.2	11.1	11.5	4.3	4.6	4.6
Austria	-1.0	0.3	0.8	2.9	3.6	2.3	2.4	1.8	2.2	5.2	5.7	5.6
Portugal	1.9	1.9	2.1	2.7	2.2	2.1	2.1	1.8	1.9	6.5	6.4	6.3
Greece	2.3	2.0	2.0	3.0	3.1	2.5	-7.0	-5.8	-5.3	10.1	9.0	8.4
Finland	0.4	0.5	1.3	1.0	1.8	1.9	0.0	0.1	-0.1	8.4	9.0	8.7
Slovak Republic	2.1	0.9	1.7	3.2	4.2	3.3	-2.8	-2.9	-2.5	5.4	5.5	5.6
Croatia	3.9	3.1	2.7	4.0	4.4	2.8	-1.2	-1.6	-2.0	5.3	5.0	5.0
Lithuania	2.7	2.7	2.9	0.9	3.6	3.1	2.5	2.1	2.1	7.1	6.6	6.1
Slovenia	1.7	1.1	2.3	2.0	2.5	2.4	4.5	2.9	2.9	3.7	3.8	4.0
Luxembourg	0.4	1.2	2.1	2.3	2.3	2.2	6.9	12.2	12.4	5.8	6.1	6.2
Latvia	-0.4	1.0	2.2	1.3	3.8	2.6	-1.6	-2.1	-2.3	6.9	6.7	6.6
Estonia	-0.1	0.5	1.5	3.7	5.1	4.3	-1.2	-0.9	-2.2	7.5	7.9	7.4
Cyprus	3.4	2.9	2.8	2.3	0.7	1.3	-8.4	-8.5	-9.1	4.9	4.5	4.7
Malta	6.8	3.9	3.9	2.4	2.4	2.0	5.5	5.1	4.4	3.1	2.5	2.5
United Kingdom	1.1	1.3	1.3	2.5	3.4	2.5	-2.7	-3.1	-3.0	4.3	4.7	4.7
Switzerland	1.4	0.9	1.3	1.1	0.1	0.6	7.7	7.0	7.0	2.4	2.9	3.1
Sweden	0.8	0.7	1.9	2.0	2.3	1.6	5.9	5.8	5.7	8.4	9.0	8.4
Czech Republic	1.2	2.3	2.0	2.4	2.5	2.3	1.7	0.6	0.4	2.6	2.5	2.4
Norway	2.1	1.2	1.6	3.1	2.4	2.4	16.7	16.2	15.9	4.0	4.3	4.2
Denmark	3.5	1.8	2.2	1.3	1.9	2.1	12.2	12.2	11.7	2.9	3.0	3.0
Iceland	-1.0	1.4	2.3	5.9	4.2	3.1	-2.6	-3.6	-1.1	3.4	3.9	4.0
Liechtenstein	1.5	1.0	1.5	1.1	0.1	0.6	14.6	13.2	12.9	2.7	2.7	2.7
Andorra	3.4	2.4	1.6	3.1	2.2	1.8	15.0	15.2	15.3	1.5	1.6	1.6
San Marino	0.7	1.0	1.3	1.2	2.0	2.0	18.3	17.5	17.8	4.4	4.4	4.5
Emerging and Developing Europe⁶	3.5	1.8	2.2	16.9	13.5	9.3	-0.1	-1.1	-1.0	...	...	...
Russia	4.3	0.6	1.0	8.4	9.0	5.2	2.9	1.7	1.6	2.5	2.4	3.1
Türkiye	3.3	3.5	3.7	58.5	34.9	24.7	-0.8	-1.4	-1.3	8.7	8.3	8.3
Poland	2.9	3.2	3.1	3.7	3.8	2.8	0.0	-0.7	-0.8	2.9	2.9	3.1
Romania	0.8	1.0	1.4	5.6	7.3	6.7	-8.4	-8.0	-6.6	5.4	5.9	5.8
Ukraine ⁷	2.9	2.0	4.5	6.5	12.6	7.6	-7.2	-16.5	-12.6	13.1	11.6	10.2
Hungary	0.5	0.6	2.1	3.7	4.5	3.5	2.2	1.2	0.9	4.5	4.3	4.2
Belarus	4.0	2.1	1.4	5.7	7.0	7.5	-3.2	-1.8	-3.1	3.0	2.9	2.9
Bulgaria	2.8	3.0	3.1	2.6	3.6	3.4	-1.6	-3.8	-3.2	4.2	3.5	3.4
Serbia	3.9	2.4	3.6	4.7	4.6	4.0	-4.7	-5.3	-5.3	8.6	8.6	8.6

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		
	2024	Projections		2024	Projections		2024	Projections		2024	Projections	
		2025	2026		2025	2026		2025	2026		2025	2026
Asia	4.6	4.5	4.1	2.1	1.6	2.1	2.6	2.9	2.5	...	...	...
Advanced Asia	1.6	1.6	1.4	2.6	2.5	2.1	5.3	5.0	4.7	2.9	3.0	3.0
Japan	0.1	1.1	0.6	2.7	3.3	2.1	4.8	3.9	3.6	2.6	2.6	2.6
Korea	2.0	0.9	1.8	2.3	2.0	1.8	5.3	4.8	3.9	2.8	3.0	3.0
Australia	1.0	1.8	2.1	3.2	2.6	3.0	-1.9	-1.8	-1.7	4.0	4.2	4.3
Taiwan Province of China	4.8	3.7	2.1	2.2	1.7	1.6	14.1	13.8	13.1	3.4	3.4	3.4
Singapore	4.4	2.2	1.8	2.4	0.9	1.3	17.5	17.4	17.3	2.0	2.1	2.1
Hong Kong SAR	2.5	2.4	2.1	1.7	1.7	2.1	13.0	12.5	12.2	3.0	3.4	3.3
New Zealand	-0.6	0.8	2.2	2.9	2.7	2.1	-6.1	-4.7	-4.4	4.8	5.2	5.1
Macao SAR	8.8	2.6	2.8	0.7	0.5	1.2	35.8	35.5	34.9	1.8	1.7	1.7
Emerging and Developing Asia	5.3	5.2	4.7	1.9	1.3	2.1	1.6	2.2	1.7	...	...	...
China	5.0	4.8	4.2	0.2	0.0	0.7	2.3	3.3	2.8	5.1	5.1	5.1
India ⁴	6.5	6.6	6.2	4.6	2.8	4.0	-0.6	-1.0	-1.4	4.9	4.9	4.9
Indonesia	5.0	4.9	4.9	2.3	1.8	2.9	-0.6	-1.1	-1.2	4.9	5.0	5.0
Thailand	2.5	2.0	1.6	0.4	0.2	0.7	2.5	1.7	1.3	1.0	1.0	1.0
Vietnam	7.1	6.5	5.6	3.6	3.4	3.2	6.6	4.0	2.4	2.2	2.3	2.5
Malaysia	5.1	4.5	4.0	1.8	1.6	2.2	1.4	1.5	1.8	3.2	3.0	3.0
Philippines	5.7	5.4	5.7	3.2	1.6	2.6	-4.0	-3.8	-3.5	3.8	3.9	3.9
Other Emerging and Developing Asia⁵	3.9	3.3	4.4	9.3	9.6	8.9	-0.2	0.1	-1.0	...	...	...
<i>Memorandum</i>												
ASEAN-5 ⁶	4.6	4.2	4.1	2.0	1.4	2.3	2.6	2.3	2.2	...	...	...
Emerging Asia ⁷	5.4	5.2	4.7	1.6	1.0	1.8	1.6	2.2	1.7	...	...	...

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		
	2024	Projections 2025 2026	2024	Projections 2025 2026	2024	Projections 2025 2026	2024	Projections 2025 2026	2024	Projections 2025 2026	2024	Projections 2025 2026
North America	2.6	1.8 2.0	3.1	2.8 2.5	-3.6	-3.6 -3.3	...	...	...	...	...	...
United States	2.8	2.0 2.1	3.0	2.7 2.4	-4.0	-4.0 -3.6	4.0	4.2 4.1	...	...	...	...
Mexico	1.4	1.0 1.5	4.7	3.9 3.3	-0.9	-0.2 -0.3	2.7	2.9 3.1	...	...	...	...
Canada	1.6	1.2 1.5	2.4	2.0 2.0	-0.5	-1.4 -1.3	6.4	6.9 6.6	...	...	...	...
Puerto Rico ⁴	3.2	-0.8 -0.1	2.0	1.4 2.2	...	...	5.6	6.4 6.0	...	...	...	...
South America⁵	2.3	2.7 2.2	23.6	9.8 5.8	-1.1	-1.6 -1.5	...	...	...	...	...	...
Brazil	3.4	2.4 1.9	4.4	5.2 4.0	-2.7	-2.5 -2.3	6.9	7.1 7.3	...	...	...	...
Argentina	-1.3	4.5 4.0	219.9	41.3 16.4	0.9	-1.2 -0.4	7.2	7.5 6.6	...	...	...	...
Colombia	1.6	2.5 2.3	6.6	4.9 3.5	-1.7	-2.3 -2.6	10.1	10.0 9.8	...	...	...	...
Chile	2.6	2.5 2.0	3.9	4.3 3.1	-1.5	-2.5 -2.2	8.5	8.6 8.3	...	...	...	...
Peru	3.3	2.9 2.7	2.4	1.7 1.9	2.2	1.8 1.2	6.4	6.5 6.5	...	...	...	...
Ecuador	-2.0	3.2 2.0	1.5	1.1 2.8	5.7	4.9 3.4	3.4	4.0 3.8	...	...	...	...
Venezuela	5.3	0.5 -3.0	49.0	269.9 682.1	4.9	4.2 2.5	...	...	...	...	...	...
Bolivia	0.7	0.6 ...	5.1	20.8 ...	-3.0	-3.4 ...	5.0	5.1 ...	...	...	...	...
Paraguay	4.2	4.4 3.7	3.8	3.9 3.7	-3.9	-3.5 -3.7	5.8	5.2 5.2	...	...	...	...
Uruguay	3.1	2.5 2.4	4.8	4.7 4.5	-1.0	-1.4 -1.5	8.2	7.9 8.0	...	...	...	...
Central America⁶	3.9	3.4 3.8	2.3	1.9 3.0	-0.4	-0.1 -1.0	...	...	...	...	...	...
Caribbean⁷	12.1	3.6 8.2	6.2	6.1 6.4	2.6	-0.2 -0.6	...	...	...	...	...	...
<i>Memorandum</i>												
Latin America and the Caribbean ⁸	2.4	2.4 2.3	16.6	7.6 5.0	-0.9	-1.1 -1.1	...	...	...	...	...	...
Eastern Caribbean Currency Union ⁹	4.0	3.0 2.6	2.2	1.8 1.9	-9.9	-10.4 -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. 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		
	2024	Projections 2025 2026	2024	Projections 2025 2026	2024	Projections 2025 2026	2024	Projections 2025 2026	2024	Projections 2025 2026	2024	Projections 2025 2026
Middle East and Central Asia	2.6	3.5 3.8	14.0	10.9 9.5	2.3	1.1 0.6	...	...	...	...	...	...
Oil Exporters⁴	2.7	3.2 3.5	8.5	10.0 10.0	4.5	2.8 2.2	...	...	...	...	...	...
Saudi Arabia	2.0	4.0 4.0	1.7	2.1 2.0	-0.5	-2.1 -2.5	3.5	...	...	...	...	...
Iran	3.7	0.6 1.1	32.5	42.4 41.6	3.2	1.8 2.0	7.6	9.2	9.2	...	...	...
United Arab Emirates	4.0	4.8 5.0	1.7	1.6 2.0	14.5	13.2 12.3	...	...	...	...	...	...
Kazakhstan	4.8	5.9 4.8	8.7	11.4 11.2	-1.7	-3.8 -4.0	4.7	4.6	4.6	...	...	...
Algeria	3.7	3.4 2.9	4.0	3.5 3.9	-1.1	-3.7 -3.8	...	...	...	...	...	...
Iraq	-0.2	0.5 3.6	2.6	1.5 2.5	-0.2	0.4 -1.1	...	...	...	...	...	...
Qatar	2.4	2.9 6.1	1.2	0.1 2.6	17.4	10.8 10.2	...	...	...	...	...	...
Kuwait	-2.6	2.6 3.9	2.9	2.2 2.2	29.1	26.5 24.4	...	...	...	...	...	...
Azerbaijan	4.1	3.0 2.5	2.2	5.7 4.5	6.3	4.3 2.3	5.4	5.3	5.3	...	...	...
Oman	1.7	2.9 4.0	0.6	0.9 1.5	2.9	-1.0 -0.7	...	...	...	...	...	...
Turkmenistan	3.0	2.3 2.3	4.6	3.9 5.0	4.4	2.3 0.7	...	...	...	...	...	...
Bahrain	2.6	2.9 3.3	0.9	0.3 0.8	4.8	3.5 3.8	6.2	...	...	...	...	...
Oil Importers^{5,6}	2.4	4.0 4.4	23.6	12.2 8.8	-3.9	-3.2 -3.7	...	...	...	...	...	...
Egypt	2.4	4.3 4.5	33.3	20.4 11.8	-5.4	-5.1 -4.3	7.4	7.4	7.3	...	...	...
Pakistan ⁷	2.5	2.7 3.6	23.4	4.5 6.0	-0.6	0.5 -0.4	8.3	8.0	7.5	...	...	...
Morocco	3.8	4.4 4.2	0.9	1.2 1.8	-1.2	-2.3 -2.6	13.3	13.1	12.7	...	...	...
Uzbekistan	6.5	6.8 6.0	9.6	9.1 7.3	-5.0	-2.4 -4.6	5.5	5.0	4.5	...	...	...
Tunisia	1.6	2.5 2.1	7.0	5.9 6.1	-1.7	-3.1 -3.3	...	...	...	...	...	...
Sudan ⁷	-23.4	3.2 9.5	185.7	87.2 54.6	-3.3	-3.1 -7.7	60.8	60.6	58.0	...	...	...
Jordan	2.5	2.7 2.9	1.6	2.2 2.6	-5.9	-5.5 -5.9	...	...	...	...	...	...
Georgia	9.4	7.2 5.3	1.1	3.9 3.4	-4.4	-4.5 -4.6	13.9	13.9	13.9	...	...	...
Armenia	5.9	4.8 4.9	0.4	3.3 2.8	-4.6	-4.7 -4.7	13.9	13.5	13.3	...	...	...
Tajikistan	8.4	7.5 5.5	3.5	3.8 4.5	6.2	3.4 -0.4	...	...	...	...	...	...
Kyrgyz Republic	9.0	8.0 5.3	5.0	8.0 6.9	-25.3	-8.4 -7.7	4.0	4.0	4.0	...	...	...
Mauritania	6.3	4.0 4.3	2.5	2.5 3.5	-9.4	-7.2 -7.1	...	...	...	...	...	...
West Bank and Gaza ⁷	-26.6	...	53.7	...	-21.1	...	...	...	...	...	...	...
<i>Memorandum</i>												
Caucasus and Central Asia	5.5	5.6 4.7	6.7	8.6 8.0	-1.4	-2.0 -3.0	...	...	...	...	...	...
Middle East, North Africa, Afghanistan, and Pakistan ⁶	2.1	3.2 3.7	15.2	11.2 9.8	2.9	1.6 1.2	...	...	...	...	...	...
Middle East and North Africa	2.1	3.3 3.7	14.2	12.2 10.3	3.2	1.7 1.3	...	...	...	...	...	...
Israel ⁸	1.0	2.5 3.9	3.1	3.2 2.2	2.8	2.8 3.0	3.0	2.9	3.2	...	...	...

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 Libya and Yemen. Yemen does not currently export oil due to the internal conflict.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 Pakistan, 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		
	2024	Projections		2024	Projections		2024	Projections		2024	Projections	
		2025	2026		2025	2026		2025	2026		2025	2026
Sub-Saharan Africa	4.1	4.1	4.4	20.3	13.1	10.9	-1.5	-1.7	-1.8	...	...	...
Oil Exporters⁴	3.9	3.6	3.9	29.1	21.7	19.8	5.3	3.3	1.9	...	...	...
Nigeria ⁵	4.1	3.9	4.2	31.4	23.0	22.0	6.8	5.7	3.6	...	...	...
Angola	4.4	2.1	2.1	28.2	21.6	16.3	5.4	0.9	0.5	...	...	...
Gabon	3.4	1.9	2.6	1.2	1.4	2.5	4.0	1.8	-0.3	...	...	...
Chad	3.5	3.3	3.6	5.1	4.0	3.6	1.0	-2.3	-2.9	...	...	...
Equatorial Guinea	0.9	-1.6	0.5	3.4	2.9	2.9	-3.3	-3.0	-3.8	...	...	...
Middle-Income Countries⁶	3.1	3.3	3.5	6.3	5.0	4.5	-2.2	-1.9	-1.9	...	...	...
South Africa	0.5	1.1	1.2	4.4	3.4	3.7	-0.7	-0.9	-1.2	32.6	32.7	32.7
Kenya	4.7	4.8	4.9	4.5	4.0	5.2	-2.3	-2.8	-3.4	...	...	...
Ghana	5.7	4.0	4.8	22.9	16.6	9.9	1.1	1.8	1.7	...	...	...
Côte d'Ivoire	6.0	6.4	6.4	3.4	1.0	1.5	-4.2	-2.1	-1.7	...	...	...
Cameroon	3.5	3.8	4.1	4.5	3.7	3.3	-3.1	-3.4	-3.9	...	...	...
Senegal	6.4	6.0	3.0	0.8	2.0	2.0	-12.5	-8.0	-5.4	...	...	...
Zambia	4.0	5.8	6.4	15.0	14.2	9.2	-2.6	1.3	2.7	...	...	...
Low-Income Countries⁷	6.0	5.9	6.2	28.1	12.1	7.2	-5.3	-5.3	-4.4	...	...	...
Ethiopia	8.1	7.2	7.1	21.0	13.0	9.4	-4.2	-2.9	-2.6	...	...	...
Tanzania	5.5	6.0	6.3	3.1	3.3	3.5	-2.6	-2.6	-2.7	...	...	...
Democratic Republic of the Congo	6.5	5.3	5.3	17.7	8.8	7.1	-3.9	-3.3	-2.1	...	...	...
Uganda	6.3	6.4	7.6	3.3	3.8	4.3	-7.5	-5.0	-3.7	...	...	...
Mali	4.7	5.0	5.4	3.2	3.5	2.0	-4.6	-4.6	-2.6	...	...	...
Burkina Faso	4.8	4.0	4.8	4.2	1.3	2.4	-5.7	-1.6	-1.3	...	...	...

Source: IMF staff estimates.

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

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 See the country-specific note for Nigeria in the "Country Notes" section of the Statistical Appendix.⁶ Includes Benin, Botswana, Cabo Verde, the Comoros, Eswatini, Lesotho, Mauritius, Namibia, São Tomé and Príncipe, and Seychelles.⁷ 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 2021 international dollars at purchasing power parity)

	Average									Projections	
	2007-16	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
World	2.0	2.5	2.5	1.8	-3.9	5.7	2.8	2.4	2.3	2.7	2.2
Advanced Economies	0.8	2.2	1.9	1.5	-4.4	5.9	2.4	0.9	1.2	1.2	1.4
United States	0.7	1.8	2.4	2.1	-2.9	5.8	2.0	2.1	1.9	1.5	1.8
Euro Area ¹	0.4	2.5	1.6	1.4	-6.3	6.5	3.3	-0.1	0.6	0.8	0.9
Germany	1.2	2.6	1.0	0.9	-4.0	4.1	1.1	-1.8	-0.8	0.0	0.8
France	0.3	2.0	1.3	1.7	-7.9	6.4	2.3	1.3	0.8	0.4	0.6
Italy	-0.9	1.8	1.0	0.6	-8.6	9.7	5.2	0.8	0.8	0.6	0.9
Spain	0.0	2.6	1.8	1.1	-11.1	6.5	5.0	1.3	2.5	1.6	0.8
Japan	0.5	1.8	0.8	-0.2	-3.9	3.0	1.3	1.7	0.6	1.6	1.2
United Kingdom	0.4	2.0	0.8	1.1	-10.7	8.7	4.0	-0.6	-0.3	0.4	0.5
Canada	0.4	1.8	1.3	0.4	-6.1	5.3	2.5	-1.3	-1.3	0.1	1.6
Other Advanced Economies ²	1.9	2.5	2.1	1.3	-2.1	5.9	1.9	0.6	1.7	1.3	1.5
Emerging Market and Developing Economies	3.6	3.2	3.3	2.5	-3.2	5.9	3.2	3.6	3.2	3.7	3.0
Emerging and Developing Asia	6.5	5.6	5.6	4.5	-1.4	7.1	4.1	5.5	4.7	4.7	4.2
China	8.4	6.3	6.4	5.7	2.2	8.5	3.2	5.5	5.1	5.0	4.4
India ³	5.3	5.6	5.3	2.8	-6.7	8.8	6.8	8.2	5.6	5.7	5.2
Emerging and Developing Europe	2.1	3.7	3.5	2.4	-1.9	7.6	1.9	3.8	3.8	2.1	2.2
Russia	1.5	1.6	2.7	2.1	-2.5	6.2	-1.1	4.4	4.5	1.0	1.3
Latin America and the Caribbean	1.2	0.3	0.2	-0.9	-8.0	6.6	3.6	1.6	1.6	1.7	1.6
Brazil	1.2	0.7	1.1	0.6	-3.9	4.3	2.6	2.8	3.0	2.0	1.6
Mexico	0.2	0.9	1.0	-1.3	-9.1	5.4	2.9	2.4	0.6	0.2	0.8
Middle East and Central Asia	1.5	0.0	0.7	0.3	-4.5	2.9	4.1	0.4	0.5	6.0	2.0
Saudi Arabia	0.4	1.1	5.9	2.1	-8.3	9.2	7.2	-4.0	-2.6	2.0	1.9
Sub-Saharan Africa	1.8	0.0	0.5	0.4	-5.7	1.2	1.9	1.2	1.5	1.6	1.8
Nigeria	2.7	-1.6	-0.4	0.0	-8.3	-1.0	2.2	1.2	1.9	1.8	2.1
South Africa	0.6	-0.3	0.0	-1.3	-7.5	3.8	0.9	-0.5	-0.8	-0.3	-0.3
<i>Memorandum</i>											
European Union	0.7	2.9	2.1	1.8	-5.7	6.7	3.5	0.0	0.8	1.2	1.3
ASEAN-5 ⁴	3.6	4.0	3.8	3.2	-5.5	3.3	4.6	3.1	3.6	3.2	3.2
Middle East and North Africa	1.2	-0.6	0.2	-0.1	-4.7	3.0	4.4	0.4	-0.1	1.4	1.9
Emerging Market and Middle-Income Economies	3.9	3.6	3.7	2.7	-2.9	6.6	3.5	4.0	3.6	3.5	3.3
Low-Income Developing Countries	2.8	1.7	2.0	2.3	-3.9	1.2	2.6	1.8	1.7	3.9	2.7

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 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.

References

- Acalin, Julien, Virginia Alonso, Clara Arroyo, W. Raphael Lam, Leonardo Martinez, Anh Dinh Minh Nguyen, Francisco Roch, Galen Sher, and Alexandra Solovyeva. Forthcoming. "Fiscal Guardrails against High Debt and Looming Spending Pressures." IMF Staff Discussion Note, International Monetary Fund, Washington, DC.
- Ahir, Hites, Nicholas Bloom, and Davide Furceri. 2022. "The World Uncertainty Index." NBER Working Paper 29763, National Bureau of Economic Research, Cambridge, MA.
- Andrle, Michal, and Benjamin L. Hunt. 2020. "Model-Based Globally-Consistent Risk Assessment." IMF Working Paper 20/064, International Monetary Fund, Washington, DC.
- Aoki, Kosuke. 2001. "Optimal Monetary Policy Responses to Relative-Price Changes." *Journal of Monetary Economics* 48 (1): 55–80.
- Bank of England (BOE). 2019. *Monetary Policy Report*, Section 4. London.
- Bansal, Ravi and Amir Yaron. 2004. "Risks for the Long Run: A Potential Resolution of Asset Pricing Puzzles." *Journal of Finance* 59(4): 1481–1509.
- Baqee, David, and Emmanuel Farhi. 2019. "The Macroeconomic Impact of Microeconomic Shocks: Beyond Hulten's Theorem." *Econometrica* 87 (4): 1155–203.
- Bauer, R. Andrew, Renee Haltom, and Matthew Martin. 2025. "Why Businesses Say Tariffs Have a Delayed Effect on Inflation." *Regional Matters* (blog), Federal Reserve Bank of Richmond, August 8.
- Bernanke, Ben. 1983. "Irreversibility, Uncertainty, and Cyclical Investment." *Quarterly Journal of Economics* 98 (1): 85–106.
- Bernanke, Ben. 2024. "Forecasting for Monetary Policy Making and Communication at the Bank of England: A Review." Bank of England, London.
- Bigio, Saki, and Jennifer La'O. 2020. "Distortions in Production Networks." *Quarterly Journal of Economics* 135 (4): 2187–253.
- Binder, Carola Conces. 2021. "Political Pressure on Central Banks." *Journal of Money, Credit and Banking* 53 (4): 715–44.
- Boz, Emine, Camila Casas, Federico Diez, Gita Gopinath, Pierre-Olivier Gourinchas, and Mikkel Plagborg-Møller. 2020. "Dominant Currency Paradigm." *American Economic Review* 110 (3): 677–719.
- Caldara, Dario, Matteo Iacoviello, Patrick Molligo, Andrea Prestipino, and Andrea Raffo. 2020. "The Economic Effects of Trade Policy Uncertainty." *Journal of Monetary Economics* 109: 38–59.
- Cavallo, Alberto, Paola Llamas, and Franco Vazquez. 2025. "Tracking the Short-Run Price Impact of U.S. Tariffs." Harvard Business School Working Paper, Cambridge, MA.
- Cerutti, Eugenio M., Antonio Garcia Pascual, Yosuke Kido, Longji Li, Giovanni Melina, Marina Mendes Tavares, and Philippe Wingender. 2025. "The Global Impact of AI: Mind the Gap." IMF Working Paper 25/76, International Monetary Fund, Washington, DC.
- Chabert, Guillaume, and Robert Powell. 2025. "Poorest Countries and Fragile States Are Increasingly Falling Behind." *IMF Blog*, June 26.
- Choi, Sangyup, Davide Furceri, Prakash Loungani, Saurabh Mishra, and Marcos Poplawski-Ribeiro. 2018. "Oil Prices and Inflation Dynamics: Evidence from Advanced and Developing Economies." *Journal of International Money and Finance* 82 (April): 71–96.
- Davis, Steven J. 2016. "An Index of Global Economic Policy Uncertainty." NBER Working Paper 22740, National Bureau of Economic Research, Cambridge, MA.
- Di Pace, Federico, Luciana Juvenal, and Ivan Petrella. 2025. "Terms-of-Trade Shocks Are Not All Alike." *American Economic Journal: Macroeconomics* 17 (2): 24–64.
- Domar, Evsey D. 1961. "On the Measurement of Technological Change." *Economic Journal* 71 (284): 709–29.
- Drechsel, Thomas. 2025. "Political Pressure on the Fed." University of Maryland, College Park, MD.
- Drechsel, Thomas, and Silvana Tenreyro. 2018. "Commodity Booms and Busts in Emerging Economies." *Journal of International Economics* 112: 200–18.
- Duzhak, Evgeniya, and Addie New-Schmidt. 2025. "Updated Estimates of Net International Migration." *SF Fed Blog*, July 17.
- Edelberg, Wendy, Stan Veuger, and Tara Watson. 2025. "Immigration Policy and Its Macroeconomic Effects in the Second Trump Administration." *AEI Economic Perspectives*, July 2.
- Fajgelbaum, Pablo, Pinelopi Goldberg, Patrick Kennedy, Amit Khandelwal, and Daria Taglioni. 2024. "The US China Trade War and Global Reallocations." *American Economic Review: Insights* 6 (2): 295–312.
- Francois, John Nana, Nazneen Ahmad, Andrew Keinsley, and Akwasi Nti-Addae. 2022. "Heterogeneity in the Long-Run Remittance-Output Relationship: Theory and New Evidence." *Economic Modelling* 110: 105793.
- Freund, Caroline, Aaditya Mattoo, Alen Mulabdic, and Michele Ruta. 2024. "Is US Trade Policy Reshaping Global Supply Chains?" *Journal of International Economics*, 152: 104007.
- Furceri, Davide, Carlos Goncalves, and Hongchi Li. 2025. "The Impact of Debt and Deficits on Long-Term Interest Rates in the US." IMF Working Paper 25/142, International Monetary Fund, Washington, DC.
- Ghironi, Fabio, and Galip Kemal Ozhan. Forthcoming. "Interest Rate Uncertainty as a Policy Tool?" *Journal of International Economics*.
- Gomez-Gonzalez, Patricia, Maximiliano Jerez-Osses, Vida Maver, Jorge Miranda-Pinto, and Jean-Marc Natal. 2025. "Commodity-Driven Macroeconomic Fluctuations: Does Size Matter?" IMF Working Paper 25/208, International Monetary Fund, Washington, DC.
- Gopinath, Gita. 2023. "Harnessing AI for Global Good." *Finance & Development* 60(4).
- Gopinath, Gita, Pierre-Olivier Gourinchas, Andrea F. Presbitero, and Petia Topalova. 2025. "Changing Global Linkages: A New Cold War?" *Journal of International Economics* 153(C).

- Graziano, Alejandro G., Monika Sztajerowska, and Christian Volpe Martincus. 2024. "Trading Places: How Trade Policy Is Reshaping Multinational Firms' Location." CESifo Working Paper Series.
- Huckstep, Sam, Laura Granito, Sara Casadevall Bellés, and Lee Crawford. 2025. "Charting the Fallout of Aid Cuts: Which Countries Will Be Hit Hardest, as Multiple Donors Cut Budgets?" Center for Global Development, June 12.
- Hyun, Daniel, and Jacky Lee. 2023. "Variations in Pass-Through from Global Agricultural Commodity Prices to Domestic Food Inflation." Bank of Canada Staff Discussion Paper 2023-24, Ottawa.
- International Labour Organization (ILO). 2025. "Global Estimates on International Migrants in the Labour Force." Geneva.
- International Monetary Fund (IMF). 2025a. "Debt Vulnerabilities and Financing Challenges in Emerging Markets and Developing Economies—An Overview of Key Data." IMF Policy Paper 25/002, International Monetary Fund, Washington, DC. <https://doi.org/10.5089/9798229002264.007>.
- International Monetary Fund (IMF). 2025b. "The 4th Financing for Development Conference—Contribution of the IMF to the International Financing for Development Agenda." IMF Policy Paper 25/022, International Monetary Fund, Washington, DC. <https://doi.org/10.5089/9798229013208.007>.
- Jeanne, Olivier, and Jeongwon Son. 2024. "To What Extent Are Tariffs Offset by Exchange Rates?" *Journal of International Money and Finance* 142: 103015.
- Jordà, Oscar. 2005. "Estimation and Inference of Impulse Responses by Local Projections." *American Economic Review* 95 (1): 161–82.
- Kohn, David, Fernando Leibovici, and Hakon Tretvoll. 2021. "Trade in Commodities and Business Cycle Volatility." *American Economic Journal: Macroeconomics* 13 (3): 173–208.
- Leeper, Eric Michael. 2023. "Fiscal Dominance: How Worried Should We Be?" Mercatus Policy Brief Series. <http://dx.doi.org/10.2139/ssrn.4665190>.
- Londono, Juan M., Sai Ma, and Beth Anne Wilson. 2025. "Costs of Rising Uncertainty." *FEDS Notes*, April 24. <https://doi.org/10.17016/2380-7172.3779>.
- Mayda, Anna Maria, and Giovanni Peri. 2025. "Immigration and Border Policies." In *The Economic Consequences of the Second Trump Administration: A Preliminary Assessment*, edited by Gary Gensler, Simon Johnson, Ugo Panizza, and Beatrice Weder di Mauro, Chapter 6. Paris: Centre for Economic Policy Research.
- Miranda-Pinto, Jorge, Andrea Pescatori, Martin Stuermer, and Xueliang Wang. 2024. "Beyond Energy: The Inflationary Effects of Metal Price Shocks in Production Networks." IMF Working Paper 24/215, International Monetary Fund, Washington, DC.
- Müller, Karsten, Chenxi Xu, Mohamed Lehibib, and Ziliang Chen. 2025. "The Global Macro Database: A New International Macroeconomic Dataset." NBER Working Paper 33714, National Bureau of Economic Research, Cambridge, MA.
- Mundell, Robert Alexander, 1960. "The Pure Theory of International Trade." *American Economic Review* 50 (1): 67–110.
- Nikolova, Milena, and Carol Graham. 2014. "Employment, Late-Life Work, Retirement, and Well-Being in Europe and the United States." *IZA Journal of European Labor Studies* 3 (1): 5.
- Organisation for Economic Co-operation and Development (OECD). 2025. "Cuts in Official Development Assistance: OECD Projections for 2025 and the Near Term." OECD Policy Briefs, Paris. <https://doi.org/10.1787/8c530629-en>.
- Pastén, Ernesto, and Ricardo Reis. 2021. "Independence, Credibility, and Communication of Central Banking." Banco Central de Chile, Santiago.
- Qiu, Zhesheng, Yicheng Wang, Le Xu, and Francesco Zanetti. 2025. "Monetary Policy in Open Economies with Production Networks." CESifo Working Paper, Munich.
- Romero, Damian. 2025. "Domestic Linkages and the Transmission of Commodity Price Shocks." *Journal of International Economics* 153: 104041.
- Rotunno, Lorenzo, and Michele Ruta. 2025. "Trade Partners' Responses to US Tariffs." IMF Working Paper 25/147, International Monetary Fund, Washington, DC.
- Rubbo, Elisa. 2023. "Networks, Phillips Curves, and Monetary Policy." *Econometrica* 91 (4): 1417–55.
- Schmitt-Grohé, Stephanie, and Martín Uribe. 2018. "How Important Are Terms-of-Trade Shocks?" *International Economic Review* 59 (1): 85–111.
- Silva, Alvaro. 2024. "Inflation in Disaggregated Small Open Economies." Federal Reserve Bank of Boston Research Department Working Paper 24-12, Boston, MA.
- Silva, Alvaro, Petre Caraiani, Jorge Miranda-Pinto, and Juan Olaya-Agudelo. 2024. "Commodity Prices and Production Networks in Small Open Economies." *Journal of Economic Dynamics and Control* 168: 104968.
- Woodford, Michael. 2003. "Optimal Interest-Rate Smoothing." *Review of Economic Studies* 70 (4): 861–86.

EMERGING MARKET RESILIENCE: GOOD LUCK OR GOOD POLICIES?

Emerging markets have shown remarkable resilience to risk-off shocks in recent years. While favorable external conditions—good luck—contributed to this resilience, improvements in policy frameworks—good policies—played a critical role in bolstering the capacity of emerging markets to withstand risk-off shocks. Evidence suggests that monetary policy implementation and credibility have improved, with central banks becoming less sensitive to fiscal pressures and relying less on foreign exchange interventions. Central banks also hold sway over domestic borrowing conditions, although spillovers from US monetary policy remain influential. On the fiscal side, countercyclicality and responsiveness to sustainability concerns have increased, though borrowing costs remain elevated in high-debt environments. Looking ahead, emerging markets with strong frameworks are better positioned to navigate risk-off shocks because they benefit from easier policy trade-offs and face a lower risk and severity of capital flow reversals. In contrast, countries with weak frameworks should avoid delaying monetary tightening when sustained price pressures emerge, as doing so typically results in de-anchoring of inflation expectations and larger output losses. Foreign exchange interventions provide temporary relief, but they are costly. Strong policy frameworks lessen both reliance on—and the need for—such measures. Given uneven cross-country progress and the erosion of fiscal buffers in some cases, continued efforts to strengthen policy frameworks, safeguard central bank independence, and rebuild fiscal space remain essential, as the external environment could deteriorate rapidly.

Introduction

Emerging markets have historically been vulnerable to global financial shocks, often experiencing significant economic and financial instability during periods of heightened risk aversion—commonly referred to

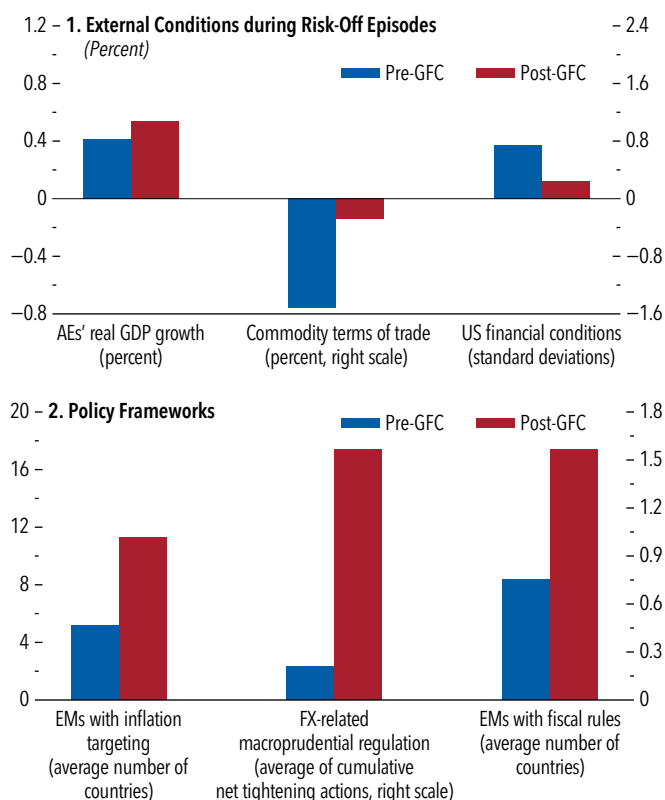
as “risk-off” episodes (Caballero and Kamber 2019; Miranda-Agrippino and Rey 2020a). These shifts in the risk appetite of global investors have typically triggered capital outflows, leading to currency depreciations that tightened financial conditions, owing to currency mismatches and increased borrowing costs (Chari, Dilts Stedman, and Lundblad 2020; Goldberg and Krogstrup 2023). As a result, risk-off shocks have been akin to supply shocks because they ultimately cause output losses and inflation surges, complicating policy trade-offs. These dynamics have defined the dilemma faced by emerging markets, which generally could not react to a shock leading to a capital outflow that depreciates the currency with monetary policy easing, because of price and financial stability concerns. Instead, policymakers often needed to tighten policies, exacerbating output losses and preventing currencies from depreciating, thereby fueling “fear of floating” (Ghosh, Ostry, and Qureshi 2017).

Recent experience marks a departure from this historical pattern, with many emerging markets displaying remarkable resilience—both in terms of financial and economic conditions—to external shocks (Hardy, Igan, and Kharroubi 2024).¹ Two hypotheses have emerged to explain this improved performance. One is simply that emerging markets got lucky: Steady growth in advanced economies, favorable terms of trade, and easier financial conditions after the global financial crisis helped mitigate external pressures (Figure 2.1, panel 1).² Emerging markets also benefited from spillovers from China’s sustained growth and its increasing integration in the global economy (Chapter 4 of the April 2024 *World Economic Outlook*). Moreover, despite rapid and sizable monetary tightening by major

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¹For a more general assessment of emerging markets’ performance in sustaining expansions and recovering from downturns, see Kose and Prasad 2010; Cerra, Panizza, and Saxena 2013; Abiad and others 2015; and Aizenman and others 2024, among others. Compared with this literature, the chapter focuses on emerging markets’ performance in response to risk-off shocks.

²This chapter uses a sample of 26 emerging markets—covering about 88 percent of GDP of emerging markets and middle-income economies—and 30 advanced economies (see Online Annex 2.1). All online annexes are available at www.imf.org/en/Publications/WEO.

Figure 2.1. Changes in External Conditions and Policy Frameworks

Sources: Cobham 2025; Federal Reserve Board; IMF, Fiscal Rules Dataset; Gruss and Kebhaj 2019; Haver Analytics; IMF, Integrated Macroprudential Policy Database; and IMF staff calculations.

Note: Risk-off episodes are identified using an extended version of the RORO Index of Chari, Dilts Stedman, and Lundblad (2023)—see Online Annex 2.2 for details. The FX-related macroprudential regulation metric is calculated as the cross-country average of the cumulative net tightening actions related to capital requirements for banks; limits on foreign currency lending and rules or recommendations on foreign currency loans; and limits on net or gross open FX positions, FX exposures and funding, and currency mismatch regulations. Countries are classified as inflation targeting regimes according to Cobham (2025). External conditions are calculated as the weighted change in real GDP for AEs, the commodity price-based terms of trade index for EMs, and the average of the US FCI-G index, measured six months following the start of a risk-off episode. The pre-GFC period is 1997–2009, and the post-GFC period is 2010–24. AEs = advanced economies; EMs = emerging markets; FCI-G index = Financial Conditions Impulse on Growth index; FX = foreign exchange; GFC = global financial crisis; RORO Index = Risk-On Risk-Off Index.

central banks, the postpandemic global financial environment remained broadly accommodative, allowing many emerging market sovereign and corporate bond issuers to obtain long-term financing at historically low rates (Chapter 1 of the April 2025 *Global Financial Stability Report*).³ Finally, the relatively strong US recovery after the pandemic and the soft landing

³By contrast, prior to the global financial crisis, emerging markets were more vulnerable to currency, banking, and sovereign default crises (Gourinchas and Obstfeld 2012).

following the Federal Reserve's tightening cycle likely further dampened spillovers to emerging markets (Chen and Tillmann 2025).

Another, yet complementary, explanation is the “good policies” argument. This attributes resilience to adverse shifts in investor sentiment to changes in emerging markets' monetary, macroprudential, and fiscal frameworks (Figure 2.1, panel 2). While different frameworks and exchange rate regimes may be appropriate according to country circumstances, the adoption of inflation targeting and greater exchange rate flexibility has enhanced emerging markets' capacity to absorb external shocks (Obstfeld, Ostry, and Qureshi 2019) and stabilize macroeconomic conditions. As monetary policy frameworks matured, long-term inflation expectations became better anchored, reducing the pass-through of currency depreciation to domestic prices and the persistence of inflation (Campa and Goldberg 2005; Bems and others 2021; Carrière-Swallow and others 2021). Meanwhile, tighter macroprudential policies contributed to reducing foreign exchange mismatches, allowing countries to move away from “original sin” (currency mismatch) and facilitating more countercyclical monetary responses to external shocks (Bergant and others 2024).⁴ And enhanced fiscal credibility—through, for example, the implementation of fiscal rules—lessened fiscal dominance concerns and supported a trend toward de-dollarization of debt, containing sovereign risk premiums (Gomez-Gonzalez, Valencia, and Sánchez 2022; Apeti and others 2024). Stronger policy frameworks enabled better policies while also providing access to IMF precautionary instruments, which helped countries navigate recent shocks by containing capital outflows and limiting the rise in borrowing costs (Box 2.1).⁵

⁴Improvements in governance and institutional capacity, particularly in debt management, have also contributed to greater resilience, supporting domestic borrowing at longer maturities and fostering the development of deeper local currency bond markets. An increase in the share of local currency debt and in domestic investors' participation in emerging markets with strong policy frameworks have reduced the risks stemming from both “original sin” (currency mismatch) and “original sin redux” (nonresident outflows)—see Chapter 3 of the April 2025 *Global Financial Stability Report*. Similarly, evidence suggests that advances in foreign exchange hedging instruments in some emerging markets have improved the currency composition of sovereign balance sheets (Alfaro, Calani, and Varela 2021) and enhanced monetary policy transmission (Erel and others 2023; Liang, Sampaio, and Sarkisyan 2024).

⁵Das, Gopinath, and Kalemli-Özcan (2022) show that preemptive capital flow measures can also lower external finance premiums in the aftermath of risk-off shocks, enabling countries' continued access to international capital markets during troubled times.

The severity of the COVID-19 shock and the postpandemic inflation surge put policy frameworks to the test. Many central banks in emerging markets—especially those with stronger policy frameworks—responded to postpandemic inflation with swifter and more forceful monetary tightening than in previous cycles and, in many cases, earlier than their advanced economy counterparts, pointing to increased monetary policy autonomy. In some cases, unconventional monetary policy tools were also deployed (Acosta-Henao and others 2024; Chapter 4 of the April 2021 *World Economic Outlook*) without causing notable movements in exchange rates and capital flows. While concerns about capital outflows and currency stability remained relevant, policy decisions were more clearly driven by domestic inflation considerations than in the past, when tightening was often motivated by the need to defend exchange rates.⁶ In some cases, foreign exchange reserves were also deployed to counter excessive currency pressures, yet reserve buffers have remained at historically robust levels (Adrian, Natalucci, and Wu 2024). The picture is more nuanced, however, when it comes to fiscal policies. The fiscal stance in emerging markets—measured as the primary-balance-to-GDP ratio—has been relatively restrained, marking a notable shift from past crises, when consolidation was often delayed. However, the presence of fiscal rules did not guarantee improvements in policy implementation—as unwarranted deviations from fiscal rules are common (Alonso and others, forthcoming)—leading to the buildup of debt vulnerabilities, especially in Latin America (see the October 2024 *Regional Economic Outlook* for the Western Hemisphere). Similarly, although domestic investors have increased their participation in local currency debt markets, financial stability risks are still salient, especially in countries with weaker policy frameworks (Chapter 3 of the October 2025 *Global Financial Stability Report*).

This chapter takes stock of emerging market performance in output and inflation stabilization during risk-off episodes over almost three decades. It examines the evolution of monetary, macroprudential, and fiscal policy frameworks along different dimensions, and it quantifies the gains from improved policy trade-offs. The analysis seeks to determine the extent to which emerging market resilience is structural and sustainable—rooted in enhanced policy frameworks—or the result of favorable, yet changing, external

conditions. As emerging markets prepare for a potentially more challenging global financial landscape (see Chapter 1), a clearer understanding of these underlying drivers is crucial for designing future policy strategies to mitigate risks.

To achieve these objectives, the chapter addresses the following questions:

- *How did emerging markets fare during risk-off episodes?* How have emerging markets performed during risk-off shocks? Have they been more resilient during recent episodes, both according to real and financial indicators, compared with earlier ones?
- *How have policy frameworks evolved in emerging markets?* Has the conduct of monetary policy shifted from a focus on exchange rates and inflation toward addressing domestic demand shortfalls as a result of better-anchored inflation expectations? Has monetary policy become more credible? Does monetary policy steer domestic financial conditions or do these remain driven largely by US monetary policy? Have improved frameworks reduced the need for foreign exchange interventions? Has fiscal policy become more countercyclical? Have fiscal frameworks gained credibility and strengthened debt sustainability?
- *To what extent can recent emerging market resilience be attributed to good luck (that is, benign external conditions) instead of good policies?* How large is the contribution of improved policy frameworks to the better output and inflation performance of these economies during risk-off episodes? How does it compare with the contribution of external factors?
- *How should emerging markets deal with future risk-off shocks?* What gains in policy trade-offs do improved policy frameworks accrue? What is the appropriate mix and timing of policy responses for countries with weaker policy frameworks during episodes of global financial stress?

To answer these questions, the chapter first compiles stylized facts about the performance of emerging markets during risk-off episodes and contrasts this performance before and after the global financial crisis.⁷ It then sheds light on the improvements in policy

⁶Concerns about capital flight in the postpandemic period may have been lessened by the synchronized nature of the inflation surge.

⁷The choice of the global financial crisis as the date to split the sample is driven by data considerations. Since for many countries in the sample data coverage begins in the early 2000s, the global financial crisis allows for an equal number of risk-off episodes in the two subperiods. However, this does not imply that the crisis represents a structural break in emerging markets' performance in response to risk-off shocks. Rather, improvements in the policy framework are understood to have evolved gradually over time.

frameworks by moving beyond the de jure definition and focusing on their implementation, credibility, and outcomes. Finally, the chapter uses a quantitative version of the IMF's Integrated Policy Framework (IPF) to show how these improvements are reflected in better policy trade-offs and explores appropriate policy responses, depending on country-specific characteristics.

The chapter's main findings are as follows:

- *Emerging markets have historically been vulnerable to global risk-off events, but recent evidence points to increased resilience.* While the magnitude and duration of risk-off shocks have not meaningfully changed—nor have the underlying financial factors leading to these shocks—most emerging markets have displayed a remarkable degree of resilience to these episodes since the global financial crisis, experiencing smaller output contractions and negligible inflationary pressures.
- *The implementation and credibility of monetary policy have gradually improved over time, with emerging markets equipped with strong policy frameworks relying less on foreign exchange interventions.* In general, central banks in emerging markets have increasingly focused on output stabilization rather than exchange rate management, reflecting better-anchored inflation expectations. Financial markets' expectations also align more closely with actual policy decisions, signaling improved credibility. At the same time, emerging markets with better-anchored inflation expectations intervene less in foreign exchange markets in response to risk-off episodes, as the exchange rate pass-through tends to be lower and fear of floating is reduced. Similarly, more stringent macroprudential regulation limits the share of foreign currency debt, mitigating financial stability concerns and reducing the need for foreign exchange interventions.⁸
- *Central banks are less sensitive to fiscal pressures and retain traction over domestic borrowing conditions.* Before the global financial crisis, higher government spending often led to looser monetary policy and rising inflation expectations, but postcrisis spending shocks have been met with rate hikes, and long-term inflation expectations have remained anchored, as central banks have become more independent. Domestic monetary policy shocks transmit

effectively to short-term yields; however, US monetary policy still influences longer-term yields and riskier asset classes.

- *Emerging markets have made significant strides in implementing more effective fiscal policies, but borrowing costs remain sensitive to high debt levels.* Compared with the period before the global financial crisis, stronger fiscal frameworks have allowed fiscal policy to react more to slack—helping stabilize output during global downturns—and to debt sustainability pressures, improving countries' ability to stabilize debt, although sovereign spreads remain sensitive to debt burdens.
- *The resilience to risk-off shocks observed in recent years not only reflects benign external conditions, but it is also rooted in improved policy frameworks.* Comparing typical risk-off episodes after the global financial crisis with those before, the analysis estimates that improved policy frameworks accounted for 0.5 percentage point higher growth and 0.6 percentage point lower inflation. In contrast, favorable external conditions supported faster growth, contributing another 0.5 percentage point, but did not ease inflationary pressures.
- *Dilemma or trilemma?* Resilience to risk-off episodes, the diminished need for foreign exchange interventions in the presence of strong policy frameworks, and evidence of autonomy of domestic monetary policy are suggestive of a progressive transition toward a world that, while unequal across countries, appears to be characterized by the trilemma of the classic Mundell-Fleming framework and less by the dilemma described in Rey (2015), in which monetary policy independence is limited unless capital controls are used.

The chapter offers some policy recommendations to deal with future risk-off shocks:

- *Looking forward, efforts to strengthen policy frameworks should be sustained, as these enhance emerging markets' ability to withstand risk-off shocks by easing policy trade-offs and reducing the likelihood of sudden stops.* Model simulations suggest that strong policy frameworks reduce the extent of monetary policy tightening required to contain inflation, allowing a shift in focus toward output stabilization. In response to a 10 percent nominal exchange rate depreciation triggered by a risk-off shock, economies with strong policy frameworks—as in the period after the global financial crisis—experience 85 percent smaller output contractions in the

⁸Consistent with this development, the use of capital flow management measures also declined. For a broader discussion, see Bergant and others (forthcoming).

following year than economies with weak policy frameworks, as in the period before the crisis. In addition, improved balance sheets cut in half the risk of sudden stops—abrupt reversals of capital inflows into an economy—and reduce their severity.

- *Emerging markets with weak policy frameworks should avoid delaying monetary tightening.* Faced with risk-off and persistent cost-push shocks—as in the postpandemic environment—emerging markets with weak frameworks that hesitate to tighten the monetary stance encounter steeper costs later. In response to a 10 percent nominal exchange rate depreciation and a 0.5 percentage point increase in inflation, policy rates need to rise by as much as 1.4 percentage points more than in comparable emerging markets that follow a standard Taylor rule to eventually bring inflation back to target, resulting in output contractions that are 0.7 percentage point larger five quarters after the shocks.
- *Foreign exchange interventions help contain inflation and limit output losses associated with monetary tightening in countries with weak policy frameworks, but they are needed less when policy frameworks are strong.* In emerging markets with weak frameworks, foreign exchange interventions help contain the exchange rate depreciation triggered by the risk-off shock and reduce the need for rate hikes, ultimately lowering output losses by 0.9 percentage point two years after the shock compared with a no-intervention scenario. However, the benefits of foreign exchange interventions are marginal in countries with strong frameworks, where inflation expectations are already well anchored and the exchange rate supports net exports. These results validate the notion that foreign exchange interventions are a useful policy tool, but not a substitute for improved policy frameworks. In countries with strong policy frameworks, foreign exchange interventions become less relevant, repositioning policymakers in the trilemma, a world where they can opt for a flexible exchange rate and an independent monetary policy.

Despite significant progress, emerging markets' resilience will continue to be tested. While policy frameworks have strengthened, risks lie ahead: External conditions can quickly deteriorate, fiscal space is limited by high debt following recent global shocks, and policy backsliding undermines hard-won credibility. As improvements have been uneven across countries, maintaining and building on these gains will require a steadfast commitment to improving frameworks,

including by safeguarding central bank independence when inflation is low and fiscal pressures mount.

Emerging Market Resilience to Risk-Off Episodes

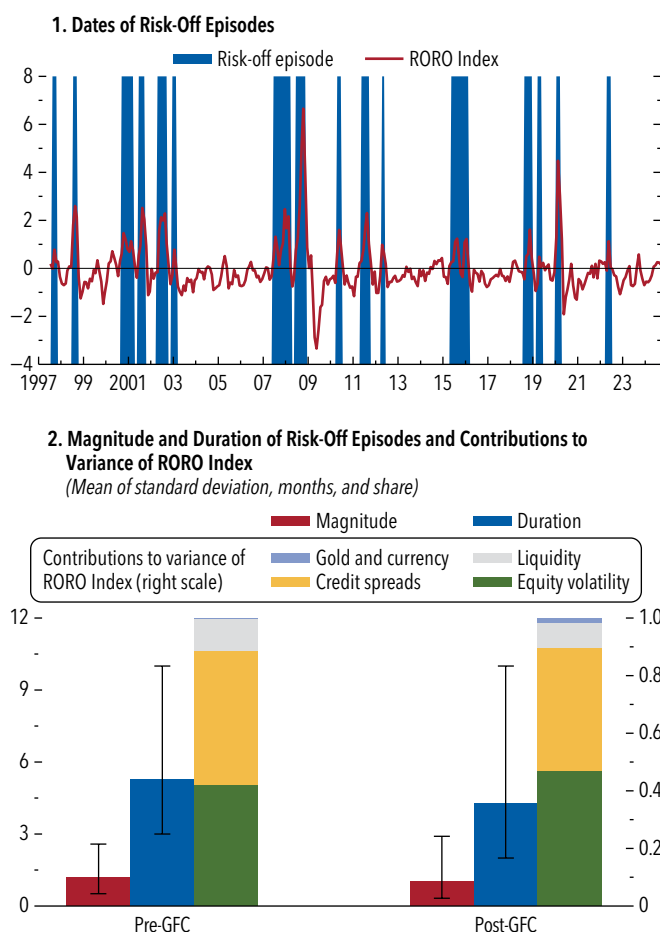
The global search for yield can generate destabilizing outcomes in emerging markets when risk appetite declines, leading to capital flight (Hofmann, Shim, and Shin 2016; Chari, Dilts Stedman, and Lundblad 2021, 2022). The sophistication of international capital markets results in a multitude of factors that can affect risk appetite. The Risk-On Risk-Off (RORO) Index of Chari, Dilts Stedman, and Lundblad (2023) is a multifaceted measure of these factors—encompassing equity volatility risks, credit risks, liquidity risks, and currency risks—that describes investors' willingness to take on, retain, or offload risky assets in advanced economies.

This chapter extends the original index starting in 1997 up to the end of 2024 and deploys an algorithm-based approach to date risk-off episodes.⁹ The 16 risk-off episodes identified by the algorithm are evenly split between the period before and after the global financial crisis. They correspond to well-known events, including the dot-com crash, the global financial crisis, the European sovereign debt crisis, and the COVID-19 pandemic (Figure 2.2, panel 1).¹⁰

On average, episodes before and after the global financial crisis are broadly comparable. The average risk-off episode registered an increase of about one standard deviation and lasted about five months in both periods (Figure 2.2, panel 2). The largest episodes were the global financial crisis itself and the pandemic; the longest were the subprime crisis starting in June 2007 and the global growth scare starting in May 2015 (both lasted 10 months). Moreover, an analysis of the proportion of the RORO's variation explained by each

⁹See Online Annex 2.2 for details about the algorithm used to date the episodes. Applying the algorithm to other indices of shifts in global risk aversion (for example, Bekaert, Engstrom, and Xu 2022) yields similar results.

¹⁰Similar to other risk-off episodes, the COVID-19 pandemic was characterized by heightened volatility and a widespread sell-off of risky assets. However, supply-side disruptions coupled with the outside policy response made the episode somewhat atypical. The 2013 taper tantrum is not identified as a risk-off episode because financial variables in advanced economies that feed into the RORO Index increased only modestly. In contrast with typical risk-off episodes, US bond yields increased sharply, consistent with a shock to US monetary policy rather than to an increase in risk aversion in advanced economies (Harikrishnan, Silk, and Yoldas 2023). However, the results are robust to the exclusion of the COVID-19 episode and the inclusion of the 2013 taper tantrum.

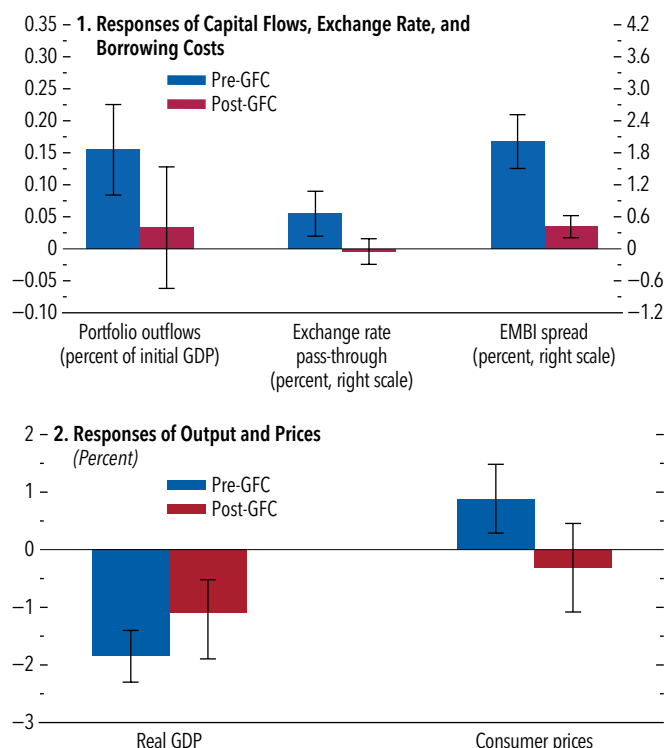
Figure 2.2. Dates and Features of Risk-Off Episodes

Sources: Bloomberg Finance L.P.; Federal Reserve Board; Haver Analytics; J.P. Morgan; and IMF staff calculations.

Note: Panel 1 shows risk-off episodes identified using an extended version of the RORO Index of Chari, Diltz Stedman, and Lundblad (2023). The figure plots the standardized three-month sum of the RORO Index—see Online Annex 2.2 for details. Panel 2 shows the magnitude and duration of risk-off episodes and the variance decomposition of the RORO Index into key contributing factors. The first two bars denote the mean of the RORO Index (in standard deviations) during risk-off episodes and the length of the episodes (in months) in the pre-GFC (1997–2009) and post-GFC (2010–24) periods. The whiskers denote the range from minimum to maximum. GFC = global financial crisis; RORO Index = Risk-On Risk-Off Index.

subcomponent indicates that—in both periods—about 45 percent of the RORO's variation during risk-off episodes is explained by credit spreads (Figure 2.2, panel 2), just above 40 percent by equity volatility, about 10 percent by liquidity risks, and the remainder by currency risks.

Comparing the responses of emerging markets' capital flows, exchange rate pass-through, and credit spreads during risk-off episodes points to an increased resilience to surges in risk aversion in the postcrisis period. Since the global financial crisis, risk-off episodes have not been accompanied by outsized portfolio

Figure 2.3. Effects of Risk-Off Shocks

Sources: Bloomberg Finance L.P.; Federal Reserve Board; Haver Analytics; J.P. Morgan; and IMF staff calculations.

Note: The bars denote the change in variables six months after the start of risk-off episodes compared with similar time windows with no risk-off episodes. The specifications control for past real GDP growth, consumer price inflation, and country fixed effects. The whiskers denote 90 percent confidence intervals. Risk-off episodes are identified using an extended version of the RORO Index of Chari, Diltz Stedman, and Lundblad (2023). The pre-GFC period is 1997–2009, and the post-GFC period is 2010–24. EMBI = J.P. Morgan Emerging Market Bond Index; GFC = global financial crisis; RORO Index = Risk-On Risk-Off Index.

outflows, the exchange rate pass-through has become muted, and the increase in sovereign spreads is about one-fifth of what it used to be before the global financial crisis (Figure 2.3, panel 1). This greater resilience is reflected in easier policy trade-offs: Six months after the start of a risk-off episode, output losses are smaller in the postcrisis period (1 percent of GDP) compared with the precrisis period (1.8 percent of GDP), while the precrisis 0.9 percent price increase disappeared after the crisis (Figure 2.3, panel 2).¹¹

¹¹Economic crises in emerging markets typically have been associated with large output costs because they often represented declines in the trend growth rather than fluctuations around a trend (Aguar and Gopinath 2007; Cerra and Saxena 2008). Replicating the exercises of Aguiar and Gopinath (2007) for 1997–2024 confirms that the business cycles of the emerging markets in the sample began to resemble more those of advanced economies after the global financial crisis, although differences remain. See Online Annex 2.8 for details.

The Evolution of Policy Frameworks in Emerging Markets

The increased resilience of emerging markets to risk-off shocks after the global financial crisis corresponds to a period with a substantially larger number of countries adopting inflation-targeting regimes and fiscal rules and tightening macroprudential regulations. However, ascribing such resilience to de jure changes in policy frameworks can be misleading as de facto policy frameworks vary substantially across countries (Levy-Yeyati and Sturzenegger 2005; Carare and Stone 2006). This section describes progress achieved in the implementation of monetary, macroprudential, and fiscal frameworks—benchmarking it to the experience of advanced economies—and quantifies the role of improved policy frameworks as opposed to changing external conditions.¹²

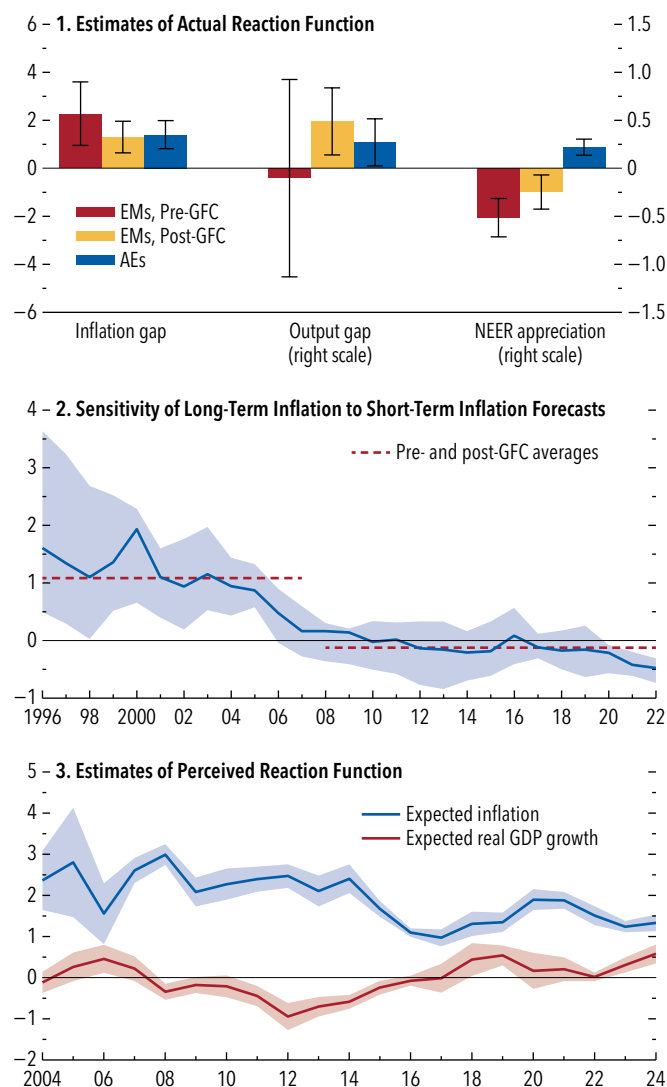
Monetary Policy

Improvements in monetary policy frameworks can be assessed in several dimensions (Box 2.2 describes the milestones in the improvements of monetary policy implementation among emerging market central banks). The chapter first studies changes in the monetary policy reaction function by estimating Taylor rule coefficients from a monthly regression that includes the deviation of one-year-ahead expected inflation from the inflation target and the real-time output gap, augmented with nominal effective exchange rate depreciation to capture fear of floating. The results show that in the postcrisis period policymakers are less concerned about exchange rate fluctuations, consistent with smaller pass-through to prices and a shift toward inflation as the economy's nominal anchor.¹³ At the same time, the weight associated with deviations of inflation expectations from the target declined, likely because of improved central bank credibility and more strongly anchored long-term inflation expectations (that is, beyond the monetary policy horizon) (Figure 2.4, panel 1). Consistent with this evidence, long-term inflation expectations became better anchored over time, as the sensitivity of three-year-ahead inflation

¹²See Online Annexes 2.3–2.5 for details on the exercises on policy frameworks.

¹³The Taylor rule coefficients are obtained from the ordinary least squares estimates of the monetary policy reaction function, in line with the discussion in Carvalho, Nechio, and Tristao (2021), see Online Annex 2.3. Estimates should be interpreted with caution, however, as the size of monetary policy shocks tends to be larger in emerging markets than in the US.

Figure 2.4. Monetary Policy Reaction Function (Percent)



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

Note: Panel 1 shows the Taylor rule coefficients from a regression of the policy rate on its lag, the deviation of one-year-ahead inflation expectations from the target, the real-time output gap, the NEER appreciation, and country and time fixed effects. Panel 2 shows the sensitivity of long-term expected inflation to short-term inflation forecasts, based on a regression of changes in the three-year-ahead inflation expectations on changes in current year forecasts, following the methodology of Chapter 4 of the October 2018 *World Economic Outlook* and Bems and others (2021). Panel 3 shows the Taylor rule coefficients from a regression of the one-year-ahead forecast of the three-month saving rate on next year inflation expectations, next year real GDP forecast, and forecaster fixed effects; the figure is plotted for years with at least 1,000 observations. The sample excludes EMs with fixed exchange rate regimes, and Argentina, Türkiye, and Ukraine. In panel 1, the bars denote the point estimates, and the whiskers denote 90 percent confidence intervals. In panel 2, the line denotes the cross-country average, and the shaded area denotes the interquartile range. In panel 3, the lines denote the point estimates, and the shaded areas denote 90 percent confidence intervals. The pre-GFC period is 1997–2009, and the post-GFC period is 2010–24. AEs = advanced economies; EMs = emerging markets; GFC = global financial crisis; NEER = nominal effective exchange rate.

forecasts to changes in one-year-ahead expected inflation declined substantially after the global financial crisis (Figure 2.4, panel 2). With better-anchored inflation expectations, central banks in emerging markets can shift attention to curbing output fluctuations. The estimates capture this desirable countercyclical bias in the postcrisis reaction function and are close to those of advanced economies (Figure 2.4, panel 1).

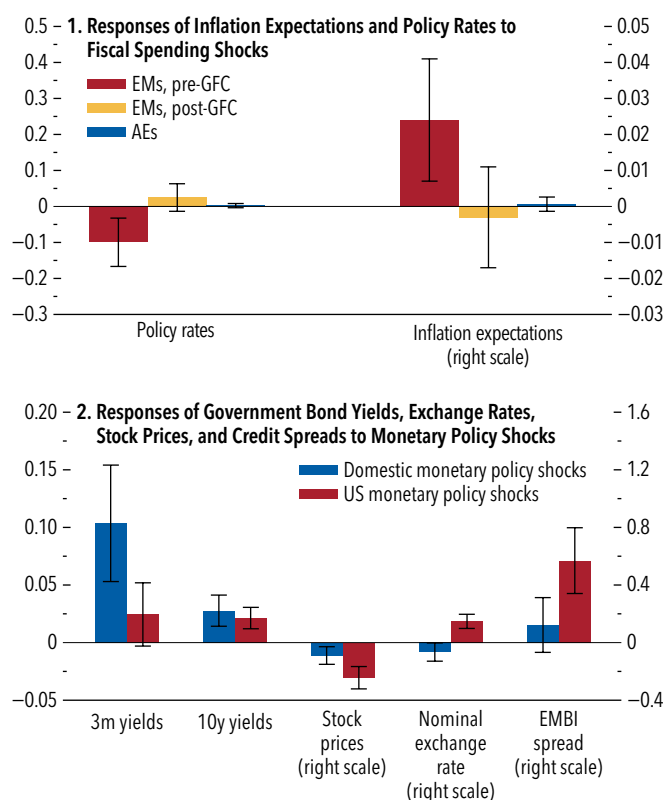
When monetary policy is credible, professional forecasters are expected to align their perceptions of the central bank's reaction function with its actual conduct. Financial markets, however, may take longer to internalize such shifts, since credibility builds over time. Survey data combining the interest rate expectations of individual forecasters with the corresponding macroeconomic projections make it possible to estimate time-varying Taylor rule coefficients (Bauer, Pflueger, and Sunderam 2024). Results show a progressive decline in the magnitude of the Taylor rule coefficient on expected inflation over time and a marginal increase in the size of the output gap coefficient, pointing to gains in monetary policy credibility (Figure 2.4, panel 3).

A crucial aspect of monetary policy frameworks is the extent of central banks' independence from fiscal pressures. (Box 2.3 shows that undermining central bank independence by removing governors for political reasons leads to currency depreciation and higher inflation.) Emerging markets have traditionally been plagued by fiscal dominance. When a central bank is not independent, the government has an incentive to rely on the central bank to finance its expenses, which, in turn, limits the monetary authority's ability to raise interest rates to control inflation, weakening inflation-expectation anchoring.¹⁴ To assess how much fiscal dominance continues to challenge central bank independence in emerging markets, the analysis examines the response of policy rates and long-term inflation expectations—beyond the monetary policy horizon—in the year after an unexpected increase in military spending (Figure 2.5, panel 1).¹⁵ The results are suggestive of fiscal dominance prior to the global

¹⁴Monetary financing is not the only channel through which governments may exert pressure on central banks. For instance, governments may also seek to ease financial conditions ahead of elections to stimulate economic activity and improve electoral prospects (Dinç 2005).

¹⁵Military spending tends to be more exogenous to economic conditions than other spending categories, but it is relatively small in some emerging markets. However, the results are broadly consistent with those obtained using primary spending in a structurally identified vector autoregression, as in Blanchard and Perotti (2002) and Ilzetzki, Mendoza, and Végh (2013).

Figure 2.5. Central Bank Independence and Autonomy (Percent)



Sources: Bloomberg; Consensus Economics; Haver Analytics; J.P. Morgan, SIPRI Military Expenditure Database; and IMF staff calculations.

Note: Panel 1 shows the coefficients of regressions of the two-year-ahead inflation expectations and next year policy rates on previous year military spending growth, controlling for lags of inflation, exchange rate, GDP growth, inflation forecasts, policy rate, government-debt-to-GDP ratio, government expenditure growth, military spending growth, and country and year fixed effects. The pre-GFC period is 1997–2009, and the post-GFC period is 2010–24. Panel 2 shows the responses of government bond yields, nominal exchange rates, stock prices, and EMBI spreads to one-standard-deviation domestic and US monetary policy shocks one day after the shock. Domestic monetary policy shocks are identified as in Checo, Grigoli, and Sandri (2024), and US monetary policy shocks are identified as in Bauer and Swanson (2023). The sample varies by country according to data availability for domestic monetary policy shocks, which for most countries cover only the post-GFC period. The bars denote the point estimates, and the whiskers denote 90 percent confidence intervals. AEs = advanced economies; EMs = emerging markets; EMBI = J.P. Morgan Emerging Market Bond Index; GFC = global financial crisis; m = month; y = year.

financial crisis, when increases in spending were followed by monetary easing and higher expected inflation. Unlike before the global financial crisis, central banks since then no longer accommodate fiscal spending, leaving long-term inflation expectations close to target, similarly to advanced economies.

Another key dimension of the implementation of monetary policy is the extent to which it retains autonomy with respect to US monetary policy actions. The literature has widely documented the powerful financial spillovers of US monetary policy to the rest of the

world (Miranda-Agrippino and Rey 2020b; Chapter 4 of the April 2021 *World Economic Outlook*). Following Grigoli, Sandri, and Schrimpf (forthcoming), the analysis in this chapter examines the impact of US and domestic monetary policy shocks on emerging market financial variables the day after a monetary policy announcement (Figure 2.5, panel 2). Domestic shocks transmit strongly to government bond yields, especially at the short end of the yield curve, indicating that monetary policy retains traction on borrowing conditions. A one-standard-deviation domestic monetary policy shock raises the three-month yield by about 10 basis points, whereas US monetary policy shocks show a considerably smaller—and not statistically significant—pass-through to domestic borrowing conditions. However, the effects on 10-year yields—whose risk premiums are more sizable—are broadly comparable. US monetary policy shocks, on the other hand, have larger effects on riskier asset classes, including stock prices, exchange rates, and credit spreads. A one-standard-deviation US monetary policy shock leads to a 24 basis point decline in stock prices, a 15 basis point exchange rate depreciation, and a 57 basis point widening of credit spreads. In contrast, a one-standard-deviation domestic monetary policy shock appreciates the currency by 7 basis points and lowers stock prices by 9 basis points.

Foreign Exchange Interventions

Emerging markets have historically exhibited fear of floating, owing to concerns over balance sheet mismatches, pass-through to inflation, and financial instability (Calvo and Reinhart 2002). Resistance to letting the exchange rate float, in turn, has hindered the development of hedging instruments and constrained the depth of domestic financial markets. As a result, many emerging markets' central banks continued to engage in substantial exchange rate management even after adopting inflation-targeting frameworks.

While there is a case for foreign exchange interventions even within an inflation-targeting regime, the benefits from deploying this policy tool diminish as policy frameworks mature and financial frictions ease (IMF 2023a).¹⁶ By leveraging cross-country variation

in the degree of anchoring of inflation expectations, the analysis shows that emerging markets with well-anchored inflation expectations intervene less in foreign exchange markets in response to uncovered interest parity deviations—differences between the change in the exchange rate and what is predicted by interest rate differentials—triggered by risk-off episodes, as the exchange rate pass-through tends to be lower (Figure 2.6, panel 1). Similarly, when macroprudential regulation effectively limits the share of foreign currency debt, financial stability concerns are reduced, and the need for foreign exchange intervention is diminished (Figure 2.6, panel 2).¹⁷ Thus, emerging markets with strong policy frameworks are more likely to allow deviations from uncovered interest parity to play out rather than counteracting them by selling foreign currency.

Fiscal Policy

This section first examines the design of fiscal rules and the predictability of public finances. The IMF's Fiscal Rule Strength Index shows a continued improvement in the legal basis, monitoring, enforcement, and flexibility of fiscal rules in emerging markets (Figure 2.7, panel 1). However, progress has been uneven, with emerging markets on average still lagging advanced economies. In particular, countries often struggle to balance the flexibility and resilience of fiscal rules against the complexity of design while ensuring that escape clauses are reserved for events beyond the control of policymakers (Eyraud and others 2018). Strong fiscal frameworks and fiscal rules can strengthen the credibility of official projections, helping to anchor private sector expectations of future fiscal policy (End and Hong 2022; End 2023). Consistent with improvements in the predictability of fiscal policy in emerging markets, professional forecasters have increasingly aligned their expectations of budget deficits with official projections (Figure 2.7, panel 2).

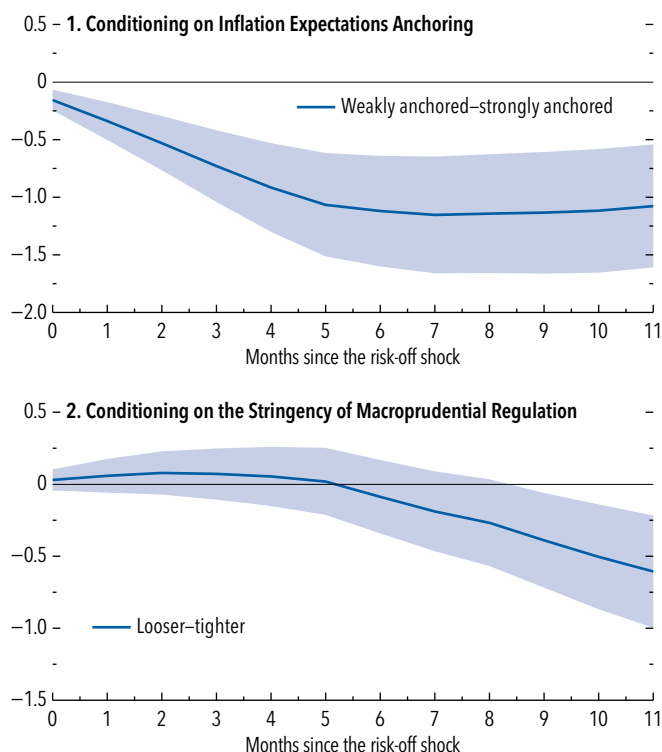
An important dimension through which fiscal policy can contribute to output stabilization is its degree of countercyclicality. Emerging markets have historically implemented procyclical fiscal policy (Gavin and Perotti 1997; Ilzetzki and Végh 2008; Frankel, Végh, and Vuletin 2013), driven by limited access to

¹⁶Foreign exchange interventions can be warranted in the presence of financial market imperfections—such as shallow markets or currency mismatches—provided they are transparent, rules-based, and do not undermine monetary policy credibility. Specifically, such interventions can be used to counter destabilizing premia from foreign exchange market frictions, counter financial stability risks from foreign exchange mismatches, and prevent potential de-anchoring of inflation expectations.

¹⁷Similar regressions examining net tightening of capital flow measures introduced in response to uncovered interest parity deviations caused by risk-off shocks suggest that emerging markets also rely on capital flow measures relatively less when their inflation expectations are strongly anchored.

Figure 2.6. Use of Foreign Exchange Interventions in Response to Uncovered Interest Parity Deviations

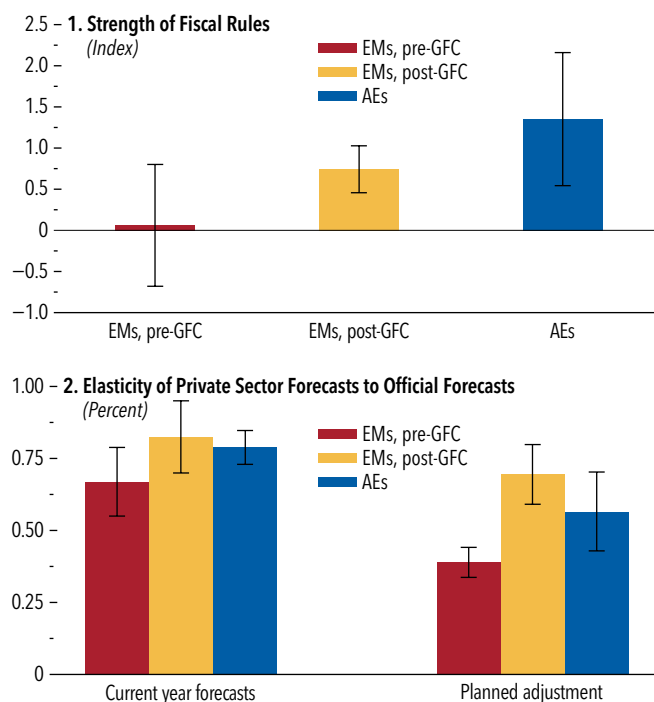
(Percent of GDP)



Sources: Bloomberg Finance L.P.; Foreign Exchange Intervention Dataset (Adler and others 2024); Haver Analytics; IMF, Integrated Macroprudential Policy Database; J.P. Morgan; and IMF staff calculations.

Note: The figure shows the cumulative foreign exchange interventions (measured as net purchases) in response to a 1 percentage point increase in the UIP deviation instrumented with the RORO Index, conditional on inflation expectation anchoring or the stringency of macroprudential regulation. Percentiles 10 and 90 of the corresponding distributions are used to plot the figures. The regressions control for lagged inflation, exchange rate, UIP deviation, foreign exchange interventions, capital flow management measures, and country and time fixed effects. Inflation expectation anchoring index is measured as in Bems and others (2021). The stringency of macroprudential regulation is measured as the net cumulative tightening in foreign exchange related capital requirements, loan restrictions, and other position restrictions. The sample excludes EMs with fixed exchange rate regimes. The lines denote the point estimates, and the shaded areas denote 90 percent confidence intervals. EMs = emerging markets; RORO Index = Risk-Off Index; UIP = uncovered interest parity.

international credit markets during downturns and institutional weaknesses that encouraged loose fiscal policy during upswings (Végh 2015). However, since the global financial crisis, some emerging markets have graduated from procyclical to countercyclical fiscal policy (bottom-right quadrant of Figure 2.8). For several others, the co-movement of government expenditures and slack is more negative than it was in the precrisis period. On average, the degree of countercyclicality

Figure 2.7. Strength of Fiscal Frameworks

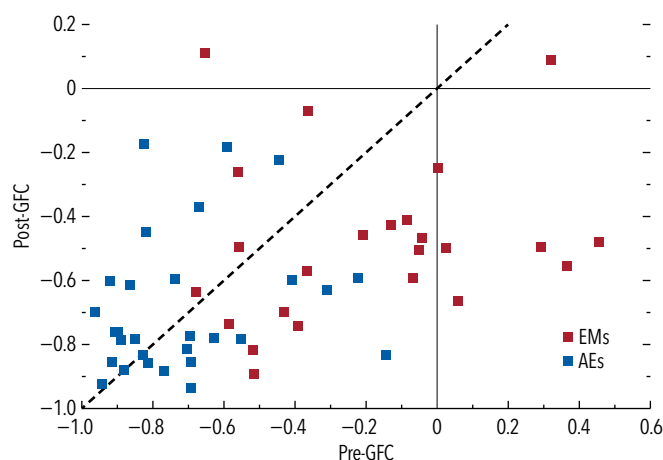
Sources: Alonso and others, forthcoming; Consensus Economics; and IMF staff calculations.

Note: In panel 1, the bars denote the strength of fiscal rules in EMs and AEs during the pre-GFC period and post-GFC period. The index of the strength of fiscal rules is constructed based on four institutional criteria: (1) legal basis, (2) presence of a monitoring mechanism, (3) enforcement and correction mechanism in place, and (4) flexibility and resilience against shocks. Higher values correspond to stronger fiscal rules. In panel 2, the bars denote the weight of private sector forecasts for budget deficits in official forecasts, obtained as regression coefficients of private sector forecasts on official forecasts captured in *World Economic Outlook* projections, controlling for country fixed effects. "Current year forecasts" refer to the current year fiscal balance, and "planned adjustment" refers to the expected change in the fiscal balance between the current year and next year, both submitted in April. The whiskers denote 90 percent confidence intervals. The pre-GFC period is 1997–2009, and the post-GFC period is 2010–24. AEs = advanced economies; EMs = emerging markets; GFC = global financial crisis.

has moved closer to that of advanced economies. Improvements in countercyclicality are most pronounced in the years following downturns in the global business cycle, suggesting that emerging markets increasingly use fiscal policy to shield their economies from external shocks.¹⁸

¹⁸Online Annex 2.5 confirms that the change in primary expenditures has become more negatively correlated with the change in output gaps, controlling for initial debt burdens and country fixed effects. More countercyclical fiscal policy is also present across commodity exporters, although fiscal policy in these countries is still less countercyclical than in commodity importers.

Figure 2.8. Cyclicalities of Government Expenditures
(Correlation coefficients)



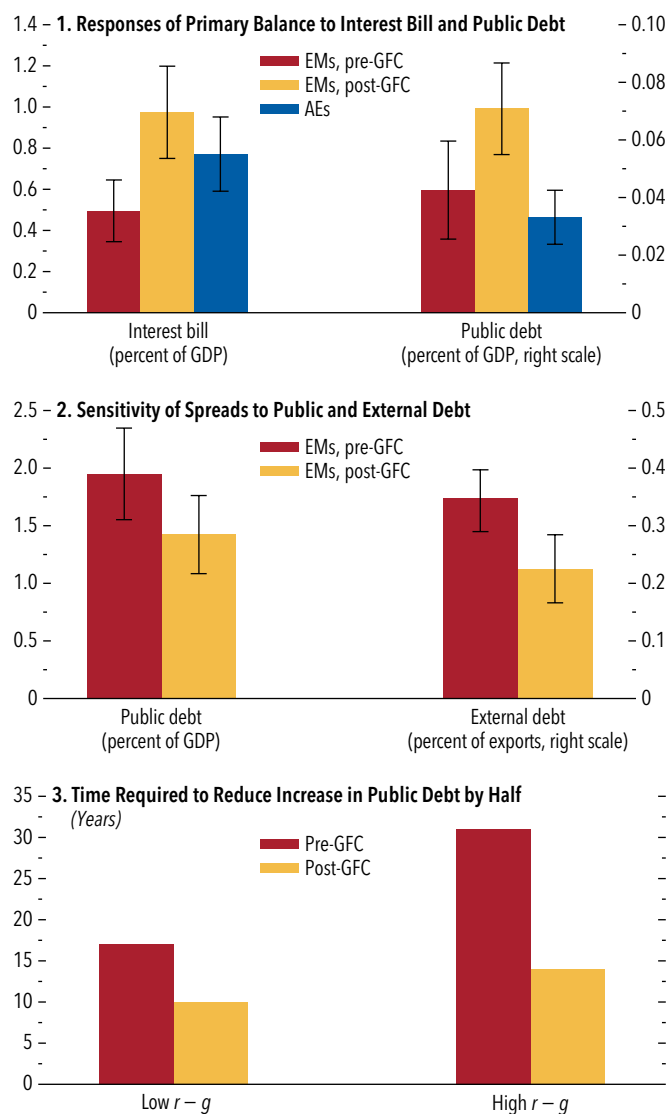
Sources: IMF, *World Economic Outlook*; World Bank, Cross-Country Database of Fiscal Space; and IMF staff calculations.

Note: Squares denote the correlation between the change in the ratio of primary government expenditures to GDP and the change in the output gap for the pre-GFC period (1997–2009) and the post-GFC period (2010–24). Primary government expenditures are constructed as the difference between government revenues and the primary balance. AEs = advanced economies; EMs = emerging markets; GFC = global financial crisis.

Finally, prudent fiscal policy that responds to debt sustainability pressures is critical to keep interest expenditures in check, contain sovereign spreads, and ensure that maturing debt can be rolled over. To assess whether increases in debt and interest expenditures lead to higher primary balances, this section estimates a fiscal reaction function in the spirit of Bohn (1998) and Mauro and others (2015), among others. The sensitivity of the primary balance to debt levels and interest expenditure in emerging markets has increased since the global financial crisis (Figure 2.9, panel 1).¹⁹ Meanwhile, the sensitivity to the interest bill has become close to 1 and exceeds that of advanced economies. This stronger response may reflect a greater reliance of emerging markets on fiscal consolidation to avoid losing market access or experiencing an increase in borrowing costs (Mendoza and Ostry 2008). In fact, while improvements in fiscal frameworks have translated into a greater capacity to manage higher public and external debt with the same external borrowing costs—suggesting a reduction in emerging markets’ debt intolerance (Reinhart,

¹⁹The greater sensitivity of the primary balance to debt sustainability pressures is particularly pronounced in countries with fiscal rules in place (Online Annex 2.5).

Figure 2.9. Fiscal Policy and Debt Sustainability



Sources: IMF, *World Economic Outlook*; J.P. Morgan; World Bank, Cross-Country Database of Fiscal Space; and IMF staff calculations.

Note: Panel 1 reports the elasticities of the primary balance to the lagged values of the interest bill and of public debt, all expressed in percent of GDP. The elasticities are obtained using regressions of the primary balance on the lagged values of the interest bill and public debt, and country and year fixed effects, jointly estimated for the pre-GFC period (1997–2009) and the post-GFC period (2010–24) using period dummies and interactions with the variables of interest while controlling for the output gap and unemployment rate. The whiskers denote 90 percent confidence intervals. Panel 2 reports the elasticities of sovereign EMBI spreads to public debt and external debt, expressed in percent of GDP and percent of exports. The elasticities are obtained using regressions of the logarithm of the sovereign spread on public debt and external debt and country fixed effects, jointly estimated for the pre-GFC and post-GFC periods using period dummies and interactions with the variables of interest while controlling for the output gap and unemployment rate. The whiskers denote 90 percent confidence intervals. Panel 3 plots the results of an illustrative simulation using coefficients from the estimated reaction function for public debt. The exercise assumes a stable initial public-debt-to-GDP ratio coupled with a shock that sends debt higher in a single year. The simulation assumes a low interest-growth differential ($r - g$) of 0 and a high interest-growth differential of 2 percent. AEs = advanced economies; EMs = emerging markets; EMBI = J.P. Morgan Emerging Market Bond Index; GFC = global financial crisis.

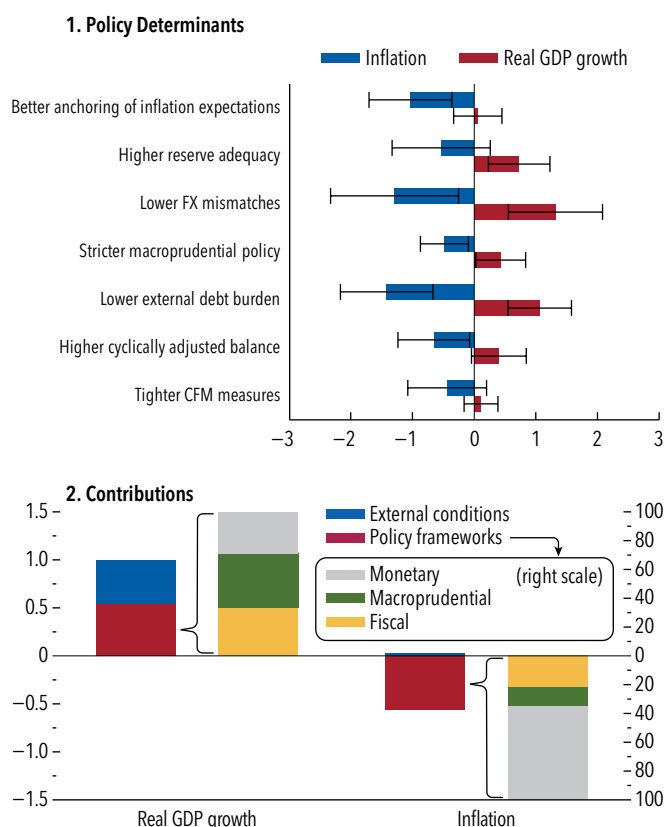
Rogoff, and Savastano 2003)—sovereign spreads remain sensitive to debt burdens (Figure 2.9, panel 2), especially during periods of financial stress (Presbitero and Wiriadinata 2022). In addition, even with a more aggressive response, the estimated reaction functions imply that the speed at which debt is brought back down after an adverse shock is still relatively slow (Figure 2.9, panel 3).

The Contribution of Policy Frameworks to Macroeconomic Stabilization

To answer the question of the chapter's title, “good luck or good policies?”—as posed by Easterly and others (1993) in the context of drivers of economic growth—this section quantifies the contribution of policy frameworks relative to the contribution of benign external conditions in boosting emerging market resilience to risk-off shocks. The analysis proceeds in two stages.

The first stage explores the extent to which proxies for the quality of policy frameworks predict growth and inflation in emerging markets during the 12 months following the start of a risk-off episode. Specifically, the analysis considers a set of predetermined policy variables that capture monetary, macroprudential, and fiscal policy frameworks and, using episode-specific fixed effects, compares the resilience of emerging markets with the varying quality of policy frameworks while holding the impact of external conditions constant.²⁰ The results indicate that stronger policies predict better performance and that countries benefited to an extent consistent with the strength of policy frameworks at the onset of the risk-off episodes. For example, an emerging market that entered a risk-off episode at the 75th percentile of lower foreign exchange mismatches is expected to experience 1.3 percentage point higher growth than an emerging market that enters the same risk-off episode at the 25th percentile (Figure 2.10, panel 1). Similarly, an emerging market at the 75th percentile in terms of

Figure 2.10. Factors Contributing to Emerging Markets' Resilience during Risk-Off Episodes (Percent)



Sources: Allen and Juvenal 2025; Consensus Economics; Haver Analytics; IMF, *World Economic Outlook*; IMF, Integrated Macroprudential Policy Database; World Bank, Cross-Country Database of Fiscal Space; and IMF staff calculations.

Note: Panel 1 reports the predicted change in real GDP growth and inflation during risk-off episodes for a country moving from the 25th to the 75th percentile of the distribution of a set of policy variables. See Online Annex 2.6 for details. The whiskers denote 90 percent confidence intervals. Panel 2 plots the contributions of policy frameworks and external conditions for the median emerging market in the post-GFC period (2010–24) relative to the pre-GFC period (1997–2009). Variables proxying for external conditions include real GDP growth in advanced economies, commodity terms-of-trade shocks, and US FCI-G index. Anchoring of inflation expectations and reserve adequacy account for monetary contributions, FX mismatches and macroprudential policy measures for macroprudential contributions, and external debt burden and the cyclically adjusted balance for fiscal contributions. CFM = capital flow management; FCI-G index = Financial Conditions Impulse on Growth index; FX = foreign exchange; GFC = global financial crisis.

anchoring of long-term inflation expectations tends to experience 1.3 percentage point lower inflation.

Leveraging the estimates obtained in the first stage of the analysis, the second stage quantifies the overall contributions of policy frameworks and external conditions to growth and inflation dynamics in the aftermath of risk-off shocks by accounting for the observed changes in these factors in the periods before

²⁰Episode fixed effects also control for the possibility that in recent episodes, emerging market economies could have benefited from a robust policy response and better policy frameworks in advanced economies. The empirical approach is inspired by previous work that studied the relevance of policy frameworks during the global financial crisis or oil price collapses (Blanchard and others 2010; Lane and Milesi-Ferretti 2011; Berkmen and others 2012; Grigoli, Herman, and Swiston 2019). See Online Annex 2.6 for details on the methodology.

and after the global financial crisis.²¹ Improved policy frameworks contributed substantially to resilience during recent risk-off episodes, raising growth by 0.5 percentage point and lowering inflation by 0.6 percentage point in the period since the global financial crisis compared with the period before the crisis began (Figure 2.10, panel 2). Improvements in monetary, macroprudential, and fiscal frameworks contributed roughly equally to the growth performance in the years since the crisis. Lower inflation, instead, is largely explained by improvements in monetary frameworks, especially better-anchored inflation expectations. More benign external conditions—captured by real GDP growth in advanced economies, commodity terms-of-trade shocks, and global financial conditions—also contributed to faster growth in emerging markets after the global financial crisis, by 0.5 percentage point, but did not ease inflationary pressures.

How to Deal with Future Risk-Off Shocks: Evidence from Model Simulations

Economies featuring better policy frameworks enjoy more favorable policy trade-offs, which leave room for monetary policy to act countercyclically. This section leverages a quantitative version of the IMF's Integrated Policy Framework (Q-IPF) model (Adrian and others 2020, 2021; Adrian, Gaspar, and Vitek 2022) to set the stage by quantifying these trade-offs and then elaborate on the appropriate policy response emerging from improved policy frameworks.²² The Q-IPF contains four key frictions: (1) limited risk-bearing capacity of agents in the foreign exchange market, giv-

ing rise to fluctuations in the uncovered interest parity risk premium; (2) an occasionally binding external debt limit, which can trigger sudden stops; (3) weakly anchored inflation expectations that result in a high pass-through of exchange rate changes to import and consumer prices; and (4) balance sheet foreign exchange mismatches, which amplify the contractionary impact of exchange rate changes in case of a sudden stop. The model—augmented with an endogenous inflation indexation mechanism (Erceg, Lindé, and Trabandt 2024) to capture a more realistic inflation expectation de-anchoring process—is calibrated to two types of small open emerging markets with flexible exchange rates. The first type of economy resembles the average emerging market in the period prior to the global financial crisis and is subject to all four frictions. The second represents the average emerging market in the postcrisis period, featuring more strongly anchored inflation expectations and smaller balance sheet mismatches.²³ The foreign economy is calibrated to the US.

Quantifying Policy Trade-Offs and the Probability of Sudden Stops

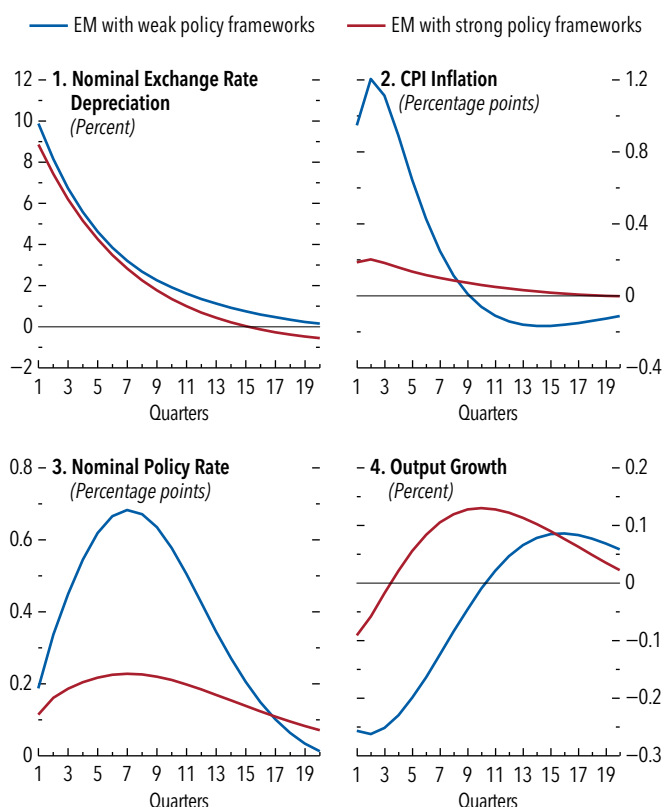
To illustrate the policy trade-offs in emerging markets with policy frameworks of different quality, the analysis considers a risk-off shock that triggers capital outflows, and in turn causes the exchange rate to depreciate by 10 percent (Figure 2.11). In the case of the emerging market with strong policy frameworks (that is, the postcrisis emerging market), the exchange rate depreciation raises import prices, fueling price and wage inflation. With strongly anchored inflation expectations, monetary policy can afford not to tighten policy rates aggressively, allowing the temporary increase in inflation to subside while prioritizing output stabilization, with output supported by higher net exports.

Policymakers in emerging markets with weak policy frameworks (that is, the pre-global financial crisis emerging market), on the other hand, face harsher policy trade-offs. For the same size depreciation, a greater exchange rate pass-through to domestic prices leads to

²¹The relative contributions of monetary, macroprudential, and fiscal policy frameworks to growth and inflation should be interpreted with caution. First, the predetermined policy frameworks could still be endogenous to growth and inflation, even after controlling for pre-trends. Second, there is no one-to-one mapping between the policy variables shown in panel 1 of Figure 2.10 and the three policy frameworks. While individual policy variables may be more closely associated with a particular framework, they can nonetheless influence others. For instance, the level of external debt reflects both fiscal actions and macroprudential regulation.

²²The Q-IPF model has two key advantages. First, as with the conceptual IPF models (Basu and others, forthcoming; Basu and Gopinath 2024), it jointly considers the role of monetary, foreign exchange, and macroprudential policies in small open economies while accounting explicitly for imperfections in trade and financial markets that generate inefficient fluctuations in risk premiums. Second, it is explicitly quantitative, can be solved nonlinearly, and can be used to assess the impact of different combinations of policies for countries with different sets of frictions.

²³The model calibration to average emerging market conditions prior to and after the global financial crisis is illustrative and should be interpreted as equally informative about the current cross-country differences among emerging markets. See Online Annex 2.7 for details about the model calibration.

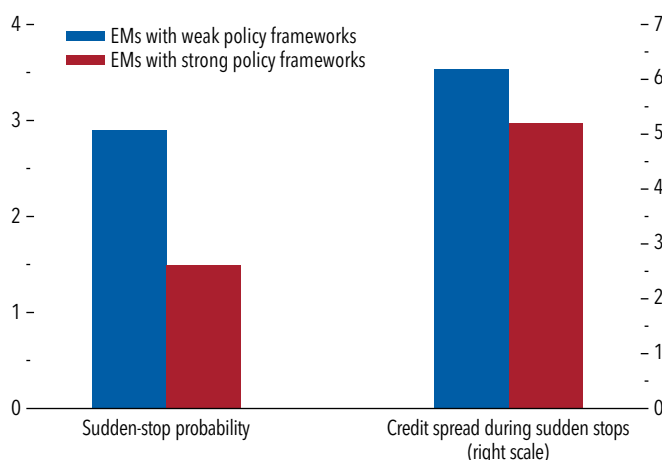
Figure 2.11. Policy Trade-Offs in Response to Risk-Off Shocks

Source: IMF staff calculations.

Note: The figure presents the model simulations in response to a capital flow shock that triggers a 10 percent depreciation of the nominal exchange rate. The EM with weak policy frameworks is calibrated according to the characteristics of the average EM during the pre-GFC period, while the EM with strong policy frameworks is calibrated to the characteristics of the average EM during the post-GFC period. CPI = consumer price index; EM = emerging market; GFC = global financial crisis.

a substantial increase in inflation. The central bank is then forced to tighten aggressively, depressing domestic demand. In the emerging market with strong policy frameworks output declines by only 0.1 percentage point and inflation rises by 0.2 percentage point, but the emerging market with weak policy frameworks suffers a 0.3 percentage point contraction in output and a 1 percentage point increase in inflation.

Another important implication of the improvement in policy frameworks is the lower likelihood and severity of sudden stops. The period after the global financial crisis witnessed substantial changes in the balance sheets of several emerging markets. The average net foreign asset position increased by 13 percent of GDP relative to the period before the crisis, and the share of external liabilities denominated in domestic

Figure 2.12. Probability and Severity of Sudden Stops (Percent)

Source: IMF staff calculations.

Note: The figure reports the probability and severity of sudden stops, based on stochastic simulations as described in Adrian and others (2020, 2021). The average severity of a sudden stop is measured using the credit spread, computed as the borrowing rate minus policy rate. EMs = emerging markets.

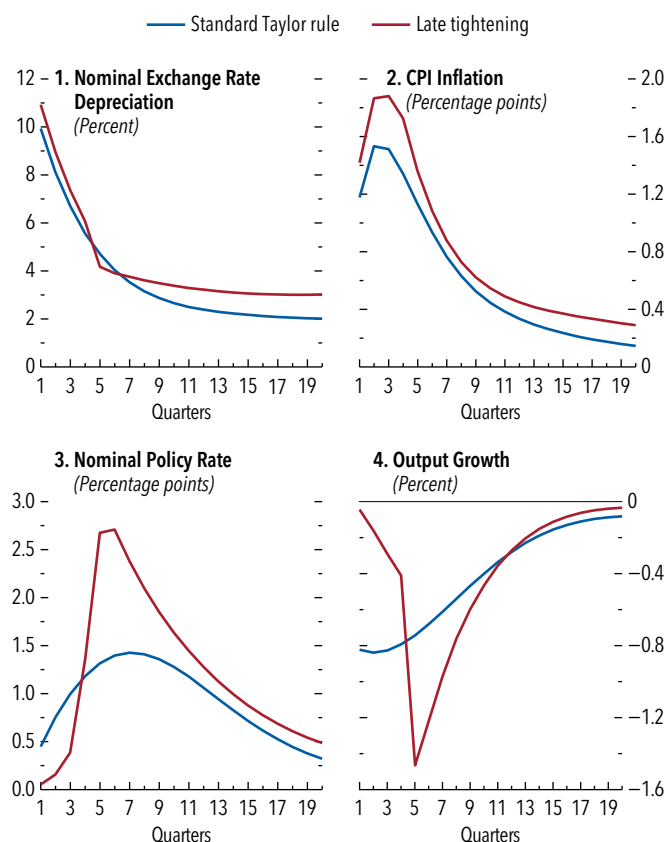
currency rose by 12.5 percentage points (see Chapter 3 of the October 2025 *Global Financial Stability Report* for recent trends in local currency bond markets).

These improvements keep the economy farther from the external debt limit, lowering by half the probability of experiencing a sudden stop, to 1.5 percent. Conditional on experiencing a sudden stop, the severity of these events also dropped significantly. The average credit spread during sudden stops fell from 6.2 percent to 5.2 percent (Figure 2.12).

Costs of Delaying Monetary Tightening

The inflation surge after the pandemic period created a particularly challenging environment for emerging markets facing risk-off shocks. Global supply chain disruptions led to a rapid and persistent increase in prices (Chapter 2 of the October 2024 *World Economic Outlook*), which amplified the adverse dynamics typically seen in emerging markets with weak policy frameworks. However, many emerging markets responded with timely and aggressive tightening of their monetary policy, which proved crucial in preventing de-anchoring of inflation expectations (English, Forbes, and Ubide 2024).

To quantify the costs associated with a delayed and dovish monetary policy response, the analysis focuses

Figure 2.13. Costs of Delaying Monetary Tightening for Emerging Markets with Weak Policy Frameworks

Source: IMF staff calculations.

Note: The figure presents the model simulations in response to a capital flow shock that triggers a 10 percent depreciation of the nominal exchange rate combined with a cost-push shock. The EM with weak policy frameworks is calibrated according to the characteristics of the average EM during the pre-GFC period. In the “late tightening” scenario, the central bank first attempts to look through the inflation surge. CPI = consumer price index; EM = emerging market; GFC = global financial crisis.

on emerging markets with weak frameworks and compares simulation results for two monetary policy regimes in response to a combination of a risk-off shock and a persistent cost-push shock (Figure 2.13), as in the postpandemic environment, causing a 10 percent nominal exchange rate depreciation and 0.5 percentage point increase in inflation. In the first regime, monetary policy follows a standard Taylor rule, with the central bank responding to inflationary pressures in a timely and aggressive manner. In the second regime, the policy response is delayed and subdued: The central bank initially attempts to look through the inflation surge, but later, to address the already elevated inflation, it ends up raising policy rates by more than in the

first regime.²⁴ While both regimes eventually succeed in bringing inflation back to target by the end of the third year following the shock, late tightening leads to a substantially larger rate hike of 1.4 percentage points and results in a more pronounced output contraction—by 0.7 percent of GDP—five quarters after the shock.

The Role of Foreign Exchange Interventions

Finally, the model is used to examine the role of foreign exchange interventions, contrasting the outcomes for emerging markets with different policy frameworks and assuming sufficient reserve buffers. In response to a risk-off shock, and without intervention, the nominal exchange rate depreciates by 10 percent. However, when the central bank intervenes—running down reserves by 3 percent of GDP—it helps counter capital outflows, limiting the rise in the uncovered interest parity risk premium and halving the magnitude of the exchange rate depreciation.²⁵

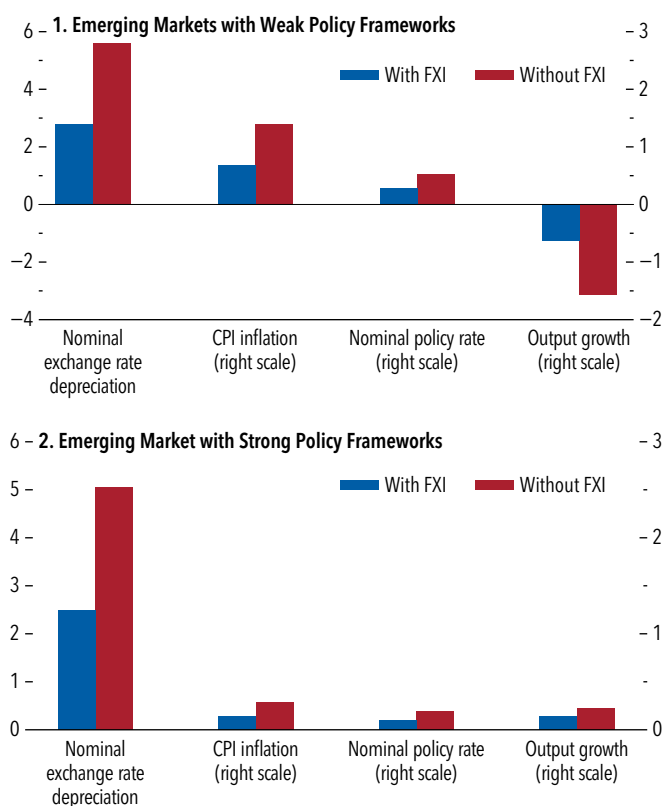
The results show that, despite foreign exchange interventions, the residual exchange rate depreciation in the emerging market with weak policy frameworks still fuels inflation, reflecting a relatively high exchange rate pass-through. Yet two years after the shock, the cumulative price increase is 0.7 percentage point lower than in the no-intervention scenario. This moderates the need for monetary tightening and reduces the associated output loss by 0.9 percentage point (Figure 2.14, panel 1). In contrast, for emerging markets with strong policy frameworks, the benefits of foreign exchange intervention are more modest. Given better-anchored inflation expectations, inflation is only 0.1 percentage point lower when the central bank intervenes, and output is marginally higher despite the monetary policy tightening, as the nominal depreciation boosts net exports (Figure 2.14, panel 2).²⁶

²⁴In the model, prices and wages tend to rise faster when inflation is far from the target, leading to inflation persistence. This mechanism worsens the trade-off associated with delayed monetary tightening, as inflation becomes more difficult to contain once expectations begin to drift.

²⁵The effectiveness of foreign exchange interventions in offsetting the nominal exchange rate depreciation depends on the depth of foreign exchange markets. As this is assumed to be the same in emerging markets with weak and strong policy frameworks, the resulting depreciation when the central bank intervenes is the same.

²⁶Adrian and others (2021) compare the effects of capital flow measures and foreign exchange interventions in a similar model setup. The simulations suggest that these tools offer similar advantages. While the analysis in the chapter pertains to foreign exchange interventions, comparing countries with strong and weak policy frameworks, the conclusions can be extended to the use of capital flow measures.

Figure 2.14. Effects of Foreign Exchange Interventions
(Percent)



Source: IMF staff calculations.

Note: The figure presents the model simulations in response to a capital flow shock that triggers a 10 percent depreciation of the nominal exchange rate in the absence of FXI. The FXI scenarios involve a decline in FX reserves by 3 percent of GDP. The EM with weak policy frameworks is calibrated according to the average characteristics of the pre-GFC EM, while the EM with strong policy frameworks is calibrated to the average characteristics of the post-GFC EM. FX reserves are expressed in percent of trend GDP; the nominal exchange rate depreciation and output growth are reported in percent; and CPI inflation and the nominal policy rate are expressed in percentage points. The figure reports the FX reserves when the shock hits, the cumulative change over the two years following the shock for CPI inflation and output, and the two-year average for the nominal exchange rate depreciation and policy rate changes. CPI = consumer price index; EM = emerging market; FX = foreign exchange; FXI = foreign exchange intervention; GFC = global financial crisis.

Conclusions and Policy Implications

Since the global financial crisis, most emerging markets have shown remarkable resilience to risk-off shocks, including in the aftermath of the COVID-19 shock and the inflation surge that followed the pandemic. While favorable external conditions have certainly bolstered the capacity of these economies to withstand risk-off shocks, attributing recent resilience solely to *good luck* does not tell the whole story. Improved policy frameworks have played a critical role in supporting macroeconomic stability, allowing countries to implement *good policies*.

An analysis of the evolution of policy frameworks in emerging markets reveals, on average, substantial progress over time, which helped narrow the gap with advanced economies, although the degree of progress varies across countries. De facto improvements—which extend beyond the de jure adoption of inflation targeting and fiscal rules—have enhanced the implementation and credibility of monetary and fiscal policies, which in turn have led to more restrained use of foreign exchange interventions. In other words, emerging markets' investment in upgrading policy frameworks has yielded high returns, boosting resilience against risk-off shocks. Comparing the typical risk-off episode since the global financial crisis with a typical episode before the crisis suggests that improved frameworks accounted for 0.5 percentage point higher growth and 0.6 percentage point lower inflation. In contrast, favorable external conditions supported faster growth, contributing 0.5 percentage point, but did not ease inflationary pressures.

Based on the results from a rich set of empirical exercises to assess policy frameworks and model simulations aimed at quantifying policy trade-offs under different policy frameworks, this chapter offers some key insights for policymakers to navigate a shock-prone global environment:

- **Monetary policy.** Clear communication of policy objectives and the central bank's reaction function can help anchor inflation expectations and enhance credibility. This, in turn, eases policy trade-offs, allowing the central bank to focus more on output stabilization. In addition, reinforcing and safeguarding central bank independence are essential to ensure that policy decisions remain insulated from political pressures and to mitigate the risk of fiscal dominance. This continues to be relevant in the current context, in which inflation expectations are anchored and fiscal demands are mounting, tempting policymakers to yield to political pressure.
- **Foreign exchange interventions.** Foreign exchange interventions can play a stabilizing role for less-resilient emerging markets, but the benefits diminish as policy frameworks strengthen. Given the costs associated with foreign exchange interventions, efforts to anchor inflation expectations and reduce balance sheet mismatches—including through the implementation of macroprudential frameworks—should be promoted, lessening the need for intervention in the foreign exchange market.
- **Fiscal policy.** Stronger fiscal guardrails are needed to foster fiscal discipline when high uncertainty and

spending pressures mount. Investing in a credible medium-term fiscal framework that combines more flexible rules with strong and independent fiscal institutions is essential to signal fiscal commitment while allowing for a more countercyclical fiscal policy. Compliance with fiscal rules can be improved through a risk-based fiscal anchor tailored to the country's debt-carrying capacity and robust correction mechanisms (Acalin and others 2025). Sound public debt management could also mitigate the effect of negative shocks on borrowing costs (Pedersoli and Presbitero 2023). These policies would help forge a path to debt sustainability and build up fiscal buffers (see Chapter 2 of the October 2021 *Fiscal Monitor*). Deepening local currency bond markets and increasing resident investors' participation can also improve resilience (see Chapter 3 of the October 2025 *Global Financial Stability Report*).

- *Trilemma, not dilemma?* Taken together, the observed resilience to risk-off episodes, the reduced marginal benefits of foreign exchange interventions (and capital flow measures) where policy frameworks are strong, and the evidence of greater domestic monetary policy autonomy all point to a gradual—though uneven across countries—shift away from the dilemma (Rey 2015) toward the classic Mundell-Fleming trilemma.
- *Looking ahead*, emerging markets with strong frameworks are better positioned to navigate risk-off shocks. These economies benefit from easier policy trade-offs and face a lower risk of sudden stops. In contrast, countries with weaker frameworks should resist the temptation to delay monetary tightening, which can de-anchor inflation expectations and increase output losses. In these economies, foreign exchange interventions can provide temporary relief. However, they are costly and should neither substitute nor postpone necessary efforts to anchor inflation expectations and reduce balance sheet mismatches. More broadly, foreign exchange interventions should not hinder the warranted adjustment of macroeconomic policies, including of the exchange rate.

The visible improvements in policy frameworks and their role in strengthening emerging market resilience to recent risk-off episodes should not lead to complacency. Three key considerations warrant attention:

- *First*, external conditions may not remain favorable. Although global financial conditions have been relatively benign since the global financial crisis, this can change quickly, leading to reduced consumption and investment in advanced economies. Meanwhile, rising global interest rates pose significant risks for emerging markets with already elevated debt. And geopolitical tensions can trigger unfavorable changes in emerging markets' terms of trade.
- *Second*, the economic fallout from the COVID-19 pandemic and the energy shock triggered by Russia's war in Ukraine has led to higher public-debt-to-GDP ratios in many emerging markets. The eroded fiscal space may limit the ability of fiscal policy to respond effectively to future shocks, underscoring the need to rebuild fiscal capacity before the next period of market stress. Moreover, the postpandemic inflation surge may have put inflation expectations on edge, which means central banks must maintain a steady and credible commitment to inflation stability.
- *Third*, the risks of policy backsliding should not be overlooked. Recent gains in credibility and institutional strength cannot be taken for granted. As Box 2.3 illustrates, central bank independence may come under pressure from politically driven appointments, potentially leading to fiscal dominance, loss of credibility, and inflation surges. Likewise, fiscal rules could be weakened or disregarded if political economy pressures dominate, undermining fiscal credibility.

For these reasons, the significant strides of emerging markets in recent years—and their effective responses to recent shocks—should be viewed as a foundation for further strengthening monetary, macroprudential, and fiscal policy frameworks, as well as rebuilding policy buffers to better withstand an increasingly uncertain global environment.

Box 2.1. IMF Arrangements and Emerging Market Resilience

The IMF's precautionary instruments—the Flexible Credit Line (FCL), Precautionary and Liquidity Line (PLL), and Short-Term Liquidity Line (SLL)—are integral components of the institution's lending toolkit. They provide qualifying members with up-front access to IMF resources, with no or limited conditionality, and aim to bolster market confidence while offering insurance against external shocks. These instruments are available to qualifying members with very strong (or sound, in the case of the PLL) economic fundamentals and policy frameworks, a sustained history of implementing (and currently implementing) very strong policies, and a commitment to maintain these policies.

This box assesses the effectiveness of these instruments in supporting emerging markets' access to international financial markets and bolstering market confidence during periods of heightened global risks. An event study around the approval of new FCL and SLL arrangements shows a significant and increasingly pronounced decline in sovereign spreads in the days following the announcements of the arrangements (Figure 2.1.1, panel 1).^{1,2}

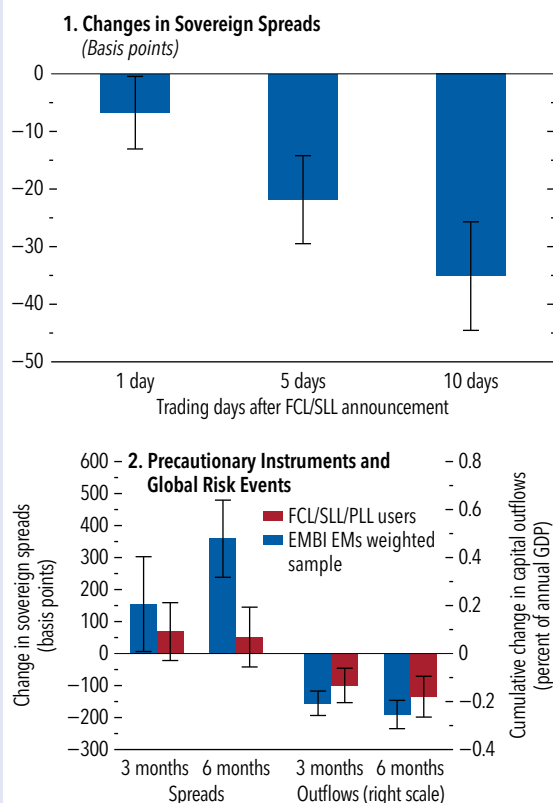
Precautionary instruments also help during risk-off episodes. Local projections with inverse propensity score weighting (Angrist, Jordà, and Kuersteiner 2018) show that emerging markets with precautionary arrangements experienced significantly smaller increases in spreads and capital outflows during the two most recent risk-off episodes, compared with peers with similar fundamentals (Figure 2.1.1, panel 2). These findings indicate that the value of these instruments may increase in a shock-prone environment, in which recurring stress episodes can challenge emerging markets integrated into global trade and finance (IMF 2023b).

The author of this box is Giulio Lisi.

¹This analysis considers the Flexible Credit Line (FCL) arrangements approved in 2009 for Colombia, Mexico, and Poland; the FCLs approved for Chile and Peru in 2020, in the context of the COVID-19 shock; and the 2023 Morocco FCL. It also considers the Short-Term Liquidity Line approved for Chile in May 2022.

²This result is consistent with earlier work (Lisi 2022) and robust to the use of a synthetic control approach (Abadie 2021). On average, spreads remain more than 20 basis points lower than their synthetic counterparts in the 60 trading days following the announcement.

Figure 2.1.1. IMF Precautionary Arrangements and Their Role during Risk-Off Episodes



Sources: Bloomberg Finance L.P.; Emerging Portfolio Fund Research; Haver Analytics; and IMF staff calculations.

Note: Panel 1 shows the estimated change in spreads following the announcement of a new FCL or SLL, relative to other emerging markets included in the EMBI. Estimates control for global financial variables and lagged spreads. Panel 2 shows the impulse response functions from local projections with country and year fixed effects. Shocks are identified at the onset of the COVID-19 pandemic and Russia's invasion of Ukraine. Estimates are derived using inverse probability weighting for 2017–19 macroeconomic outcomes (EMBI spreads, debt to GDP, fiscal deficit, and current account balance) on the probability of observing a precautionary arrangement in the sample. The whiskers denote 90 percent confidence intervals. EMs = emerging markets; EMBI = J.P. Morgan Emerging Market Bond Index; FCL = IMF Flexible Credit Line; PLL = IMF Precautionary and Liquidity Line; SLL = IMF Short-Term Liquidity Line.

Box 2.2. Milestones in Developing Monetary Policy Frameworks

The cornerstone of an effective monetary policy framework is a clear nominal anchor and a strong, credible commitment to price stability. While the nominal anchor may differ across countries, in all cases it must be viewed as clear and credible, providing a basis for price- and wage-setting decisions. Over the past two and a half decades, many emerging market central banks have made substantial progress in modernizing their monetary frameworks—sometimes prompted by disorderly market conditions and at other times facilitated by favorable circumstances. Many of these reforms have placed price stability at the core of their mandates, often supported by IMF technical assistance. This box elaborates on some key milestones.

Limiting the scope for political interference is essential to credibly establishing a commitment to price stability.¹ In some emerging markets, fiscal reforms and government endorsement of the central bank's price stability objective played complementary roles in mitigating concerns about fiscal dominance. Investments in regulatory, supervisory, and macroprudential frameworks have also been crucial to allow monetary authorities to pursue price stability objectives. The Bank of Thailand offers a good example because its adoption of inflation targeting (IT) was supported and complemented by ambitious reforms in Thai financial sector policy.

Depending on the monetary framework, other key milestones may involve building adequate foreign

exchange reserves or clarifying the appropriate role of the exchange rate. For emerging markets with IT, especially those transitioning from fixed exchange rate regimes, allowing for greater exchange rate flexibility and keeping foreign exchange interventions to an appropriate minimum are both critical because they help avoid any perception of targeting specific exchange rate levels and confusion about the “true” nominal anchor. The Central Bank of Chile and the South African Reserve Bank are examples of strong commitment to exchange rate flexibility and limited foreign exchange interventions.

Other key milestones relate to the development of central banks' operational, technical, and decision-making frameworks. Many emerging market central banks have surmounted a range of challenges in building their operational capacity to manage liquidity and steer short-term interest rates while promoting the development of interbank, securities, and other markets key to monetary transmission. The National Bank of Georgia, for example, prioritized a range of policy reforms in these areas to support the development of its IT framework.

A final key milestone is the development of a strong framework for communicating monetary policy decisions and the rationales behind them. Many emerging markets' central banks, including the examples noted in this box, have developed sophisticated communications frameworks centered around regular press conferences, policy statements, and monetary policy reports.² These investments help enhance accountability and improve public understanding of the central banks' objectives and reaction functions.

The author of this box is Thomas J. Carter.

¹See Brandao-Marques and others (2024) for evidence of links between government debt and long-term inflation expectations in emerging markets, along with complementary evidence from David, Pienknagura, and Yépez (2025).

²See Unsal, Papageorgiou, and Garbers (2022) for evidence of improvement in central banks' communication frameworks.

Box 2.3. Macroeconomic Effects of Undermining Central Bank Independence

Implementing monetary policy without political interference is essential for central bank independence because it helps anchor inflation expectations and ensure price stability (Blinder 2000; Bernanke 2010; Fischer 2015; Ioannidou and others 2025). This box examines the macroeconomic effects of diminished central bank independence by leveraging politically motivated governor transitions, which occur when the appointment or removal of the incumbent does not follow clear, rule-based procedures; does not prioritize professional qualifications; and does not preserve the central bank's operational independence.

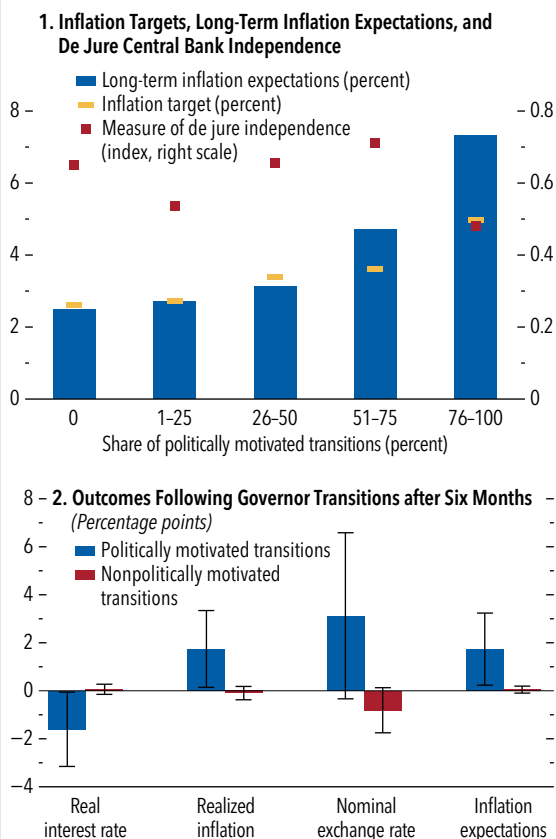
Based on 134 governor transitions in 11 advanced economies and 16 emerging markets since 2000, transitions are classified by whether news reports at the time of the transition mentioned political interference and political motive.¹ Politically motivated transitions have been far more common in emerging markets (50, about half of all transitions) than in advanced economies (5, or 8 percent of all transitions). Moreover, inflation expectations are less well anchored in countries with more frequent politically motivated transitions (Figure 2.3.1): They exceed targets by about 1 percent where such transitions are the majority and by over 2 percent where they are the norm. Expectations remain close to target in countries without political transitions. This correlation holds within both advanced and emerging market economies. No such relationship is found with de jure measures of central bank independence (Romelli 2024).

To identify the effects of politically motivated transitions on macroeconomic variables, the analysis uses difference-in-differences local projections (Dube and others 2023), controlling for past changes in macroeconomic variables, as well as country and time fixed effects. Six months after politically motivated transitions, real rates fall by 1.6 percentage points, exchange rates depreciate by 3.1 percent, and inflation and inflation expectations rise by 1.7 percentage points relative to countries with similar macroeconomic fundamentals that did not experience a governor transition. The exchange rate also tends to depreciate, but the effect is not statistically significant. The limited number of politically motivated transitions in advanced economies makes it hard to have robust

The authors of this box are Marijn A. Bolhuis, Rui Mano, and Hedda Thorell.

¹The classification relies on subjective assessments based on information published for each transition on the website <https://centralbanking.com>, supplemented with news reported by Bloomberg and the Financial Times.

Figure 2.3.1. Effects of Politically Motivated Transitions



Sources: Consensus Economics; Haver Analytics; Organisation for Economic Co-operation and Development; Romelli 2024; and IMF staff calculations.

Note: In panel 1, the bars show the mean of deviations from target of five-year-ahead inflation expectations, yellow rectangles the inflation target, and red squares the de jure central bank independence from Romelli (2024). All variables are expressed by country groups from 2000 to 2024 based on the frequency of politically motivated transitions. In panel 2, the bars show average changes in the outcomes six months after politically motivated transitions (blue bars) and nonpolitically motivated transitions (red bars). The real interest rate is defined as the difference between the 3-month deposit rate (or equivalent) and 12-month-ahead inflation expectations. A positive change in the nominal exchange rate indicates a depreciation. Specifications control for pre-trends in outcome variables, a fixed set of macroeconomic control variables, and country and time fixed effects. The whiskers denote 90 percent confidence intervals. The sample includes all transitions that can be used to isolate the causal effect of the transition.

evidence of differential effects across country groups. Results for emerging market economies are very close to those for the overall sample, while those for advanced economies are either smaller in magnitude (for expected inflation and exchange rate depreciation) or not significant.

References

- Abadie, A. 2021. "Using Synthetic Controls: Feasibility, Data Requirements, and Methodological Aspects." *Journal of Economic Literature* 59 (2): 391–425.
- Abiad, A., J. Bluedorn, J. Guajardo, and P. Topalova. 2015. "The Rising Resilience of Emerging Market and Developing Economies." *World Development* 72: 1–26.
- Acalin, J., V. Alonso, C. Arroyo, R. Lam, L. Martinez, A.D.M. Nguyen, F. Roch, G. Sher, and A. Solovyeva. 2025. "Fiscal Guardrails against High Debt and Looming Spending Pressures." IMF Staff Discussion Note 25/004, International Monetary Fund, Washington, DC.
- Acosta-Henao, M., A. Fernández, P. Gomez-Gonzalez, and S. Kalemli-Özcan. 2024. "Firm Financing during Sudden Stops: Can Governments Substitute Markets?" NBER Working Paper 33283, National Bureau of Economic Research, Cambridge, MA.
- Adler, G., K. S. Chang, R. C. Mano, and Y. Shao. 2024. "Foreign Exchange Intervention: A Data Set of Official Data and Estimates." *Journal of Money, Credit and Banking* 57 (5): 1241–73.
- Adrian, T., C. J. Erceg, M. Kolasa, J. Lindé, and P. Zabczyk. 2021. "A Quantitative Microfounded Model for the Integrated Policy Framework." IMF Working Paper 21/292, International Monetary Fund, Washington, DC.
- Adrian, T., C. J. Erceg, J. Lindé, P. Zabczyk, and M. J. Zhou. 2020. "A Quantitative Model for the Integrated Policy Framework." IMF Working Paper 20/122, International Monetary Fund, Washington, DC.
- Adrian, T., V. Gaspar, and F. Vitek. 2022. "A Medium-Scale DSGE Model for the Integrated Policy Framework." IMF Working Paper 22/015, International Monetary Fund, Washington, DC.
- Adrian, T., F. Natalucci, and J. Wu. 2024. "Emerging Markets Navigate Global Interest Rate Volatility." IMF Blog, January 31.
- Aguiar, M., and G. Gopinath. 2007. "Emerging Market Business Cycles: The Cycle Is the Trend." *Journal of Political Economy* 115 (1): 69–102.
- Aizenman, J., D. Park, I. A. Qureshi, J. Saadaoui, and G. Salah Uddin. 2024. "The Performance of Emerging Markets during the Fed's Easing and Tightening Cycles: A Cross-Country Resilience Analysis." *Journal of International Money and Finance* 148: 103169.
- Alfaro, L., M. Calani, and L. Varela. 2021. "Granular Corporate Hedging under Dominant Currency." NBER Working Paper 28910, National Bureau of Economic Research, Cambridge, MA.
- Alonso, V., C. Arroyo, O. Aydin, V. Balasundharam, H. R. Davoodi, W. R. Lam, A. Nguyen, N. Salazar Ferro, G. Sher, and A. Solovyeva. Forthcoming. "Fiscal Rules at a Glance: An Update 1985–2024." International Monetary Fund, Washington, DC.
- Angrist, J. D., Ö. Jordà, and G. M. Kuersteiner. 2018. "Semi-parametric Estimates of Monetary Policy Effects: String Theory Revisited." *Journal of Business & Economic Statistics* 36 (3): 371–87.
- Apeti, A. E., B. W. W. Bambe, J. L. Combes, and E. D. Edoh. 2024. "Original Sin: Fiscal Rules and Government Debt in Foreign Currency in Developing Countries." *Journal of Macroeconomics* 80: 103600.
- Basu, S., E. Boz, G. Gopinath, F. Roch, and D. Unsal. Forthcoming. "A Conceptual Model for the Integrated Policy Framework." *Econometrica*.
- Basu, S., and G. Gopinath. 2024. "An Integrated Policy Framework (IPF) Diagram for International Economics." IMF Working Paper 2024/038, International Monetary Fund, Washington, DC.
- Bauer, M. D., C. E. Pflueger, and A. Sunderam. 2024. "Perceptions about Monetary Policy." *Quarterly Journal of Economics* 139 (4): 2227–78.
- Bauer, M. D., and E. T. Swanson. 2023. "A Reassessment of Monetary Policy Surprises and High-Frequency Identification." *NBER Macroeconomics Annual* 37 (1): 87–155.
- Bekaert, G., E. C. Engstrom, and N. R. Xu. 2022. "The Time Variation in Risk Appetite and Uncertainty." *Management Science* 68 (6): 3975–4004.
- Bems, R., F. Caselli, F. Grigoli, and B. Gruss. 2021. "Expectations' Anchoring and Inflation Persistence." *Journal of International Economics* 132: 103516.
- Bergant, K., A. Fernández, K. Teoh, and M. Uribe. Forthcoming. "Redrawing the Landscape of Cross-Border Flow Restrictions: Modern Tools and Historical Perspectives." International Monetary Fund, Washington, DC.
- Bergant, K., F. Grigoli, N. J. Hansen, and D. Sandri. 2024. "Dampening Global Financial Shocks: Can Macroprudential Regulation Help (More Than Capital Controls)?" *Journal of Money, Credit and Banking* 56 (6): 1405–38.
- Berkmen, S. P., G. Gelos, R. Rennhack, and J. P. Walsh. 2012. "The Global Financial Crisis: Explaining Cross-Country Differences in the Output Impact." *Journal of International Money and Finance* 31 (1): 42–59.
- Bernanke, B. S. 2010. "Central Bank Independence, Transparency, and Accountability." In *Speeches at the Institute for Monetary and Economic Studies International Conference, Bank of Japan, Tokyo, Japan*, May, vol. 25.
- Blanchard, O. J., H. Faruquee, M. Das, K. J. Forbes, and L. L. Tesar. 2010. "The Initial Impact of the Crisis on Emerging Market Countries." *Brookings Papers on Economic Activity* 263–323.
- Blanchard, O., and R. Perotti. 2002. "An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output." *Quarterly Journal of Economics* 117 (4): 1329–68.
- Blinder, A. S. 2000. "Central-Bank Credibility: Why Do We Care? How Do We Build It?" *American Economic Review* 90 (5): 1421–31.
- Bohn, H. 1998. "The Behavior of US Public Debt and Deficits." *Quarterly Journal of Economics* 113 (3): 949–63.

- Brandao-Marques, L., M. Casiraghi, G. Gelos, O. Harrison, and G. Kamber. 2024. "Is High Debt Constraining Monetary Policy? Evidence from Inflation Expectations." *Journal of International Money and Finance* 149: 103206.
- Caballero, R. J., and G. Kamber. 2019. "On the Global Impact of Risk-Off Shocks and Policy-Put Frameworks." NBER Working Paper 26031, National Bureau of Economic Research, Cambridge, MA.
- Calvo, G. A., and C. M. Reinhart. 2002. "Fear of Floating." *Quarterly Journal of Economics* 117 (2): 379–408.
- Campa, J. M., and L. S. Goldberg. 2005. "Exchange Rate Pass-Through into Import Prices." *Review of Economics and Statistics* 87 (4): 679–90.
- Carare, A., and M. R. Stone. 2006. "Inflation Targeting Regimes." *European Economic Review* 50 (5): 1297–315.
- Carrière-Swallow, Y., B. Gruss, N. E. Magud, and F. Valencia. 2021. "Monetary Policy Credibility and Exchange Rate Pass-Through." *International Journal of Central Banking* 17 (3): 61–94.
- Carvalho, C., F. Nechio, and T. Tristao. 2021. "Taylor Rule Estimation by OLS." *Journal of Monetary Economics* 124: 140–54.
- Cerra, V., U. Panizza, and S. C. Saxena. 2013. "International Evidence on Recovery from Recessions." *Contemporary Economic Policy* 31 (2): 424–39.
- Cerra, V., and S. C. Saxena. 2008. "Growth Dynamics: The Myth of Economic Recovery." *American Economic Review* 98 (1): 439–57.
- Chari, A., K. Diltz Stedman, and C. Lundblad. 2020. "Capital Flows in Risky Times: Risk-On/Risk-Off and Emerging Market Tail Risk." NBER Working Paper 27927, National Bureau of Economic Research, Cambridge, MA.
- Chari, A., K. Diltz Stedman, and C. Lundblad. 2021. "Taper Tantrums: Quantitative Easing, Its Aftermath, and Emerging Market Capital Flows." *Review of Financial Studies* 34 (3): 1445–508.
- Chari, A., K. Diltz Stedman, and C. Lundblad. 2022. "Global Fund Flows and Emerging Market Tail Risk." NBER Working Paper 30577, National Bureau of Economic Research, Cambridge, MA.
- Chari, A., K. Diltz Stedman, and C. Lundblad. 2023. "Risk-On Risk-Off: A Multifaceted Approach to Measuring Global Investor Risk Aversion." NBER Working Paper 31907, National Bureau of Economic Research, Cambridge, MA.
- Checo, A., F. Grigoli, and D. Sandri. 2024. "Monetary Policy Transmission in Emerging Markets: Proverbial Concerns, Novel Evidence." BIS Working Paper 1170, Bank for International Settlements, Basel.
- Chen, H., and P. Tillmann. 2025. "Monetary Policy Spillovers: Is This Time Different?" *Journal of International Money and Finance* 152: 103278.
- Cobham, D. 2025. "Monetary Policy Frameworks from 1999 to 2023." SSRN Working Paper 5156869, Social Science Research Network.
- Das, M., G. Gopinath, and Ş. Kalemli-Özcan. 2022. "Preemptive Policies and Risk-Off Shocks in Emerging Markets." NBER Working Paper 29615, National Bureau of Economic Research, Cambridge, MA.
- David, A. C., S. Pienknagura, and J. F. Yépez. 2025. "Can Fiscal Consolidations Announcements Help Anchor Inflation Expectations?" *Journal of International Money and Finance* 151: 103247.
- Dinç, S. I. 2005. "Politicians and Banks: Political Influences on Government-Owned Banks in Emerging Markets." *Journal of Financial Economics* 77 (2): 453–79.
- Dube, A., D. Girardi, Ò. Jordà, and A. M. Taylor. 2023. "A Local Projections Approach to Difference-in-Differences Event Studies." NBER Working Paper 31184, National Bureau of Economic Research, Cambridge, MA.
- Easterly, W., M. Kremer, L. Pritchett, and L. H. Summers. 1993. "Good Policy or Good Luck? Country Growth Performance and Temporary Shocks." *Journal of Monetary Economics* 32 (3): 459–83.
- End, N. 2023. "Big Brother Is Also Being Watched: Measuring Fiscal Credibility." *Journal of Macroeconomics* 77: 103548.
- End, N., and M. J. H. Hong. 2022. "Trust What You Hear: Policy Communication, Expectations, and Fiscal Credibility." IMF Working Paper 22/036, International Monetary Fund, Washington, DC.
- English, B., K. Forbes, and A. Ubide, eds. 2024. *Monetary Policy Responses to Post-Pandemic Inflation*. London: CEPR Press.
- Erceg, C. J., J. Lindé, and M. Trabandt. 2024. "Monetary Policy and Inflation Scares." IMF Working Paper 24/036, International Monetary Fund, Washington, DC.
- Erel, I., J. Liebersohn, C. Yannelis, and S. Earnest. 2023. "Monetary Policy Transmission through Online Banks." NBER Working Paper 31380, National Bureau of Economic Research, Cambridge, MA.
- Eyraud, L., M. X. Debrun, A. Hodge, V. D. Lledo, and M. C. A. Pattillo. 2018. "Second-Generation Fiscal Rules: Balancing Simplicity, Flexibility, and Enforceability." IMF Staff Discussion Note 18/004, International Monetary Fund, Washington, DC.
- Fischer, S. 2015. "Central Bank Independence." 2015 Herbert Stein Memorial Lecture, National Economists Club, November 4, Washington, DC.
- Frankel, J. A., C. A. Végh, and G. Vuletin. 2013. "On Graduation from Fiscal Procyclicality." *Journal of Development Economics* 100 (1): 32–47.
- Gavin, M., and R. Perotti. 1997. "Fiscal Policy in Latin America." In *NBER Macroeconomic Annual*, vol. 12, edited by B. Bernanke and J. Rotemberg, 11–61. Cambridge, MA: MIT Press.
- Ghosh, M. A. R., M. J. D. Ostry, and M. S. Qureshi. 2017. "Managing the Tide: How Do Emerging Markets Respond to Capital Flows?" IMF Working Paper 17/069, International Monetary Fund, Washington, DC.

- Goldberg, L. S., and S. Krogstrup. 2023. "International Capital Flow Pressures and Global Factors." *Journal of International Economics* 146: 103749.
- Gomez-Gonzalez, J. E., O. M. Valencia, and G. A. Sánchez. 2022. "How Fiscal Rules Can Reduce Sovereign Debt Default Risk." *Emerging Markets Review* 50: 100839.
- Gourinchas, P. O., and M. Obstfeld. 2012. "Stories of the Twentieth Century for the Twenty-First." *American Economic Journal: Macroeconomics* 4 (1): 226–65.
- Grigoli, F., A. Herman, and A. Swiston. 2019. "A Crude Shock: Explaining the Short-Run Impact of the 2014–16 Oil Price Decline across Exporters." *Energy Economics* 78: 481–93.
- Grigoli, F., D. Sandri, and A. Schrimpf. Forthcoming. "Tug of War: Global Spillovers and Monetary Policy Autonomy in Emerging Markets." International Monetary Fund, Washington, DC.
- Gruss, B., and S. Kebhaji. 2019. "Commodity Terms of Trade: A New Database." IMF Working Paper 19/021, International Monetary Fund, Washington, DC.
- Hardy, B., D. Igan, and E. Kharroubi. 2024. "Resilience in Emerging Markets: What Makes It, What Could Shake It?" *BIS Bulletin* 88, Bank for International Settlements, Basel.
- Harikrishnan, N., B. Silk, and E. Yoldas. 2023. "US Interest Rates and Emerging Market Currencies: Taking Stock 10 Years after the Taper Tantrum." *FEDS Notes*, October 4.
- Hofmann, B., I. Shim, and H. S. Shin. 2016. "Sovereign Yields and the Risk-Taking Channel of Currency Appreciation." BIS Working Paper 538, Bank for International Settlements, Basel.
- Ilzetzki, E., E. G. Mendoza, and C. A. Végh. 2013. "How Big (Small?) Are Fiscal Multipliers?" *Journal of Monetary Economics* 60 (2): 239–54.
- Ilzetzki, E., and C. A. Végh. 2008. "Procyclical Fiscal Policy in Developing Countries: Truth or Fiction?" NBER Working Paper 14191, National Bureau of Economic Research, Cambridge, MA.
- International Monetary Fund (IMF). 2023a. "Integrated Policy Framework—Principles for the Use of Foreign Exchange Intervention." IMF Policy Paper 2023/061, International Monetary Fund, Washington, DC.
- International Monetary Fund (IMF). 2023b. "Review of the Flexible Credit Line, the Short-Term Liquidity Line and the Precautionary and Liquidity Line, and Proposals for Reform." IMF Policy Paper 2023/039, International Monetary Fund, Washington, DC.
- Ioannidou, V., S. Kokas, T. Lambert, and A. Michaelides. 2025. "(In)dependent Central Banks." SSRN Working Paper 4262695, Social Science Research Network.
- Kose, A., and E. Prasad. 2010. *Emerging Markets: Resilience and Growth amid Global Turmoil*. Washington, DC: Brookings Institution.
- Lane, P. R., and G. M. Milesi-Ferretti. 2011. "The Cross-Country Incidence of the Global Crisis." *IMF Economic Review* 59 (1): 77–110.
- Levy-Yeyati, E., and F. Sturzenegger. 2005. "Classifying Exchange Rate Regimes: Deeds vs. Words." *European Economic Review* 49 (6): 1603–35.
- Liang, P., M. Sampaio, and S. Sarkisyan. 2024. "Digital Payments and Monetary Policy Transmission." Ohio State University Working Paper 2024-14, Charles A. Dice Center for Research in Financial Economics, Columbus, OH.
- Lisi, G. 2022. "IMF's Precautionary Lending Instruments: Have They Worked?" IMF Working Paper 22/256, International Monetary Fund, Washington, DC.
- Mauro, P., R. Romeu, A. Binder, and A. Zaman. 2015. "A Modern History of Fiscal Prudence and Profligacy." *Journal of Monetary Economics* 76: 55–70.
- Mendoza, E. G., and J. D. Ostry. 2008. "International Evidence on Fiscal Solvency: Is Fiscal Policy 'Responsible'?" *Journal of Monetary Economics* 55 (6): 1081–93.
- Miranda-Agrippino, S., and H. Rey. 2020a. "The Global Financial Cycle after Lehman." *AEA Papers and Proceedings* 110: 523–28.
- Miranda-Agrippino, S., and H. Rey. 2020b. "US Monetary Policy and the Global Financial Cycle." *Review of Economic Studies* 87 (6): 2754–76.
- Obstfeld, M., J. D. Ostry, and M. S. Qureshi. 2019. "A Tie That Binds: Revisiting the Trilemma in Emerging Market Economies." *Review of Economics and Statistics* 101 (2): 279–93.
- Pedersoli, S., and A. F. Presbitero. 2023. "Public Debt Management and Private Financial Development." *Economic Systems* 47 (1): 101010.
- Presbitero, A. F., and U. Wiriadinata. 2022. "Public Debt and r - g at Risk." SSRN Working Paper 3710776, Social Science Research Network.
- Reinhart, C. M., K. S. Rogoff, and M. A. Savastano. 2003. "Debt Intolerance." *Brookings Papers on Economic Activity* 34: 1–74.
- Rey, H. 2015. "Dilemma Not Trilemma: The Global Financial Cycle and Monetary Policy Independence." NBER Working Paper 21162, National Bureau of Economic Research, Cambridge, MA.
- Romelli, D. 2024. "Trends in Central Bank Independence: A De-Jure Perspective." BAFFI CAREFIN Centre Research Paper 217, Bocconi University, Milan.
- Unsal, D. F., C. Papageorgiou, and H. Garbers. 2022. "Monetary Policy Frameworks: An Index and New Evidence." IMF Working Paper 22/022, International Monetary Fund, Washington, DC.
- Végh, C. A. 2015. "Fiscal Policy in Emerging Markets: Procyclicality and Graduation." *NBER Reporter* 4: 8–12.

Countries increasingly seek to reshape their economies by targeting public support to specific firms and sectors. Their motives vary widely but often include an emphasis on developing strategic industries, with a view to raising future productivity and growth and reducing reliance on imports in key sectors such as energy. This chapter leverages theoretical models, empirical data, and case studies to investigate under what conditions such industrial policies are most likely to succeed. Using a stylized model drawn from the infant industry literature, it shows that industrial policies can help onshore production and catch up with the global technology frontier in a sector where firms become more efficient the more they produce. But this comes at the cost of higher consumer prices during the catch-up phase and is sensitive to initial conditions such as the size of the technology gap, how quickly firms learn by doing, and market size. Such policies can also incur substantial public expenditure, an important consideration at a time of elevated debt and limited fiscal space in many countries. Empirically, recent industrial policies—mainly a combination of direct support and subsidized financing—are associated with improved outcomes in the targeted sector, but the magnitudes are small. Moreover, such interventions are likely to spill over to other sectors, which is difficult to identify empirically. Use of a multisector quantitative trade model to examine the aggregate policy impact finds that imperfect targeting of interventions could reduce aggregate productivity as factors of production move from one sector to another. For example, broad-based energy sector subsidies could lessen reliance on fossil fuel imports while reducing productivity in non-energy sectors. Overall, the chapter findings suggest that policymakers should be keenly aware of opportunity costs and trade-offs: While industrial policy can raise production in the targeted sector, this needs to be balanced against other considerations such as fiscal cost, higher

consumer prices, and possible resource misallocation. Appropriate targeting and safeguards, market discipline, and complementary structural reforms are crucial elements of a well-designed industrial policy package.

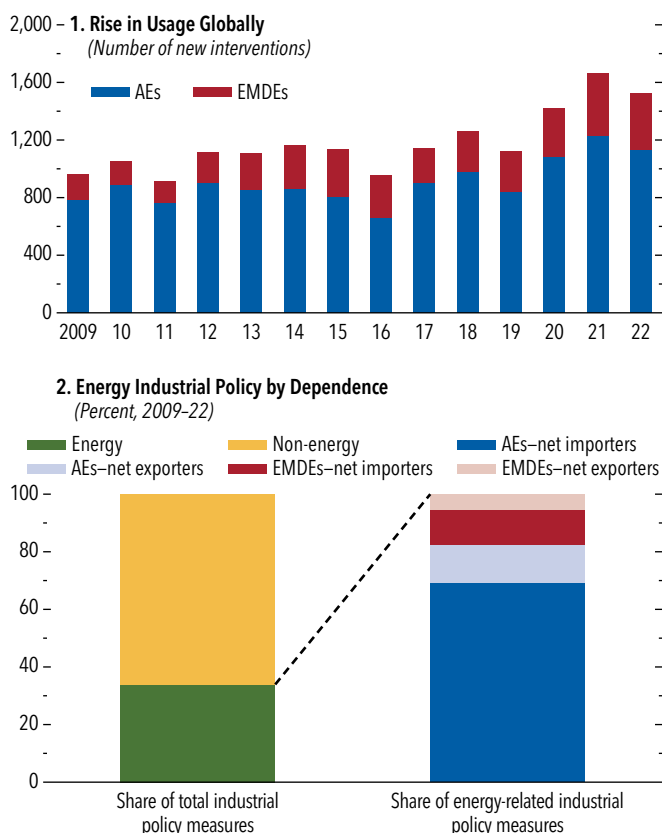
Introduction

The global slowdown in growth, coupled with concerns about disruptions to supply chains and energy security, has prompted renewed interest in policies that enhance growth and resilience, including industrial policy (IP). These interventions look to spur structural transformation by providing public support in the form of subsidies and other preferences to specific industries or firms. The focus on targeting individual businesses or sectors is key; while more general policy measures such as structural reforms and macroeconomic policies can also shape the economy, these would not qualify as IP. In principle, IP can address market failures that constrain the development of production capacity—for example, if costs fall with expanded production at the sector level. In practice, IP takes multiple forms and is used to pursue diverse objectives, including boosting productivity growth, protecting manufacturing jobs, building resilience by creating local supply chains, establishing self-reliance in key sectors such as energy, and diversifying the economy by developing infant industries. The salience of IP as a policy tool has been rising against the backdrop of rising geopolitical tensions.

Since 2009, the number of new IP interventions has increased significantly, with a notable acceleration following the onset of the COVID-19 pandemic (Figure 3.1, panel 1). Nowhere is this more apparent than in the energy sector. A third of all IPs implemented between 2009 and 2022 targeted at least one energy sector product, of which about 80 percent were rolled out in energy-dependent countries (Figure 3.1, panel 2). Several countries have turned to IP to boost energy security by reducing dependence on fossil fuel imports and accelerating electrification of the economy.

Amid the global surge in IP, this chapter provides an analytical framework to analyze the domestic

The authors of this chapter are Shekhar Aiyar (co-lead), Hippolyte Balima, Mehdi Benatiya Andaloussi (co-lead), Thomas Kroen, Rafael Machado Parente, Chiara Maggi, Yu Shi, and Sebastian Wende, with contributions from Lorenzo Rotunno and Simon Voigts and research assistance from Shrihari Ramachandra and Yarou Xu. Andrés Rodríguez-Clare was the external advisor. The chapter benefited from comments by Mary E. Lovely and internal seminar participants and reviewers.

Figure 3.1. Global Evolution of Industrial Policies

Sources: Global Trade Alert; Juhász and others 2022, 2025; U.S. Energy Information Administration; and IMF staff calculations.

Note: Industrial policy (IP) is defined as state action directed at changing the structure of the domestic economy, following the text-based approach of Juhász and others (2022, 2025). In panel 1, the bars show the number of new IP interventions introduced by AEs and EMDEs. In panel 2, the first bar shows the share of IP interventions targeting energy-related products, defined as those including at least one energy product at the 6-digit Harmonized System (HS) code level. The second bar breaks down these interventions by countries' energy dependence and income group. Countries are net energy importers (exporters) if their energy consumption exceeds (is less than) production. AEs = advanced economies; EMDEs = emerging market and developing economies.

macroeconomic benefits, risks, and trade-offs associated with such strategies. The analysis focuses on both sector-level and aggregate outcomes, including value added, productivity, and resource allocation, while illustrating economic trade-offs and risks. Throughout, a focus on the energy sector serves both to illustrate general principles and to highlight an important special case of industrial policy. Many countries are striving to reduce dependence on fossil fuel imports by promoting domestic production of clean technology. Moreover, the energy sector has extensive linkages with other sectors, making its performance consequential for the whole economy. To keep the analysis focused and

tractable, the chapter centers on the policy effects of IP on domestic outcomes, as those are likely to be of first-order importance for policymakers.¹

The chapter addresses four main questions:

- *How have industrial policies evolved recently?* What types of industrial policy instruments have been deployed? What are their main stated objectives?
- *What are the main economic justifications for the use of IP? What types of market failures are IPs meant to address?* What kinds of trade-offs do they present, both in theory and in practice? And what are the opportunity costs, in terms of fiscal resources with alternative uses?
- *Empirically, what are the effects of IP on targeted sectors?* How do they differ along key sector and firm characteristics? Do the impacts of policies targeted at the energy sector differ from those rolled out in other sectors?
- *What are the general equilibrium effects of IP?* Does the impact in a given sector spill over to other sectors as resources are reallocated? Can IP distort allocative efficiency and increase misallocation across sectors? Do policies specific to the energy sector deliver better macroeconomic outcomes than policies targeted at other sectors?

To address these questions, the chapter employs an array of empirical analyses, model-based simulations, and case studies. The main findings are as follows:

- *Industrial policies are making a strong comeback.* They are being used to pursue an array of domestic objectives. Recent IPs often take the form of substantial subsidies and aim to achieve multiple domestic objectives—ranging from productivity gains and technological catch-up to job protection and self-sufficiency in key sectors, including energy.

¹Although not the focus of this chapter, large-scale industrial policy can also have cross-country spillovers and trigger retaliation by trading partners. Recent IMF work has found that the domestic effects of industrial policies are sensitive to the subsidies and trade barriers deployed by trading partners (Hodge and others 2024; Rotunno and Ruta 2025) and that recent industrial policies have triggered retaliation (Evenett and others 2024). Theoretical frameworks find that global coordination on industrial policies could improve global outcomes, while retaliation could spark a wasteful global subsidy race (Ju and others 2024; Lashkaripour and Lugovskyy 2023). Box 3.2 finds that, in the EU, national-level subsidies that target local firms can negatively affect competing firms in other European countries. Beyond trade spillovers, Gopinath and others (2025), Graziano and others (2024), and Ruta and Sztajerowska (2025) show that industrial policies can shape cross-border foreign direct investment flows.

- *IP effectiveness is not guaranteed and depends on design, implementation, and broader macroeconomic conditions.* Model simulations and empirical evidence show that IPs can help jump-start domestic industries, especially when productivity scales up with output. But their efficacy is sensitive to sector-specific characteristics that can be hard to determine in advance, such as the rate of learning by doing and potential market size. As shown by case studies of *Korea* and *Brazil*, appropriate targeting, careful implementation, complementary policies, and macroeconomic stability are all keys to success.
- *IPs typically involve trade-offs between competing objectives.* Onshoring production in a strategic sector might lead to higher consumer prices for a prolonged period, and delivering certain IP objectives might require substantial fiscal outlays, which represent an important opportunity cost. For example, fiscal resources could be deployed on high-return structural reforms that do not require granular sectoral information to implement.
- *While IPs can deliver sector-level gains, translating these into broader economic benefits might remain challenging.* Even when sector-level outcomes are positive, IPs can generate negative cross-sector spillovers, drawing away resources from sectors that are not targeted. If those sectors are highly productive, or exhibit economies of scale, then aggregate productivity could fall.

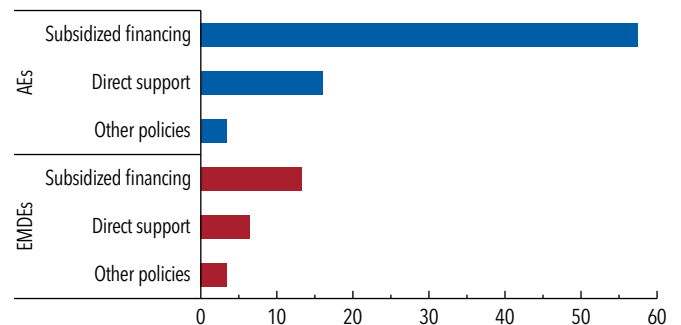
The chapter begins by documenting the recent rise in industrial policies. It then offers a stylized model of infant industry protection, which is used to illustrate the intertemporal trade-offs and risks of IP. A dynamic macroeconomic model with a granular energy sector augments the analysis by examining the trade-offs associated with IP targeting this sector. Case studies illustrate the mechanisms described in the model and add context on supporting frameworks and implementation challenges. Next, the chapter provides empirical evidence that IPs are associated with modest improvements in targeted sectors and that effects vary across countries and sectors. A quantitative trade model shows that IP creates spillovers to untargeted sectors and how this can cause misallocation and reduce aggregate effects. The chapter concludes with implications for policy.²

²The analyses in this chapter reinforce the guidance put forward in recent IMF publications on industrial policy (see for example Chapter 2 of the April 2024 *Fiscal Monitor* and IMF 2024).

Figure 3.2. Industrial Policy Interventions by Instrument and Estimated Fiscal Costs

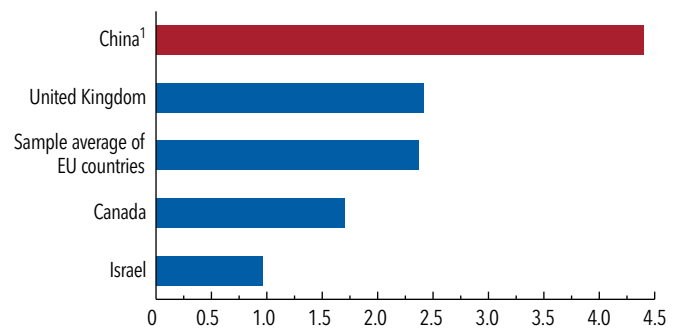
1. Interventions by Instrument

(Percent implemented globally, 2009–22)



2. Estimate of Fiscal Costs

(Percent of GDP, 2021)



Sources: Garcia-Macia, Kothari, and Tao 2025; Juhász and others 2022, 2025; Organisation for Economic Co-operation and Development (OECD) 2025; and IMF staff calculations.

Note: Panel 1 highlights the distribution of industrial policies implemented between 2009 and 2022 by instrument used, for AEs and EMDEs. “Subsidized financing” and “direct support” refer to subsidy-based measures. “Other policies” encompasses both tariff and nontariff trade barriers. See Online Annex 3.2 for a detailed breakdown of these policy categories. Panel 2 shows the estimated fiscal costs of industrial policy measures as a share of GDP for selected economies with available data. These costs include support provided through grants, tax expenditures, and financial instruments. The US is not included in panel 2 owing to the lack of comparable fiscal cost estimates. However, available data from the OECD indicate that US fiscal spending on green industrial policies adopted as part of COVID-19 recovery packages amounted to about 3.2 percent of one year’s GDP. EU countries plot the sample average across Denmark, France, Ireland, Italy, The Netherlands, and Sweden. AEs = advanced economies; EMDEs = emerging market and developing economies.

¹China data refer to 2023 and include land subsidies.

The Return of Industrial Policy

The resurgence of industrial policy is marked by a predominance of subsidy-based measures (Figure 3.2, panel 1).³ They comprise subsidized financing—

³Online Annex 3.1 provides references to data sources used throughout the chapter. The stylized facts presented in this section are broadly consistent with the use of alternative algorithms that categorize IP using the Global Trade Alert (GTA) in the recently developed New Industrial Policy Observatory (NIPO) database (Evenett and others, forthcoming). All online annexes are available at www.imf.org/en/Publications/WEO.

subsidies intended to alleviate financial constraints for targeted firms and sectors, such as loan guarantees and interest payment subsidies—and direct support measures, which include transfers such as financial grants and state aid.⁴ In both advanced economies and emerging market and developing economies, subsidized financing and direct support measures accounted for over 80 percent of interventions, with other forms of IP, encompassing tariffs and nontariff measures, playing only a marginal role.⁵

It is inherently difficult to aggregate the total fiscal costs of these subsidies as they entail a wide range of policy instruments, which differ across countries and can be implemented by the central government, through state-owned enterprises (SOEs), or at the local level. Notwithstanding these caveats, available estimates, including new ones for China (Box 3.1), indicate that the fiscal cost of industrial policy is sizable, amounting to a few percentage points of GDP per year (Figure 3.2, panel 2).

Economic Rationale and Motivations

The economic justification for IP is typically grounded in correcting market failures, which prevent an efficient allocation of resources. The analyses in this chapter focus on infant industries, which are at an early stage of development domestically and lag the global technology frontier. If these industries see production costs decline as production increases, a case can be made for targeted public support to facilitate expansion.⁶ While such justifications were historically prominent in emerging market and developing economies, as illustrated by Brazil and Korea in the

1970s, they are increasingly prevalent in advanced economies to support strategic domestic industries that lag the global frontier, such as clean technologies and semiconductors.

In practice, the motivations for IP vary widely and might sometimes overlap. Enhancing competitiveness in strategic sectors emerges as a primary driver of interventions in both advanced economies and emerging market and developing economies (Figure 3.3, panel 1).⁷ In advanced economies, climate mitigation and global value chain resilience also feature prominently among policy objectives. Although noneconomic concerns such as national security and geopolitics appear to be less prominent, it is likely that they drive, at least in part, the underlying motivation for proximate objectives like strategic competitiveness and global value chain resilience (Aiyar and others 2023).

The sectoral breakdown of industrial policy interventions shows that advanced economies target mostly high-tech manufacturing and the energy sector (Figure 3.3, panel 2). In emerging market and developing economies, by contrast, the focus is broader, and interventions are more evenly distributed across high- and low-technology manufacturing, energy, and services.

Energy Independence and Rising Demand for Electricity

Industrial policies in the past 15 years have targeted energy products to spur a structural transformation of the energy sector, help reduce global greenhouse gas emissions in some countries, boost or diversify energy production in net exporting countries, and promote energy independence. In fact, many net-energy-importing countries rely heavily on fossil fuel imports to meet their energy needs. For example, fossil fuel imports meet more than 80 percent of energy needs in Japan, close to 50 percent in the EU, and about 20 percent in China (Figure 3.4, panel 1). Although importing energy can be a cost-efficient solution in many countries, it is often viewed as

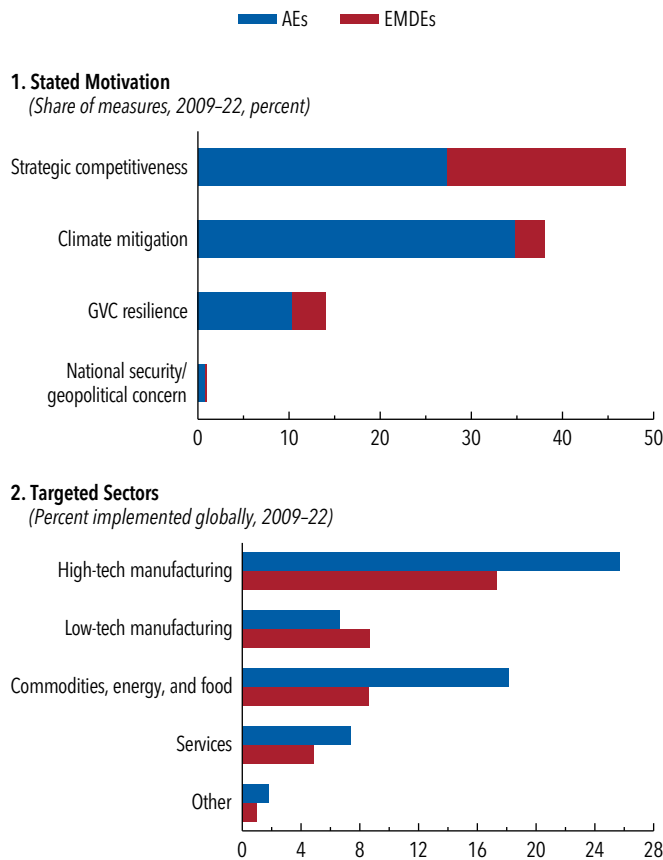
⁴For a more detailed breakdown of the intervention types classified under each of the three policy categories, see Online Annex 3.2. There are no comprehensive data on the fiscal costs attached to each intervention type. In principle, and although this is beyond the scope of this chapter, different instruments could carry different risks, including stemming from the level of public and private sector debt, the availability of credit, financial stability, and governance, including corruption.

⁵However, the use of these other forms of industrial policy has grown at a faster rate in recent years than subsidized financing and direct support measures in advanced economies, based on data available through the end of 2022.

⁶Industrial policy can target other market failures (including those stemming from asymmetric information, collective action, and coordination failures), help kick-start sectors that face high fixed costs (Baquie and others 2025) or relax financial frictions (Itskhoki and Moll 2019). They have also been used to overcome infrastructure gaps, spur diversification (Juhász, Lane, and Rodrik 2023), and target industries with large positive spillovers domestically (Garcia-Macia and Sollaci 2025).

⁷As noted in Evenett and others (2024), a policy's motive is categorized as "strategic competitiveness" if it is aimed at promoting domestic competitiveness or innovation in a strategic product or sector. Strategic sectors include medical equipment, semiconductors, critical minerals, military/civilian dual use, low-carbon technology, and other advanced technologies.

Figure 3.3. Motivation for Industrial Policies and Targeted Sectors



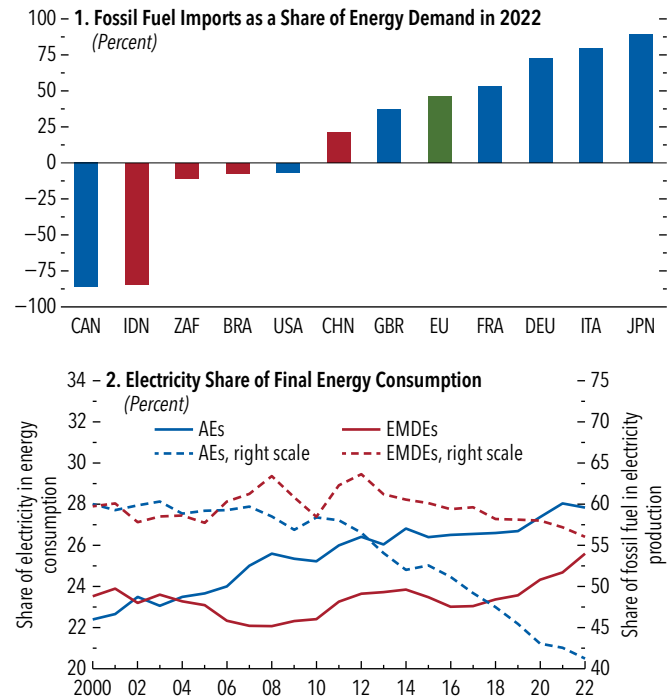
Sources: Evenett and others 2024; Evenett and others, forthcoming; Global Trade Alert; Juhász and others 2022, 2025; and IMF staff calculations.

Note: Industrial policy (IP) is defined as state action directed at changing the structure of the domestic economy, following the text-based approach of Juhász and others (2022, 2025). Panel 1 highlights the stated motivations provided by governments for introducing new IP between 2009 and 2022, based on the subset of measures with available data. Panel 2 shows the distribution of IP interventions by targeted sector in AEs and EMDEs between 2009 and 2022. Sectors are classified according to NACE Rev. 2 (2-digit level). High-technology manufacturing includes computer, electronic, and optical products; electrical equipment; chemical products; pharmaceuticals; basic and fabricated metals; machinery and equipment; and motor vehicles and other transport. Low-tech manufacturing includes wood; paper; printing; textiles; apparel; leather; rubber, plastic, and nonmetallic mineral products; furniture; other manufacturing; and repair. AEs = advanced economies; EMDEs = emerging market and developing economies; GVC = global value chain.

increasing vulnerability to external shocks, posing risks to national security and resilience.

To reduce reliance on fossil fuel imports, policymakers have encouraged substituting key fossil fuel uses with electricity, contributing to a growing share of electricity in final energy consumption (see Figure 3.4, panel 2). In parallel, electricity production itself has become ever less dependent on fossil fuels—particularly in advanced economies (dashed blue line)—with the swift adoption of new technologies

Figure 3.4. Industrial Policy for Energy Security and Increasing Needs for Electricity



Sources: Eurostat; International Energy Agency; U.S. Energy Information Administration; and IMF staff calculations.

Note: Panel 1 plots energy imports over energy demand. Energy demand = production + imports – exports – international marine bunkers – international aviation bunkers +/– stock changes. Fossil fuel includes coal, peat, and oil share; crude, natural gas liquids, and feedstocks; natural gas; and oil products. Fossil fuel imports are measured as net imports, with positive values indicating net importers and negative values indicating net exporters. In panel 2, the sample includes 34 AEs and 27 EMDEs. The lines represent the simple average across countries within each group. Data labels in the figure use International Organization for Standardization (ISO) country codes. AEs = advanced economies; EMDEs = emerging market and developing economies; EU = European Union.

such as renewables. Industrial policy has often been deployed to help develop the domestic manufacturing of clean technologies, often in their infant industry stage, which will be analyzed in a subsequent section. Focus on the power sector has also been motivated by the increasing demand for electricity spurred by the adoption of emerging technologies—including electric vehicles and data centers. By 2030, global electricity demand from data centers and electric vehicles will surpass the current electricity consumption of most countries (Bogmans and others 2025; Online Annex Figure 3.2.2).

Against this backdrop of rising interest in onshoring production in strategic industries, the next section examines the theoretical basis for supporting an industry that currently lags behind the world

technology frontier. It draws from the infant industry literature, which emphasizes potential efficiency gains from supporting a sector in its early stage of domestic development.

Industrial Policy for Infant Industry Protection

A simple stylized model with two countries and sectoral learning-by-doing dynamics serves to illustrate the sector-level benefits countries might seek to capture through IP, the trade-offs involved, and how these depend on countries' starting conditions. The model is grounded in the infant industry protection literature (Harrison and Rodríguez-Clare 2010; Melitz 2005; Redding 1999) and has two key features:

- **Sectoral learning by doing in the infant industry sector:** To capture the potential for catch-up to the global frontier, the model features a young high-tech sector—the infant industry—with learning by doing.⁸ In the infant industry, marginal costs decrease over time with accumulated production experience. This creates a rationale for policy interventions through industrial policies, based on purely economic considerations. The other sector features no learning by doing and captures a composite of more mature industries.⁹
- **Home country lagging the global frontier:** The model features two countries, one of which is the technological leader with greater accumulated production experience and hence lower initial costs. Throughout, the model simulations take the perspective of the technological follower, which is assumed to start at a 30 percent cost disadvantage relative to the leader. This is broadly consistent with the midpoint for cost gaps between technological leaders and followers in studies of infant industry

protection and learning by doing.¹⁰ Moreover, the foreign leader is assumed to have accumulated five times more experience than the home country in the infant industry.¹¹

Industrial policy, consisting of a mix of subsidies and trade protections, can incentivize the onshoring of high-tech production in the home country, but with other attendant dynamic effects. Figure 3.5 compares outcomes for a country that starts behind the global frontier in the infant industry sector across two scenarios: one in which the home country rolls out IP in the sector (solid blue line) and a baseline scenario in which it does not (dashed line).¹²

Under IP, domestic production ramps up more than tenfold because of production subsidies and trade protection. As domestic producers learn by doing, their production costs drop rapidly (Figure 3.5, panels 1 and 2). This comes with two costs. First, even as IP leads domestic production costs to drop significantly over time, consumer prices increase temporarily and remain elevated for a prolonged period (Figure 3.5, panel 3). This occurs because trade protection increases the price consumers face for imported goods, and domestic production costs remain higher than those prevailing at the frontier during the catch-up phase. Second, the subsidy imposes a fiscal cost, which will be explored in more detail later in the chapter.

The conditions under which IP may boost domestic production and enable rapid domestic learning by doing depend, however, on key parameters and initial conditions. Figure 3.6 shows how domestic production costs, production volumes, and consumer prices under the same industrial policy mix compare at the end of the period, depending on key sectoral characteristics in the home country. Results from the previous experiment, in light blue, are compared with results

⁸In the model, the learning-by-doing parameter summarizes how accumulated experience can drive production costs lower over time—for example, as production processes are improved or as workers gain know-how on the factory floor. These improvements are particularly salient at early stages of development in an industry.

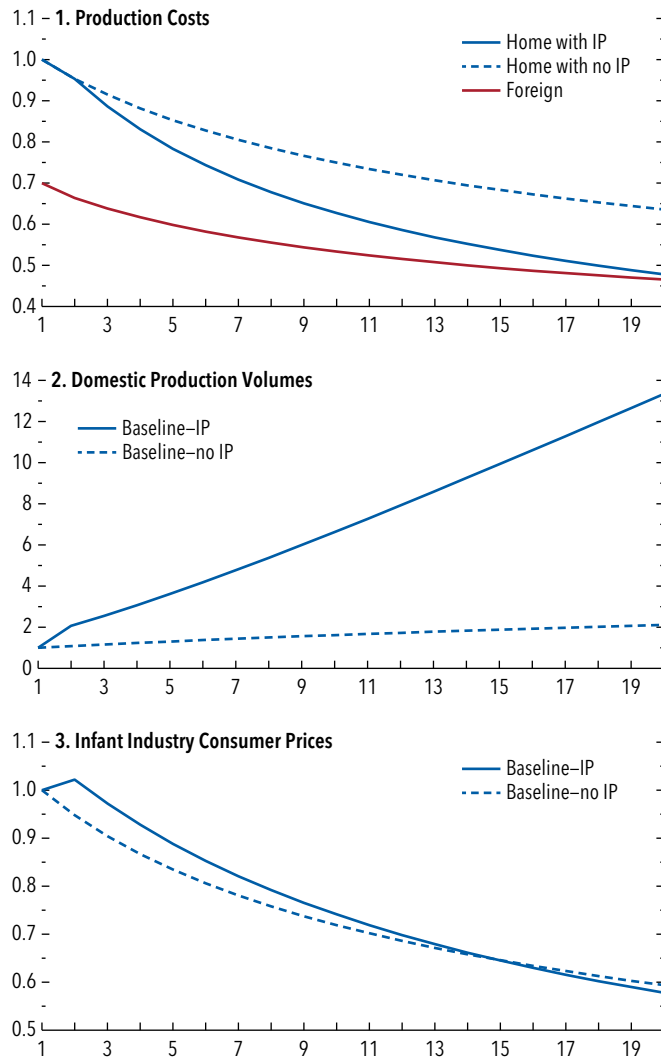
⁹The sectoral learning rate in the high-tech sector is set at 19 percent in the simulations, implying that a doubling of sectoral output leads to a 19 percent decline in marginal costs. This is broadly consistent with observed empirical cost curves and estimates in the academic literature (Barwick and others 2025 for electric vehicles [EVs]) and industry estimates (BNEF 2024). Cooper and Johri (2002) cite 20 percent as the typical learning rate in their literature review, whereas Barwick and others (2025) cite an 8 percent to 30 percent range.

¹⁰For example, Bloomberg New Energy Finance (2024) reports a 30 percent cost gap between China and Europe/US for EV batteries. Regarding historical examples of early-stage industry protection, Luzio and Greenstein (1995) report a 45 percent cost gap between Brazil and the US in microcomputers in the 1980s; Head (1994) reports a 25 percent cost gap between the US and the United Kingdom in the late 1880s in tinplate.

¹¹The analysis uses a fivefold advantage as a midpoint, which is comparable to key examples. For example, in the production of solar panels, China's cumulative experience is about 8–12 times that of the EU and US, while for wind energy equipment, China's cumulative experience is 2–3 times larger (see Online Annex Figure 3.2.3).

¹²The simulations are shown for an industrial policy that consists of a 10 percent tariff and a 12 percent production subsidy imposed by the home country. The industrial policy is financed through lump-sum taxation.

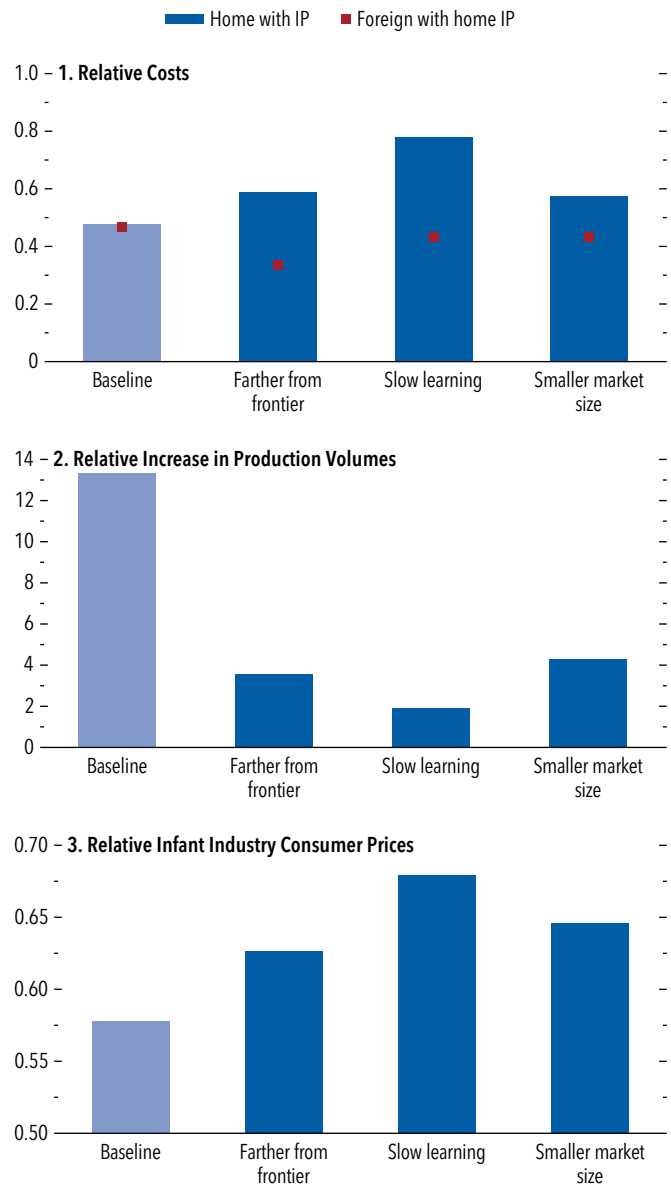
Figure 3.5. Intertemporal Trade-Offs Depend on Learning Rate
(Baseline in period 1 = 1; time on x-axis)



Source: IMF staff calculations.

Note: This figure is a stylized model illustration. Period 1 simulates model outcomes for one period assuming no IPs. Thus, period 1 outcomes are identical across both scenarios. IP scenario assumes that home economy imposes trade protections and production subsidies (12 percent production subsidy and 10 percent tariff) in period 2 and onward. The "no IP" scenario assumes that no IPs are in place from period 1 onward. The learning rate is 19 percent. Normalizations in period 1 are as follows: production costs, production volumes, and consumer prices are each normalized to 1. IP = industrial policy.

Figure 3.6. Key Sector Characteristics Determine the Long-Term Effects of Industrial Policy
(Relative change, baseline in period 1 normalized to 1)



Source: IMF staff calculations.

Note: Bar charts show relative change in costs, production volumes, and consumer prices in period 20 relative to period 1. Each scenario has 12 percent production subsidy and 10 percent tariff. The baseline learning rate is 19 percent, and the baseline cost advantage of the foreign country is 30 percent. In "farther from the frontier" scenario, the foreign country has a 40 percent cost advantage. In the "slow learning rate" scenario, the home learning rate is assumed half as large, and in the "smaller market size" scenario the home country is assumed to have no access to exports. Red squares in panel 1 indicate the relative cost decline in the foreign country in period 20 relative to period 1 if the home country imposes IP. IP = industrial policy.

if the home country either (1) starts farther from the global frontier, (2) experiences a slower learning rate, or (3) faces a smaller market—for example, because it does not have access to export markets.¹³

When IP is conducted further behind the frontier,¹⁴ home production costs decline more slowly as production quantities increase only 3.5 times over the long term. Hence, there is less domestic learning by doing. Instead, the home country continues to rely primarily on imports, even as their prices rise because of trade protections. Since domestic production costs fall more slowly, consumer prices decline less over time.

Public support may not deliver the intended effects if domestic producers cannot learn as fast as anticipated. For example, learning could be slower if shortages of skilled labor limit improvements to production processes or if barriers to the diffusion of foreign knowledge slow technology adoption (Eugster and others 2022). If learning in the home country happens only half as fast as in the foreign country, domestic costs decline more slowly than in the foreign country as production volumes increase. Consequently, instead of catching up to frontier production costs, domestic costs diverge further relative to the technology frontier—remaining 80 percent higher over the long term. Domestic production volumes do not ramp up over time, and consumer prices stay higher for much longer. Hence, domestic consumption also remains more subdued than in the baseline.

Market size is key for industrial policy to deliver production cost declines through learning by doing. In the last counterfactual, the home country is assumed to lack access to export markets. The effectively limited market size now constrains the expansion of domestic production volumes. There is less learning by doing, with production increasing by only about one-third of the increase in the baseline scenario and production costs declining more slowly.

¹³Figure 3.6. shows endpoints after 20 years. The full dynamic paths are in Online Annex Figures 3.3.1.–3.3.4.

¹⁴The literature has discussed the possibility that a country far behind the global frontier may be able to leapfrog the current technological leader (Brezis and others 1991; Lee and Lim 2001; Aghion, Akcigit, and Howitt 2015; Stiglitz 2017). For example, a country might skip a particular technology altogether by moving to deploy mobile phones widely rather than first investing in landline infrastructure. The stylized model in this section focuses on a single technology and does not capture such leapfrogging. However, Online Annex Figure 3.3.1 investigates how countries could get closer to the frontier from the start in a given technology—for instance, by attracting foreign direct investment or technology transfers from the technological leader. In that case, by starting closer to the frontier, the home country could not only catch up to the global frontier but surpass the incumbent technological leader over time.

Finally, it should be noted that the exercise abstracts from the vital complementary role that non-targeted structural policies can play in enhancing productivity. Box 3.3 provides further analysis.

Lessons from Key Industrial Policies, Past and Present

The stylized model of the previous section helped illustrate the dynamic role of IP at the sectoral level and showed how its efficacy is sensitive to many factors. This section seeks to enrich that analysis with greater realism by exploring two key applications. First, a more detailed scenario analysis of energy-security-related IP in Europe, aimed at onshoring clean technology production, is used to illustrate potential trade-offs. Second, two prominent historical cases—Brazil and Korea in the 1970s—are revisited for more granular insights into the appropriate design and implementation of IP and other complementary policies.

Industrial Policy, the Power Sector, and Energy Security

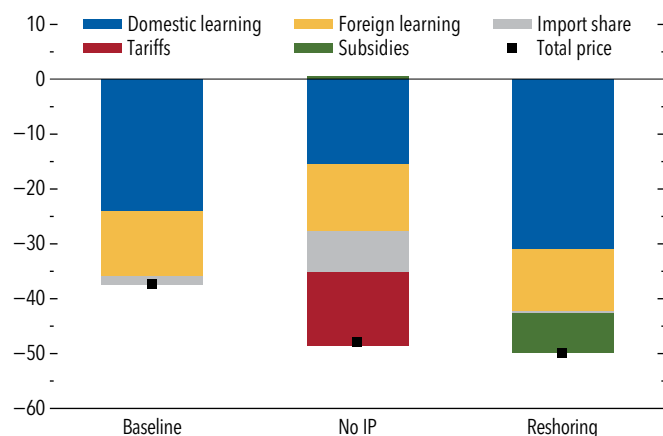
Many countries are seeking to enhance energy security by transitioning to renewable energy and electrifying key sectors such as transportation. This would entail widespread adoption of clean technology equipment, much of which is currently produced in the cost leader, China.¹⁵ IP has been proposed as a way to reshore electric vehicles and renewable power equipment production in the EU and other advanced economies, as these industries are at the infant industry stage. Manufacturing these technologies domestically would increase self-reliance in a critical sector while providing job opportunities. But what are the trade-offs?

To quantify possible trade-offs in the case of the European Union, an extended version of the infant industry model of the previous section is calibrated to clean technology data. It is then augmented with the Global Macroeconomic Model for the Energy Transition (GMMET), a dynamic global model with a granular energy sector representation, to simulate the path of clean technology adoption and sectoral outcomes between 2024 and 2035.¹⁶

¹⁵The literature emphasizes the role of learning-by-doing dynamics in these clean technology industries (see, for example, Bai and others 2020 and Barwick and others 2025).

¹⁶See Online Annex 3.4 for details on the extended version of the model and its calibration.

Figure 3.7. Decomposition of EU Electric Vehicle Price Decline
(Percent change between 2024 and 2035)



Sources: Bloomberg New Energy Finance; International Renewable Energy Agency; and IMF staff calculations.

Note: The figure shows illustrative price change for electric vehicles in the EU under business as usual, and two hypothetical scenarios, derived by a four-country version of the infant industry model, calibrated to current policies, production, and trade patterns of clean technologies. Under baseline scenario, the EU maintains status quo IPs. Under no-IP scenario, all IPs are removed starting in 2025. Under reshoring scenario, a 15 percent production subsidy is introduced in addition to status quo trade protections. EU = European Union; IP = industrial policy.

The model is run under three policy scenarios.

- A *baseline scenario* assumes continuation of industrial policy settings observed in 2024.
- A *no industrial policy (no-IP) scenario* assumes the removal of all existing tariffs and subsidies in the clean tech sector.
- A *reshoring scenario* assumes that major advanced economies increase production subsidies to onshore manufacturing.

Prices, adoption, and onshoring. Learning-by-doing generates a substantial decline in the price of clean technologies in the next decade in the EU, but with varying magnitudes under the three policy scenarios (Figure 3.7). Both the no-IP scenario and the reshoring scenario result in sharper price declines than existing baseline policies. The additional price declines under the no-IP scenario are driven by the removal of existing tariffs, which leads to an increase in low-cost imports. By contrast, if policies observed at the start of the simulation period are maintained (the baseline scenario), the main driver of the decline in prices is the reduction in production costs of domestic firms, which increase production volumes and benefit from learning by doing. These effects are further amplified domestically under the onshoring scenario, as larger subsidies drive a greater increase in production

volumes domestically. However, even as domestic production costs decline substantially, they remain higher than those of the technology leader, which continue to improve over time.¹⁷

Across policy scenarios, the decline in clean technology prices drives uptake (Figure 3.8, panels 1 and 2), particularly under the no-IP and reshoring scenarios, under which price declines are steepest.

A key distinction between scenarios lies in the degree of onshoring of clean technology equipment manufacturing (Figure 3.8, panel 3). Under the baseline, Europe loses domestic market share, as its relatively small market limits the scope for catch-up learning. In the no-IP scenario, the removal of tariffs leads to domestic producers being outcompeted by lower-cost imports. In the reshoring scenario, Europe achieves substantial self-reliance through a combination of subsidies and cumulative learning effects.

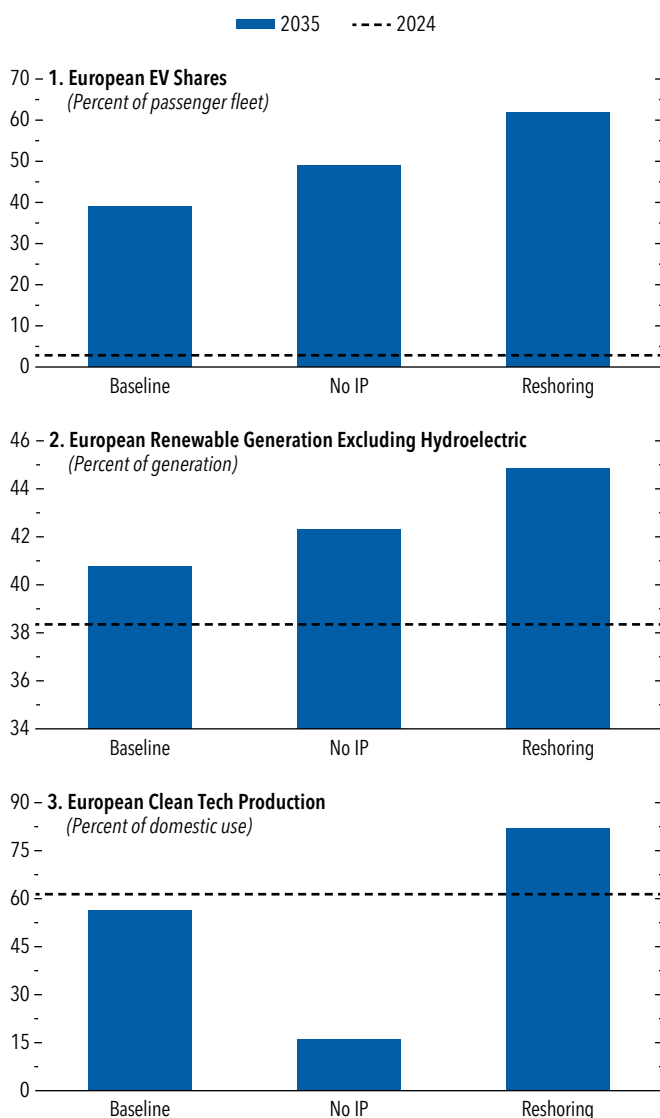
Energy security and macroeconomic effects. The increased penetration of clean technologies leads to a substantial reduction in fossil fuel use in power production and transportation in both the reshoring and no-IP scenarios relative to the baseline.¹⁸ Both policy paths enhance energy security and reduce fossil fuel dependence in the EU (Figure 3.9, panel 1).

But key trade-offs arise as the two scenarios have very different impacts on the labor market and fiscal spending (Figure 3.9, panels 2 and 3). The no-IP scenario eliminates the subsidies present in the baseline but leads to a reduction of employment in clean technology manufacturing of more than 0.5 percent of the labor force as imports dominate. On the other hand, the reshoring scenario results in a reallocation of labor toward clean technology manufacturing, equivalent to more than 1 percent of the labor force. However, these gains are offset by declines in other manufacturing sectors, in part driven by exchange rate movements.

In addition, reshoring entails substantial fiscal costs—estimated at 0.4 percent of EU GDP annually,

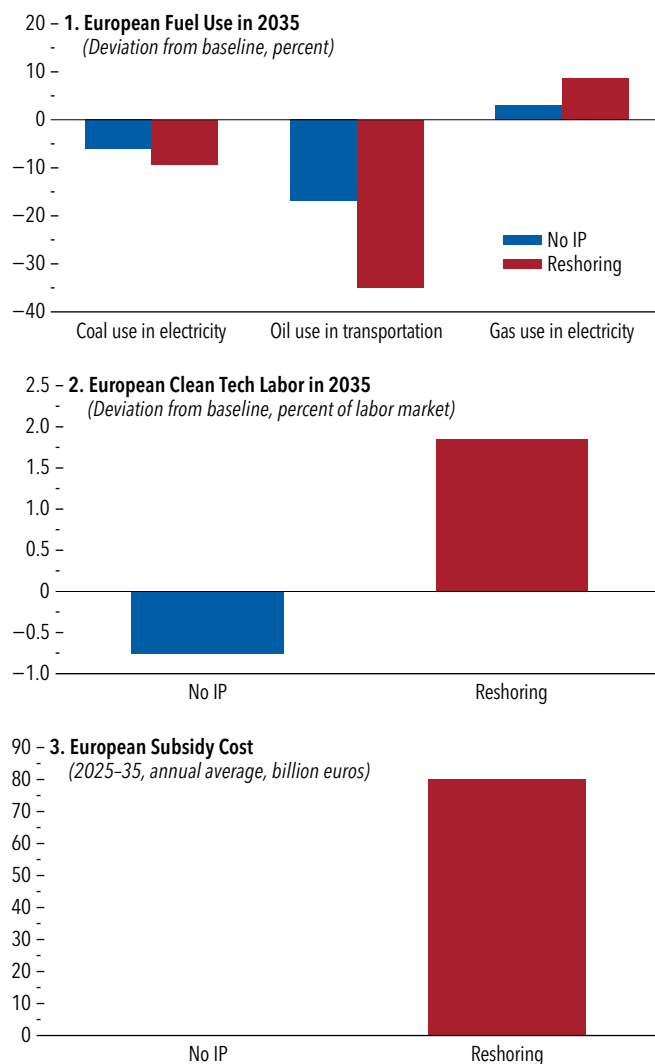
¹⁷The model captures the effects of learning by doing on the production cost of clean technologies. In practice, other factors could lead to divergence in these costs across regions, including access to low-cost inputs, such as critical minerals. Recent literature has demonstrated that a fragmentation of global commodity markets could lead to substantial increases in the price of critical minerals in the EU (Chapter 3 of the October 2023 *World Economic Outlook* and Alvarez and others 2025).

¹⁸By 2035, oil use in passenger transportation declines by 20 to 30 percent relative to the baseline scenario, and coal use in power generation also falls. However, gas use increases because electricity demand is higher and a firming up of capacity is needed to support renewables.

Figure 3.8. No-IP and Reshoring Policies Accelerate Take-Up, but Domestic Production Impacts Differ

Sources: Global Macroeconomic Model for the Energy Transition; and IMF staff calculations.

Note: Under the baseline scenario, the EU continues to impose status quo industrial policies. Under the no-IP scenario, all industrial policies are removed starting in 2025. Under the reshoring scenario, 15 percent electric vehicle and 30 percent renewable production subsidies are introduced starting in 2025. See Online Annex 3.4 for details. EV = electric vehicle; IP = industrial policy.

Figure 3.9. Policy Options to Reduce Fossil Fuel Use through Access to Cheaper Clean Technologies Present Trade-Offs

Sources: Global Macroeconomic Model for the Energy Transition; and IMF staff calculations.

Note: Under the baseline scenario, the EU continues to impose status quo industrial policies. Under the no-IP scenario, all industrial policies are removed starting in 2025. Under the reshoring scenario, 15 percent electric vehicle and 30 percent renewable production subsidies are introduced starting in 2025. In panel 3, the European subsidy cost under the no-IP scenario is zero. See Online Annex 3.4 for details. IP = industrial policy.

or approximately €80 billion in annual subsidies, on average, from 2025 to 2035, equivalent to about €30,000 per job created in the sector. These would amount to close to half of today's EU budget and exceed current agricultural subsidies.¹⁹

Overall, IP could allow Europe to achieve self-reliance in clean technology manufacturing and could protect jobs in the sector, but it would entail large fiscal costs. However, these model results are sensitive to key assumptions. For example, the simulations assume Europe achieves learning rates comparable to those observed in China over the past decade. But this is not guaranteed, and any deviation from this assumption, such as a slower learning rate, would worsen the identified trade-offs, as described in the previous section. Indeed, history shows that IP does not always deliver as intended, as is discussed next.

Historical Case Studies

The stylized model of sectoral industry dynamics suggests that key parameters such as domestic learning rates and market size are important factors to consider for IP. But how have such parameters shaped IP outcomes in practice? And what part do policy design, implementation, and complementary policies play in determining the success of IP?

To shed light on these questions, this section examines two prominent and well-documented historical cases in emerging markets: *Brazil* and *Korea*.²⁰ During the 1970s, the two countries adopted large-scale industrial policies using instruments that resemble those documented in modern industrial strategies, with the aim of promoting structural transformation in selected strategic sectors (Online Annex 3.5). However, their approaches differed markedly. *Brazil* emphasized mainly import-substituting industrialization and relied on state-owned enterprises as the primary implementation vehicle, whereas *Korea* pursued an export-oriented model based on large private business conglomerates

(chaebols).²¹ *Korea's* experience is broadly regarded as more successful—see Ocampo and Porcile (2020) for a comparative perspective, as reflected in higher growth rates of manufacturing value added and real GDP over the period (Online Annex Figure 3.5.1). Recent empirical studies of *Korea's* experience provide causal evidence that IP promoted the expansion of targeted industries, boosted their international competitiveness, and generated positive spillovers to other sectors (Choi and Shim 2024a; Lane 2025). Further analyses show that subsidized firms continued to grow faster than those never subsidized for up to 30 years after the subsidies ended (Choi and Levchenko 2024). However, the literature also contains some dissenting views.²²

Policy design. A comparison of the two countries' experiences reveals the crucial role played by good policy design, elements of which include fostering domestic learning by doing, targeting a sufficiently large market to allow firms to reach an efficient scale of production, and directing support toward areas with high potential returns or positive externalities. In *Korea*, deliberate policies emphasized experiential learning on the factory floor. Chaebols relied on salaried engineers over administrators at the plant level to absorb foreign technologies and build domestic capabilities. In contrast, *Brazil's* IPs were implemented through state-owned enterprises and lacked the private sector engagement that was central to *Korea's* learning-by-doing model (Peres and Primi 2019). The outward-oriented strategy in *Korea* also enabled chaebols to access global markets and benefit from scale economies, whereas

²¹The motivations behind IP in Korea and Brazil also diverged (Ayres and others 2019; De Bolle, Cohen-Setton, and Sarsenbayev 2025; Lane 2025). In Korea, IP was considered essential for military and industrial modernization, as well as for long-term development—in Brazil, a key objective following the 1973 oil crisis was to reduce dependence on oil imports by investing in domestic oil production and alternative energy sources.

²²For instance, Kim, Lee, and Shin (2021) argue that IPs in Korea increased resource misallocation. For Brazil, some commentators are more positive about the country's IP experience. Recent papers suggest that IP may have benefited some sectors that could gain access to large export markets, noting that public support—including the development of an ecosystem of educational and R&D institutions—contributed to Embraer's success in the aeronautics sector as well as to innovation and productivity gains in agriculture (Sabel and others 2012; Veiga and Rios 2019). Indeed, Rodrik (1993) shows that some export incentives introduced under the 1972 Benefícios Fiscais e Programas Especiais de Exportação (BEFIEX) program were effective in boosting Brazil's exports by multinational firms, even though these firms sometimes had to adjust their global strategies by reducing exports to third countries. More recently, Akerman and others (2025) show that public R&D investment significantly increased Brazil's agricultural output, driven by both higher productivity and expanded input use.

¹⁹In principle, these could be financed by the potential revenues from EU carbon pricing over the coming years (Carton and others, forthcoming), which are not modeled in the exercise. If financed through an increase in debt-to-GDP ratios, these subsidies could lead to an initial slight increase in GDP, which later would be offset by a slowdown in activity when debt-to-GDP ratios need to be brought back down (see Online Annex 3.4.5).

²⁰Of course, care should be taken in extrapolating lessons from historical case studies; there are many differences today from the 1970s, including the geopolitical context, trade relations, and global technology.

in *Brazil*, import-substitution confined state-owned enterprises to a limited domestic market, constraining their ability to scale up production volumes. In *Korea*, support was directed toward sectors considered critical for military and industrial modernization and technologically within reach, drawing lessons from Japan's 1958–68 development experience.

Implementation. The two cases underscore the importance of careful implementation, including fostering competition, relying on competent implementing agencies and objective benchmark criteria to evaluate success or failure, and incorporating safeguards—such as sunset clauses—to limit the costs of policy failures. In contrast to the limited competition faced by *Brazil*'s state-owned enterprises, domestic and international competition were central to *Korea*'s approach, helping to ensure market discipline. For example, the government supported multiple firms within sectors and allowed market forces to determine the winners. This approach was evident in the early stages of the automotive industry, when numerous entrants initially competed and benefited from state support, before Hyundai emerged as the dominant firm.²³ IP governance was also institutionalized in *Korea*. Monthly export promotion meetings—chaired by senior officials and involving representatives from academia, finance, and industry—provided a structured forum for oversight and performance review. Export targets served not only as benchmarks for allocating state resources but also as de facto sunset clauses: firms that failed to meet targets risked losing access to state support, regardless of their size or political influence. *Brazil*, by contrast, lacked an IP governance framework and safeguards comparable to *Korea*'s.

Complementary policies. Finally, the cases demonstrate the vital enabling role of structural reforms (see also Box 3.3) and macroeconomic stability. In *Korea*, an anti-corruption campaign launched prior to its industrial policy drive helped to signal that all chaebols were subject to the rule of law. During its industrial push, the government invested in industrial parks and facilitated imports of essential raw materials and capital goods to support domestic production. It also strengthened the education system to meet the growing demand for skilled engineers and production workers.

²³In an advanced economy context, the case of Airbus offers another example of how competition-enhancing industrial policy can succeed in reducing costs in commercial jet manufacturing, boosting R&D and building a pan-European supply chain (Hodge and others 2024).

In *Korea*, land reforms preceded IP, unlike in *Brazil* (de Bolle, Cohen-Setton, and Sarsenbayev 2025). Moreover, in *Brazil*, a fragmented budgeting process, high reliance on external borrowing, and persistent macroeconomic instability—including periods of overvalued exchange rates and accelerating inflation—ultimately culminated in the 1980s external debt crisis and eroded the effectiveness of the country's strategy.

Industrial Policy and Sector Performance

This section estimates the link between IPs and economic performance, both in the targeted sector and in cross-sectoral spillovers via input-output linkages.²⁴

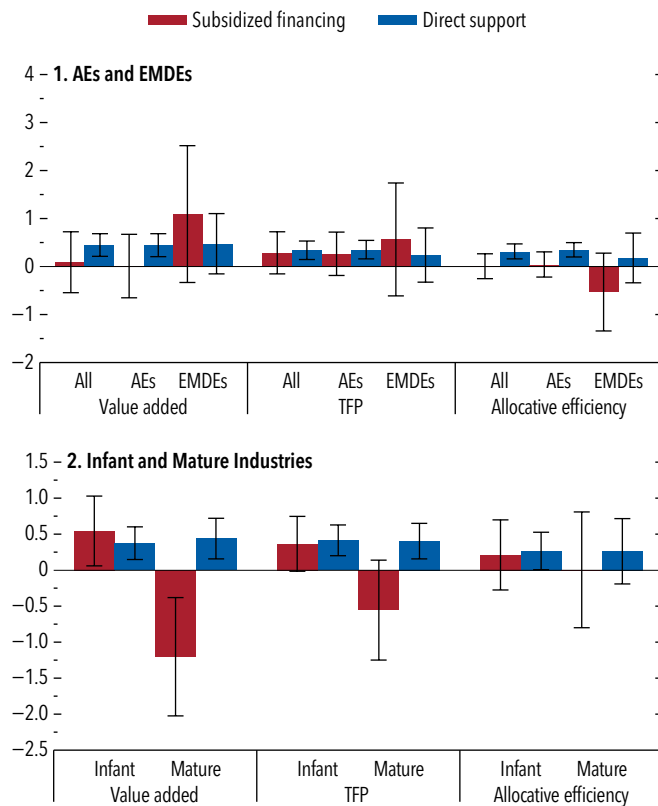
Industrial policies and targeted sector performance. Economic performance improves in targeted sectors, though the magnitudes are small.²⁵ As shown in Figure 3.10, panel 1, direct support IPs are found to improve value added, productivity, and the allocation of resources across firms within industries (allocative efficiency) in line with previous findings (Baquie and others 2025). For subsidized financing, point estimates go in the same direction, but the results are not significant. In terms of magnitudes, one additional direct support measure is associated with about 0.5 percent higher value added and 0.3 percent higher total factor productivity (TFP) in the targeted sector three years after implementation.²⁶ These magnitudes are rela-

²⁴The analysis rests on a local projection method following Baquie and others (2025). It covers 58 countries (including 31 advanced economies) and 732 NACE Revision 2 (4-digit) sectors from 2009 to 2021. The key regressor is the change in the stock of subsidized financing and direct support IPs in a given sector, country, and year, identified by applying the Juhász and others (2022, 2025) algorithm to the Global Trade Alert (GTA) database. Results are broadly consistent with the use of alternative algorithms that categorize IP using the GTA database in the recently developed NIPO database.

²⁵Online Annex 3.6 reports the local projection coefficients for all time horizons before and after the implementation of IPs, thus specifying the full dynamic path. The chapter focuses on the two most prevalent instruments of industrial policy while recognizing that other measures not in the database could also have important economic effects. The main outcome variables, constructed using Orbis data, are sectoral value added, sectoral productivity, and within-sector allocative efficiency, following Hsieh and Klenow (2009). Despite the inclusion of a wide range of fixed effects and controls, a causal analysis is challenged by the endogenous implementation of IPs. For this reason, the results in this section are presented as associations. See Online Annex 3.6 for information on the number of observations for each country, a full description of the methodology, and a summary table with the key findings in this section.

²⁶A new subsidized financing measure (direct support measure) is found for about 12 (6) percent of country-industry observations. Countries that implement new industrial policies implement on average 1.8 (2.0) new subsidized financing (direct support) measures at a time.

Figure 3.10. Industrial Policies and Medium-Term Performance of Targeted Sectors
(Percent)



Sources: Global Trade Alert; Juhász and others 2022, 2025; Orbis; and IMF staff calculations.

Note: The figure estimates the impact of industrial policies (IPs) using the local projection method. The dependent variables are the log difference in sectoral value added, TFP, or allocative efficiency three years after policy implementation. The key right-hand-side variables are the change in the number of subsidized financing and direct support IPs targeting the sector. Regional coefficients are estimated by interacting IPs with a dummy for AEs or EMDEs. Infant/mature industry coefficients are estimated by interacting IPs with a dummy for each industry being infant/mature. In each country, infant industries are industries with above-average share of young and leveraged firms and below-average distance to the world productivity frontier. All specifications control for one lag of dependent and independent variables and include country-sector, country-year, and sector-year fixed effects. Whiskers represent 90 percent confidence intervals. See Online Annex Table 3.6.2 for further details on the data underlying each bar. AEs = advanced economies; EMDEs = emerging market and developing economies; TFP = total factor productivity.

tively small, as industry value added grows on average 6.5 percent and TFP grows about 4 percent per year in the sample. These results reflect higher capital accumulation and employment in the aftermath of subsidy industrial policies (see Online Annex 3.6).

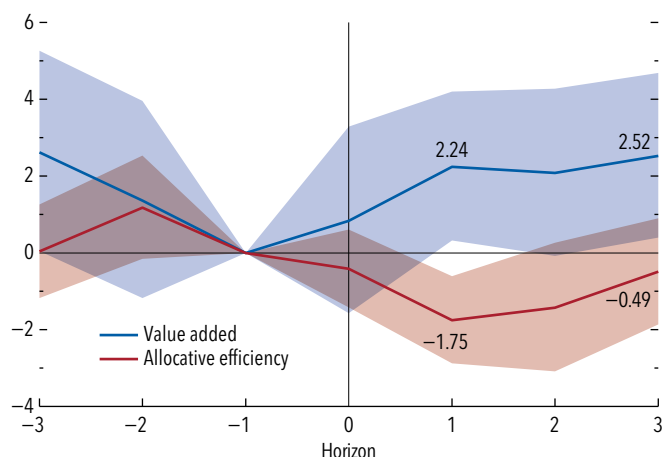
Two findings emerge when investigating whether the relation between IPs and economic performance differs by countries' income level (Figure 3.10, panel 1). First, direct support is associated with medium-term improvements in value added, productivity, and

allocative efficiency in advanced economies, but not in emerging market and developing economies. Second, subsidized financing is associated with a reduction in allocative efficiency in emerging markets—although this is not significant. One additional direct support measure is associated with a 0.3 percent *increase* in allocative efficiency in advanced economies, whereas one additional subsidized financing measure is associated with a 0.5 percent *decrease* in allocative efficiency in emerging market and developing economies (as discussed in greater depth for China in Box 3.1). These findings may reflect the role of complementary horizontal policies, such as reforms to improve governance quality and institutional capacity (Box 3.3), or differences in education, which have been found to be key complements to IPs (Deléchat and others 2024). They may also reflect temporary increases in misallocation as governments incentivize initially small and unproductive firms to scale up production and learn by doing (Kim, Lee, and Shin 2021; Choi and Levchenko 2024). Next, the sample is split into infant and mature industries (Figure 3.10, panel 2).²⁷ This exercise identifies infant industries as industries with a large share of young and financially constrained firms that are relatively close to the world productivity frontier. Direct support appears to have a similar impact across sectors. But subsidized financing appears to benefit only infant industries: The estimates suggest that one additional financial subsidy is linked to a 0.5 percent increase in the value added of infant industries and a 1.2 percent decrease for mature industries three years after the shock. These findings are likely to reflect the importance of financial frictions for the capital accumulation of young and productive firms and industries (Machado Parente and others 2025).

Industrial policies in the energy sector and downstream sector performance. A large share of IPs target energy sectors and can potentially spill over to the rest of the economy because energy is a key factor of production. Estimates suggest that one additional direct support measure is associated with 0.7 percent higher

²⁷These results build on investigation by Baquie and others (2025) of the relationship between industrial policy and targeted sector outcomes along several different sector-specific and firm-specific dimensions. They find, individually, a stronger association between industrial policy and economic outcomes in young firms, as well as in more financially constrained firms. Moreover, they find a stronger association between industrial policy and sectoral value added in sectors with high markups and high external dependence (such as ship building and pharmaceutical products) relative to sectors with low markups and low external dependence (for instance, manufacturing of nonelectric domestic appliances).

Figure 3.11. Downstream Impact of Energy Sector Industrial Policy
(Percent)



Sources: Global Trade Alert; Juhász and others 2022, 2025; Orbis; and IMF staff calculations.

Note: The figure estimates the impact of industrial policies (IPs) using the local projection method. The dependent variables are the log difference in value added and allocative efficiency over the specified horizon. 0 = the short-term horizon corresponding to when industrial policies are introduced; see Online Annex 3.6 for details. The key independent variable is the change in the number of direct support IPs in upstream energy sectors. All specifications control for one lag of dependent and independent variables, for IPs implemented in downstream sectors, and include country-sector, country-year, and sector-year fixed effects. Shaded areas represent 90 percent confidence intervals, and numbers report point estimates.

TFP in the targeted energy sector within a year of policy implementation (Online Annex Figure 3.6.5, panel 1). These productivity improvements spill over to downstream sectors over time as producers purchase energy from more productive suppliers. One additional direct support measure to energy sectors is linked to a 2.5 percent increase in value added for downstream sectors one to three years after the shock (Figure 3.11).²⁸ However, the measure is also linked to a temporary 1.7 percent decrease in allocative efficiency in downstream sectors. These findings could reflect differences across firms in energy cost shares, suggesting that firms benefiting the most from lower energy prices are not necessarily the most productive (Aterido, Iootty, and Melecky 2025; Fontagné, Martin, and Orefice 2024).

Beyond the impact of IP on targeted sectors, there is the wider question of its impact on the overall economy. Cross-sector linkages and spillovers can result in

²⁸This analysis focuses on spillovers of IPs targeted at energy sectors while keeping trade barriers and other policies constant in that sector. Before implementation, industries that receive IP and those that do not, do not differ statistically in their outcomes.

the general equilibrium effects of IP differing considerably from its sectoral effects. This is investigated in the next section.

Cross-Sector Spillovers and Aggregate Effects

To study the cross-sector spillovers and aggregate effects of industrial policies, a quantitative trade model is used (similar to Hodge and others 2024; Ju and others 2024; Lashkaripour and Lugovskyy 2023; and Rotunno and Ruta 2025). The model features labor as the only factor of production and 20 granular sectors with input linkages between sectors and countries. External economies of scale at the sector level that are not internalized by firms when making production and hiring decisions create a rationale for IP. In the scenarios under consideration, all advanced economies conduct industrial policy, and the focus is on domestic outcomes in that block of countries.

IP in one sector: energy. The first scenario focuses on the cross-sectoral effects of IP in the energy sector.²⁹ Implementing externality-correcting subsidies in the energy sector leads output in the sector to rise by more than 50 percent as employment ramps up.³⁰ Since industries in this sector feature increasing returns to scale, sectoral TFP rises by almost 3 percent (Figure 3.12, panel 1). However, growth in employment draws workers from non-energy sectors. As some of the untargeted sectors have increasing returns to scale, this labor reallocation reduces their TFP.³¹

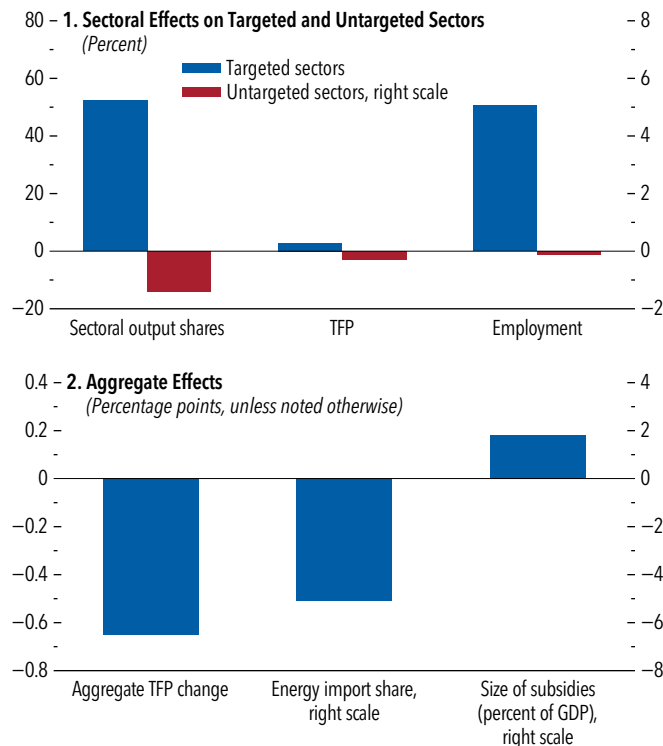
In aggregate, higher TFP in the energy sector and lower TFP in non-energy sectors result in a small drop in economy-wide TFP. This is because the energy sector (as a whole) does not have the highest returns to scale in the calibration. Moreover, the

²⁹Whereas the focus in Figures 3.7 and 3.8 was on IP in the clean technology sector in the EU, here the scope is much broader and includes energy commodity mining (ISIC sector B05–06), coke and petroleum refining (ISIC sector C19), and electrical equipment (ISIC sector C27). Thus, it captures both the extraction and processing of energy commodities and the capital goods used by the energy sector. See Online Annex 3.7 for details of an exercise that limits the scope of IP to clean technology.

³⁰Sector-specific scale-elasticity parameters are calibrated based on estimates from Bartelme and others (2025). Sectoral subsidy rates are chosen to correct distortions associated with external economies of scale in the energy sector (Ju and others 2024; Lashkaripour and Lugovskyy 2023).

³¹Across non-energy sectors, those with a high input share of energy tend to benefit from energy IP, whereas the output contraction in non-energy sectors is concentrated in those with low energy shares, notably services.

Figure 3.12. Sectoral and Aggregate Effects of Industrial Policy in the Energy Sector



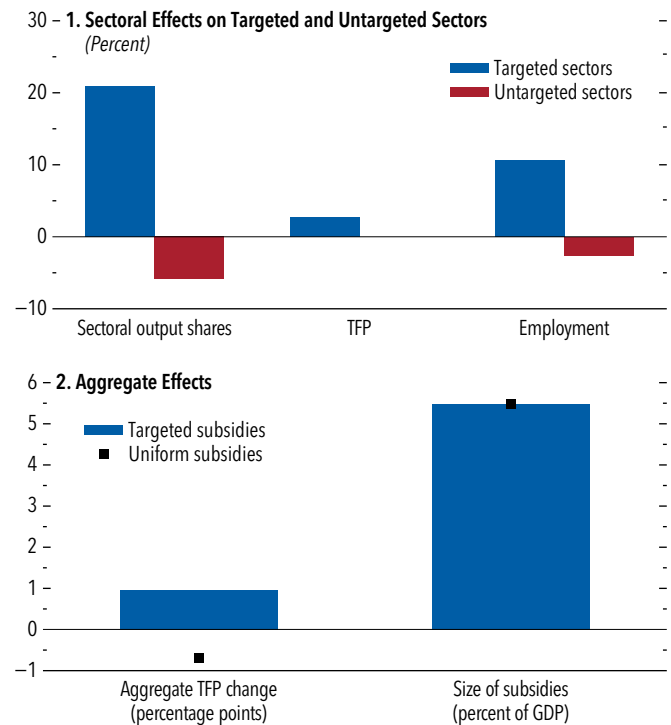
Sources: Global Trade Alert; Market Access Map; Organisation for Economic Co-operation and Development, Inter-Country Input-Output tables and Trade in Value-Added indicators; and IMF staff calculations.

Note: Figure shows changes in outcomes in energy industrial policy (IP) scenario relative to the status quo baseline from estimates of quantitative trade model. Energy IP scenario simulates introduction of optimal subsidies in the energy sector. IPs are introduced for the AEs in the sample (Australia, Canada, EU, Iceland, Israel, Japan, Korea, New Zealand, Norway, Switzerland, United Kingdom, United States), and results are reported as weighted average effect across all AEs, unless noted otherwise. Weights are shares in total output by AEs. Targeted energy sectors are “energy mining,” “coke and petroleum refining,” and “electrical equipment.” IPs in all other sectors (untargeted sectors) remain unchanged. Panel 1 reports percentage change in sectoral output, TFP, and employment calculated as the weighted sum across targeted and untargeted sectors. Panel 2 reports percentage changes in aggregate TFP. Subsidy costs are reported as change relative to the status quo baseline. AEs = advanced economies; TFP = total factor productivity.

fiscal cost of the IP is steep, at an annual expenditure of 1.8 percent of GDP in the new long-run steady state. At the same time, energy imports as a share of energy consumption fall by 5.1 percentage points (Figure 3.12, panel 2). Thus, there is a trade-off between greater energy self-reliance on the one hand and falling aggregate efficiency and larger public expenditure on the other.

Well-targeted IP across sectors. The previous scenario featured a decline in aggregate productivity because resources were withdrawn in many non-energy sectors with increasing returns to scale. The next scenario

Figure 3.13. Sectoral Effects and Aggregate Effects of Optimal and Uniform Industrial Policy



Sources: Global Trade Alert; Market Access Map; Organisation for Economic Co-operation and Development, Inter-Country Input-Output tables and Trade in Value-Added indicators; and IMF staff calculations.

Note: Figure shows changes in heterogeneous industrial policy (IP) scenario relative to the status quo baseline from estimates of quantitative trade model. Heterogeneous IP scenario simulates introduction of optimal subsidies in all sectors with increasing returns to scale, that is, manufacturing sectors. IPs are introduced for the AEs in the sample (Australia, Canada, EU, Iceland, Israel, Japan, Korea, New Zealand, Norway, Switzerland, United Kingdom, United States), and results are reported as weighted average effect across all AEs, unless noted otherwise. Weights are shares in total output by AEs. Panel 1 reports percentage change in sectoral output, TFP, and employment calculated as the weighted sum across targeted and untargeted sectors. Panel 2 reports percentage changes in aggregate TFP. Subsidy costs are reported as change relative to the status quo baseline. AEs = advanced economies; TFP = total factor productivity.

simulates a broader IP strategy, with subsidies rolled out for every sector of the economy with increasing returns to scale. Major advanced economies implement “optimal” IP—with subsidies increasing in a sector’s returns to scale.³² In this scenario, output and employment rise sizably in the targeted sectors (Figure 3.13, panel 1). This leads to aggregate TFP gains due to the expansion in sectors with increasing returns to scale. However, achieving these results requires fiscal resources of close to 5.5 percent of

³²It should be noted that this model does not incorporate strategic competition between countries or retaliatory cycles, which could in principle drive a “race to the bottom” and erode global benefits from returns to scale.

GDP annually, targeted with great precision to correct scale externalities across all sectors, a high bar.³³

Moreover, even with precise targeting, the effects may be smaller in practice because of implementation challenges and the overall business and macroeconomic environment, as seen in this chapter's case studies.

Mistargeted IP. In practice, governments may lack accurate information about returns to scale or be subject to capture by special interests. A final scenario evaluates the effects of IP when subsidies are not optimally targeted. Specifically, subsidies are increased uniformly across all sectors, irrespective of whether they present increasing returns to scale. The aggregate fiscal envelope is held constant relative to the previous scenario with perfect targeting. In this scenario, aggregate productivity declines slightly despite the large fiscal cost of 5.5 percent of GDP (Figure 3.13, panel 2). Whereas productivity improves in some sectors with increasing returns to scale, it declines in other sectors, leading to a slight decrease in aggregate productivity. This illustrates that the precise identification and targeting of sectors with increasing returns to scale is critical for IP to achieve aggregate gains.

Conclusions and Policy Implications

Industrial policy has returned to the center of the policy debate. If well designed and targeted to address production-side market failures, it can improve economic outcomes at sectoral and aggregate levels. The experience of countries such as Korea illustrates that carefully crafted subsidies, aligned with clear objectives and implemented within a sound institutional framework, can catalyze structural transformation.

However, the risks that IP may not deliver economic gains are significant. Effectiveness is highly sensitive to conditions that are difficult to assess *ex ante*—such

as the extent of learning by doing, proximity to the technological frontier, and market size. Even when well targeted, interventions can be fiscally costly. For instance, a clean technology subsidy in the EU sufficient to onshore a significant share of production could cost about 0.4 percent of annual GDP, close to half of the EU budget. Poorly targeted policies risk wasting scarce fiscal resources without delivering meaningful returns. Country-specific circumstances matter, and the successful implementation of industrial policy rests on strong institutional capacity and good governance, constraints that may be particularly relevant in emerging market and developing economies. The role of complementary structural reforms that do not target particular firms or sectors but aim to improve the general business environment is vital.

Moreover, even when delivering sectoral improvements, IP entails important trade-offs. Cross-sectoral spillovers can be negative, undermining aggregate productivity even as targeted sectors expand. And even though they are not the focus of this chapter, adverse cross-country spillovers and retaliatory cycles are likely to further reduce net benefits from domestic IP. Policies that enhance resilience—such as onshoring—may come at the cost of efficiency, including higher consumer prices during the transition. And spillovers can have mixed effects across dimensions: for example, energy sector IP may enhance energy security and raise value added in downstream industries while drawing resources away from more productive sectors, reducing allocative efficiency.

These findings underscore the importance of careful policy design and implementation. Governments should be mindful of the risks of wasteful spending, especially when debt is elevated and fiscal space limited. They should weigh the opportunity cost of IP against potentially more efficient horizontal policies. And they should recognize and manage trade-offs explicitly. If IP is pursued, it should be grounded in clear diagnostics of market failures, include mechanisms for regular evaluation and recalibration, and be embedded within a strong institutional and macroeconomic framework. Market discipline should be encouraged through vigorous domestic and international competition. Doing so will increase the likelihood that IP delivers on its promise—without compromising fiscal sustainability or economic efficiency.

³³Despite the large fiscal costs, fiscal multipliers are higher than 1 in the simulations. It is also important to note that in this scenario, *all* sectors with increasing returns to scale receive subsidies that fully correct the externality, which would require a subsidy proportional to the returns-to-scale parameters for each sector. Thus, in such models, the size of the needed subsidies depends on calibration of the returns-to-scale parameter (as discussed in Lashkaripour and Lugovskyy 2023; Bartelme and others 2025; and Ju and others 2024). In addition, the quantitative trade model has a simplified fiscal sector with tariff revenue lump-sum rebates to households and subsidies financed via lump-sum taxation. This abstracts from distortionary taxation, other types of government spending, and dynamic fiscal effects.

Box 3.1. Industrial Policy in China: Quantification and Impact on Misallocation

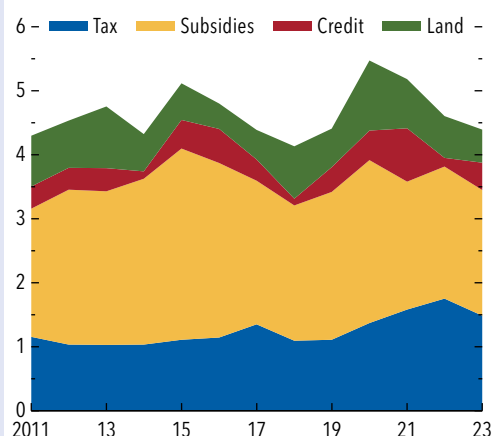
China has long used various industrial policy tools to support priority economic sectors, including (but not limited to) cash subsidies, tax benefits, subsidized credit, subsidized land, and trade and regulatory barriers that benefit incumbent firms (State Council 2005). This has had a material impact on the economy, helping to develop specific industries and technologies. However, it has also generated fiscal costs and potential factor misallocation.

Based on financial reports of listed firms and the registry of land transactions, Garcia-Macia, Kothari, and Tao (2025) estimate the equivalent fiscal cost of industrial policy in China to be about 4 percent of GDP between 2011 and 2023 (Figure 3.1.1). Cash subsidies were the costliest instrument, followed by tax benefits (which have grown since the pandemic), land subsidies, and subsidized credit. Most of this support was directed to the manufacturing sector, with industries like semiconductors, high-tech manufacturing, and automobiles benefiting especially from cash subsidies and tax benefits.

While the strategic direction of industrial policy in China is set by the central government in five-year plans (for example, State Council 2021), implementation is highly decentralized through local governments (Fang, Li, and Lu 2025). This can lead to wasteful duplication and excess investment followed by capacity cuts, as seen in sectors like coal and steel in the 2010s (IMF 2018, 2019), but it can also favor policy experimentation. A case in point is the electric vehicle (EV) sector. China made a strategic decision to prioritize EVs in 2009, when the market was virtually nonexistent. The government initially provided producer subsidies, leveraged public procurement, and required carmakers to focus on EVs, but later shifted support to consumer subsidies as it realized too many firms were entering the market (Branstetter and Li 2023; Chapter 2 of the April 2024 *Fiscal Monitor*).

The authors of this box are Daniel Garcia-Macia and Siddharth Kothari.

Figure 3.1.1. China: Industrial Policy Support
(Percent of GDP)



Sources: Baidu Maps; Garcia-Macia, Kothari, and Tao 2025; Ministry of Natural Resources of the People's Republic of China; Wind Information Co., Ltd.; and IMF staff calculations.

Note: Industrial policy is defined as sector-specific subsidies. Results for listed firms are extrapolated to unlisted firms. See further details in Garcia-Macia, Kothari, and Tao (2025).

Despite the success in some technologies, industrial policy appears to have lowered overall productivity by distorting the allocation of production factors across firms and sectors. Combining a sector-level measure of industrial policy counts (Juhász and others 2022) with revenue productivity outcomes for a large sample of firms, Garcia-Macia, Kothari, and Tao (2025) show that subsidies led to inefficiently high production in targeted sectors, while trade and regulatory barriers limited production to suboptimal levels, possibly by increasing the market power of incumbent firms. Evaluating these results with a structural model, factor misallocation induced by industrial policies is found to have reduced China's aggregate total factor productivity by 1.2 percent and its GDP by as much as 2 percent.

Box 3.2. Support or Distort: Evaluating National State Aid in Europe

Since the global financial crisis, EU governments have increasingly supported firms through state aid, which peaked at almost 1.5 percent of GDP in 2022. State aid is provided by national governments and, therefore, risks skewing competition in favor of domestic companies and eroding the level playing field in the EU single market. This box examines how state aid affects employment and revenue at beneficiary firms as well as nonrecipients in competing industries across borders in Europe (Brandão-Marques and Toprak 2024).

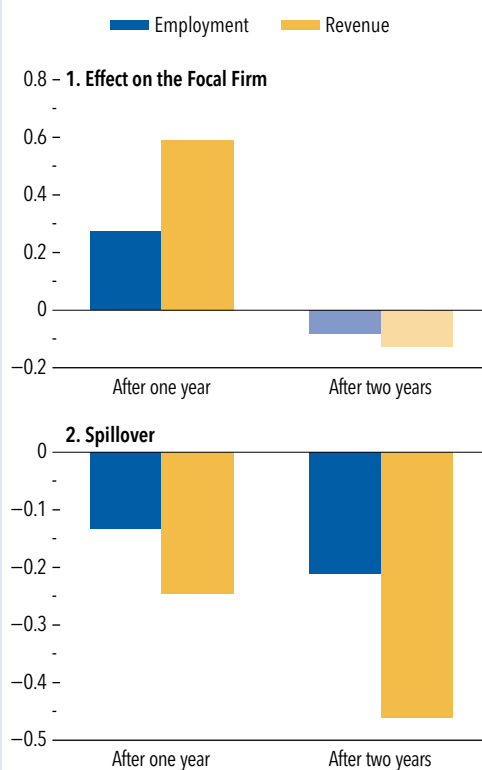
Drawing on firm-level data from six major EU economies, regressions show that state aid provides a lift to recipient firms, increasing revenues and employment, but only temporarily, as shown in Figure 3.2.1. To ensure that the relationship is causal, state aid shocks are defined as the unanticipated excess equity return (in percent) observed the day government aid to a firm is announced. A 1 percent state aid shock is followed, after one year, by a 0.3 percent increase in the recipient firm's employment and a 0.6 percent increase in its revenue. These gains, however, largely dissipate by the second year, which is consistent with state aid providing only temporary relief of financial constraints. The effects are strongest for smaller, younger firms that are highly leveraged and have low cash buffers.

Firms based in other EU countries that operate in the same industry but do not receive state aid suffer significant employment and revenue losses from cross-border spillovers. After a 1 percent unanticipated aid shock to a peer, employment in nonrecipient competing firms falls by about 0.13 percent and revenues by roughly 0.24 percent the following year. These adverse impacts deepen over time, with employment declining by 0.21 percent and revenue dropping by 0.46 percent in the second year. Moreover, the effects are more pronounced in more concentrated sectors. This suggests that state aid distorts competition as recipients tend to crowd out nonrecipient firms that operate in the same industry.

These findings highlight a clear trade-off: While national state aid by EU members can help recipients in the short run, state aid also causes negative spillovers to firms operating in the same industry that

The authors of this box are Luis Brandão-Marques and Hasan Toprak.

Figure 3.2.1. Effects of State Aid on Recipient and Nonrecipient Firms



Sources: Brandão-Marques and Toprak 2024; and IMF staff calculations.

Note: The bars show the impact of 1 percent excess return (state-aid shock) on recipient firms and on competing nonrecipient firms. Solid bars indicate effects that are statistically significant at the 10 percent level or higher, while shaded bars denote effects that are not statistically significant.

do not receive the aid. This could risk fragmenting Europe's single market by disadvantaging firms across borders and creating distortions that could jeopardize the efficient allocation of resources and the benefits from EU-wide competition. Hence, should there be a case for state aid to firms in the EU to address specific market failures, this should be done at the EU level instead of by individual member states to mitigate adverse spillovers and preserve equitable conditions for firms across the single market. Moreover, by reducing spillovers, the pooling of resources at the EU level could also ensure a more efficient use of funds and limit waste.

Box 3.3. A Comparison between Industrial and Structural Policies

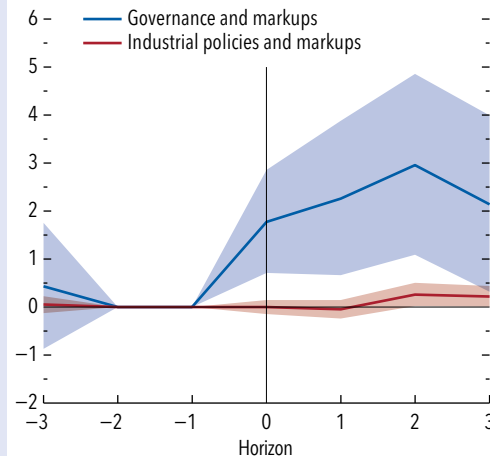
Structural reforms can yield better outcomes than industrial policies (IPs). Like IPs, structural reforms aim at tackling key frictions hampering growth and productivity. Unlike IPs, these policies target economy-wide frictions; their effectiveness generally does not rely on information about sector-level characteristics, including distortions; and they have been associated with improved macroeconomic outcomes (Chapter 3 of the October 2019 *World Economic Outlook*; Budina and others 2023). But structural reforms can also yield better sector-level outcomes than IPs. For instance—and although estimation is imprecise—a significant improvement in governance can boost industry value added in high-distortion sectors (characterized by high markups) relative to low-markup sectors by 2.1 percent, whereas IPs targeting sectors with those distortions may be associated with only a 0.2 percent increase (Figure 3.3.1). Similarly, improvements in financial development and private sector access to credit are more effective than IPs at bolstering economic activity in sectors highly dependent on external financing (Baquie and others 2025).

In addition, while the fiscal costs of IPs can be high—as they can entail sizable subsidies—structural reforms often result in lower fiscal costs, and some can even lead to increased fiscal revenues—for example, if they improve tax collection. Fiscal costs are an important consideration at a time of limited fiscal space (Aligishiev and others 2023; Chapter 2 of the April 2024 *Fiscal Monitor*). Therefore, structural reforms seem to provide better results with lower fiscal costs and reduced distortion risks. Given these trade-offs, countries should weigh the fiscal sustainability of IPs carefully and prioritize structural reforms that offer more cost-effective paths to inclusive and sustained growth.

Even when IPs are desirable, structural reforms are essential for their success. Structural fundamentals such as governance quality or a good business environment could strengthen the link between IPs and economic performance by reducing risks of rent-seeking behavior and improving targeting (IDB 2014; Cherif and Hasanov 2019; Cherif and Hasanov 2020; Criscuolo, Lalanne, and Díaz 2022; Criscuolo and others 2022; García-Macia and Sollaci 2025). Other structural conditions, such as a more educated work-

Figure 3.3.1. Industrial Policies versus Governance Reforms

(Industry value added, percent)



Sources: Baquie and others 2025; Budina and others 2023; Global Trade Alert; Juhász and others 2022, 2025; Orbis; and IMF staff calculations.

Note: The dependent variable is the log difference of the sectoral-level value added over the horizon considered. 0 = the short-term horizon corresponding to when industrial policies are introduced. The variables of interest are the interaction between the change in protectionist industrial policies and sectoral markups and the interaction between sectoral markups and the quality of governance index from Budina and others (2023). Differently from Baquie and others (2025), the figure reports changes from the 25th percentile to the median of the distributions of markups, governance, and industrial policies. Shaded areas represent 90 percent confidence intervals. For more details, see Baquie and others (2025).

force, can enhance learning by doing and innovation sparked by well-crafted IPs. Indeed, firms in countries with a better business environment experience higher capital accumulation in the short term in response to IPs (Baquie and others 2025). Moreover, firms in emerging market and developing economies with better governance and higher human capital experience higher value-added growth after the implementation of IPs. Complementarity between IPs and structural factors in emerging market and developing economies suggests that policies to improve fundamentals may be an important precondition for IPs' success (Deléchat and others 2024). Overall, these findings suggest a phased approach: first strengthen structural factors, then address sectoral issues with targeted interventions.

The author of this box is Rafael Machado Parente.

References

- Aghion, Philippe, Ufuk Akcigit, and Peter Howitt. 2015. “The Schumpeterian Growth Paradigm.” *Annual Review of Economics* 7 (1): 557–75.
- Aiyar, S., J. Chen, C. Ebeke, G. Garcia-Saltos, T. Gudmundsson, A. Ilyina, A. Kangur, S. Rodriguez, M. Ruta, T. Schulze, G. Soderberg and J. Trevino. 2023. “Goeconomic Fragmentation and the Future of Multilateralism.” IMF Staff Discussion Note 23/01, International Monetary Fund, Washington, DC.
- Akerman, Ariel, Jacob Moscona, Heitor Pellegrina, and Karthik Sastry. 2025. *Public R&D Meets Economic Development: Embrapa and Brazil’s Agricultural Revolution*. NBER Working Paper 34213.
- Aligishiev, Zamid, Gabriela Cugat, Romain A. Duval, Davide Furceri, João Tovar Jalles, Margaux MacDonald, Giovanni Melina, and others. 2023. “Market Reforms and Public Debt Dynamics in Emerging Market and Developing Economies.” IMF Staff Discussion Note 23/005, International Monetary Fund, Washington, DC.
- Alvarez, J., M. Benatiya Andaloussi, C. Maggi, A. Sollaci, M. Stuermer, and P. Topalova. 2025. “Goeconomic Fragmentation and Commodity Markets.” CEPR Discussion Paper 20451, Centre for Economic Policy Research, Paris. <https://cepr.org/publications/dp20451>.
- Aterido, Reyes, Mariana Iootty, and Martin Melecky. 2025. “Energy Prices, Energy Intensity, and Firm Performance.” Policy Research Working Paper 11069, World Bank Group, Washington, DC.
- Ayres, Joao, Garcia Marcio, Guillén Diogo, and Kehoe Patrick. 2019. “The Monetary and Fiscal History of Brazil, 1960–2016.” NBER Working Paper 25421, National Bureau of Economic Research, Cambridge, MA.
- Bai, Jie, Panle Jia Barwick, Shengmao Cao, and Shanjun Li. 2020. “Quid Pro Quo, Knowledge Spillover, and Industrial Quality Upgrading: Evidence from the Chinese Auto Industry.” NBER Working Paper 27644, National Bureau of Economic Research, Cambridge, MA.
- Baquie, Sandra, Yueling Huang, Florence Jaumotte, Jaden Kim, Rafael Machado Parente, and Samuel Pienknagura. 2025. “Industrial Policies: Handle with Care.” IMF Staff Discussion Note 25/002, International Monetary Fund, Washington, DC.
- Bartelme, Dominick, Arnaud Costinot, Dave Donaldson, and Andres Rodriguez-Clare. 2025. “The Textbook Case for Industrial Policy: Theory Meets Data.” *Journal of Political Economy* 133 (5): 1527–73.
- Barwick, Panle Jia, Hyuk-Soo Kwon, Shanjun Li, and Nahim B. Zahur. 2025. “Drive Down the Cost: Learning by Doing and Government Policies in the Global EV Battery Industry.” NBER Working Paper 33378, National Bureau of Economic Research, Cambridge, MA.
- Bloomberg New Energy Finance (BNEF). 2024. Lithium-Ion Battery Price Survey. Retrieved on 10/12/2024. <https://www.bnef.com/login?r=%2Finsights%2F35513>
- Bogmans, Christian, Patricia Gomez-Gonzalez, Ganchimeg Ganpurev, Giovanni Melina, Andrea Pescatori, and Sneha D. Thube. 2025. “Power Hungry: How AI Will Drive Energy Demand.” IMF Working Paper 25/081, International Monetary Fund, Washington, DC. <https://doi.org/10.5089/9798229007207.001>.
- Brandão-Marques, Luis, and Hasan H. Toprak. “A Bitter Aftertaste: How State Aid Affects Recipient Firms and Their Competitors in Europe”, *IMF Working Papers* 2024, 250 (2024), <https://doi.org/10.5089/9798400295706.001>
- Branstetter, Lee G., and Guangwei Li. 2023. “The Challenges of Chinese Industrial Policy.” In *Entrepreneurship and Innovation Policy and the Economy*, vol. 3, edited by Benjamin Jones and Josh Lerner. Chicago: University of Chicago Press.
- Brezis, Elise S., Paul R. Krugman, and Daniel Tsiddon. 1991. “Leapfrogging: A Theory of Cycles in National Technological Leadership.” NBER Working Paper 3886, National Bureau of Economic Research, Cambridge, MA.
- Budina, Nina, Christian H. Ebeke, Florence Jaumotte, Andrea Medici, Augustus J. Panton, Marina M. Tavares, Bella Yao, and others. 2023. “Structural Reforms to Accelerate Growth, Ease Policy Trade-offs, and Support the Green Transition in Emerging Market and Developing Economies.” IMF Staff Discussion Note 23/007, International Monetary Fund, Washington, DC.
- Carton, Benjamin, Geoffroy Dolphin, Romain Duval, Andrew Hodge, Amit Kara, Simon Voigts, and Sebastian Wende. Forthcoming. “The Investment Impacts of Europe’s Green Transition.” International Monetary Fund, Washington, DC.
- Cherif, Reda, and Fuad Hasanov. 2019. “The Return of the Policy That Shall Not Be Named: Principles of Industrial Policy.” IMF Working Paper 19/074, International Monetary Fund, Washington, DC.
- Cherif, Reda, and Fuad Hasanov. 2020. “Principles of True Industrial Policy.” *Journal of Globalization and Development* 2019003.
- Choi, Jaedo, and Andrei Levchenko. 2024. “Superstars or Super-villains? Large Firms in the South Korean Growth Miracle.” NBER Working Paper 32648, National Bureau of Economic Research.
- Choi, Jaedo, and Younghun Shim. 2024a. “Industrialization and the Big Push: Theory and Evidence from South Korea.” IMF Working Paper 24/259, International Monetary Fund, Washington, DC.
- Cooper, Russell, and Alok Johri. 2002. “Learning-by-Doing and Aggregate Fluctuations.” *Journal of Monetary Economics* 49 (8): 1539–66.
- Criscuolo, C., N. Gonne, K. Kitazawa, and G. Lalanne. 2022. “An Industrial Policy Framework for OECD Countries: Old Debates, New Perspectives.” OECD Science, Technology and Industry Policy Paper 127, Organisation for Economic Co-operation and Development, Paris.

- Criscuolo, C., G. Lalanne, and L. Díaz. 2022. “Quantifying Industrial Strategies (QuIS): Measuring Industrial Policy Expenditures.” OECD Science, Technology and Industry Working Paper 2022/05, Organisation for Economic Co-operation and Development, Paris.
- De Bolle, Monica, Jérémie Cohen-Setton, and Madi Sarsenbayev. 2025. *The New Economic Nationalism*. New York: Columbia University Press.
- Deléchat, C., G. Melina, M. Newiak, C. Papageorgiou, and N. Spatafora. 2024. “Economic Diversification in Developing Countries: Lessons from Country Experiences with Broad-based and Industrial Policies.” IMF Departmental Paper 24/006, International Monetary Fund, Washington, DC.
- Eugster, Johannes L., Giang Ho, Florence Jaumotte, and Roberto Piazza. 2022. “International Knowledge Spillovers.” *Journal of Economic Geography* 22 (6): 1191–224.
- Evenett, Simon, Adam Jakubik, Jaden Kim, Fernando Martín, Samuel Pienknagura, Michele Ruta, Sandra Baquie, Yueling Huang, and Rafael Machado Parente. Forthcoming. “Industrial Policy since the Great Financial Crisis.” IMF Working Paper, International Monetary Fund, Washington, DC.
- Evenett, Simon, Adam Jakubik, Fernando Martín, and Michele Ruta. 2024. “The Return of Industrial Policy in Data.” *The World Economy* 47 (7): 2762–88.
- Fang, Hanming, Ming Li, and Guangli Lu. 2025. “Decoding China’s Industrial Policies.” NBER Working Paper 33814, National Bureau of Economic Research, Cambridge, MA.
- Fontagné, Lionel, Philippe Martin, Gianluca Orefice. 2024. “The Many Channels of Firm’s Adjustment to Energy Shocks: Evidence from France.” *Economic Policy* 39 (117): 5–43.
- Garcia-Macia, Daniel, Siddharth Kothari, and Yifan Tao. 2025. “Industrial Policy in China: Quantification and Impact on Misallocation.” IMF Working Paper 25/155, International Monetary Fund, Washington, DC.
- Garcia-Macia, D., and A. Sollaci. 2025. “Industrial Policies for Innovation: A Cost-Benefit Framework.” *IMF Economic Review*, July.
- Gopinath, Gita, Pierre-Olivier Gourinchas, Andrea F. Presbitero, and Petia Topalova. 2025. “Changing Global Linkages: A New Cold War?” *Journal of International Economics* 153: 104042.
- Graziano, Alejandro G., Monika Sztajerowska, and Christian Volpe Martincus. 2024. “Trading Places: How Trade Policy Is Reshaping Multinational Firms’ Location.” CESifo Working Paper 11514, Munich.
- Harrison, Ann, and Andrés Rodríguez-Clare. 2010. “Trade, Foreign Investment, and Industrial Policy for Developing Countries.” In *Handbook of Development Economics*, edited by Dani Rodrik and Mark Rosenzweig, ed. 1, vol. 5, chapter 0, 4039–214. Amsterdam: Elsevier.
- Head, Keith. 1994. “Infant Industry Protection in the Steel Rail Industry.” *Journal of International Economics* 37 (3–4): 141–65.
- Hodge, Andrew, Roberto Piazza, Fuad Hasanov, Xun Li, Maryam Vaziri, Atticus Weller, and Yu Ching Wong. 2024. “Industrial Policy in Europe: A Single Market Perspective.” IMF Working Paper 24/249, International Monetary Fund, Washington, DC.
- Hsieh, Chang-Tai, and Peter J. Klenow. 2009. “Misallocation and Manufacturing TFP in China and India.” *The Quarterly Journal of Economics* 124 (4): 1403–48.
- Inter-American Development Bank (IDB). 2014. “Rethinking Productive Development: Sound Policies and Institutions for Economic Transformation.” Washington, DC.
- International Monetary Fund (IMF). 2018. “China 2018 Article IV Consultation Staff Report.” IMF Country Report 18/240, Washington, DC.
- International Monetary Fund (IMF). 2019. “China 2019 Article IV Consultation Staff Report.” IMF Country Report 19/266, Washington, DC.
- International Monetary Fund (IMF). 2024. “Industrial Policy Coverage in IMF Surveillance—Broad Considerations.” IMF Policy Paper 24/008, Washington, DC.
- Itskhoki, Oleg, and Benjamin Moll. 2019. “Optimal Development Policies with Financial Frictions.” *Econometrica* 87 (1): 139–73.
- Ju, Jiandong, Hong Ma, Zi Wang, and Xiaodong Zhu. 2024. “Trade Wars and Industrial Policy Competitions: Understanding the US-China Economic Conflicts.” *Journal of Monetary Economics* 141: 42–58.
- Juhász, Réka, Nathan Lane, Emily Oehlsen, and Verónica C. Pérez. 2022. “The Who, What, When, and How of Industrial Policy: A Text-Based Approach.” Working Paper. <https://ssrn.com/abstract=4198209>.
- Juhász, Réka, Nathan Lane, Emily Oehlsen, and Veronica C. Perez. 2025. “Measuring Industrial Policy: A Text-Based Approach.” NBER Working Paper 33895, National Bureau of Economic Research, Cambridge, MA.
- Juhász, Réka, Nathan Lane, and Dani Rodrik. 2023. “The New Economics of Industrial Policy.” NBER Working Paper 31538, National Bureau of Economic Research, Cambridge, MA.
- Kim, Minho, Munseob Lee, and Yongseok Shin. 2021. “The Korean Heavy Industry Drive of 1973.” NBER Working Paper 29252, National Bureau of Economic Research, Cambridge, MA.
- Lane, Nathan. 2025. “Manufacturing Revolutions: Industrial Policy and Industrialization in South Korea.” *Quarterly Journal of Economics* 140 (3).
- Lashkaripour, Ahmad, and Volodymyr Lugovskyy. 2023. “Profits, Scale Economies, and the Gains from Trade and Industrial Policy.” *American Economic Review* 113 (10): 2759–808.
- Lee, Keun, and Chaisung Lim. 2001. “Technological Regimes, Catching-Up and Leapfrogging: Findings from the Korean Industries.” *Research Policy* 30 (3): 459–83.
- Luzio, Eduardo, and Shane Greenstein. 1995. “Measuring the Performance of a Protected Infant Industry: The Case of Brazilian Microcomputers.” *Review of Economics and Statistics* 77 (4): 622–33.

- Machado Parente, Rafael, Samuel Pienknagura, Sandra Baquie, Yueling Huang, Florence Jaumotte, and Jaden Kim. 2025. “Industrial Policies and Firm Performance: A Nuanced Relationship.” IMF Working Paper 25/143, International Monetary Fund, Washington, DC.
- Melitz, Marc J. 2005. “When and How Should Infant Industries Be Protected?” *Journal of International Economics* 66 (1): 177–96.
- Ocampo, José Antonio, and Gabriel Porcile. 2020. “Latin American Industrial Policies: A Comparative Perspective.” In *The Oxford Handbook of Industrial Policy*, edited by Arkebe Oqubay and others. Oxford, UK: Oxford University Press.
- Organization for Economic Co-operation and Development (OECD). 2025. “Quantifying Industrial Strategies 2019–22: Trends and Priorities across 11 OECD countries.” *OECD Science, Technology and Industry Policy Paper* 179. Paris. <https://doi.org/10.1787/91e20a26-en>.
- Peres, Wilson, and Annalisa Primi. 2019. Industrial Policy and Learning. Lessons from Latin America. In: *How Nations Learn: Technological Learning, Industrial Policy, and Catch-up*. Oxford University Press.
- Redding, Stephen. 1999. “Dynamic Comparative Advantage and the Welfare Effects of Trade.” *Oxford Economic Papers* 51 (1): 15–39.
- Rodrik, Dani. 1993. “Taking Trade Policy Seriously: Export Subsidization as a Case Study in Policy Effectiveness.” NBER Working Paper 4567, National Bureau of Economic Research, Cambridge, MA.
- Rotunno, Lorenzo, and Michele Ruta. 2025. “Trade Partners’ Responses to US Tariffs.” IMF Working Paper 25/147, International Monetary Fund, Washington, DC.
- Ruta, Michele, and Monika Sztajerowska. 2025. “Shifting Advantages: Do Subsidies Shape Cross-Border Investment?” IMF Working Paper 25/080, International Monetary Fund, Washington, DC.
- Sabel, Charles, Eduardo Fernández-Arias, Ricardo Hausmann, Andrés Rodríguez-Clare, and Ernesto Stein. 2012. *Export Pioneers in Latin America*. Inter-American Development Bank.
- State Council of China (State Council). 2005. Decision of the State Council on Promulgating and Implementing the “Temporary Provisions on Promoting Industrial Structure Adjustment.” Decision No. 40, Beijing.
- State Council of China (State Council). 2021. Outline of the People’s Republic of China 14th Five-Year Plan for National Economic and Social Development and Long-Range Objectives for 2035. Beijing.
- Stiglitz, Joseph E. 2017. “Industrial Policy, Learning and Development.” In *The Practice of Industrial Policy: Government—Business Coordination in Africa and East Asia*, edited by John Page and Finn Tarp, 23–39. Oxford, UK: Oxford Academic.
- Veiga, Pedro da Motta, and Sandra Polónia Rios. 2019. *EMBRAER and the Trajectory of Brazil’s Aeronautics Industry Ecosystem*. Policy Center for the New South, Policy Paper 19/18.

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 2025–26. The second section briefly describes the changes to the database and statistical tables since the April 2025 *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 based on information available through September 30, 2025, 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 2025–26 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 August 1, 2025–August 29, 2025. For 2025 and 2026, these assumptions imply average US dollar–special drawing right conversion

rates of 1.351 and 1.373, US dollar–euro conversion rates¹ of 1.130 and 1.167, and yen–US dollar conversion rates of 147.7 and 145.3, respectively.

It is assumed that the *price of oil* will average \$68.92 a barrel in 2025 and \$65.84 a barrel in 2026.

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 4.3 percent in 2025 and 3.7 percent in 2026, that for the euro area will average 2.0 percent in 2025 and 2.1 percent in 2026, and that for Japan will average 0.4 percent in 2025 and 0.8 percent in 2026. Further, it is assumed that the *10-year government bond yield* for the United States will average 4.3 percent in 2025 and 4.1 percent in 2026, that for the euro area will average 2.5 percent in 2025 and 2.6 percent in 2026, and that for Japan will average 1.5 percent in 2025 and 1.7 percent in 2026.

What's New

- Data for *Liechtenstein* have been added to the database and are included in the advanced economies group composites.

Data and Conventions

Data and projections for 197 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.

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.

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, because 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.

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

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.

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 2024 and earlier are based on estimates rather than actual outturns; Table G lists the date of 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 2021–24 are reported for selected indicators, with estimates for fiscal data. GDP growth for 2024 is an estimate. Projections for 2025–30 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. In addition, 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.

Bolivia: Projections for 2026–30 have been omitted owing to significant uncertainty regarding the economic outlook.

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.

Ecuador: Fiscal projections for 2025–30 are excluded from publication because of ongoing program discussions.

Eritrea: Data and projections for 2020–30 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 to 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 2022–24, as well as debt data for 2023–24, are IMF staff estimates and not provided by the national authorities. Estimates and projections for 2025–30 are omitted owing to an unusually high degree of uncertainty.

Libya: Actual data and projections are subject to high uncertainty due to frequent data revisions by the authorities. Fiscal and debt data for 2024 are IMF staff estimates based on information from the Central Bank of Libya. National accounts data for 2020–24 are IMF staff estimates.

Nigeria: National accounts data have been revised and rebased, with 2019 as the new base year. This replaces the 2010 benchmark and aligns national accounts statistics with updated international standards, including the 2008 SNA, BPM6, and GFSM 2014. The rebasing entailed broader sectoral and data coverage capturing previously unrecorded activities such as the digital economy, parts of the informal economy (particularly in the agriculture sector), pension and health insurance schemes, social insurance trust funds, household firms, quarrying and other minerals, and modular oil refining. Adding to dedicated sectoral studies, the rebasing drew on more comprehensive data coverage of household and informal sector activity, including from the National Business Sample Census and the Survey of Establishments, the National Agricultural Sample Census and Survey, and the 2019 and 2023 Nigeria Living Standards Surveys. The rebasing exercise resulted in an upward revision of the nominal GDP by 40.8 percent in 2019.

Pakistan: Projections do not yet reflect the impact of flooding in summer 2025, whose impact is still being assessed.

Sierra Leone: Although the currency was redenominated on July 1, 2022, local currency data are expressed in the old leone for the October 2025 WEO.

Sri Lanka: Data and projections for 2025–30 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 2025 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 the 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 onward 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 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 people 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 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 non-financial public sector with the October 2019 WEO.

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

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 2018–24 are IMF staff estimates. The effects of hyperinflation, the paucity of reported data, and uncertainty mean that the IMF staff's estimated and projected macroeconomic indicators should be interpreted with caution. Venezuela's consumer prices are excluded from all WEO group composites.

West Bank and Gaza: Estimates and projections for 2025–30 are excluded from publication owing to the unusually high 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 42 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.

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

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.

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 2020 and 2024.

The financial and income criteria focus on *net creditor economies*, *net debtor economies*, *heavily indebted poor countries* (HIPCs), *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 2024 were negative. Net debtor economies are further differentiated based on *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 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.

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 emerging market and developing economies not classified as LIDCs.

⁷During 2020–24, 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 2020–24*.

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).

Table A. Classification by World Economic Outlook Groups and Their Shares in Aggregate GDP, Exports of Goods and Services, and Population, 2024¹*(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	42	100.0	39.6	100.0	61.0	100.0	13.8
United States		37.3	14.8	16.5	10.0	30.8	4.3
Euro Area	20	29.0	11.5	41.3	25.2	31.8	4.4
Germany		7.6	3.0	9.9	6.0	7.6	1.0
France		5.6	2.2	5.4	3.3	6.2	0.9
Italy		4.6	1.8	4.0	2.4	5.3	0.7
Spain		3.4	1.4	3.3	2.0	4.4	0.6
Japan		8.3	3.3	4.7	2.9	11.2	1.6
United Kingdom		5.5	2.2	5.7	3.5	6.3	0.9
Canada		3.3	1.3	3.7	2.3	3.7	0.5
Other Advanced Economies	18	16.5	6.5	28.1	17.2	16.1	2.2
<i>Memorandum</i>							
Major Advanced Economies	7	72.3	28.7	49.8	30.4	71.2	9.8
		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	60.4	100.0	39.0	100.0	86.2
Regional Groups							
Emerging and Developing Asia	30	57.1	34.4	50.3	19.6	55.0	47.4
China		32.0	19.3	30.2	11.8	20.4	17.6
India		13.6	8.2	6.6	2.6	21.1	18.2
Emerging and Developing Europe	15	12.9	7.8	15.1	5.9	5.3	4.6
Russia		5.8	3.5	3.8	1.5	2.1	1.8
Latin America and the Caribbean	33	11.9	7.2	14.0	5.4	9.4	8.1
Brazil		4.0	2.4	3.1	1.2	3.1	2.7
Mexico		2.8	1.7	5.4	2.1	1.9	1.7
Middle East and Central Asia	32	12.3	7.4	16.6	6.5	13.3	11.4
Saudi Arabia		2.1	1.3	2.9	1.1	0.5	0.4
Sub-Saharan Africa	45	5.8	3.5	4.1	1.6	17.1	14.7
Nigeria		1.8	1.1	0.5	0.2	3.4	2.9
South Africa		0.8	0.5	1.0	0.4	0.9	0.8
Analytical Groups²							
By Source of Export Earnings							
Fuel	26	10.4	6.3	15.8	6.2	9.9	8.6
Nonfuel	127	89.6	54.1	84.2	32.8	90.0	77.6
Of which, Primary Products	35	3.6	2.2	4.3	1.7	8.7	7.5
By External Financing Source							
Net Debtor Economies	117	48.4	29.2	41.6	16.2	66.9	57.7
Of which, Economies with Arrears and/or Rescheduling during 2020–24	43	5.5	3.3	3.8	1.5	13.4	11.5
Other Groups²							
Emerging Market and Middle-Income Economies	96	92.6	55.9	95.9	37.4	76.8	66.2
Low-Income Developing Countries	58	7.4	4.5	4.1	1.6	23.2	20.0
Heavily Indebted Poor Countries	39	2.8	1.7	2.3	0.9	13.0	11.2

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 West Bank and Gaza is omitted from group composites for source of export earnings and Syria is omitted from group composites across all Analytical and Other Groups because of insufficient data.

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	Puerto Rico
Australia	Korea	San Marino
Czech Republic	Liechtenstein	Singapore
Denmark	Macao SAR ²	Sweden
Hong Kong SAR ¹	New Zealand	Switzerland
Iceland	Norway	Taiwan Province of China

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	Bolivia
	Guyana	Chile
	Venezuela	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 ²	
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 their main source of export earnings.

² Yemen does not currently export oil due to the internal conflict.

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

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	Apr/Mar	Apr/Mar
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

Note: SAR = Special Administrative Region

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

Table G. Key Data Documentation

		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
Country	Currency							
Afghanistan	Afghan afghani	NSO	2024/25	2016	SNA 2008		NSO	2024/25
Albania	Albanian lek	IMF staff	2024	2020	ESA 2010	From 2020	NSO	2024
Algeria	Algerian dinar	NSO	2024	2001	SNA 2008	From 2005	NSO	2024
Andorra	Euro	NSO	2024	2010	...		NSO	2024
Angola	Angolan kwanza	NSO	2024	2015	ESA 1995		NSO	2024
Antigua and Barbuda	Eastern Caribbean dollar	CB	2023	2018	SNA 1993		NSO	2024
Argentina	Argentine peso	NSO	2024	2004	SNA 2008		NSO	2024
Armenia	Armenian dram	NSO	2024	2005	SNA 2008		NSO	2024
Aruba	Aruban florin	NSO	2021	2013	SNA 1993	From 2000	NSO	2024
Australia	Australian dollar	NSO	2024	2022	SNA 2008	From 1980	NSO	2024
Austria	Euro	NSO	2024	2020	ESA 2010	From 1995	NSO	2024
Azerbaijan	Azerbaijan manat	NSO	2024	2005	SNA 1993	From 1994	NSO	2024
The Bahamas	Bahamian dollar	NSO	2024	2018	SNA 1993		NSO	2024
Bahrain	Bahrain dinar	NSO	2024	2010	SNA 2008		NSO	2024
Bangladesh	Bangladesh taka	NSO	2024/25	2015/16	SNA 2008		Other	2024/25
Barbados	Barbados dollar	NSO	2024	2016	SNA 2008		NSO	2024
Belarus	Belarusian ruble	NSO	2024	2022	SNA 2008	From 2005	NSO	2024
Belgium	Euro	CB	2024	2020	ESA 2010	From 1995	CB	2024
Belize	Belize dollar	NSO	2024	2014	SNA 2008		NSO	2024
Benin	CFA franc	NSO	2024	2015	SNA 2008		NSO	2024
Bhutan	Bhutanese ngultrum	NSO	2023/24	2016/17	SNA 2008		NSO	2024/25
Bolivia	Bolivian boliviano	NSO	2024	1990	SNA 2008		NSO	2024
Bosnia and Herzegovina	Bosnian convertible marka	NSO	2024	2021	ESA 2010	From 2021	NSO	2024
Botswana	Botswana pula	NSO	2024	2016	SNA 2008		NSO	2024
Brazil	Brazilian real	NSO	2024	1995	SNA 2008		NSO	2024
Brunei Darussalam	Brunei dollar	MoF	2024	2010	SNA 2008		MoF	2024
Bulgaria	Bulgarian lev	NSO	2024	2020	ESA 2010	From 1996	NSO	2024
Burkina Faso	CFA franc	NSO	2024	2015	SNA 2008	From 2015	NSO	2024
Burundi	Burundi franc	NSO	2024	2005	SNA 1993		NSO	2024
Cabo Verde	Cabo Verdean escudo	NSO	2024	2015	SNA 2008	From 2011	NSO	2024
Cambodia	Cambodian riel	NSO	2024	2014	SNA 1993		NSO	2024
Cameroon	CFA franc	NSO	2024	2016	SNA 2008	From 2016	NSO	2024
Canada	Canadian dollar	NSO	2024	2017	SNA 2008	From 1980	NSO	2024
Central African Republic	CFA franc	NSO	2019	2005	SNA 1993		NSO	2024
Chad	CFA franc	NSO	2023	2017	SNA 2008	From 2005	NSO	2024
Chile	Chilean peso	CB	2024	2018	SNA 2008	From 2003	NSO	2024
China	Chinese yuan	NSO	2024	2015	SNA 2008		NSO	2024
Colombia	Colombian peso	NSO	2024	2015	SNA 2008	From 2005	NSO	2024
Comoros	Comorian franc	NSO	2024	2007	SNA 1993		NSO	2024
Democratic Republic of the Congo	Congolese franc	NSO	2020	2005	SNA 1993	From 2005	NSO	2024
Republic of Conqo	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	2024/25	2001	CG	C	CB	2023/24	BPM 6
Albania	IMF staff	2024	1986	CG,LG,SS,MPC	...	CB	2024	BPM 6
Algeria	MoF	2024	1986	CG	C	CB	2024	BPM 6
Andorra	NSO	2023	...	CG,LG,SS	C	NSO	2023	BPM 6
Angola	MoF	2024	2001	CG,LG	Mixed	CB	2024	BPM 6
Antigua and Barbuda	MoF	2024	2001	CG	Mixed	CB	2024	BPM 6
Argentina	MEP	2024	1986	CG,SG,SS	C	NSO	2024	BPM 6
Armenia	MoF	2024	2001	CG	C	CB	2024	BPM 6
Aruba	MoF	2024	2001	CG	C	CB	2024	BPM 6
Australia	MoF	2024	2014	CG,SG,LG	A	NSO	2024	BPM 6
Austria	NSO	2024	2014	CG,SG,LG,SS	A	CB	2024	BPM 6
Azerbaijan	MoF	2024	2001	CG	C	CB	2024	BPM 6
The Bahamas	MoF	2023/24	2014	CG	C	CB	2024	BPM 6
Bahrain	MoF	2023	2001	CG	C	CB	2024	BPM 6
Bangladesh	MoF	2024/25	2001	CG	C	CB	2024/25	BPM 6
Barbados	MoF	2024/25	2001	CG	C	CB	2024	BPM 6
Belarus	MoF	2024	2001	CG,LG,SS	C	CB	2024	BPM 6
Belgium	CB	2024	ESA 2010	CG,SG,LG,SS	A	CB	2024	BPM 6
Belize	MoF	2024	1986	CG,MPC	...	CB	2024	BPM 6
Benin	MoF	2024	1986	CG	C	CB	2023	BPM 6
Bhutan	MoF	2024/25	1986	CG	C	CB	2023/24	BPM 6
Bolivia	MoF	2024	2001	CG,LG,SS	C	CB	2024	BPM 6
Bosnia and Herzegovina	MoF	2024	2014	CG,SG,LG,SS	A	CB	2024	BPM 6
Botswana	MoF	2023/24	1986	CG	C	CB	2024	BPM 6
Brazil	MoF	2024	2014	CG,SG,LG,SS	C	CB	2024	BPM 6
Brunei Darussalam	MoF	2023	1986	CG	C	MoF	2024	BPM 6
Bulgaria	MoF	2024	2001	CG,LG,SS	C	CB	2024	BPM 6
Burkina Faso	MoF	2024	2001	CG	...	CB	2023	BPM 6
Burundi	MoF	2024	2001	CG	Mixed	CB	2024	BPM 6
Cabo Verde	MoF	2024	2001	CG	A	NSO	2024	BPM 6
Cambodia	MoF	2024	2001	CG,LG	C	CB	2024	BPM 6
Cameroon	MoF	2024	2001	CG	Mixed	MoF	2024	BPM 6
Canada	MoF	2024	2001	CG,SG,LG,SS	A	NSO	2024	BPM 6
Central African Republic	MoF	2024	2001	CG	C	CB	2019	BPM 5
Chad	MoF	2024	1986	CG	C	CB	2022	BPM 5
Chile	MoF	2024	2001	CG,LG	A	CB	2024	BPM 6
China	MoF	2024	...	CG,LG,SS	C	GAD	2024	BPM 6
Colombia	MoF	2024	2001	CG,SG,LG,SS	...	CB	2024	BPM 6
Comoros	MoF	2024	1986	CG	...	CB and IMF staff	2024	BPM 5
Democratic Republic of the Congo	MoF	2023	2001	CG,LG	A	CB	2023	BPM 6
Republic of Congo	MoF	2024	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	2024	2017	SNA 2008	From 2016	CB	2024
Côte d'Ivoire	CFA franc	NSO	2023	2015	SNA 2008	From 2015	NSO	2024
Croatia	Euro	NSO	2024	2021	ESA 2010		NSO	2024
Cyprus	Euro	Other	2024	2020	ESA 2010	From 1995	Other	2024
Czech Republic	Czech koruna	NSO	2024	2020	ESA 2010	From 1995	NSO	2024
Denmark	Danish krone	NSO	2024	2020	ESA 2010	From 1980	NSO	2024
Djibouti	Djibouti franc	NSO	2023	2013	SNA 2008		NSO	2024
Dominica	Eastern Caribbean dollar	NSO	2023	2006	SNA 1993		NSO	2023
Dominican Republic	Dominican peso	CB	2024	2018	SNA 2008	From 2018	CB	2024
Ecuador	US dollar	CB	2024	2018	SNA 2008	From 2018	NSO	2024
Egypt	Egyptian pound	MEP	2023/24	2021/22	SNA 2008		Other	2024/25
El Salvador	US dollar	CB	2024	2014	SNA 2008		NSO	2024
Equatorial Guinea	CFA franc	MEP	2024	2006	SNA 1993		MEP	2024
Eritrea	Eritrean nakfa	Other	2019	2011	SNA 1993		Other	2019
Estonia	Euro	NSO	2024	2020	ESA 2010	From 2010	NSO	2024
Eswatini	Swazi lilangeni	NSO	2023	2019	SNA 2008		NSO	2024
Ethiopia	Ethiopian birr	NSO	2023/24	2015/16	SNA 2008		NSO	2024
Fiji	Fijian dollar	NSO	2024	2014	SNA 2008		NSO	2024
Finland	Euro	NSO	2024	2015	ESA 2010	From 1980	NSO	2024
France	Euro	NSO	2024	2020	ESA 2010	From 1980	NSO	2024
Gabon	CFA franc	MEP	2024	2001	SNA 1993		NSO	2024
The Gambia	Gambian dalasi	NSO	2023	2013	SNA 2008		NSO	2024
Georgia	Georgian lari	NSO	2024	2019	SNA 2008	From 1996	NSO	2024
Germany	Euro	NSO	2024	2020	ESA 2010	From 1991	NSO	2024
Ghana	Ghanaian cedi	NSO	2023	2013	SNA 2008		NSO	2024
Greece	Euro	NSO	2024	2020	ESA 2010	From 1995	NSO	2024
Grenada	Eastern Caribbean dollar	NSO	2022	2006	SNA 1993		NSO	2023
Guatemala	Guatemalan quetzal	CB	2024	2013	SNA 2008	From 2001	NSO	2024
Guinea	Guinean franc	NSO	2021	2010	SNA 1993		NSO	2024
Guinea-Bissau	CFA franc	NSO	2023	2015	SNA 2008	From 2015	NSO	2024
Guyana	Guyanese dollar	NSO	2024	2012 ⁶	SNA 1993		NSO	2024
Haiti	Haitian gourde	NSO	2024/25	2011/12	SNA 2008		NSO	2024/25
Honduras	Honduran lempira	CB	2024	2000	SNA 1993		CB	2024
Hong Kong SAR	Hong Kong dollar	NSO	2024	2023	SNA 2008	From 1980	NSO	2024
Hungary	Hungarian forint	NSO	2024	2021	ESA 2010	From 2021	NSO	2024
Iceland	Icelandic króna	NSO	2024	2020	ESA 2010	From 1990	NSO	2024
India	Indian rupee	NSO	2024/25	2011/12	SNA 2008		NSO	2024/25
Indonesia	Indonesian rupiah	NSO	2024	2010	SNA 2008		NSO	2024
Iran	Iranian rial	CB	2024/25	2021/22	SNA 2008		CB	2024/25
Iraq	Iraqi dinar	NSO	2024	2007	...		NSO	2024
Ireland	Euro	NSO	2024	2023	ESA 2010	From 1995	NSO	2024

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	Other	2024	1986	CG,NFPC	C	CB	2024	BPM 6
Côte d'Ivoire	MoF	2024	1986	CG	A	CB	2023	BPM 6
Croatia	MoF	2024	2014	CG,LG	A	CB	2024	BPM 6
Cyprus	Other	2024	ESA 2010	CG,LG,SS	A	CB	2024	BPM 6
Czech Republic	MoF	2024	2014	CG,LG,SS	A	NSO	2024	BPM 6
Denmark	NSO	2024	2014	CG,LG,SS	A	NSO	2024	BPM 6
Djibouti	MoF	2024	1986	CG	A	CB	2024	BPM 6
Dominica	MoF	2023/24	1986	CG	C	CB	2024	BPM 6
Dominican Republic	MoF	2024	2014	CG,LG,SS	Mixed	CB	2024	BPM 6
Ecuador	MoF	2024	2014	CG,SG,LG,SS	Mixed	CB	2024	BPM 6
Egypt	MoF	2023/24	...	CG,LG,SS,NFPC	C	CB	2023/24	BPM 5
El Salvador	Other	2024	1986	CG,LG,SS	C	CB	2024	BPM 6
Equatorial Guinea	MEP	2023	1986	CG	C	CB	2023	BPM 5
Eritrea	Other	2019	2001	CG	C	Other	2019	BPM 5
Estonia	MoF	2024	...	CG,LG,SS	C	CB	2024	BPM 6
Eswatini	MoF	2024/25	2001	CG	C	CB	2024	BPM 6
Ethiopia	MoF	2023/24	1986	CG,SG,LG	C	CB	2023/24	BPM 5
Fiji	MoF	2023/24	1986	CG	C	CB	2024	BPM 6
Finland	MoF	2024	2014	CG,LG,SS	A	NSO	2024	BPM 6
France	NSO	2024	2014	CG,LG,SS	A	CB	2024	BPM 6
Gabon	IMF staff	2023	2001	CG	A	IMF staff	2021	BPM 6
The Gambia	MoF	2023	1986	CG	C	CB and IMF staff	2023	BPM 6
Georgia	MoF	2024	2001	CG,LG	C	CB	2024	BPM 6
Germany	NSO	2024	ESA 2010	CG,SG,LG,SS	A	CB	2024	BPM 6
Ghana	MoF	2023	2001	CG	CB	CB	2023	BPM 5
Greece	NSO	2024	ESA 2010	CG,LG,SS	A	CB	2024	BPM 6
Grenada	MoF	2022	...	CG	CB	NSO	2022	BPM 6
Guatemala	MoF	2024	2001	CG	C	CB	2024	BPM 6
Guinea	MoF	2024	2014	CG	C	CB	2024	BPM 6
Guinea-Bissau	MoF	2024	2001	CG	CB	CB	2023	BPM 6
Guyana	MoF	2023	1986	CG,SS	C	CB	2024	BPM 6
Haiti	MoF	2024/25	1986	CG	C	CB	2024/25	BPM 5
Honduras	MoF	2024	2014	CG,LG,SS	Mixed	CB	2024	BPM 5
Hong Kong SAR	MoF	2023/24	2001	CG	C	NSO	2024	BPM 6
Hungary	MEP	2024	ESA 2010	CG,LG,SS	A	CB	2024	BPM 6
Iceland	NSO	2023	2014	CG,LG,SS	A	CB	2024	BPM 6
India	MoF	2024/25	2001	CG,SG	C	CB	2024/25	BPM 6
Indonesia	MoF	2024	2014	CG,LG	A	CB	2024	BPM 6
Iran	MoF	2023/24	2001	CG	C	CB	2024/25	BPM 5
Iraq	MoF	2024	2001	CG	C	CB	2024	BPM 6
Ireland	MoF	2024	2001	CG,LG,SS	A	NSO	2024	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	2024	2020	SNA 2008	From 1995	NSO	2024
Italy	Euro	NSO	2024	2020	ESA 2010	From 1980	NSO	2024
Jamaica	Jamaican dollar	NSO	2024	2015	SNA 2008		NSO	2024
Japan	Japanese yen	Other	2024	2015	SNA 2008	From 1980	Other	2024
Jordan	Jordanian dinar	NSO	2024	2016	SNA 2008		NSO	2024
Kazakhstan	Kazakhstani tenge	NSO	2023	2005	SNA 1993	From 1994	NSO	2023
Kenya	Kenyan shilling	NSO	2024	2016	SNA 2008		NSO	2024
Kiribati	Australian dollar	NSO	2023	2019	SNA 2008		NSO	2023
Korea	South Korean won	CB	2024	2020	SNA 2008	From before 1980	NSO	2024
Kosovo	Euro	NSO	2024	2016	ESA 2010		NSO	2024
Kuwait	Kuwaiti dinar	NSO	2024	2010	SNA 1993		NSO	2024
Kyrgyz Republic	Kyrgyz som	NSO	2024	2005	SNA 2008	From 2010	NSO	2024
Lao P.D.R.	Lao kip	NSO	2024	2012	SNA 2008		NSO	2024
Latvia	Euro	NSO	2024	2020	ESA 2010	From 2020	Other	2024
Lebanon	Lebanese pound	NSO	2021	2019	SNA 2008	From 2019	NSO	2024
Lesotho	Lesotho loti	NSO	2023/24	2012/13	SNA 2008		NSO	2024
Liberia	US dollar	IMF staff	2024	2018	SNA 1993		Other	2024
Libya	Libyan dinar	MEP	2019	2013	SNA 1993		Other	2024
Liechtenstein	Swiss franc	NSO	2023	2013	ESA 2010		NSO	2024
Lithuania	Euro	NSO	2024	2021	ESA 2010	From 2005	NSO	2024
Luxembourg	Euro	NSO	2024	2015	ESA 2010	From 1995	NSO	2024
Macao SAR	Macanese pataca	NSO	2024	2023	SNA 2008	From 2023	NSO	2024
Madagascar	Malagasy ariary	NSO	2022	2007	SNA 1993		NSO	2023
Malawi	Malawian kwacha	NSO	2024	2017	SNA 2008		NSO	2024
Malaysia	Malaysian ringgit	NSO	2024	2015	SNA 2008		NSO	2024
Maldives	Maldivian rufiyaa	MoF	2024	2019	SNA 2008		CB	2024
Mali	CFA franc	NSO	2023	1999	SNA 1993		NSO	2023
Malta	Euro	NSO	2024	2020	ESA 2010	From 2000	NSO	2024
Marshall Islands	US dollar	NSO	2022/23	2014/15	SNA 2008		NSO	2023
Mauritania	New Mauritanian ouguiya	NSO	2023	1998	SNA 2008	From 2014	NSO	2023
Mauritius	Mauritian rupee	NSO	2023	2018	SNA 2008	From 1999	NSO	2024
Mexico	Mexican peso	NSO	2024	2018	SNA 2008		NSO	2024
Micronesia	US dollar	NSO	2022/23	2003/04	SNA 2008		NSO	2023/24
Moldova	Moldovan leu	NSO	2024	1995	SNA 2008		NSO	2024
Mongolia	Mongolian tögrög	NSO	2024	2015	SNA 2008		NSO	2024
Montenegro	Euro	NSO	2024	2006	ESA 2010		NSO	2024
Morocco	Moroccan dirham	NSO	2024	2014	SNA 2008	From 2007	NSO	2024
Mozambique	Mozambican metical	NSO	2023	2019	SNA 2008		NSO	2024
Myanmar	Myanmar kyat	Other	2020/21	2015/16	...		Other	2021/22
Namibia	Namibian dollar	NSO	2024	2015	SNA 1993		NSO	2024
Nauru	Australian dollar	Other	2020/21	2012/13	SNA 2008		NSO	2023/24
Nepal	Nepalese rupee	NSO	2024/25	2010/11	SNA 2008		CB	2024/25
The Netherlands	Euro	NSO	2024	2021	ESA 2010	From 1980	NSO	2024
New Zealand	New Zealand dollar	NSO	2024	2009 ⁶	SNA 2008	From 1987	IMF staff	2024

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	Other	2024	2014	CG,LG,SS	...	Other	2024	BPM 6
Italy	NSO	2024	2001	CG,LG,SS	A	CB	2024	BPM 6
Jamaica	MoF	2024/25	1986	CG	C	CB	2024	BPM 6
Japan	Other	2023	2014	CG,LG,SS	A	MoF	2024	BPM 6
Jordan	MoF	2024	2014	CG,SS,MPC	C	CB	2024	BPM 6
Kazakhstan	MoF	2023	2001	CG,LG	C	CB	2023	BPM 6
Kenya	MoF	2024	2001	CG	C	CB	2024	BPM 6
Kiribati	MoF	2023	1986	CG	C	NSO	2024	BPM 6
Korea	MoF	2024	2001	CG,SS	C	CB	2024	BPM 6
Kosovo	MoF	2024	1986	CG,LG	C	CB	2024	BPM 6
Kuwait	MoF	2023	2014	CG,SS	Mixed	CB	2024	BPM 6
Kyrgyz Republic	MoF	2024	...	CG,LG,SS	C	CB	2024	BPM 6
Lao P.D.R.	MoF	2024	2001	CG	C	CB	2024	BPM 6
Latvia	MoF	2024	ESA 2010	CG,LG,SS	C	CB	2024	BPM 6
Lebanon	MoF	2021	2001	CG	C	CB	2023	BPM 5
Lesotho	MoF	2023/24	2014	CG,LG	C	CB	2024	BPM 6
Liberia	MoF	2024	2001	CG	A	CB	2024	BPM 5
Libya	CB	2024	1986	CG,SG,LG	C	CB	2024	BPM 6
Liechtenstein	NSO	2023	2014	SG	A	IMF staff	2021	BPM 6
Lithuania	MoF	2024	2014	CG,LG,SS	A	CB	2024	BPM 6
Luxembourg	MoF	2024	2001	CG,LG,SS	A	NSO	2024	BPM 6
Macao SAR	MoF	2024	2014	CG,SS	C	NSO	2024	BPM 6
Madagascar	MoF	2024	1986	CG	CB	CB	2023	BPM 6
Malawi	MoF	2024	2014	CG	C	NSO	2023	BPM 6
Malaysia	MoF	2024	2001	CG,SG,LG	C	NSO	2024	BPM 6
Maldives	MoF	2024	1986	CG	C	CB	2024	BPM 6
Mali	MoF	2023	2001	CG	...	CB	2023	BPM 6
Malta	Other	2024	2001	CG,SS	A	NSO	2024	BPM 6
Marshall Islands	MoF	2022/23	2001	CG,LG,SS	A	NSO	2023	BPM 6
Mauritania	MoF	2023	1986	CG	C	CB	2024	BPM 6
Mauritius	MoF	2022/23	2001	CG,LG	C	CB	2024	BPM 6
Mexico	MoF	2024	2014	CG,SS	C	CB	2024	BPM 6
Micronesia	MoF	2020/21	2001	CG,SG	A	NSO	2017/18	BPM 6
Moldova	MoF	2024	1986	CG,LG	C	CB	2024	BPM 6
Mongolia	MoF	2024	2001	CG,SG,LG,SS	C	CB	2024	BPM 6
Montenegro	MoF	2024	1986	CG,LG,SS	C	CB	2024	BPM 6
Morocco	MEP	2024	2001	CG	A	GAD	2024	BPM 6
Mozambique	MoF	2023	2001	CG,SG, LG	...	CB	2022	BPM 6
Myanmar	Other	2019/20	2014	CG	C	IMF staff	2021/22	BPM 6
Namibia	MoF	2023	2001	CG	C	CB	2024	BPM 6
Nauru	MoF	2023/24	2001	CG	C	IMF staff	2022/23	BPM 6
Nepal	MoF	2024/25	2001	CG	C	CB	2024/25	BPM 6
The Netherlands	MoF	2024	2001	CG,LG,SS	A	CB	2024	BPM 6
New Zealand	NSO	2024	2014	CG, LG	A	NSO	2024	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	2024	2006	SNA 2008	From 2006	CB	2024
Niger	CFA franc	NSO	2022	2015	SNA 2008		NSO	2024
Nigeria	Nigerian naira	NSO	2024	2019	SNA 2008		NSO	2024
North Macedonia	Macedonian denar	NSO	2024	2005	ESA 2010		NSO	2024
Norway	Norwegian krone	NSO	2024	2022	ESA 2010	From 1980	NSO	2024
Oman	Omani rial	NSO	2024	2018	SNA 2008		NSO	2024
Pakistan	Pakistan rupee	NSO	2024/25	2015/16	SNA 2008	From 2016	NSO	2024/25
Palau	US dollar	MoF	2023/24	2018/19	SNA 1993		MoF	2023/24
Panama	US dollar	NSO	2024	2018	SNA 1993	From 2018	NSO	2024
Papua New Guinea	Papua New Guinea kina	Other	2023	2013	SNA 2008		NSO	2024
Paraguay	Paraguayan guaraní	CB	2024	2014	SNA 2008		CB	2024
Peru	Peruvian sol	CB	2024	2007	SNA 2008		CB	2024
Philippines	Philippine peso	NSO	2024	2018	SNA 2008		NSO	2024
Poland	Polish zloty	NSO	2024	2020	ESA 2010	From 2020	NSO	2024
Portugal	Euro	NSO	2024	2021	ESA 2010	From 1995	NSO	2024
Puerto Rico	US dollar	NSO	2023/24	2017	...		NSO	2024
Qatar	Qatari riyal	NSO	2023	2018	SNA 1993		NSO	2023
Romania	Romanian leu	NSO	2024	2020	ESA 2010	From 2000	NSO	2024
Russia	Russian ruble	NSO	2024	2021	SNA 2008	From 1995	NSO	2024
Rwanda	Rwandan franc	NSO	2024	2017	SNA 2008		NSO	2024
Samoa	Samoa tala	NSO	2023/24	2012/13	SNA 2008		NSO	2024
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	2024
Saudi Arabia	Saudi riyal	NSO	2024	2023	SNA 2008	From 2024	NSO	2024
Senegal	CFA franc	NSO	2024	2014	SNA 2008		NSO	2024
Serbia	Serbian dinar	NSO	2024	2021	ESA 2010	From 2021	NSO	2024
Seychelles	Seychelles rupee	NSO	2023	2014	SNA 2008		NSO	2024
Sierra Leone	Sierra Leonean leone	NSO	2024	2018	SNA 2008	From 2010	NSO	2024
Singapore	Singapore dollar	NSO	2024	2015	SNA 2008	From 2015	NSO	2024
Slovak Republic	Euro	NSO	2024	2020	ESA 2010	From 1997	NSO	2024
Slovenia	Euro	NSO	2024	2010	ESA 2010	From 2000	NSO	2024
Solomon Islands	Solomon Islands dollar	Other	2022	2012	SNA 1993		CB	2024
Somalia	US dollar	NSO	2022	2022	SNA 2008		NSO	2023
South Africa	South African rand	NSO	2024	2015	SNA 2008		NSO	2024
South Sudan	South Sudanese pound	IMF staff	2024	2010	SNA 1993		NSO	2024
Spain	Euro	NSO	2024	2020	ESA 2010	From 1995	Other	2024
Sri Lanka	Sri Lankan rupee	NSO	2024	2015	SNA 2008		NSO	2024
St. Kitts and Nevis	Eastern Caribbean dollar	NSO	2023	2006	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
Nicaragua	MoF	2024	2001	CG,LG,SS	C	CB	2024	BPM 6
Niger	MoF	2024	1986	CG	A	CB	2024	BPM 6
Nigeria	MoF	2024	2001	CG,SG,LG	C	CB	2024	BPM 6
North Macedonia	MoF	2024	1986	CG,SG,SS	C	CB	2024	BPM 6
Norway	Other	2023	2014	CG,LG,SS	A	NSO	2024	BPM 6
Oman	MoF	2024	2001	CG	C	CB	2024	BPM 6
Pakistan	MoF	2024/25	1986	CG,SG,LG	C	CB	2024/25	BPM 6
Palau	MoF	2023/24	2001	CG	A	MoF	2022/23	BPM 6
Panama	MoF	2024	2014	CG,SG,LG,SS	C	NSO	2024	BPM 6
Papua New Guinea	MoF	2022	2014	CG	C	CB	2024	BPM 6
Paraguay	MoF	2024	2001	CG,SG,LG,SS	C	CB	2024	BPM 6
Peru	MoF	2024	2001	CG,SG,LG,SS	C	CB	2024	BPM 5
Philippines	MoF	2024	2014	CG,LG,SS	C	CB	2024	BPM 6
Poland	MoF	2024	ESA 2010	CG,LG,SS	A	CB	2024	BPM 6
Portugal	NSO	2024	2001	CG,LG,SS	A	CB	2024	BPM 6
Puerto Rico	Other	2023/24	2001	CG	A	...	...	...
Qatar	MoF	2023	1986	CG	C	CB	2023	BPM 6
Romania	MoF	2024	2014	CG,LG,SS	C	CB	2024	BPM 6
Russia	MoF	2024	2014	CG,SG,SS	...	CB	2024	BPM 6
Rwanda	MoF	2023/24	2014	CG	...	CB	2024	BPM 6
Samoa	MoF	2023/24	2001	CG	A	CB	2023/24	BPM 6
San Marino	MoF	2022	2001	CG	A	Other	2022	BPM 6
São Tomé and Príncipe	MoF	2023	1986	CG	C	CB	2023	BPM 6
Saudi Arabia	MoF	2024	2014	CG	C	CB	2024	BPM 6
Senegal	MoF	2024	2001	CG	C	CB and IMF staff	2024	BPM 6
Serbia	MoF	2024	2014	CG,SG,LG,SS	C	CB	2024	BPM 6
Seychelles	MoF	2024	2001	CG,SS	C	CB	2024	BPM 6
Sierra Leone	MoF	2024	1986	CG	C	CB	2024	BPM 6
Singapore	NSO	2024/25	2014	CG	C	NSO	2024	BPM 6
Slovak Republic	Other	2024	2001	CG,LG,SS	A	CB	2024	BPM 6
Slovenia	MoF	2024	2001	CG,LG,SS	A	CB	2024	BPM 6
Solomon Islands	CB	2022	2014	CG	C	CB	2024	BPM 6
Somalia	MoF	2023	2001	CG	C	CB	2023	BPM 5
South Africa	MoF	2024/25	2001	CG,SG,SS	C	CB	2024	BPM 6
South Sudan	MoF	2024	2014	CG	C	CB	2024	BPM 6
Spain	MoF	2024	ESA 2010	CG,SG,LG,SS	A	CB	2024	BPM 6
Sri Lanka	MoF	2024	1986	CG	C	CB	2023	BPM 6
St. Kitts and Nevis	MoF	2024	1986	CG,SG,LG	C	CB	2023	BPM 6

Table G. Key Data Documentation (continued)

		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
Country	Currency							
St. Lucia	Eastern Caribbean dollar	NSO	2024	2018	SNA 2008		NSO	2024
St. Vincent and the Grenadines	Eastern Caribbean dollar	NSO	2022	2018	SNA 1993		NSO	2024
Sudan	Sudanese pound	NSO	2019	1982	...		NSO	2024
Suriname	Surinamese dollar	NSO	2024	2015	SNA 2008		NSO	2023
Sweden	Swedish krona	NSO	2024	2024	ESA 2010	From 1993	NSO	2024
Switzerland	Swiss franc	NSO	2024	2015	ESA 2010	From 1980	NSO	2024
Syria	Syrian pound	NSO	2010	2000	SNA 1993		NSO	2011
Taiwan Province of China	New Taiwan dollar	NSO	2024	2021	SNA 2008		NSO	2024
Tajikistan	Tajik somoni	NSO	2023	1995	SNA 1993		NSO	2023
Tanzania	Tanzanian shilling	NSO	2023	2015	SNA 2008		NSO	2023
Thailand	Thai baht	Other	2024	2002	SNA 1993	From 1993	MOC	2024
Timor-Leste	US dollar	NSO	2024	2015	SNA 2008		NSO	2024
Togo	CFA franc	NSO	2022	2016	SNA 2008		NSO	2024
Tonga	Tongan pa'anga	CB	2022/23	2016/17	SNA 2008		CB	2024/25
Trinidad and Tobago	Trinidad and Tobago dollar	NSO	2023	2012	SNA 2008		NSO	2024
Tunisia	Tunisian dinar	NSO	2024	2015	SNA 2008	From 2009	NSO	2024
Türkiye	Turkish lira	NSO	2024	2009	ESA 2010	From 2009	NSO	2024
Turkmenistan	New Turkmen manat	IMF staff	2024	2023	SNA 2008	From 2007	NSO	2024
Tuvalu	Australian dollar	Other	2024	2016	SNA 2008		Other	2024
Uganda	Ugandan shilling	NSO	2024	2016	SNA 2008		CB	2024
Ukraine	Ukrainian hryvnia	NSO	2024	2021	SNA 2008	From 2005	NSO	2024
United Arab Emirates	U.A.E. dirham	NSO	2023	2010	SNA 2008		NSO	2024
United Kingdom	British pound	NSO	2024	2022	ESA 2010	From 1980	NSO	2024
United States	US dollar	NSO	2024	2017	SNA 2008	From 1980	NSO	2024
Uruguay	Uruguayan peso	CB	2024	2016	SNA 2008		NSO	2024
Uzbekistan	Uzbek som	NSO	2024	2020	SNA 1993		NSO	2024
Vanuatu	Vanuatu vatu	NSO	2022	2006	SNA 1993		NSO	2024
Venezuela	Venezuelan bolívar	CB	2018	1997	SNA 1993		CB	2023
Vietnam	Vietnamese dong	NSO	2024	2010	SNA 1993		NSO	2024
West Bank and Gaza	Israeli new shekel	NSO	2024	2015	SNA 2008		NSO	2024
Yemen	Yemeni rial	IMF staff	2022	1990	SNA 1993		IMF staff	2022
Zambia	Zambian kwacha	NSO	2024	2010	SNA 2008		NSO	2024
Zimbabwe	Zimbabwe gold	NSO	2023	2023	SNA 2008		NSO	2024

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	2024/25	1986	CG	C	CB	2024	BPM 6
St. Vincent and the Grenadines	MoF	2024	2001	CG	C	CB	2024	BPM 6
Sudan	MoF	2021	2001	CG	Mixed	CB	2021	BPM 6
Suriname	MoF	2023	1986	CG	Mixed	CB	2023	BPM 6
Sweden	MoF	2024	2014	CG,LG,SS	A	NSO	2024	BPM 6
Switzerland	MoF	2024	2001	CG,SG,LG,SS	A	CB	2024	BPM 6
Syria	MoF	2009	1986	CG	C	CB	2009	BPM 5
Taiwan Province of China	MoF	2024	2001	CG,LG,SS	C	CB	2024	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	2023/24	2014	CG,LG,SS	A	CB	2024	BPM 6
Timor-Leste	MoF	2024	2001	CG	C	CB	2024	BPM 6
Togo	MoF	2024	1986	CG	C	CB	2023	BPM 6
Tonga	MoF	2023/24	2014	CG	C	CB	2023/24	BPM 6
Trinidad and Tobago	MoF	2023/24	1986	CG	C	CB	2024	BPM 6
Tunisia	MoF	2024	1986	CG	C	CB	2024	BPM 6
Türkiye	MoF	2024	2001	CG,LG,SS	A	CB	2024	BPM 6
Turkmenistan	MoF	2024	1986	CG,LG	C	NSO	2024	BPM 6
Tuvalu	MoF	2024	...	CG	C	IMF staff	2023	BPM 6
Uganda	MoF	2024	2001	CG	C	CB	2024	BPM 6
Ukraine	MoF	2024	2001	CG,LG,SS	C	CB	2024	BPM 6
United Arab Emirates	MoF	2023	2014	CG,SG,SS	Mixed	CB	2023	BPM 6
United Kingdom	NSO	2024	2014	CG,LG	A	NSO	2024	BPM 6
United States	MEP	2024	2014	CG,SG,LG	A	NSO	2024	BPM 6
Uruguay	MoF	2024	1986	CG,LG,SS	C	CB	2024	BPM 6
Uzbekistan	MoF	2024	2014	CG,SG,LG,SS	C	CB and MEP	2024	BPM 6
Vanuatu	MoF	2024	2001	CG	C	CB	2024	BPM 6
Venezuela	MoF	2017	2001	NFPC,other	C	CB	2018	BPM 6
Vietnam	MoF	2023	2001	CG,SG,LG	C	CB	2024	BPM 6
West Bank and Gaza	MoF	2024	2001	CG	Mixed	NSO	2024	BPM 6
Yemen	MoF	2024	2001	CG,LG	C	IMF staff	2022	BPM 5
Zambia	MoF	2024	1986	CG	C	CB	2024	BPM 6
Zimbabwe	MoF	2024	1986	CG	C	CB and MoF	2023	BPM 6

Note: BPM = *Balance of Payments Manual*; CFA = Communauté Financière Africaine (African Financial Community); CPI = consumer price index; ESA = European System of National Accounts; SAR = Special Administrative Region; SNA = System of National Accounts.

¹ CB = central bank; GAD = General Administration Department; MEP = Ministry of Economy, Planning, Commerce, and/or Development; MOC = Ministry of Commerce; MoF = Ministry of Finance and/or Treasury; NSO = National Statistics Office.

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 CG = central government; LG = local government; MPC = monetary public corporation, including central bank; NFPC = nonfinancial public corporation; SG = state government; SS = social security fund.

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 selected economies follow. (See also Tables B5 through 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 the IMF staff's macroeconomic projections. The interest bill excludes interest payments of zero-coupon bonds issued prior to September 2025, which are recorded below the line.

Australia: Fiscal projections are based on data from the Australian Bureau of Statistics, the FY2025/26 budgets published by the Commonwealth Government and the FY2024/25

budgets published by the state/territory governments, and the IMF staff's estimates and projections.

Austria: The IMF staff's 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 Budgetary Plan 2025, the Belgian Monitoring Committee's reports, and other available information on the authorities' fiscal plans, with adjustments for the IMF staff's assumptions.

Brazil: Fiscal projections reflect current and expected policies.

Canada: Projections use the baseline forecasts from the Government of Canada's 2024 Fall Economic Statement and the latest provincial budget updates. The IMF staff makes some adjustments to these forecasts, including those for differences in macroeconomic projections. The IMF staff's forecast also incorporates the most recent data releases from Statistics Canada's National Economic Accounts, including quarterly federal, provincial, and territorial budgetary outturns.

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

China: The IMF staff's fiscal projections incorporate the 2025 budget as well as estimates of off-budget financing.

Colombia: Fiscal projections are based on the authorities' policies and projections reflected in the 2025–36 Medium-Term Fiscal Framework, adjusted to reflect the IMF staff's macroeconomic assumptions.

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

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 from potential 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.

Box A1 (continued)

revenue) and one-offs (COVID-19–related one-offs are, however, included).

France: Projections for 2025 onward are based on the 2025 budget and other clearly specified measures in the authorities' 2023–27 multiannual budget programming bill and fiscal plans, adjusted for differences in revenue projections and assumptions on macroeconomic and financial variables.

Germany: Fiscal projections are based on the IMF staff's macroeconomic framework and assume a gradual increase in infrastructure and defense spending over the medium term, in line with the authorities' stated intentions. The projections also assume that additional fiscal room generated by reforms to Germany's fiscal rule (the "debt brake") in March 2025 is mostly used.

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 2025 budget.

India: Projections are based on available information on the authorities' fiscal plans, with adjustments for the IMF staff's assumptions. General government data cover only central and state governments. State government data are incorporated with a lag of up to two years; 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. In FY2020/21 the IMF staff adjusted expenditure to take out payments for FY2019/20 food subsidies, which FY2020/21 official figures include.

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 2025.

Israel: Projections are subject to significant risks given the unpredictability of the current conflict and its impact on the economy. Fiscal projections are for the general government and take the 2025 budget into account.

Italy: The IMF staff's estimates and projections are informed by the fiscal plans included in the government's Medium-Term Fiscal-Structural 2025–2029 Plan and the updated national accounts. The stock of maturing postal bonds is included in the debt projections.

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

Korea: The forecast incorporates the authorities' annual budget, any supplementary budget, any proposed new budget, the medium-term fiscal plan, and the IMF staff's 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 2025 are informed by the estimates in Pre-Criterios 2025; projections for 2025 onward assume continued compliance with rules established in the Federal Budget and Fiscal Responsibility Law.

The Netherlands: Fiscal projections for 2025–30 are based on the IMF staff's forecast framework and are also informed by the authorities' 2025 budget, the 2025 Spring Memorandum, and Bureau for Economic Policy Analysis projections.

New Zealand: Fiscal projections are based on the country's Half Year Economic and Fiscal Update 2024 and Budget Policy Statement 2025.

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 2025 reflect information available in the 2025 budget proposal.

Puerto Rico: Fiscal projections are informed by the Certified Fiscal Plan for the Commonwealth of

Box A1 (continued)

Puerto Rico, which was prepared in October 2024, 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 benchmark to be used to finance a larger deficit in 2022 as well as savings accumulated in the Russian National Welfare Fund. The 2023–25 budget was based on a modified rule with a two-year transition period that 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. During the transition period higher deficits than prescribed by the rule were allowed, with additional financing coming from earlier saved windfall revenues. 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, effective in the 2025 budget, allows 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 2025 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: FY2024 projections are revised figures based on budget execution through the end of 2024. FY2025 projections are based on the initial budget of February 18, 2025.

South Africa: Fiscal assumptions are informed by the 2025 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. Eskom debt relief is treated as a capital transfer above-the-line item.

Spain: Figures for 2021–28 reflect disbursements of grants and loans under the EU Recovery and Resilience Facility.

Sweden: Fiscal estimates for 2024 are based on the authorities' budget bill and have been updated with the authorities' latest interim forecast. The impact of cyclical developments on the fiscal accounts is calculated using the 2014 OECD study to take into account output gaps.

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 2025 forecast of the Office for Budget Responsibility and the January 2025 release on public sector finances from the Office for National Statistics. The IMF staff's projections take the Office for Budget Responsibility forecast as a reference and overlay adjustments for differences in assumptions. Data are presented on a calendar year basis.

United States: Fiscal projections are based on the January 2025 Congressional Budget Office baseline, adjusted for the IMF staff's policy and macroeconomic assumptions. Projections incorporate the effects of the One Big Beautiful Bill Act signed on July 4, 2025.

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

Box A1 (continued)

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 to target.

Canada: Projections reflect the gradual unwinding of monetary policy tightening by the Bank of Canada as inflation slowly returns to its midrange target of 2 percent by the end of 2026.

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 the gradual normalization of monetary policy.

Japan: Monetary policy assumptions 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 the IMF staff's estimates.

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

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

United Kingdom: Monetary policy assumptions 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.

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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	2017	2018	2019	2020	2021	2022	2023	2024	Projections		
	2007–16									2025	2026	2030
World	3.4	3.8	3.6	3.0	-2.7	6.6	3.8	3.5	3.3	3.2	3.1	3.1
Advanced Economies	1.3	2.6	2.3	1.9	-3.9	6.0	3.0	1.7	1.8	1.6	1.6	1.5
United States	1.5	2.5	3.0	2.6	-2.1	6.2	2.5	2.9	2.8	2.0	2.1	1.8
Euro Area	0.7	2.6	1.8	1.6	-6.0	6.4	3.6	0.4	0.9	1.2	1.1	1.1
Japan	0.4	1.7	0.6	-0.4	-4.2	2.7	1.0	1.2	0.1	1.1	0.6	0.5
Other Advanced Economies ²	2.2	3.1	2.5	1.9	-3.9	6.5	3.4	1.5	2.0	1.6	1.8	1.9
Emerging Market and Developing Economies	5.3	4.8	4.6	3.8	-1.8	7.0	4.3	4.7	4.3	4.2	4.0	4.0
Regional Groups												
Emerging and Developing Asia	7.6	6.6	6.4	5.4	-0.5	7.8	4.7	6.1	5.3	5.2	4.7	4.5
Emerging and Developing Europe	2.6	4.3	3.8	2.6	-1.8	7.2	0.5	3.6	3.5	1.8	2.2	2.4
Latin America and the Caribbean	2.4	1.4	1.1	0.2	-6.9	7.4	4.3	2.4	2.4	2.4	2.3	2.6
Middle East and Central Asia	4.1	2.6	2.5	2.1	-2.3	4.7	6.4	2.6	2.6	3.5	3.8	3.7
Sub-Saharan Africa	4.8	2.8	3.2	3.1	-3.1	3.8	4.4	3.7	4.1	4.1	4.4	4.6
Analytical Groups												
By Source of Export Earnings												
Fuel	4.0	0.8	0.7	0.6	-4.6	4.1	6.5	2.9	3.1	3.3	3.6	3.2
Nonfuel	5.5	5.3	5.2	4.2	-1.5	7.4	4.0	4.9	4.5	4.3	4.1	4.0
Of Which, Primary Products	3.8	2.8	3.1	1.7	-4.9	6.5	2.8	1.4	2.2	3.1	3.2	3.3
By External Financing Source												
Net Debtor Economies	4.5	4.7	4.5	3.3	-3.8	6.9	5.1	5.0	4.2	4.3	4.4	4.8
Net Debtor Economies by Debt-Servicing Experience												
Economies with Arrears and/or Rescheduling during 2020–24	3.7	4.0	3.6	3.2	-0.7	3.8	0.9	3.2	2.9	4.0	4.4	4.8
Other Groups												
European Union	0.9	3.0	2.3	2.0	-5.5	6.4	3.7	0.6	1.1	1.4	1.4	1.4
Middle East and North Africa	3.9	2.1	1.8	1.5	-2.5	4.4	6.7	2.5	2.1	3.3	3.7	3.6
Emerging Market and Middle-Income Economies	5.3	4.8	4.7	3.7	-1.9	7.3	4.2	4.8	4.3	4.1	3.9	3.8
Low-Income Developing Countries	5.5	4.2	4.5	4.7	-1.5	3.8	4.9	4.2	4.2	4.4	5.0	5.3
Memorandum												
Median Growth Rate												
Advanced Economies	1.5	3.0	2.8	2.1	-4.0	6.5	2.9	1.6	1.5	1.2	1.9	1.8
Emerging Market and Developing Economies	4.1	3.7	3.5	3.3	-3.6	4.8	4.5	3.6	3.5	3.3	3.6	3.4
Emerging Market and Middle-Income Economies	3.5	3.1	3.1	2.9	-5.4	5.2	4.5	3.3	3.3	2.9	3.2	2.9
Low-Income Developing Countries	5.0	4.3	4.4	4.6	-1.1	4.8	4.4	4.3	4.2	4.4	4.7	4.7
Output per Capita³												
Advanced Economies	0.8	2.2	1.9	1.5	-4.4	5.9	2.4	0.9	1.2	1.2	1.4	1.2
Emerging Market and Developing Economies	3.6	3.2	3.3	2.5	-3.2	5.9	3.2	3.6	3.2	3.7	3.0	2.9
Emerging Market and Middle-Income Economies	3.9	3.6	3.7	2.7	-2.9	6.6	3.5	4.0	3.6	3.5	3.3	3.2
Low-Income Developing Countries	2.8	1.7	2.0	2.3	-3.9	1.2	2.6	1.8	1.7	3.9	2.7	3.1
World Growth Rate Based on Market Exchange Rates	2.4	3.4	3.2	2.6	-3.0	6.4	3.3	2.9	2.8	2.6	2.6	2.4
Value of World Output (billions of US dollars)												
At Market Exchange Rates	71,355	81,952	87,039	88,323	86,051	98,226	102,402	106,940	111,113	117,165	123,585	149,568
At Purchasing Power Parities	96,876	124,699	132,666	140,582	140,263	157,045	174,330	186,977	197,913	208,956	219,220	265,663

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		
	2007–16	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2030	2024:Q4	Projections	
														2025:Q4	2026:Q4
Real GDP															
Advanced Economies	1.3	2.6	2.3	1.9	-3.9	6.0	3.0	1.7	1.8	1.6	1.6	1.5	1.9	1.3	1.8
United States	1.5	2.5	3.0	2.6	-2.1	6.2	2.5	2.9	2.8	2.0	2.1	1.8	2.4	1.9	2.0
Euro Area	0.7	2.6	1.8	1.6	-6.0	6.4	3.6	0.4	0.9	1.2	1.1	1.1	1.3	0.7	1.7
Germany	1.3	2.8	1.1	1.0	-4.1	3.9	1.8	-0.9	-0.5	0.2	0.9	0.7	-0.2	0.3	1.0
France	0.8	2.3	1.6	2.1	-7.6	6.8	2.8	1.6	1.1	0.7	0.9	1.2	0.6	0.8	1.0
Italy	-0.6	1.6	0.8	0.4	-8.9	8.9	4.8	0.7	0.7	0.5	0.8	0.7	0.6	1.0	0.1
Spain	0.4	2.9	2.4	2.0	-10.9	6.7	6.4	2.5	3.5	2.9	2.0	1.6	3.7	2.5	1.8
The Netherlands	1.0	2.8	2.3	2.3	-3.9	6.3	5.0	-0.6	1.1	1.4	1.2	1.2	2.2	0.8	1.4
Belgium	1.2	1.5	1.9	2.4	-4.8	6.2	4.3	1.2	1.0	1.1	1.0	1.3	1.1	1.2	1.2
Ireland	3.3	10.1	7.7	5.0	7.2	16.3	7.5	-2.5	2.6	9.1	1.3	2.3	11.9	-3.7	14.1
Austria	1.1	2.3	2.5	1.8	-6.3	4.8	5.3	-1.0	-1.0	0.3	0.8	0.7	-0.5	0.7	1.1
Portugal	-0.1	3.3	2.9	2.7	-8.2	5.6	7.0	2.6	1.9	1.9	2.1	1.7	2.8	1.7	1.6
Greece	-2.7	1.5	2.1	2.3	-9.2	8.7	5.7	2.3	2.3	2.0	2.0	1.6	2.5	2.2	1.5
Finland	0.3	3.3	1.2	1.3	-2.5	2.7	0.8	-0.9	0.4	0.5	1.3	1.2	1.7	0.9	1.1
Slovak Republic	3.1	2.9	4.1	2.3	-2.6	5.7	0.4	2.2	2.1	0.9	1.7	2.1	1.4	1.1	1.8
Croatia	0.1	3.3	2.9	3.1	-8.3	12.6	7.3	3.3	3.9	3.1	2.7	2.5	3.9	-0.2	-12.4
Lithuania	2.1	4.7	4.8	4.7	0.0	6.4	2.5	0.4	2.7	2.7	2.9	2.5	3.9	2.1	3.1
Slovenia	0.8	5.2	4.4	3.5	-4.1	8.4	2.7	2.4	1.7	1.1	2.3	2.3	1.0	2.5	0.8
Luxembourg	2.4	1.3	1.6	2.7	-0.5	6.9	-1.1	0.1	0.4	1.2	2.1	2.1	0.1	3.8	0.8
Latvia	0.6	3.4	4.3	0.7	-3.5	6.9	1.8	2.9	-0.4	1.0	2.2	2.4	-0.3	1.9	2.0
Estonia	0.9	5.6	3.7	3.7	-2.9	8.3	-1.2	-2.7	-0.1	0.5	1.5	1.7	-0.4	1.1	1.6
Cyprus	0.7	5.8	6.3	5.9	-3.2	11.4	7.2	2.8	3.4	2.9	2.8	3.0	3.0	2.9	3.5
Malta	4.7	13.0	7.2	4.1	-3.5	13.4	2.5	10.6	6.8	3.9	3.9	4.0	5.4	4.9	3.8
Japan	0.4	1.7	0.6	-0.4	-4.2	2.7	1.0	1.2	0.1	1.1	0.6	0.5	1.3	0.2	1.1
United Kingdom	1.2	2.7	1.4	1.6	-10.3	8.6	4.8	0.4	1.1	1.3	1.3	1.4	1.5	1.4	1.4
Korea	3.5	3.4	3.2	2.3	-0.7	4.6	2.7	1.6	2.0	0.9	1.8	1.9	1.1	2.0	1.1
Canada	1.5	3.0	2.7	1.9	-5.0	6.0	4.2	1.5	1.6	1.2	1.5	1.6	2.3	0.5	2.3
Australia	2.8	2.4	2.8	1.9	-2.0	5.4	4.1	2.1	1.0	1.8	2.1	2.3	1.3	2.0	2.1
Taiwan Province of China	3.3	3.7	2.9	3.1	3.4	6.7	2.7	1.1	4.8	3.7	2.1	2.2	3.3	-1.6	7.4
Singapore	5.1	4.5	3.5	1.3	-3.8	9.8	4.1	1.8	4.4	2.2	1.8	2.5	5.0	0.0	3.1
Switzerland	1.8	1.4	2.9	1.2	-2.3	5.6	3.1	0.7	1.4	0.9	1.3	1.8	1.7	0.1	2.2
Sweden	1.6	1.9	1.8	2.6	-1.9	5.2	1.3	-0.2	0.8	0.7	1.9	1.7	1.9	0.3	3.3
Czech Republic	1.6	5.2	2.8	3.6	-5.3	4.0	2.8	0.0	1.2	2.3	2.0	2.0	1.9	1.9	2.3
Norway	1.2	2.5	0.8	1.1	-1.3	3.9	3.2	0.1	2.1	1.2	1.6	1.3	-0.2	4.9	-0.7
Hong Kong SAR	3.0	3.8	2.8	-1.7	-6.5	6.5	-3.7	3.2	2.5	2.4	2.1	2.3	2.5	1.5	3.8
Israel	3.9	4.3	4.1	3.6	-1.8	9.3	6.4	2.1	1.0	2.5	3.9	3.4	5.8	3.2	3.1
Denmark	0.6	3.1	1.9	1.7	-1.8	6.5	0.4	0.6	3.5	1.8	2.2	1.5	4.2	1.2	1.8
New Zealand	2.2	3.3	3.5	3.0	-1.3	5.7	2.9	1.8	-0.6	0.8	2.2	2.2	-1.3	1.6	3.0
Puerto Rico	-1.0	-2.9	-4.4	1.7	-4.2	0.4	3.0	0.5	3.2	-0.8	-0.1	0.8	...	...	...
Macao SAR	5.4	9.9	6.4	-2.6	-54.3	23.5	-19.6	75.1	8.8	2.6	2.8	3.0	...	...	...
Iceland	1.7	3.5	4.7	1.1	-6.6	5.2	8.8	5.2	-1.0	1.4	2.3	2.4	-1.8	3.6	2.4
Liechtenstein	0.5	6.4	3.5	-2.2	-5.3	18.7	-5.5	4.8	1.5	1.0	1.5	2.0	...	...	...
Andorra	-1.3	0.3	1.6	2.0	-11.2	8.3	9.6	2.6	3.4	2.4	1.6	1.5	...	...	...
San Marino	-2.3	0.3	1.5	2.0	-6.8	14.5	7.8	0.4	0.7	1.0	1.3	1.3	...	...	...
Memorandum															
Major Advanced Economies	1.1	2.4	2.1	1.7	-4.2	5.9	2.7	1.8	1.7	1.4	1.6	1.4	1.7	1.3	1.5
Real Total Domestic Demand															
Advanced Economies	1.2	2.6	2.3	2.1	-3.9	6.0	3.4	1.1	1.9	1.9	1.5	1.5	2.5	1.1	2.0
United States	1.4	2.6	3.1	2.6	-1.8	7.2	2.8	2.4	3.1	2.3	1.8	1.7	2.8	1.8	1.9
Euro Area	0.4	2.4	1.9	2.3	-5.7	5.2	3.9	0.0	0.5	1.7	1.3	1.1	1.4	0.9	2.2
Germany	1.2	2.8	2.0	1.5	-3.3	3.3	3.1	-0.9	0.2	1.5	1.3	0.9	2.4	0.5	1.3
France	1.0	2.3	1.4	2.0	-6.3	6.0	2.8	0.7	-0.1	1.3	0.7	1.1	0.5	1.1	1.0
Italy	-0.8	1.6	1.0	-0.2	-8.3	9.2	5.5	0.2	0.4	0.7	0.9	0.6	1.7	0.2	1.4
Spain	-0.5	3.1	3.2	1.6	-9.0	7.0	4.1	1.6	3.4	3.2	2.1	1.6	4.1	2.4	2.0
Japan	0.4	1.1	0.6	0.0	-3.3	1.7	1.5	0.3	0.1	1.3	0.8	0.5	1.0	0.8	1.3
United Kingdom	1.5	2.2	0.9	1.9	-11.5	9.1	5.1	0.0	2.4	1.7	1.3	1.4	4.4	0.1	1.8
Canada	1.8	4.1	2.7	1.1	-6.1	7.0	5.1	0.0	1.6	1.9	1.6	1.6	2.2	1.5	2.4
Other Advanced Economies ³	2.6	3.6	2.7	1.7	-2.4	6.1	3.7	0.7	2.0	1.4	1.8	2.1	3.4	0.4	2.1
Memorandum															
Major Advanced Economies	1.1	2.4	2.2	1.8	-3.8	6.3	3.2	1.2	1.9	1.9	1.4	1.3	2.4	1.3	1.7

Note: SAR = Special Administrative Region.

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 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		2017	2018	2019	2020	2021	2022	2023	2024	Projections	
	2007-16	2017-26									2025	2026
Private Consumer Expenditure												
Advanced Economies	1.3	1.7	2.3	2.1	1.6	-5.4	6.0	4.2	1.7	1.9	1.8	1.6
United States	1.7	2.6	2.6	2.7	2.1	-2.5	8.8	3.0	2.6	2.9	2.5	1.8
Euro Area	0.5	1.0	1.8	1.4	1.4	-7.8	4.6	5.3	0.4	1.2	1.2	1.2
Germany	0.9	0.8	1.5	1.4	1.7	-6.8	2.0	6.5	-0.7	0.5	1.1	1.1
France	1.1	0.9	1.6	1.0	1.7	-6.5	5.3	3.3	0.8	1.0	0.3	0.7
Italy	-0.3	0.3	1.2	0.5	0.0	-10.6	5.8	5.3	0.4	0.4	0.5	0.5
Spain	-0.2	1.5	3.1	1.7	1.1	-12.1	7.1	4.9	1.8	3.1	3.1	2.2
Japan	0.4	0.1	1.1	0.2	-0.6	-4.4	0.7	2.1	0.8	-0.1	1.0	0.8
United Kingdom	1.5	0.8	1.8	2.0	1.1	-13.1	7.2	7.4	0.5	0.6	1.0	1.3
Canada	2.5	2.2	3.7	2.6	1.6	-6.3	5.8	5.5	1.9	2.4	2.5	2.6
Other Advanced Economies ¹	2.6	1.9	3.0	2.9	2.0	-5.3	4.5	4.5	2.5	1.7	1.8	1.9
Memorandum												
Major Advanced Economies	1.2	1.7	2.1	1.9	1.5	-5.0	6.3	3.9	1.6	1.8	1.8	1.5
Public Consumption												
Advanced Economies	1.2	1.9	0.8	1.6	3.0	2.2	3.4	0.6	1.9	2.7	1.6	1.3
United States	0.4	1.6	-0.1	1.4	3.9	3.0	0.5	-1.3	3.0	3.3	0.9	1.1
Euro Area	1.2	1.8	1.2	1.0	1.9	1.2	4.3	1.3	1.5	2.3	1.6	1.4
Germany	2.3	2.1	1.6	1.0	2.9	4.9	3.1	0.6	-0.2	2.6	2.1	2.5
France	1.5	1.3	1.7	0.8	1.1	-4.4	6.6	2.7	1.5	1.4	1.2	0.9
Italy	-0.4	0.5	0.3	0.0	-0.4	0.3	2.3	0.8	0.6	1.1	0.1	-0.3
Spain	1.1	2.4	1.0	2.1	2.2	3.5	3.6	0.8	4.5	2.9	1.6	1.7
Japan	1.5	1.2	0.1	1.0	1.9	2.4	3.4	1.4	-0.3	0.9	0.3	1.2
United Kingdom	1.1	2.2	0.6	0.6	4.0	-6.8	14.3	0.6	1.6	3.0	3.6	1.4
Canada	1.6	2.6	2.1	3.1	1.1	1.3	5.6	3.2	2.2	3.7	4.0	0.1
Other Advanced Economies ¹	2.9	3.1	2.4	3.5	3.8	4.6	4.6	2.8	1.6	3.2	2.5	1.8
Memorandum												
Major Advanced Economies	0.9	1.6	0.4	1.2	2.9	1.6	3.0	0.0	1.8	2.6	1.3	1.2
Gross Fixed Capital Formation												
Advanced Economies	0.8	2.3	4.0	3.3	3.2	-3.0	6.1	2.0	2.2	1.1	2.2	2.1
United States	1.2	3.2	4.3	5.0	2.9	-0.8	5.6	1.9	3.8	3.5	3.1	2.8
Euro Area	-0.3	1.7	3.9	3.2	7.1	-5.7	3.8	1.9	1.7	-2.0	1.9	1.7
Germany	1.5	0.0	2.6	3.6	2.0	-3.0	0.8	-0.1	-2.0	-3.3	-1.1	1.0
France	0.2	1.4	4.1	3.4	4.2	-6.2	9.6	-0.2	0.8	-1.3	-0.5	0.3
Italy	-2.8	4.2	3.3	3.3	1.6	-7.1	21.5	7.4	9.0	0.5	2.5	2.8
Spain	-3.1	3.2	6.8	6.5	4.9	-8.9	2.6	4.2	5.9	3.6	5.0	2.1
Japan	-0.3	0.2	1.6	0.6	0.5	-3.7	0.5	-0.4	0.9	0.0	1.5	0.5
United Kingdom	1.6	1.3	3.5	-0.5	2.1	-9.7	7.6	5.1	0.3	1.5	1.4	2.3
Canada	0.6	1.4	3.3	2.4	0.8	-3.8	8.8	-1.2	-1.6	0.1	2.7	3.2
Other Advanced Economies ¹	2.5	2.1	4.8	2.2	0.9	-1.0	9.2	2.5	0.1	1.0	0.4	1.6
Memorandum												
Major Advanced Economies	0.7	2.2	3.6	3.5	2.4	-3.0	6.1	1.7	2.4	1.5	2.0	2.2

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

	Averages										Projections	
	2007-16	2017-26	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Final Domestic Demand												
Advanced Economies	1.2	1.9	2.4	2.2	2.3	-3.5	5.6	3.0	1.8	1.8	1.9	1.7
United States	1.4	2.6	2.6	3.0	2.5	-1.4	6.9	2.2	2.9	3.1	2.4	2.0
Euro Area	0.5	1.3	2.1	1.7	2.7	-5.3	4.3	3.6	1.0	0.7	1.4	1.3
Germany	1.3	0.9	1.8	1.8	2.0	-3.4	2.0	3.6	-0.9	0.2	0.9	1.4
France	1.0	1.1	2.2	1.5	2.1	-5.9	6.6	2.3	1.0	0.6	0.4	0.7
Italy	-0.8	1.1	1.4	0.9	0.2	-7.8	8.0	4.8	2.3	0.6	0.9	0.9
Spain	-0.6	2.0	3.4	2.7	2.1	-8.4	5.4	3.9	3.2	3.1	3.2	2.1
Japan	0.4	0.4	1.0	0.5	0.2	-2.9	1.3	1.3	0.6	0.2	1.1	1.0
United Kingdom	1.4	1.2	1.9	1.3	1.8	-11.3	8.7	5.5	0.7	1.3	1.6	1.5
Canada	1.9	2.0	3.3	2.7	1.3	-4.1	6.4	3.3	1.1	2.1	2.3	1.6
Other Advanced Economies ¹	2.6	2.1	3.4	2.4	1.9	-2.3	5.7	3.6	1.5	1.8	1.5	1.8
Memorandum												
Major Advanced Economies	1.1	1.8	2.2	2.2	1.9	-3.4	5.8	2.7	1.8	1.9	1.8	1.6
Stock Building ²												
Advanced Economies	0.0	0.0	0.2	0.1	-0.1	-0.3	0.5	0.5	-0.7	0.0	0.0	-0.1
United States	0.0	0.0	0.0	0.1	0.1	-0.5	0.3	0.6	-0.4	0.0	-0.1	-0.2
Euro Area	0.0	0.0	0.3	0.2	-0.4	-0.3	0.8	0.4	-0.9	-0.2	0.3	0.0
Germany	-0.1	0.2	1.0	0.1	-0.5	0.1	1.2	-0.4	0.0	0.0	0.6	-0.1
France	0.0	0.0	0.1	-0.1	0.0	-0.4	-0.6	0.5	-0.2	-0.7	1.0	0.0
Italy	0.0	-0.1	0.2	0.1	-0.4	-0.5	1.1	0.7	-2.0	-0.1	-0.2	0.0
Spain	0.0	0.0	-0.2	0.4	-0.4	-0.6	1.7	0.3	-1.8	0.7	0.1	0.1
Japan	0.0	0.0	0.1	0.2	-0.1	-0.5	0.5	0.2	-0.3	-0.1	0.3	0.0
United Kingdom	0.0	0.0	0.4	-0.5	0.0	0.0	0.0	0.8	-0.9	0.2	-0.1	0.0
Canada	-0.1	0.1	0.9	0.0	-0.2	-0.7	1.1	1.8	-1.2	-0.4	-0.2	0.0
Other Advanced Economies ¹	-0.1	0.0	0.2	0.2	-0.1	-0.1	0.4	0.3	-0.7	0.0	-0.1	0.0
Memorandum												
Major Advanced Economies	0.0	0.0	0.2	0.1	-0.1	-0.4	0.4	0.5	-0.5	-0.1	0.1	-0.1
Foreign Balance ²												
Advanced Economies	0.2	0.0	0.1	-0.1	-0.2	-0.2	0.0	-0.4	0.6	0.0	-0.2	0.1
United States	0.1	-0.2	-0.2	-0.3	-0.1	-0.2	-1.3	-0.4	0.5	-0.4	-0.4	0.3
Euro Area	0.3	0.1	0.4	-0.1	-0.6	-0.6	1.4	-0.1	0.4	0.4	-0.4	-0.1
Germany	0.2	-0.4	0.2	-0.6	-0.4	-1.1	0.8	-1.1	-0.1	-0.7	-1.3	-0.3
France	-0.2	0.1	0.0	0.2	0.0	-1.3	0.7	-0.1	0.9	1.2	-0.7	0.2
Italy	0.2	0.0	0.1	-0.1	0.7	-0.9	0.0	-0.5	0.5	0.3	-0.1	-0.1
Spain	1.0	0.1	-0.1	-0.7	0.3	-2.2	-0.3	2.5	1.1	0.3	-0.2	-0.1
Japan	0.0	0.0	0.6	0.0	-0.5	-0.9	1.1	-0.5	0.8	0.0	-0.1	-0.2
United Kingdom	-0.3	0.0	1.0	-0.1	-0.3	1.8	-0.9	-0.3	0.3	-1.3	-0.4	-0.1
Canada	-0.4	-0.2	-1.1	0.0	0.8	0.3	-1.7	-1.0	1.6	-0.1	-0.8	-0.1
Other Advanced Economies ¹	0.4	0.3	-0.1	0.4	0.5	0.4	0.4	-0.7	1.1	0.6	0.5	0.4
Memorandum												
Major Advanced Economies	0.1	-0.2	0.0	-0.2	-0.1	-0.4	-0.5	-0.5	0.5	-0.3	-0.5	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		
	2007–16	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2030
Emerging and Developing Asia	7.6	6.6	6.4	5.4	-0.5	7.8	4.7	6.1	5.3	5.2	4.7	4.5
Bangladesh	6.2	6.6	7.3	7.9	3.4	6.9	7.1	5.8	4.2	3.8	4.9	6.5
Bhutan	7.4	5.9	3.5	4.6	-2.5	-3.3	4.8	5.0	4.2	6.8	7.4	6.5
Brunei Darussalam	-1.0	1.3	0.1	3.9	1.1	-1.6	-1.6	1.1	4.1	1.8	2.4	2.9
Cambodia	7.3	8.1	8.8	7.9	-3.6	3.1	5.1	5.0	6.0	4.8	4.0	5.5
China	9.0	6.9	6.8	6.1	2.3	8.6	3.1	5.4	5.0	4.8	4.2	3.4
Fiji	2.3	5.4	3.8	7.6	-17.2	-4.4	17.7	9.4	3.5	3.2	3.1	3.2
India ¹	6.8	6.8	6.5	3.9	-5.8	9.7	7.6	9.2	6.5	6.6	6.2	6.5
Indonesia	5.8	5.1	5.2	5.0	-2.1	3.7	5.3	5.0	5.0	4.9	4.9	5.1
Kiribati	3.7	3.7	3.5	3.3	-1.5	8.5	4.6	2.7	5.3	3.9	3.2	2.1
Lao P.D.R.	7.7	6.9	6.2	4.7	-0.4	2.1	2.3	3.7	4.3	3.5	2.5	2.5
Malaysia	4.8	5.8	4.8	4.4	-5.5	3.3	9.0	3.5	5.1	4.5	4.0	4.0
Maldives	5.0	7.1	8.7	7.3	-32.9	37.5	13.8	4.9	3.3	4.8	4.5	4.0
Marshall Islands	1.0	3.6	5.5	10.5	-2.8	1.2	-1.1	-4.0	3.0	2.5	4.1	1.6
Micronesia	0.0	2.3	0.5	3.4	-2.0	3.1	-2.9	0.5	0.7	1.0	1.4	0.7
Mongolia	7.4	5.6	7.7	5.6	-4.6	1.6	5.0	7.4	5.1	5.5	5.5	5.0
Myanmar	7.0	6.1	6.3	6.6	-9.0	-12.0	4.0	1.0	-1.1	-2.7	3.0	1.8
Nauru	5.0	-6.0	-1.2	8.5	2.0	7.2	3.0	0.6	1.6	2.1	1.9	1.8
Nepal	4.1	9.0	7.6	6.7	-2.4	4.8	5.6	2.0	3.7	4.3	5.2	5.0
Palau	0.5	-3.4	-0.4	0.3	-6.0	-11.9	-0.5	1.2	12.0	4.5	3.3	2.2
Papua New Guinea	5.9	3.5	-0.3	4.5	-3.2	-0.5	5.7	3.8	3.8	4.7	3.5	3.1
Philippines	5.7	6.9	6.3	6.1	-9.5	5.7	7.6	5.5	5.7	5.4	5.7	6.0
Samoa	1.8	1.4	-0.6	4.5	-3.1	-5.1	2.3	15.2	4.6	2.7	3.2	2.0
Solomon Islands	4.3	3.1	2.7	1.7	-3.4	2.6	2.4	2.7	2.5	2.7	2.8	3.0
Sri Lanka ¹	6.1	6.5	2.3	-0.2	-4.6	4.2	-7.3	-2.3	5.0	...	...	...
Thailand	3.2	4.2	4.2	2.1	-6.1	1.5	2.6	2.0	2.5	2.0	1.6	2.5
Timor-Leste ¹	6.5	-3.2	-0.5	2.7	-8.5	3.0	4.0	2.4	4.1	3.9	3.3	3.2
Tonga	1.5	3.2	0.7	-0.2	1.8	0.4	-2.3	2.1	2.1	2.7	2.3	1.2
Tuvalu	2.9	3.3	1.7	13.4	-3.3	0.1	-11.8	4.0	3.1	3.0	2.6	1.8
Vanuatu	2.7	4.4	2.9	3.2	-5.0	-1.6	5.2	2.1	0.9	1.7	2.8	2.3
Vietnam	6.2	6.9	7.5	7.4	2.9	2.6	8.5	5.1	7.1	6.5	5.6	5.3
Emerging and Developing Europe	2.6	4.3	3.8	2.6	-1.8	7.2	0.5	3.6	3.5	1.8	2.2	2.4
Albania	3.3	3.3	3.7	2.1	-3.3	9.0	4.8	4.0	4.0	3.4	3.6	3.5
Belarus	3.0	2.5	3.1	1.4	-0.7	2.3	-4.5	4.1	4.0	2.1	1.4	0.8
Bosnia and Herzegovina	2.0	3.2	3.8	2.9	-3.0	7.4	4.2	2.0	3.0	2.4	2.7	3.0
Bulgaria	2.0	2.7	2.5	3.8	-3.2	7.8	4.0	1.9	2.8	3.0	3.1	2.6
Hungary	0.8	4.1	5.6	5.1	-4.3	7.2	4.3	-0.8	0.5	0.6	2.1	2.5
Kosovo	4.8	4.8	3.4	4.8	-5.3	10.7	4.3	4.1	4.6	3.9	4.0	3.9
Moldova	3.4	4.2	4.1	3.6	-8.3	13.9	-4.6	1.2	0.1	1.7	2.2	3.5
Montenegro	2.3	3.2	4.7	4.4	-15.0	13.0	7.7	6.5	3.2	3.2	3.2	3.0
North Macedonia	3.0	1.1	2.9	3.9	-4.7	4.5	2.8	2.1	2.8	3.4	3.2	3.0
Poland	3.6	5.2	6.2	4.6	-2.0	6.9	5.3	0.2	2.9	3.2	3.1	2.6
Romania	2.3	8.2	6.1	3.9	-3.7	5.5	4.0	2.4	0.8	1.0	1.4	3.3
Russia	1.8	1.8	2.8	2.2	-2.7	5.9	-1.4	4.1	4.3	0.6	1.0	1.1
Serbia	1.4	2.4	4.6	4.8	-1.0	7.9	2.6	3.8	3.9	2.4	3.6	4.0
Türkiye	4.7	7.8	3.5	1.3	1.8	11.8	5.4	5.0	3.3	3.5	3.7	3.8
Ukraine ¹	-1.1	2.4	3.5	3.2	-3.8	3.4	-28.8	5.5	2.9	2.0	4.5	4.1
Latin America and the Caribbean	2.4	1.4	1.1	0.2	-6.9	7.4	4.3	2.4	2.4	2.4	2.3	2.6
Antigua and Barbuda	-0.4	2.7	6.7	3.2	-18.9	8.2	9.1	2.4	3.7	2.5	2.5	2.5
Argentina	2.2	2.8	-2.6	-2.0	-9.9	10.4	6.0	-1.9	-1.3	4.5	4.0	3.2
Aruba	0.4	3.5	3.2	1.2	-24.0	14.7	5.1	7.7	6.8	2.0	2.2	1.3
The Bahamas	0.0	3.4	2.4	-0.8	-20.1	17.6	10.9	3.0	3.4	2.2	2.1	1.5
Barbados	-0.5	0.1	-1.2	0.7	-15.1	-0.3	17.8	4.1	4.0	2.7	2.1	2.0
Belize	1.7	-1.8	0.8	4.3	-13.5	18.0	9.3	0.5	3.5	1.5	2.4	2.0
Bolivia ¹	5.0	4.2	4.2	2.2	-8.7	6.1	3.6	3.1	0.7	0.6	...	...
Brazil	2.1	1.3	1.8	1.2	-3.3	4.8	3.0	3.2	3.4	2.4	1.9	2.5
Chile	3.5	1.4	4.0	0.6	-6.1	11.3	2.2	0.5	2.6	2.5	2.0	2.2
Colombia	4.1	1.4	2.6	3.2	-7.2	10.8	7.3	0.7	1.6	2.5	2.3	2.8

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

	Average	2017	2018	2019	2020	2021	2022	2023	2024	Projections		
	2007–16									2025	2026	2030
Latin America and the Caribbean (continued)	2.4	1.4	1.1	0.2	-6.9	7.4	4.3	2.4	2.4	2.4	2.3	2.6
Costa Rica	4.0	4.2	2.6	2.4	-4.3	7.9	4.6	5.1	4.3	3.6	3.3	3.5
Dominica	1.5	-6.6	3.5	5.5	-16.6	6.9	5.6	4.7	3.5	4.2	3.3	2.5
Dominican Republic	5.2	3.9	7.1	4.9	-7.9	14.0	5.2	2.2	5.0	3.0	4.5	5.0
Ecuador	3.8	6.0	1.0	0.2	-9.2	9.4	5.9	2.0	-2.0	3.2	2.0	3.0
El Salvador	1.9	2.2	2.4	2.4	-7.9	11.9	2.9	3.5	2.6	2.5	2.5	2.8
Grenada	1.9	4.4	4.4	0.7	-13.8	4.7	7.3	4.5	3.3	3.3	3.4	2.7
Guatemala	3.5	3.1	3.4	4.0	-1.8	8.0	4.2	3.5	3.7	3.8	3.6	3.9
Guyana	3.7	3.7	4.4	5.4	43.5	20.1	63.3	33.8	43.6	10.3	23.0	1.1
Haiti	2.3	2.5	1.7	-1.7	-3.3	-1.8	-1.7	-1.9	-4.2	-3.1	-1.2	1.5
Honduras	3.3	4.8	3.8	2.6	-9.0	12.6	4.1	3.6	3.6	3.8	3.5	3.8
Jamaica	0.2	2.3	2.5	1.8	-8.3	5.7	6.4	2.7	-0.5	2.1	1.5	1.5
Mexico	1.6	1.9	2.0	-0.4	-8.4	6.0	3.7	3.4	1.4	1.0	1.5	2.1
Nicaragua	4.1	4.6	-3.4	-2.9	-2.2	10.5	3.6	4.4	3.6	3.0	2.9	3.4
Panama	7.2	5.6	3.7	3.1	-17.8	16.5	11.0	7.2	2.7	4.0	4.0	4.0
Paraguay	4.7	4.8	3.2	-0.4	-0.8	4.0	0.2	5.0	4.2	4.4	3.7	3.5
Peru	5.5	2.5	4.0	2.2	-10.9	13.4	2.8	-0.4	3.3	2.9	2.7	2.5
St. Kitts and Nevis	2.6	0.2	2.0	2.9	-15.3	0.4	10.3	4.7	2.0	1.7	2.2	2.6
St. Lucia	1.2	3.4	2.9	-0.7	-23.8	11.3	20.6	3.3	4.7	2.4	2.1	1.5
St. Vincent and the Grenadines	0.9	1.5	3.2	0.7	-4.7	2.2	5.0	5.5	5.2	4.4	2.7	2.7
Suriname	2.0	1.6	4.9	1.2	-16.0	-2.4	2.4	2.5	3.0	2.7	3.7	3.0
Trinidad and Tobago	0.9	-4.9	-0.9	0.5	-8.8	-0.7	0.9	1.5	2.5	1.0	1.2	1.8
Uruguay ¹	4.4	1.7	0.2	0.9	-7.4	5.8	4.5	0.7	3.1	2.5	2.4	2.2
Venezuela ¹	-0.9	-15.7	-19.7	-27.7	-30.0	1.0	8.0	4.0	5.3	0.5	-3.0	...
Middle East and Central Asia	4.1	2.6	2.5	2.1	-2.3	4.7	6.4	2.6	2.6	3.5	3.8	3.7
Afghanistan ¹	7.7	2.6	1.2	3.9	-2.4	-14.5	-6.2	2.3	1.7	...	...	...
Algeria	3.1	1.5	1.4	0.9	-5.0	3.8	3.6	4.1	3.7	3.4	2.9	2.5
Armenia	2.9	7.5	5.2	7.6	-7.1	5.8	12.6	8.3	5.9	4.8	4.9	4.5
Azerbaijan	5.6	0.2	1.5	2.5	-4.2	5.6	4.7	1.4	4.1	3.0	2.5	2.5
Bahrain	4.3	5.0	2.1	2.1	-5.9	4.4	6.2	3.9	2.6	2.9	3.3	3.2
Djibouti	5.5	5.5	4.8	5.5	1.2	4.4	5.2	7.4	6.5	6.0	6.0	5.5
Egypt	4.3	4.2	5.3	5.5	3.6	3.3	6.7	3.8	2.4	4.3	4.5	5.3
Georgia	4.8	5.2	6.1	5.4	-6.3	10.6	11.0	7.8	9.4	7.2	5.3	5.0
Iran	2.5	3.0	-3.7	-2.4	4.4	4.1	4.4	5.3	3.7	0.6	1.1	2.0
Iraq	6.7	-1.5	2.6	5.6	-12.4	1.4	7.7	0.9	-0.2	0.5	3.6	4.1
Jordan	3.9	2.5	1.9	1.8	-1.1	3.7	2.6	2.9	2.5	2.7	2.9	3.0
Kazakhstan	4.5	3.9	4.1	4.5	-2.6	4.1	3.2	5.1	4.8	5.9	4.8	3.4
Kuwait	1.9	-4.7	2.7	2.3	-4.8	1.7	6.8	-1.7	-2.6	2.6	3.9	2.3
Kyrgyz Republic	4.7	4.7	3.5	4.6	-7.1	5.5	9.0	9.0	9.0	8.0	5.3	5.3
Lebanon ¹	4.8	0.9	-1.9	-6.8	-24.6	2.0	1.0	-0.7	-7.5	...	...	...
Libya	-4.8	32.5	7.9	-11.2	-29.5	28.3	-8.3	10.2	1.9	15.6	4.2	2.2
Mauritania	2.4	6.3	4.8	3.1	-0.4	0.7	6.8	6.8	6.3	4.0	4.3	3.0
Morocco	3.7	5.1	3.1	2.9	-7.2	8.2	1.8	3.7	3.8	4.4	4.2	3.8
Oman	5.0	0.3	1.3	-1.1	-3.4	2.6	8.0	1.2	1.7	2.9	4.0	3.6
Pakistan ¹	3.5	4.6	6.1	3.1	-0.9	5.8	6.2	-0.2	2.5	2.7	3.6	4.5
Qatar	10.0	-1.5	1.2	0.7	-3.6	1.6	4.2	1.5	2.4	2.9	6.1	3.4
Saudi Arabia	4.3	1.2	3.2	1.7	-3.8	6.5	12.0	0.5	2.0	4.0	4.0	3.3
Somalia	...	9.5	1.4	2.8	-2.8	3.5	2.7	4.2	4.1	3.0	3.3	4.1
Sudan ¹	0.4	0.8	-2.3	-2.5	-3.6	0.5	-2.5	-20.8	-23.4	3.2	9.5	5.5
Syria ¹	...	...	...	...	...	...	...	...	...	...	...	...
Tajikistan	6.8	7.1	7.6	7.4	4.4	9.4	8.0	8.3	8.4	7.5	5.5	4.5
Tunisia	2.7	2.3	2.6	1.6	-9.0	4.7	2.7	0.2	1.6	2.5	2.1	1.4
Turkmenistan ¹	10.6	4.4	4.8	5.1	-1.6	9.8	3.3	4.2	3.0	2.3	2.3	2.3
United Arab Emirates	4.2	-1.1	1.5	1.3	-8.7	4.6	7.5	4.3	4.0	4.8	5.0	3.9
Uzbekistan	7.6	4.4	5.6	6.8	1.6	8.0	6.0	6.3	6.5	6.8	6.0	5.7
West Bank and Gaza ¹	5.8	1.4	1.2	1.4	-11.3	7.0	4.1	-4.6	-26.6	...	...	...
Yemen	-3.1	-5.1	0.8	2.1	-8.5	-1.0	1.5	-2.0	-1.5	-1.5	0.0	5.0

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

	Average									Projections		
	2007–16	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2030
Sub-Saharan Africa	4.8	2.8	3.2	3.1	-3.1	3.8	4.4	3.7	4.1	4.1	4.4	4.6
Angola	5.1	-0.1	-0.6	-0.2	-4.0	2.1	4.2	1.3	4.4	2.1	2.1	3.1
Benin	4.2	5.6	6.6	7.1	3.8	7.2	6.3	6.4	7.5	7.0	6.7	6.0
Botswana	2.8	4.1	4.2	3.0	-8.7	11.9	5.5	3.2	-3.0	-0.9	2.3	4.9
Burkina Faso	5.4	6.2	6.6	5.9	2.0	6.9	1.6	3.0	4.8	4.0	4.8	4.7
Burundi	3.0	0.5	1.6	1.8	0.3	3.1	1.8	2.7	3.5	4.4	4.1	4.5
Cabo Verde	3.3	4.6	3.7	6.9	-20.8	7.0	15.8	4.8	7.2	5.2	4.8	4.5
Cameroon	4.1	3.5	4.0	3.4	0.5	3.0	3.7	3.2	3.5	3.8	4.1	4.6
Central African Republic	-1.3	4.5	3.2	4.1	1.0	-0.3	0.8	-0.1	1.9	3.0	3.3	3.9
Chad	3.7	-2.1	5.2	5.9	0.0	2.0	4.7	5.0	3.5	3.3	3.6	4.1
Comoros	3.0	3.8	3.6	1.8	-0.2	2.0	2.6	3.0	3.3	3.8	4.0	3.8
Democratic Republic of the Congo	6.4	3.7	4.8	4.5	1.7	1.7	9.2	8.5	6.5	5.3	5.3	5.4
Republic of Congo	2.9	-5.6	-2.3	1.1	-6.3	1.1	1.8	2.0	2.1	2.7	2.8	3.6
Côte d'Ivoire	4.9	7.4	4.8	6.7	0.7	7.1	6.4	6.5	6.0	6.4	6.4	6.8
Equatorial Guinea	1.4	-5.7	-6.2	-5.5	-4.8	0.9	3.2	-5.1	0.9	-1.6	0.5	2.1
Eritrea ¹	2.7	-10.0	13.0	3.8	...	...	...	...	...	...	...	...
Eswatini	3.0	1.5	0.3	6.1	-2.9	3.4	1.1	3.4	2.8	4.3	4.6	2.8
Ethiopia	10.2	10.2	7.7	9.0	6.1	6.3	6.4	7.2	8.1	7.2	7.1	7.5
Gabon	3.7	0.5	0.9	3.8	-1.8	1.5	3.0	2.4	3.4	1.9	2.6	2.8
The Gambia	2.6	4.8	7.2	6.2	0.6	5.3	5.5	5.0	5.3	6.0	5.1	5.0
Ghana	6.4	8.1	6.2	6.5	0.5	5.1	3.8	3.1	5.7	4.0	4.8	5.0
Guinea	4.7	10.3	6.4	5.6	4.7	5.6	4.0	6.2	6.1	7.2	10.5	7.8
Guinea-Bissau	3.7	4.8	3.8	4.5	1.5	6.2	4.6	5.2	4.8	5.1	5.0	4.2
Kenya	4.6	3.8	5.7	5.1	-0.3	7.6	4.9	5.7	4.7	4.8	4.9	5.0
Lesotho	3.2	-2.7	-1.5	-2.9	-5.3	1.9	2.0	2.1	2.2	1.4	1.1	1.5
Liberia	5.4	2.5	1.2	-2.5	-3.0	5.0	4.8	4.6	4.0	4.6	5.4	5.5
Madagascar	2.6	3.9	3.2	4.4	-7.1	4.7	4.2	4.2	4.2	3.8	4.3	5.0
Malawi	5.5	4.0	4.4	5.4	1.0	4.6	0.9	1.9	1.8	2.4	2.7	3.4
Mali	4.2	5.3	4.7	4.8	-1.2	3.1	3.5	4.7	4.7	5.0	5.4	5.1
Mauritius	4.1	3.9	4.0	2.9	-14.5	3.4	8.7	5.0	4.9	3.2	3.4	3.4
Mozambique	6.9	2.6	3.5	2.3	-1.2	2.4	4.4	5.5	2.1	2.5	3.5	11.3
Namibia	3.9	-1.0	1.1	-0.8	-8.1	3.6	5.4	4.4	3.7	3.6	3.8	3.0
Niger	5.6	5.0	7.0	6.1	3.5	1.4	11.9	2.4	10.3	6.6	6.7	6.0
Nigeria ¹	5.6	0.8	1.9	2.2	-6.4	1.1	4.3	3.3	4.1	3.9	4.2	4.0
Rwanda	7.5	3.9	8.5	9.4	-3.4	10.9	8.2	8.3	8.9	7.1	7.5	7.0
São Tomé and Príncipe	3.8	4.1	4.4	2.0	2.6	1.9	0.2	0.4	1.1	2.9	4.7	3.5
Senegal	3.9	7.4	6.2	4.6	1.3	6.5	4.0	4.3	6.4	6.0	3.0	4.6
Seychelles	5.4	7.0	4.9	5.5	-11.7	0.6	12.7	2.3	2.9	3.9	3.2	3.5
Sierra Leone	4.2	3.9	3.4	5.5	-1.3	5.9	5.3	5.7	4.4	4.4	4.9	4.6
South Africa	2.1	1.2	1.6	0.3	-6.2	4.9	2.1	0.8	0.5	1.1	1.2	1.8
South Sudan	...	-5.8	-2.1	0.9	-6.5	5.3	-5.2	3.0	-26.1	24.3	22.4	3.8
Tanzania	6.5	6.7	7.0	6.9	4.5	4.8	4.7	5.1	5.5	6.0	6.3	6.2
Togo	5.1	4.0	4.8	4.9	2.0	6.0	5.8	5.6	5.3	5.2	5.5	5.5
Uganda	6.1	6.8	5.6	7.6	-1.1	5.5	6.2	4.9	6.3	6.4	7.6	6.1
Zambia	6.5	3.5	4.1	1.4	-2.8	6.2	5.2	5.4	4.0	5.8	6.4	4.8
Zimbabwe ¹	4.1	5.2	5.0	-6.3	-7.8	8.5	6.1	5.3	1.7	6.0	4.6	3.5

¹ See the country-specific notes for Afghanistan, Bolivia, Eritrea, India, Lebanon, Nigeria, Pakistan, 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		
	2007–16	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2030
GDP Deflators												
Advanced Economies	1.3	1.4	1.7	1.5	1.6	3.3	5.8	4.2	2.9	2.3	1.9	2.0
United States	1.6	1.8	2.3	1.7	1.3	4.6	7.1	3.7	2.5	2.4	1.8	1.9
Euro Area	1.3	1.1	1.5	1.7	1.8	2.1	5.2	6.0	3.0	2.2	2.0	2.1
Japan	-0.3	-0.1	0.0	0.6	0.9	-0.2	0.4	4.1	2.9	2.8	2.0	2.0
Other Advanced Economies ¹	1.7	1.9	1.7	1.3	2.0	3.9	6.2	2.8	3.4	2.2	1.9	2.1
Consumer Prices												
Advanced Economies	1.6	1.7	2.0	1.4	0.7	3.1	7.3	4.6	2.6	2.5	2.2	2.1
United States	1.8	2.1	2.4	1.8	1.3	4.7	8.0	4.1	3.0	2.7	2.4	2.2
Euro Area ²	1.5	1.5	1.8	1.2	0.3	2.6	8.4	5.4	2.4	2.1	1.9	2.0
Japan	0.3	0.5	1.0	0.5	0.0	-0.2	2.5	3.3	2.7	3.3	2.1	2.0
Other Advanced Economies ¹	2.0	1.8	1.9	1.4	0.6	2.6	6.6	4.9	2.4	2.3	2.1	2.0
Emerging Market and Developing Economies³	5.9	4.5	4.9	5.2	5.3	5.9	9.7	8.2	7.9	5.3	4.7	3.9
Regional Groups												
Emerging and Developing Asia	4.5	2.4	2.7	3.3	3.2	2.3	3.9	2.4	1.9	1.3	2.1	2.7
Emerging and Developing Europe	7.8	5.6	6.3	6.5	5.2	9.1	25.4	17.3	16.9	13.5	9.3	6.3
Latin America and the Caribbean	4.9	6.3	6.7	7.6	6.5	9.9	14.2	14.8	16.6	7.6	5.0	3.6
Middle East and Central Asia	8.2	6.9	9.6	7.4	10.5	11.9	13.3	15.4	14.0	10.9	9.5	6.2
Sub-Saharan Africa	8.5	11.0	8.7	9.6	12.4	12.4	16.1	19.4	20.3	13.1	10.9	6.6
Analytical Groups												
By Source of Export Earnings												
Fuel	8.2	6.7	8.5	6.8	9.8	11.9	13.6	12.9	12.5	12.2	11.8	7.2
Nonfuel	5.5	4.2	4.5	5.0	4.8	5.2	9.2	7.7	7.4	4.6	3.9	3.5
Of Which, Primary Products ⁴	6.7	7.0	7.8	9.1	15.9	15.6	17.6	17.4	15.9	9.4	6.7	4.9
By External Financing Source												
Net Debtor Economies	6.8	6.0	6.0	5.9	6.5	7.8	13.2	12.1	10.9	7.5	6.6	4.8
Net Debtor Economies by Debt-Servicing Experience												
Economies with Arrears and/or Rescheduling during 2020–24	10.7	15.1	14.3	12.5	15.1	16.1	21.4	24.8	25.6	15.8	10.1	6.0
Other Groups												
European Union	1.6	1.6	1.9	1.4	0.7	2.9	9.3	6.3	2.6	2.4	2.2	2.1
Middle East and North Africa	8.0	6.9	10.6	7.7	11.0	12.8	13.5	14.7	14.2	12.2	10.3	6.4
Emerging Market and Middle-Income Economies	5.6	4.0	4.5	4.8	4.6	5.2	9.1	7.4	7.0	4.7	4.2	3.7
Low-Income Developing Countries	9.1	10.4	10.0	10.2	14.0	15.0	17.0	18.8	19.6	13.8	11.5	6.6
Memorandum												
Median Inflation Rate												
Advanced Economies	1.7	1.5	1.7	1.3	0.3	2.5	8.1	5.2	2.4	2.3	2.1	2.0
Emerging Market and Developing Economies ³	4.6	3.3	3.1	2.6	2.6	4.0	7.9	5.9	3.7	3.7	3.5	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		
	2007-16	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2030	2024	Projections	
														2025	2026
Advanced Economies	1.6	1.7	2.0	1.4	0.7	3.1	7.3	4.6	2.6	2.5	2.2	2.1	2.5	2.4	2.1
United States	1.8	2.1	2.4	1.8	1.3	4.7	8.0	4.1	3.0	2.7	2.4	2.2	2.7	2.6	2.2
Euro Area ³	1.5	1.5	1.8	1.2	0.3	2.6	8.4	5.4	2.4	2.1	1.9	2.0	2.4	1.8	1.9
Germany	1.4	1.7	1.9	1.4	0.4	3.2	8.7	6.0	2.5	2.1	1.8	2.2	2.5	1.7	1.9
France	1.3	1.2	2.1	1.3	0.5	2.1	5.9	5.7	2.3	1.1	1.5	1.9	1.7	1.5	1.1
Italy	1.6	1.3	1.2	0.6	-0.1	1.9	8.7	5.9	1.1	1.7	2.0	2.0	1.4	1.5	2.7
Spain	1.5	2.0	1.7	0.8	-0.3	3.0	8.3	3.4	2.9	2.4	2.0	2.0	2.8	2.1	1.9
The Netherlands	1.4	1.3	1.6	2.7	1.1	2.8	11.6	4.1	3.2	2.9	2.4	2.0	4.0	2.5	2.1
Belgium	1.9	2.2	2.3	1.3	0.4	3.2	10.3	2.3	4.3	2.6	1.3	1.9	4.4	0.3	2.1
Ireland	0.6	0.3	0.7	0.9	-0.5	2.4	8.1	5.2	1.3	1.7	1.7	2.0	1.0	1.6	1.7
Austria	1.9	2.2	2.1	1.5	1.4	2.8	8.6	7.7	2.9	3.6	2.3	2.1	2.1	3.6	2.1
Portugal	1.3	1.6	1.2	0.3	-0.1	0.9	8.1	5.3	2.7	2.2	2.1	2.0	3.1	2.1	2.2
Greece	1.4	1.1	0.8	0.5	-1.3	0.6	9.3	4.2	3.0	3.1	2.5	2.0	2.9	2.8	2.3
Finland	1.9	0.8	1.2	1.1	0.4	2.1	7.2	4.3	1.0	1.8	1.9	2.0	1.6	2.0	2.0
Slovak Republic	1.6	1.4	2.5	2.8	2.0	2.8	12.1	11.0	3.2	4.2	3.3	2.0	3.2	3.9	2.7
Croatia	1.9	1.3	1.6	0.8	0.0	2.7	10.7	8.4	4.0	4.4	2.8	2.4	4.5	3.8	2.4
Lithuania	3.0	3.7	2.5	2.2	1.1	4.6	18.9	8.7	0.9	3.6	3.1	2.5	1.9	3.7	2.8
Slovenia	1.8	1.4	1.7	1.6	-0.1	1.9	8.8	7.4	2.0	2.5	2.4	2.1	1.9	2.8	2.2
Luxembourg	1.9	2.1	2.0	1.7	0.0	3.5	8.1	2.9	2.3	2.3	2.2	2.0	1.6	1.2	4.2
Latvia	3.4	2.9	2.6	2.7	0.1	3.2	17.2	9.1	1.3	3.8	2.6	2.2	3.4	3.4	2.5
Estonia	3.4	3.7	3.4	2.3	-0.6	4.5	19.4	9.1	3.7	5.1	4.3	2.3	3.9	5.3	3.7
Cyprus	1.3	0.7	0.8	0.5	-1.1	2.3	8.1	3.9	2.3	0.7	1.3	2.0	3.1	-0.4	2.0
Malta	1.9	1.3	1.7	1.5	0.8	0.7	6.1	5.6	2.4	2.4	2.0	2.0	1.8	2.2	2.1
Japan	0.3	0.5	1.0	0.5	0.0	-0.2	2.5	3.3	2.7	3.3	2.1	2.0	2.9	2.8	2.0
United Kingdom	2.3	2.7	2.5	1.8	0.9	2.6	9.1	7.3	2.5	3.4	2.5	2.0	2.5	3.4	2.0
Korea	2.3	1.9	1.5	0.4	0.5	2.5	5.1	3.6	2.3	2.0	1.8	2.0	1.9	1.9	1.9
Canada	1.6	1.6	2.3	1.9	0.7	3.4	6.8	3.9	2.4	2.0	2.0	1.9	1.9	2.0	2.1
Australia	2.4	2.0	1.9	1.6	0.9	2.8	6.7	5.6	3.2	2.6	3.0	2.5	2.4	3.2	2.8
Taiwan Province of China	1.2	0.6	1.4	0.6	-0.2	2.0	2.9	2.5	2.2	1.7	1.6	1.5	2.1	2.0	1.6
Singapore	2.4	0.6	0.4	0.6	-0.2	2.3	6.1	4.8	2.4	0.9	1.3	2.0	1.5	1.1	1.3
Switzerland	0.1	0.5	0.9	0.4	-0.7	0.6	2.8	2.1	1.1	0.1	0.6	0.7	0.6	0.1	0.6
Sweden	1.4	1.9	2.0	1.7	0.7	2.7	8.1	5.9	2.0	2.3	1.6	2.0	1.8	1.6	1.8
Czech Republic	2.0	2.5	2.1	2.8	3.2	3.8	15.1	10.7	2.4	2.5	2.3	2.0	3.0	2.4	2.0
Norway	2.1	1.9	2.8	2.2	1.3	3.5	5.8	5.5	3.1	2.4	2.4	2.0	2.2	2.2	2.0
Hong Kong SAR	3.3	1.5	2.4	2.9	0.3	1.6	1.9	2.1	1.7	1.7	2.1	2.5	0.0	3.8	2.4
Israel	1.7	0.2	0.8	0.8	-0.6	1.5	4.4	4.2	3.1	3.2	2.2	2.1	3.2	2.8	2.4
Denmark	1.5	1.1	0.7	0.7	0.3	1.9	8.5	3.4	1.3	1.9	2.1	2.0	1.9	1.8	1.9
New Zealand	1.9	1.9	1.6	1.6	1.7	3.9	7.2	5.7	2.9	2.7	2.1	2.0	2.2	2.8	1.9
Puerto Rico	1.7	1.8	1.3	0.1	-0.5	2.4	6.0	3.5	2.0	1.4	2.2	2.1	1.9	1.9	2.5
Macao SAR	4.8	1.2	3.0	2.8	0.8	0.0	1.0	0.9	0.7	0.5	1.2	2.2	0.2	0.5	1.2
Iceland	5.3	1.8	2.7	3.0	2.8	4.5	8.3	8.7	5.9	4.2	3.1	2.5	4.7	4.3	2.5
Liechtenstein	0.1	0.5	0.9	0.4	-0.7	0.6	2.8	2.1	1.1	0.1	0.6	0.7	1.0	0.1	0.6
Andorra	1.0	2.6	1.0	0.5	0.1	1.7	6.2	5.6	3.1	2.2	1.8	1.7	2.6	2.0	1.7
San Marino	2.0	1.0	1.2	0.5	-0.1	1.6	5.3	5.9	1.2	2.0	2.0	2.0	1.6	2.0	2.0
<i>Memorandum</i>															
Major Advanced Economies	1.5	1.8	2.1	1.5	0.8	3.3	7.3	4.7	2.7	2.5	2.2	2.1	2.5	2.4	2.1

Note: SAR = Special Administrative Region.

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.

Table A7. Emerging Market and Developing Economies: Consumer Prices¹
(Annual percent change)

	Average 2007–16	2017	2018	2019	2020	2021	2022	2023	2024	Projections			End of Period ²		
										2025	2026	2030	2024	Projections	
														2025	2026
Emerging and Developing Asia	4.5	2.4	2.7	3.3	3.2	2.3	3.9	2.4	1.9	1.3	2.1	2.7	1.6	1.8	2.2
Bangladesh	7.5	5.4	5.8	5.5	5.6	5.6	6.1	9.0	9.7	10.0	8.7	5.5	9.7	8.5	8.4
Bhutan	7.0	4.3	3.6	2.8	3.0	8.2	5.9	4.5	4.3	2.4	3.4	4.0	1.7	3.1	3.7
Brunei Darussalam	0.4	-1.3	1.0	-0.4	1.9	1.7	3.7	0.4	-0.4	0.4	0.6	1.0	-0.5	0.6	0.6
Cambodia	5.3	2.9	2.4	2.0	2.9	2.9	5.3	2.1	0.9	1.6	1.8	3.0	3.0	1.6	1.8
China	2.9	1.6	2.1	2.9	2.5	0.9	2.0	0.2	0.2	0.0	0.7	2.0	0.0	0.5	0.8
Fiji	3.9	3.3	4.1	1.8	-2.6	0.2	4.3	2.3	4.5	0.1	1.1	3.5	1.3	0.5	2.1
India	7.8	3.6	3.4	4.8	6.2	5.5	6.7	5.4	4.6	2.8	4.0	4.0	3.7	3.3	4.4
Indonesia	5.8	3.8	3.3	2.8	2.0	1.6	4.1	3.7	2.3	1.8	2.9	2.5	1.6	2.6	2.6
Kiribati	2.3	0.4	0.6	-1.8	2.6	2.1	5.3	9.3	2.5	7.8	3.5	2.0	2.9	6.5	3.0
Lao P.D.R.	4.3	0.8	2.0	3.3	5.1	3.8	23.0	31.2	23.1	7.8	5.5	9.9	16.9	5.0	6.2
Malaysia	2.4	3.8	1.0	0.7	-1.1	2.5	3.4	2.5	1.8	1.6	2.2	2.0	1.7	2.4	2.0
Maldives	6.0	2.3	1.4	1.3	-1.6	0.2	2.6	2.6	1.4	3.9	2.5	2.0	4.3	3.0	2.0
Marshall Islands	2.7	0.1	0.8	-0.1	-0.7	2.2	2.8	7.4	5.2	5.2	5.9	2.4	5.7	4.7	7.0
Micronesia	3.4	0.1	1.0	2.2	1.0	1.8	5.0	6.2	5.4	4.1	3.4	2.2	3.0	4.1	3.4
Mongolia	10.5	4.3	6.8	7.3	3.7	7.4	15.1	10.4	6.2	8.3	8.1	6.6	8.3	8.2	8.0
Myanmar	9.7	4.0	7.3	9.1	2.2	9.6	28.0	25.5	26.5	31.0	28.0	7.8	28.0	30.0	28.0
Nauru	3.9	4.5	1.1	4.1	0.9	2.0	1.1	4.8	9.3	6.1	4.5	2.5	12.3	4.1	3.6
Nepal	8.9	4.5	4.1	4.6	6.1	3.6	6.4	7.7	5.4	4.1	4.2	5.0	3.6	2.6	5.1
Palau	3.4	1.1	2.4	0.4	0.7	-0.5	13.2	12.4	3.6	1.8	2.9	2.2	2.3	1.7	4.1
Papua New Guinea	5.5	5.4	4.4	3.9	4.9	4.5	5.3	2.3	0.6	4.8	4.6	4.5	0.7	4.5	4.3
Philippines	3.5	2.9	5.3	2.4	2.4	3.9	5.8	6.0	3.2	1.6	2.6	3.2	2.9	1.5	2.8
Samoa	3.4	1.3	3.7	2.2	1.5	-3.0	8.7	12.0	3.6	1.8	3.2	3.0	0.8	1.4	3.1
Solomon Islands	5.6	0.5	3.6	2.2	2.9	0.2	5.4	5.1	4.2	3.4	3.7	3.3	5.6	4.0	3.4
Sri Lanka ³	7.6	6.6	4.3	4.3	4.6	6.0	45.2	17.4	1.2	...	...	...	-1.5	...	...
Thailand	2.0	0.7	1.1	0.7	-0.8	1.2	6.1	1.2	0.4	0.2	0.7	1.8	1.2	0.6	0.8
Timor-Leste	5.3	0.5	2.3	0.9	0.5	3.8	7.0	8.4	2.1	0.9	1.8	2.0	-0.4	1.9	1.7
Tonga	3.3	7.2	6.1	4.1	0.2	0.6	6.5	12.6	8.0	2.9	2.2	3.2	6.4	1.4	3.1
Tuvalu	2.2	4.1	2.2	3.5	1.6	6.7	12.2	7.2	1.2	2.0	2.3	2.5	4.5	2.0	2.3
Vanuatu	2.4	3.1	2.4	2.7	5.3	2.3	6.7	11.2	1.2	1.7	2.2	2.2	-0.7	2.2	2.3
Vietnam	8.7	3.5	3.5	2.8	3.2	1.8	3.2	3.3	3.6	3.4	3.2	3.3	2.9	3.4	3.2
Emerging and Developing Europe	7.8	5.6	6.3	6.5	5.2	9.1	25.4	17.3	16.9	13.5	9.3	6.3	15.4	11.9	7.9
Albania	2.4	2.0	2.0	1.4	1.6	2.0	6.7	4.8	2.2	2.3	2.8	3.0	2.1	2.7	3.0
Belarus	20.7	6.0	4.9	5.6	5.5	9.5	15.2	5.0	5.7	7.0	7.5	5.2	5.1	8.1	7.1
Bosnia and Herzegovina	1.3	0.8	1.4	0.6	-1.1	2.0	14.0	6.1	1.7	4.0	2.6	2.0	2.9	3.2	2.0
Bulgaria	2.6	1.2	2.6	2.5	1.2	2.8	13.0	8.6	2.6	3.6	3.4	2.4	2.1	4.0	3.0
Hungary	3.4	2.4	2.8	3.4	3.3	5.1	14.6	17.1	3.7	4.5	3.5	3.0	4.6	4.1	3.1
Kosovo	2.6	1.5	1.1	2.7	0.2	3.3	11.6	4.9	1.6	3.5	2.7	2.0	1.1	4.1	2.4
Moldova	7.0	6.5	3.6	4.8	3.8	5.1	28.7	13.4	4.7	7.7	5.5	5.0	7.0	6.2	5.0
Montenegro	2.6	2.4	2.6	0.4	-0.3	2.4	13.0	8.6	3.3	4.1	2.3	2.0	2.1	5.0	2.0
North Macedonia	2.0	1.4	1.5	0.8	1.2	3.2	14.2	9.4	3.5	3.9	3.0	2.0	4.3	3.5	2.4
Poland	2.1	2.0	1.8	2.3	3.4	5.1	14.2	11.5	3.7	3.8	2.8	2.5	4.7	2.8	2.7
Romania	3.6	1.3	4.6	3.8	2.6	5.0	13.8	10.4	5.6	7.3	6.7	2.6	6.1	8.5	3.5
Russia	9.2	3.7	2.9	4.5	3.4	6.7	13.7	5.9	8.4	9.0	5.2	4.0	9.5	7.6	4.5
Serbia	6.3	3.1	2.0	1.8	1.6	4.1	12.0	12.4	4.7	4.6	4.0	3.0	4.3	4.7	3.4
Türkiye	8.1	11.1	16.3	15.2	12.3	19.6	72.3	53.9	58.5	34.9	24.7	15.0	44.4	31.0	21.0
Ukraine	13.9	14.4	10.9	7.9	2.7	9.4	20.2	12.9	6.5	12.6	7.6	5.0	12.0	9.0	7.0
Latin America and the Caribbean⁴	4.9	6.3	6.7	7.6	6.5	9.9	14.2	14.8	16.6	7.6	5.0	3.6	12.2	6.5	4.2
Antigua and Barbuda	1.9	2.4	1.2	1.4	1.1	1.6	7.5	5.1	6.2	3.5	2.4	2.0	5.4	3.0	2.0
Argentina ³	13.6	25.7	34.3	53.5	42.0	48.4	72.4	133.5	219.9	41.3	16.4	7.5	117.8	28.0	10.0
Aruba	1.6	-1.0	3.6	3.9	-1.3	0.7	5.5	3.4	1.7	0.8	2.1	2.3	0.3	1.9	2.1
The Bahamas	1.8	1.5	2.3	2.5	0.0	2.9	5.6	3.1	0.4	0.5	1.0	2.0	0.0	0.6	1.4
Barbados	3.9	4.4	3.0	1.7	0.6	1.5	4.4	3.2	1.4	2.3	2.5	2.4	0.4	3.3	2.4
Belize	1.3	1.1	0.3	0.2	0.1	3.2	6.3	4.4	3.3	1.4	1.9	1.3	2.6	1.5	1.3
Bolivia ³	6.2	2.8	2.3	1.8	0.9	0.7	1.7	2.6	5.1	20.8	...	...	10.0	26.2	...
Brazil	6.1	3.4	3.7	3.7	3.2	8.3	9.3	4.6	4.4	5.2	4.0	2.9	4.8	4.9	3.7
Chile	3.7	2.2	2.3	2.3	3.0	4.5	11.6	7.6	3.9	4.3	3.1	3.0	4.5	3.7	3.0
Colombia	4.3	4.3	3.2	3.5	2.5	3.5	10.2	11.7	6.6	4.9	3.5	3.0	5.2	4.4	3.1

Table A7. Emerging Market and Developing Economies: Consumer Prices¹ (continued)
(Annual percent change)

	Average									Projections			End of Period ²		
	2007–16	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2030	2024	Projections	
														2025	2026
Latin America and the Caribbean (continued)⁴	4.9	6.3	6.7	7.6	6.5	9.9	14.2	14.8	16.6	7.6	5.0	3.6	12.2	6.5	4.2
Costa Rica	5.6	1.6	2.2	2.1	0.7	1.7	8.3	0.5	-0.4	0.4	2.0	3.0	0.8	0.1	3.0
Dominica	1.5	0.3	1.0	1.5	-0.7	1.6	7.7	4.2	3.1	2.8	2.3	2.2	2.1	3.1	2.3
Dominican Republic	4.7	3.3	3.6	1.8	3.8	8.2	8.8	4.8	3.3	3.7	4.2	4.0	3.3	3.7	4.0
Ecuador	4.1	0.4	-0.2	0.3	-0.3	0.1	3.5	2.2	1.5	1.1	2.8	1.5	0.5	3.6	1.7
El Salvador	2.2	1.0	1.1	0.1	-0.4	3.5	7.2	4.0	0.9	0.3	1.0	1.8	0.3	0.7	1.2
Grenada	2.0	0.9	0.8	0.6	-0.7	1.2	2.6	2.7	1.1	1.2	1.1	2.0	0.8	1.0	1.6
Guatemala	4.8	4.4	3.8	3.7	3.2	4.3	6.9	6.2	2.9	1.7	3.3	4.0	1.7	2.2	4.0
Guyana	3.6	1.9	1.3	2.1	1.2	3.3	6.5	4.5	2.5	3.6	4.4	5.5	2.9	4.3	4.5
Haiti	6.4	10.6	11.4	17.3	22.9	15.9	27.6	44.1	25.8	27.8	26.2	8.0	27.9	29.4	24.1
Honduras	5.7	3.9	4.3	4.4	3.5	4.5	9.1	6.7	4.6	4.6	4.2	4.0	3.9	4.9	4.0
Jamaica	9.0	4.4	3.7	3.9	5.2	5.9	10.3	6.5	5.5	4.2	5.0	5.0	5.0	4.5	5.0
Mexico	3.9	6.0	4.9	3.6	3.4	5.7	7.9	5.5	4.7	3.9	3.3	3.0	4.2	3.7	3.0
Nicaragua	7.5	3.9	4.9	5.4	3.7	4.9	10.5	8.4	4.6	2.0	2.7	2.7	2.8	2.0	2.7
Panama	3.8	0.9	0.8	-0.4	-1.6	1.6	2.9	1.5	0.8	-0.1	2.0	2.0	-0.2	0.7	2.0
Paraguay	5.2	3.6	4.0	2.8	1.8	4.8	9.8	4.6	3.8	3.9	3.7	3.5	3.8	4.0	3.5
Peru	3.2	2.8	1.3	2.1	1.8	4.0	7.9	6.3	2.4	1.7	1.9	2.0	2.0	2.0	2.0
St. Kitts and Nevis	1.7	0.7	-1.0	-0.3	-1.2	1.2	2.7	3.6	1.0	1.7	2.1	2.0	1.9	1.7	2.1
St. Lucia	1.9	0.1	2.6	0.5	-1.8	2.4	6.4	4.5	-0.5	0.4	1.5	2.0	1.6	1.3	-0.9
St. Vincent and the Grenadines	2.3	2.2	2.3	0.9	-0.6	1.6	5.7	4.6	3.6	2.1	2.1	2.0	2.1	2.2	2.0
Suriname	10.9	22.0	6.9	4.4	34.9	59.1	52.4	51.6	16.2	9.0	9.6	5.0	10.1	10.6	8.2
Trinidad and Tobago	7.0	1.9	1.0	1.0	0.6	2.1	5.8	4.6	0.5	1.5	2.2	2.0	0.5	2.2	2.3
Uruguay	8.2	6.2	7.6	7.9	9.8	7.7	9.1	5.9	4.8	4.7	4.5	4.5	5.5	4.0	4.5
Venezuela ³	52.7	438.1	65,374.1	19,906.0	2,355.1	1,588.5	186.5	337.5	49.0	269.9	682.1	...	47.2	548.6	628.8
Middle East and Central Asia	8.2	6.9	9.6	7.4	10.5	11.9	13.3	15.4	14.0	10.9	9.5	6.2	12.0	10.1	8.9
Afghanistan ³	6.1	5.0	0.6	2.3	5.6	7.8	10.6	-7.7	-4.3	...	...	...	0.3	...	...
Algeria	4.9	5.6	4.3	2.0	2.4	7.2	9.3	9.3	4.0	3.5	3.9	3.3	3.0	4.6	3.9
Armenia	4.6	0.9	2.5	1.5	1.5	7.5	8.8	2.0	0.4	3.3	2.8	3.0	1.7	3.2	3.0
Azerbaijan	7.2	12.9	2.3	2.6	2.8	6.7	13.9	8.8	2.2	5.7	4.5	4.0	4.9	5.2	4.0
Bahrain	2.4	1.4	2.1	1.0	-2.3	-0.6	3.6	0.1	0.9	0.3	0.8	2.0	0.5	0.5	0.8
Djibouti	3.6	0.6	0.1	3.3	1.8	1.2	5.2	1.4	2.1	1.5	1.4	1.3	-0.6	1.8	1.6
Egypt	10.8	23.5	20.9	13.9	5.7	4.5	8.5	24.4	33.3	20.4	11.8	5.3	27.5	14.9	11.3
Georgia	4.4	6.0	2.6	4.9	5.2	9.6	11.9	2.5	1.1	3.9	3.4	3.0	1.9	4.4	3.0
Iran	18.4	8.2	26.9	34.8	36.5	40.2	45.8	40.7	32.5	42.4	41.6	25.0	37.1	45.0	35.0
Iraq	4.7	0.2	0.4	-0.2	0.6	6.0	5.0	4.4	2.6	1.5	2.5	3.6	2.7	1.8	2.5
Jordan	3.7	3.3	4.5	0.8	0.3	1.3	4.2	2.1	1.6	2.2	2.6	2.3	1.8	2.2	2.6
Kazakhstan	8.9	7.5	6.0	5.3	6.8	8.0	15.0	14.5	8.7	11.4	11.2	5.9	8.6	12.7	11.4
Kuwait	...	1.6	0.6	1.1	2.1	3.4	4.0	3.6	2.9	2.2	2.2	1.7	2.6	2.2	2.2
Kyrgyz Republic	8.8	3.2	1.5	1.1	6.3	11.9	13.9	10.8	5.0	8.0	6.9	5.0	6.3	8.0	6.0
Lebanon ³	3.3	4.5	6.1	2.9	84.9	154.8	171.2	221.3	45.2	...	...	...	18.1	...	...
Libya	8.2	25.8	13.2	-2.2	1.4	2.9	4.5	2.4	2.1	1.8	1.6	1.6	2.3	1.6	1.6
Mauritania	4.3	2.3	3.1	2.3	2.4	3.6	9.6	4.9	2.5	2.5	3.5	4.0	1.5	3.5	3.6
Morocco	1.4	0.8	1.6	0.2	0.7	1.4	6.6	6.1	0.9	1.2	1.8	2.0	0.7	1.2	2.0
Oman	3.5	1.5	0.7	0.5	-0.4	1.7	2.5	1.0	0.6	0.9	1.5	2.0	0.7	0.5	1.5
Pakistan ³	9.7	4.8	4.7	6.8	10.7	8.9	12.2	29.2	23.4	4.5	6.0	6.5	12.6	3.2	8.0
Qatar	3.5	0.6	0.1	-0.9	-2.5	2.3	5.0	3.1	1.2	0.1	2.6	2.0	-1.6	0.1	2.6
Saudi Arabia	3.5	-0.8	2.5	-2.1	3.4	3.1	2.5	2.3	1.7	2.1	2.0	2.0	0.3	2.1	2.0
Somalia	...	4.0	4.3	4.7	4.1	4.6	6.8	6.2	5.5	3.6	3.5	3.0	5.6	3.7	3.5
Sudan ³	21.1	32.4	63.3	51.0	163.3	359.1	138.8	77.2	185.7	87.2	54.6	16.1	151.1	49.0	41.6
Syria ³	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tajikistan	8.7	7.3	3.8	7.8	8.6	9.0	6.6	3.7	3.5	3.8	4.5	5.0	3.7	4.0	5.0
Tunisia	4.2	5.3	7.3	6.7	5.6	5.7	8.3	9.3	7.0	5.9	6.1	8.8	6.2	5.4	6.5
Turkmenistan	5.6	8.0	13.3	5.1	6.1	19.5	11.2	-1.6	4.6	3.9	5.0	8.0	3.8	4.0	6.0
United Arab Emirates	2.9	2.0	3.1	-1.9	-2.1	-0.1	4.8	1.6	1.7	1.6	2.0	2.0	1.7	1.6	2.0
Uzbekistan	11.1	13.9	17.5	14.5	12.9	10.8	11.4	10.0	9.6	9.1	7.3	5.0	9.8	8.5	6.5
West Bank and Gaza ³	2.8	0.2	-0.2	1.6	-0.7	1.2	3.7	5.9	53.7	...	...	...	88.0	...	...
Yemen	13.2	30.4	33.6	15.7	21.7	31.5	29.5	0.9	33.9	20.4	18.5	10.0	8.9	31.0	9.0

Table A7. Emerging Market and Developing Economies: Consumer Prices¹ (continued)
(Annual percent change)

	Average									Projections			End of Period ²		
	2007–16	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2030	2024	Projections	
														2025	2026
Sub-Saharan Africa	8.5	11.0	8.7	9.6	12.4	12.4	16.1	19.4	20.3	13.1	10.9	6.6	14.7	11.2	9.3
Angola	13.1	29.8	19.6	17.1	22.3	25.8	21.4	13.6	28.2	21.6	16.3	9.8	27.5	20.0	13.4
Benin	2.0	1.8	0.8	-0.9	3.0	1.7	1.4	2.7	1.2	2.1	2.0	2.0	-0.4	2.1	2.0
Botswana	6.7	3.3	3.2	2.7	1.9	6.7	12.2	5.1	2.8	3.4	4.7	4.5	1.7	5.0	4.5
Burkina Faso	1.9	1.5	2.0	-3.2	1.9	3.9	13.8	0.9	4.2	1.3	2.4	2.0	4.9	1.3	2.5
Burundi	9.9	15.8	-2.8	-0.8	7.5	8.4	18.9	27.1	20.2	37.3	26.3	13.4	36.4	29.2	25.9
Cabo Verde	2.1	0.8	1.3	1.1	0.6	1.9	7.9	3.7	1.0	1.5	2.0	2.0	1.5	2.0	2.0
Cameroon	2.4	0.6	1.1	2.5	2.5	2.3	6.3	7.4	4.5	3.7	3.3	3.0	5.0	3.6	2.8
Central African Republic	4.9	4.2	1.6	2.8	0.9	4.3	5.6	3.0	1.5	4.6	3.3	3.3	4.2	1.3	3.5
Chad	1.5	-0.9	4.0	-1.0	4.5	-0.8	5.8	2.3	5.1	4.0	3.6	3.0	5.1	1.9	4.7
Comoros	2.8	0.1	1.7	3.7	0.8	0.0	12.4	8.5	5.0	3.3	1.9	2.1	6.0	1.7	3.2
Democratic Republic of the Congo	11.8	35.7	29.3	4.7	11.4	9.0	9.3	19.9	17.7	8.8	7.1	7.0	11.7	7.9	7.0
Republic of Congo	3.2	0.4	1.2	0.4	1.4	2.0	3.0	4.3	3.1	3.6	3.2	3.0	6.3	3.4	3.2
Côte d'Ivoire	1.7	0.7	0.6	0.8	2.3	4.2	5.2	4.4	3.4	1.0	1.5	2.0	2.1	1.0	1.5
Equatorial Guinea	3.7	0.7	1.3	1.2	4.8	-0.1	4.9	2.4	3.4	2.9	2.9	2.5	3.4	2.9	3.5
Eritrea ³	12.0	-13.3	-14.4	1.3	...	...	...	...	...	...	...	...	...	...	...
Eswatini	7.2	6.2	4.8	2.6	3.9	3.7	4.8	4.9	4.0	3.5	4.0	3.0	3.9	3.5	4.0
Ethiopia	16.1	10.7	13.8	15.8	20.4	26.8	33.9	30.2	21.0	13.0	9.4	9.4	17.0	9.8	8.2
Gabon	2.4	2.7	4.8	2.0	1.7	1.1	4.3	3.6	1.2	1.4	2.5	2.0	0.9	2.0	2.6
The Gambia	5.4	8.0	6.5	7.1	5.9	7.4	11.5	17.0	11.6	7.5	4.9	5.0	10.2	4.8	5.0
Ghana	12.3	12.4	9.8	7.2	9.9	10.0	31.9	39.2	22.9	16.6	9.9	8.0	23.8	12.0	8.0
Guinea	13.4	8.9	9.8	9.5	10.6	12.6	10.5	5.4	4.7	3.1	3.0	3.0	3.1	3.3	3.2
Guinea-Bissau	2.5	-0.2	0.4	0.3	1.5	3.3	7.9	7.2	3.7	2.0	2.0	2.0	5.7	2.0	2.0
Kenya	8.2	8.0	4.7	5.2	5.3	6.1	7.6	7.7	4.5	4.0	5.2	5.0	3.0	4.4	5.3
Lesotho	6.0	4.5	4.7	4.9	5.4	6.5	8.2	6.5	5.2	4.5	4.8	4.8	4.2	4.8	5.1
Liberia	9.3	12.4	23.5	27.0	17.0	7.8	7.6	10.1	8.2	9.8	7.7	5.1	10.7	8.1	7.3
Madagascar	7.8	8.6	8.6	5.6	4.2	5.8	8.2	9.9	7.6	8.4	7.2	6.0	8.6	8.3	7.3
Malawi	15.4	11.5	9.2	9.4	8.6	9.3	20.8	28.8	32.2	28.2	24.1	14.6	28.1	27.7	23.3
Mali	2.2	2.4	1.9	-3.0	0.5	3.8	9.7	2.1	3.2	3.5	2.0	2.0	4.9	3.2	2.0
Mauritius	4.3	3.7	3.2	0.5	2.5	4.0	10.8	7.0	3.6	3.9	3.6	3.5	2.9	4.0	3.5
Mozambique	8.2	15.8	3.2	5.7	0.9	6.6	10.4	7.0	3.2	4.9	5.4	5.5	4.1	5.0	5.5
Namibia	6.3	6.1	4.3	3.7	2.2	3.6	6.1	5.9	4.2	3.7	3.6	3.0	3.4	3.9	3.6
Niger	1.8	0.2	2.8	-2.5	2.9	3.8	4.2	3.7	9.1	4.2	3.2	2.0	4.7	3.6	2.5
Nigeria	10.7	16.5	12.1	11.4	13.2	17.0	18.8	24.7	31.4	23.0	22.0	10.0	15.4	21.0	18.0
Rwanda	6.3	4.8	1.4	2.4	7.7	0.8	13.9	14.0	4.8	7.0	4.7	5.0	6.8	6.3	4.1
São Tomé and Príncipe	13.0	5.7	7.9	7.7	9.8	8.1	18.0	21.2	14.4	9.7	7.0	5.0	11.6	7.8	6.1
Senegal	1.7	1.1	0.5	1.0	2.5	2.2	9.7	5.9	0.8	2.0	2.0	2.0	0.2	2.0	2.0
Seychelles	8.3	2.8	3.7	1.8	1.0	10.0	2.6	-0.9	0.3	0.4	1.1	3.0	1.7	0.8	1.5
Sierra Leone	8.0	18.2	16.0	14.8	13.4	11.9	27.2	47.7	28.4	9.4	10.5	9.0	13.8	9.0	9.0
South Africa	6.3	5.3	4.6	4.1	3.3	4.6	6.9	5.9	4.4	3.4	3.7	3.0	3.0	4.0	3.6
South Sudan	...	213.0	83.4	49.3	24.0	30.2	-3.2	39.7	99.8	97.5	15.8	5.2	195.5	27.2	15.1
Tanzania	9.0	5.3	3.5	3.4	3.3	3.7	4.4	3.8	3.1	3.3	3.5	4.0	3.1	3.2	4.1
Togo	2.5	-0.2	0.9	0.7	1.8	4.5	7.6	5.3	2.9	2.4	4.5	2.2	1.2	5.6	3.9
Uganda	8.5	5.6	2.5	2.1	2.8	2.2	7.2	5.4	3.3	3.8	4.3	5.0	3.3	3.8	4.8
Zambia	10.3	6.6	7.5	9.2	15.7	22.0	11.0	10.9	15.0	14.2	9.2	7.0	16.7	11.1	7.9
Zimbabwe	-2.2	0.9	10.6	255.3	557.2	98.5	193.4	667.4	736.1	89.0	18.2	8.0	686.8	30.7	12.7

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, Bolivia, Eritrea, Lebanon, Pakistan, 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		
	2007-16	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2030
Major Advanced Economies												
Net Lending/Borrowing	-5.3	-3.4	-3.4	-3.8	-11.7	-8.9	-3.7	-6.1	-6.2	-5.6	-6.0	-5.9
Output Gap ²	-1.2	-0.6	-0.1	0.1	-3.9	-0.6	0.2	0.1	0.0	-0.2	-0.2	0.0
Structural Balance ²	-4.6	-3.1	-3.2	-3.7	-8.7	-8.0	-5.1	-5.9	-5.8	-5.7	-5.8	-5.9
United States												
Net Lending/Borrowing ³	-6.8	-4.8	-5.3	-5.8	-14.1	-11.4	-3.7	-7.8	-8.0	-7.4	-7.9	-7.6
Output Gap ²	-1.4	-1.3	-0.6	0.1	-3.4	0.1	0.1	0.3	0.4	0.1	0.0	0.0
Structural Balance ²	-5.8	-4.3	-4.9	-5.7	-10.5	-10.5	-6.0	-7.4	-7.6	-7.7	-7.7	-7.6
Net Debt	69.6	79.2	80.0	81.7	96.1	95.9	92.0	94.5	97.4	99.6	103.0	116.8
Gross Debt	94.8	106.4	107.6	108.8	132.5	125.0	119.1	119.8	122.3	125.0	128.7	143.4
Euro Area												
Net Lending/Borrowing	-3.3	-1.0	-0.5	-0.5	-7.0	-5.1	-3.4	-3.5	-3.1	-3.2	-3.4	-3.7
Output Gap ²	-1.2	-0.4	0.1	0.4	-5.3	-1.6	0.8	0.2	-0.2	-0.3	-0.2	0.1
Structural Balance ²	-2.4	-0.6	-0.3	-0.5	-3.5	-4.0	-3.6	-3.7	-3.1	-3.0	-3.4	-3.8
Net Debt	68.4	72.0	70.2	68.6	78.5	76.7	74.0	73.2	73.9	75.0	76.4	81.0
Gross Debt	84.6	87.5	85.5	83.6	96.5	93.8	89.3	87.1	87.2	87.8	88.9	92.2
Germany												
Net Lending/Borrowing	-0.6	1.3	1.9	1.3	-4.4	-3.2	-1.9	-2.5	-2.7	-2.5	-3.4	-4.0
Output Gap ²	0.0	1.0	0.9	0.4	-3.1	-0.8	1.3	-0.2	-1.3	-1.4	-0.9	0.6
Structural Balance ²	-0.3	1.1	1.5	1.1	-3.0	-2.8	-1.9	-2.4	-2.0	-1.8	-2.9	-4.4
Net Debt	55.7	44.7	42.1	39.8	45.3	46.2	45.9	45.9	47.4	48.7	50.7	60.2
Gross Debt	73.2	64.0	60.8	58.7	68.0	68.0	64.4	62.4	63.5	64.4	66.0	73.6
France												
Net Lending/Borrowing	-4.9	-3.4	-2.3	-2.4	-8.9	-6.6	-4.7	-5.4	-5.8	-5.4	-5.8	-6.3
Output Gap ²	-1.3	-1.5	-0.8	0.0	-4.5	-2.1	-0.7	-0.4	-0.1	-0.3	-0.3	0.1
Structural Balance ²	-4.1	-2.3	-1.6	-1.4	-5.9	-5.1	-4.2	-5.3	-5.8	-5.3	-5.7	-6.4
Net Debt	77.9	89.5	89.4	89.0	101.6	100.5	101.1	101.5	104.9	108.2	111.3	121.1
Gross Debt	87.2	98.7	98.5	98.1	114.9	112.8	111.4	109.6	113.1	116.5	119.6	129.4
Italy												
Net Lending/Borrowing	-3.0	-2.5	-2.2	-1.5	-9.4	-8.9	-8.1	-7.2	-3.4	-3.3	-2.8	-2.5
Output Gap ²	-3.4	-2.3	-1.8	-1.8	-11.1	-3.8	0.1	0.1	0.0	-0.2	-0.1	-0.2
Structural Balance ²	-1.5	-1.3	-1.3	-0.5	-3.1	-7.8	-8.7	-7.7	-3.5	-3.1	-2.7	-2.3
Net Debt	111.1	120.9	121.6	121.5	141.0	133.7	127.2	124.2	125.1	126.9	128.6	128.3
Gross Debt	122.5	133.7	134.2	133.9	154.4	145.8	138.3	134.6	135.3	136.8	138.3	137.0
Japan												
Net Lending/Borrowing	-6.3	-3.1	-2.5	-3.0	-9.1	-6.1	-4.2	-2.3	-1.5	-1.3	-2.0	-4.4
Output Gap ²	-0.1	1.0	1.9	0.7	-3.0	-1.6	-0.9	0.2	0.2	0.3	0.2	0.0
Structural Balance ²	-6.2	-3.7	-3.0	-3.3	-8.1	-5.4	-4.2	-2.4	-1.6	-1.4	-2.1	-4.4
Net Debt	131.5	148.1	151.1	151.6	162.0	156.0	149.5	136.3	133.9	130.1	128.9	129.9
Gross Debt ⁴	212.7	231.3	232.4	236.4	258.4	253.7	248.2	240.5	236.1	229.6	226.8	222.2
United Kingdom												
Net Lending/Borrowing	-6.1	-2.5	-2.3	-2.5	-13.2	-7.7	-4.6	-6.1	-5.7	-4.3	-3.6	-2.2
Output Gap ²	-1.9	-0.3	-0.3	0.0	-3.5	0.5	1.9	-0.1	-0.3	-0.4	-0.4	0.0
Structural Balance ²	-4.7	-2.1	-2.1	-2.4	-11.1	-7.2	-5.6	-6.3	-5.5	-4.0	-3.3	-2.2
Net Debt	67.3	77.2	76.6	75.8	93.1	91.6	89.8	91.8	93.7	94.6	95.9	96.4
Gross Debt	74.9	86.7	86.3	85.7	105.8	105.1	99.6	100.4	101.2	103.4	104.8	105.4
Canada												
Net Lending/Borrowing	-1.4	-0.1	0.4	0.0	-10.9	-3.1	0.6	0.1	-2.0	-2.2	-2.4	-1.5
Output Gap ²	-0.3	0.4	0.6	0.4	-3.4	-1.4	0.8	0.0	-0.5	-1.0	-0.9	0.0
Structural Balance ²	-1.3	-0.3	0.0	-0.2	-8.2	-2.0	0.0	0.0	-0.8	-1.6	-1.9	-1.4
Net Debt ⁵	24.2	12.7	11.7	8.7	16.3	14.2	13.6	14.4	12.5	13.3	14.1	15.9
Gross Debt	83.2	90.9	90.8	90.2	118.1	112.6	104.2	107.7	111.3	113.9	113.0	107.9

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 Special Administrative Region, 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										Projections	
	2007-16	2017-26	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Trade in Goods and Services												
World Trade ¹												
Volume	3.4	2.8	5.4	4.0	1.1	-8.3	10.8	5.8	1.0	3.5	3.6	2.3
Price Deflator												
In US Dollars	0.1	2.5	4.6	5.5	-2.4	-1.6	12.7	6.8	-2.6	0.2	1.0	1.3
In SDRs	0.7	2.6	4.8	3.3	0.0	-2.4	10.2	13.8	-2.3	0.7	-0.7	-0.3
Volume of Trade												
Exports												
Advanced Economies	3.0	2.2	4.8	3.4	1.4	-8.7	9.7	6.0	0.9	1.8	2.1	1.7
Emerging Market and Developing Economies	4.1	3.8	6.2	4.1	0.7	-6.6	12.7	4.6	1.4	6.5	5.9	3.3
Imports												
Advanced Economies	2.5	2.4	4.7	3.8	2.0	-8.2	10.2	7.4	-0.7	2.1	3.1	1.3
Emerging Market and Developing Economies	5.5	3.4	7.0	5.2	-0.5	-9.5	12.1	4.0	3.7	5.6	4.3	4.0
Terms of Trade												
Advanced Economies	0.2	0.1	-0.2	-0.4	0.1	0.9	1.1	-1.6	0.4	0.9	0.4	-0.5
Emerging Market and Developing Economies	0.1	0.0	1.4	1.3	-1.2	-1.0	1.2	1.2	-0.9	0.0	-1.2	-0.3
Trade in Goods												
World Trade ¹												
Volume	3.1	2.5	5.4	3.7	0.1	-5.5	11.0	3.3	-0.9	2.8	3.4	2.0
Price Deflator												
In US Dollars	-0.1	2.5	5.1	5.9	-2.9	-2.2	14.6	8.6	-4.0	-0.5	0.6	1.0
In SDRs	0.4	2.6	5.3	3.8	-0.5	-3.0	12.0	15.7	-3.8	-0.1	-1.1	-0.6
World Trade Prices in US Dollars ²												
Manufactures	0.4	1.6	0.1	2.0	0.4	-3.2	6.7	10.3	-1.7	1.3	0.6	-0.1
Oil	-3.9	4.3	22.5	29.4	-10.4	-32.0	65.8	39.2	-16.4	-1.8	-12.9	-4.5
Nonfuel Primary Commodities	1.4	5.6	6.4	1.3	0.7	6.6	26.7	7.9	-5.7	3.7	7.4	4.1
Food	2.0	2.7	3.8	-1.2	-3.1	1.7	27.0	14.8	-6.8	-3.1	-4.4	2.3
Beverages	3.8	8.5	-3.8	-9.2	-5.7	2.4	22.4	14.1	4.0	64.4	21.0	-7.0
Agricultural Raw Materials	0.2	0.6	5.4	2.0	-5.4	-3.4	15.5	5.7	-15.6	4.3	-1.2	1.9
Metal	-2.6	6.7	22.2	6.6	3.9	3.5	46.7	-5.6	-2.8	-1.9	0.3	3.0
World Trade Prices in SDRs ²												
Manufactures	1.0	1.7	0.4	-0.1	2.9	-3.9	4.3	17.5	-1.5	1.7	-1.2	-1.8
Oil	-3.4	4.4	22.8	26.7	-8.2	-32.6	62.1	48.2	-16.2	-1.3	-14.4	-6.0
Nonfuel Primary Commodities	2.0	5.8	6.7	-0.8	3.2	5.7	23.9	14.9	-5.4	4.2	5.6	2.4
Food	2.5	2.8	4.1	-3.3	-0.7	0.9	24.1	22.3	-6.5	-2.7	-6.1	0.6
Beverages	4.3	8.7	-3.5	-11.1	-3.4	1.6	19.7	21.6	4.2	65.2	18.9	-8.6
Agricultural Raw Materials	0.8	0.7	5.7	-0.1	-3.1	-4.2	12.9	12.6	-15.4	4.8	-2.9	0.3
Metal	-2.0	6.8	22.5	4.4	6.4	2.6	43.4	0.6	-2.5	-1.4	-1.4	1.4
World Trade Prices in Euros ²												
Manufactures	1.7	1.0	-1.9	-2.5	5.9	-5.0	2.9	23.9	-4.2	1.2	-3.7	-3.3
Oil	-2.7	3.7	20.0	23.6	-5.4	-33.3	59.9	56.3	-18.5	-1.8	-16.6	-7.6
Nonfuel Primary Commodities	2.7	5.1	4.3	-3.2	6.2	4.5	22.2	21.2	-8.1	3.7	2.9	0.8
Food	3.2	2.1	1.7	-5.6	2.3	-0.2	22.4	29.0	-9.1	-3.2	-8.5	-1.0
Beverages	5.1	8.0	-5.7	-13.2	-0.5	0.5	18.1	28.2	1.3	64.3	15.9	-10.0
Agricultural Raw Materials	1.5	0.1	3.3	-2.5	-0.2	-5.2	11.3	18.8	-17.7	4.3	-5.4	-1.4
Metal	-1.4	6.1	19.7	1.9	9.6	1.5	41.5	6.0	-5.2	-2.0	-3.9	-0.3

Table A9. Summary of World Trade Volumes and Prices (continued)*(Annual percent change, unless noted otherwise)*

	Averages		2017	2018	2019	2020	2021	2022	2023	2024	Projections	
	2007-16	2017-26									2025	2026
Trade in Goods (continued)												
Volume of Trade												
Exports												
Advanced Economies	2.6	1.8	4.5	3.0	0.4	-6.5	9.9	3.7	-0.9	0.6	2.2	1.4
Emerging Market and Developing Economies	3.9	3.4	6.2	3.9	-0.2	-3.6	12.0	1.7	0.4	6.3	5.7	2.8
Fuel Exporters	2.1	1.3	1.4	-0.5	-3.7	-8.4	2.3	6.1	1.9	2.3	5.6	6.8
Nonfuel Exporters	4.3	3.8	7.0	4.7	0.5	-2.8	13.3	1.0	0.2	7.0	5.8	2.1
Imports												
Advanced Economies	2.1	2.1	4.5	3.9	0.4	-6.0	11.5	5.1	-3.2	1.3	3.4	0.7
Emerging Market and Developing Economies	5.3	3.0	7.7	4.3	-0.6	-5.4	10.6	1.8	1.5	4.2	2.8	4.0
Fuel Exporters	4.9	2.4	-0.6	-3.2	2.8	-12.1	0.8	11.2	10.7	6.8	5.1	5.1
Nonfuel Exporters	5.3	3.1	9.0	5.4	-1.0	-4.5	11.8	0.8	0.5	3.9	2.5	3.8
Price Deflators in SDRs												
Exports												
Advanced Economies	0.1	2.4	4.5	2.9	-1.2	-2.3	10.4	12.9	-2.5	0.5	0.5	-0.2
Emerging Market and Developing Economies	1.3	2.7	7.6	4.9	0.0	-3.3	15.3	18.5	-6.4	-0.9	-4.0	-1.6
Fuel Exporters	-1.1	4.6	16.3	15.2	-3.5	-20.4	39.9	36.9	-11.5	1.3	-7.0	-4.3
Nonfuel Exporters	1.7	2.4	6.0	3.0	0.7	-0.2	12.0	15.7	-5.4	-1.2	-3.4	-1.1
Imports												
Advanced Economies	-0.1	2.3	4.7	3.4	-1.2	-3.3	9.0	15.2	-2.8	-0.2	-0.4	0.0
Emerging Market and Developing Economies	1.2	3.2	5.4	4.5	1.2	-3.2	15.7	17.2	-4.1	0.2	-1.3	-1.2
Fuel Exporters	1.8	3.5	3.5	2.0	3.3	-0.8	12.2	15.1	-1.6	2.5	1.0	-0.5
Nonfuel Exporters	1.2	3.2	5.7	4.8	0.9	-3.6	16.1	17.5	-4.4	-0.1	-1.6	-1.3
Terms of Trade												
Advanced Economies	0.2	0.1	-0.2	-0.5	0.0	1.1	1.3	-2.0	0.3	0.7	0.9	-0.2
Emerging Market and Developing Economies	0.0	-0.5	2.1	0.4	-1.2	-0.1	-0.3	1.1	-2.3	-1.1	-2.7	-0.3
Regional Groups												
Emerging and Developing Asia	0.9	-2.0	-2.0	-3.8	-0.7	5.5	-9.2	-1.4	-1.7	-3.8	-2.6	-0.2
Emerging and Developing Europe	-0.6	1.1	3.2	4.1	0.4	-4.4	7.6	2.8	-4.9	4.5	-1.6	0.4
Latin America and the Caribbean	0.0	1.3	4.5	-0.8	-0.5	2.5	5.3	-3.8	5.6	0.5	-1.2	0.8
Middle East and Central Asia	-2.4	1.0	10.6	11.1	-5.0	-17.9	21.6	15.5	-8.2	-0.7	-6.6	-3.2
Sub-Saharan Africa	0.3	2.1	9.0	3.5	-1.7	2.5	9.0	-1.0	-5.8	3.4	1.7	1.1
Analytical Groups												
By Source of Export Earnings												
Fuel	-2.9	1.0	12.4	13.0	-6.6	-19.8	24.7	19.0	-10.0	-1.2	-7.9	-3.8
Nonfuel	0.6	-0.7	0.3	-1.8	-0.2	3.5	-3.6	-1.5	-1.0	-1.2	-1.8	0.2
Memorandum												
World Exports in Billions of US Dollars												
Goods and Services	20,563	28,587	22,877	25,078	24,696	22,310	27,981	31,466	30,940	32,192	33,593	34,738
Goods	16,101	21,348	17,324	18,977	18,417	17,058	21,663	24,128	22,950	23,478	24,390	25,094
Average Oil Price ³	-3.9	4.3	22.5	29.4	-10.4	-32.0	65.8	39.2	-16.4	-1.8	-12.9	-4.5
In US Dollars a Barrel	81.2	68.5	53.0	68.5	61.4	41.8	69.2	96.4	80.6	79.2	68.9	65.8
Export Unit Value of Manufactures ⁴	0.4	1.6	0.1	2.0	0.4	-3.2	6.7	10.3	-1.7	1.3	0.6	-0.1

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 82 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 the average of UK Brent, Dubai Fateh, and West Texas Intermediate crude oil prices.⁴Percent change for manufactures exported by the advanced economies.

Table A10. Summary of Current Account Balances
(Billions of US dollars)

	2017	2018	2019	2020	2021	2022	2023	2024	Projections		
									2025	2026	2030
Advanced Economies	482.9	409.5	374.2	128.1	448.0	-264.6	-16.5	49.5	-52.5	39.7	92.7
United States	-367.6	-439.0	-442.0	-593.5	-858.6	-993.1	-928.0	-1,185.3	-1,220.8	-1,153.2	-1,282.4
Euro Area	430.4	412.0	324.7	242.2	410.8	-20.3	264.5	430.6	409.3	419.4	454.1
Germany	303.5	341.7	311.8	248.8	301.1	160.2	251.8	263.8	271.7	271.3	254.0
France	-14.1	-19.4	16.3	-54.2	8.2	-39.6	-31.8	2.9	-2.6	-6.0	1.6
Italy	48.1	52.5	63.8	71.7	45.8	-36.3	3.2	26.8	24.7	25.7	59.0
Spain	36.9	26.9	29.9	10.2	11.3	6.1	44.3	54.8	50.2	53.9	42.0
Japan	203.5	177.8	176.3	149.9	196.2	89.9	155.9	193.7	166.9	162.0	177.0
United Kingdom	-93.7	-112.9	-76.7	-79.2	-13.7	-65.7	-118.3	-96.8	-122.3	-125.1	-114.7
Canada	-46.2	-41.0	-34.1	-33.4	-0.4	-6.7	-13.6	-10.3	-32.3	-31.5	-7.2
Other Advanced Economies ¹	324.5	325.2	330.7	369.9	581.6	567.6	485.3	591.3	606.5	621.8	707.2
Emerging Market and Developing Economies	-9.5	-33.0	22.6	166.5	382.6	696.2	303.8	445.4	477.1	332.5	206.3
Regional Groups											
Emerging and Developing Asia	164.5	-51.0	93.7	323.6	288.1	337.2	253.8	421.9	602.4	492.0	392.4
Emerging and Developing Europe	-20.9	67.9	53.5	2.9	71.1	128.5	-18.3	-4.4	-71.7	-68.4	-61.5
Latin America and the Caribbean	-98.6	-145.6	-108.6	-9.9	-92.3	-128.2	-78.0	-64.1	-77.9	-83.5	-103.7
Middle East and Central Asia	-23.2	130.4	35.3	-106.0	131.2	403.0	196.6	119.9	59.8	31.9	33.2
Sub-Saharan Africa	-31.2	-34.7	-51.2	-44.1	-15.5	-44.2	-50.4	-27.9	-35.6	-39.6	-54.1
Analytical Groups											
By Source of Export Earnings											
Fuel	54.9	218.8	85.3	-86.1	192.2	506.7	263.2	213.7	133.8	110.4	130.1
Nonfuel	-62.3	-249.7	-60.9	254.5	192.2	191.6	42.9	234.6	346.2	224.9	79.1
Of Which, Primary Products	-29.7	-45.6	-41.3	-3.7	-20.0	-60.7	-38.4	-19.5	-26.3	-28.6	-54.1
By External Financing Source											
Net Debtor Economies	-304.6	-384.5	-297.4	-127.9	-297.6	-449.6	-272.4	-276.9	-354.5	-399.4	-521.8
Net Debtor Economies by Debt-Servicing Experience											
Economies with Arrears and/or Rescheduling during 2020-24	-63.1	-52.0	-51.1	-34.0	-40.4	-41.6	-50.3	-59.5	-85.9	-85.6	-73.1
<i>Memorandum</i>											
World	473.4	376.5	396.8	294.7	830.7	431.7	287.3	494.9	424.5	372.2	299.0
European Union	493.2	512.3	460.2	375.7	572.9	135.0	471.0	621.4	604.0	626.3	672.9
Middle East and North Africa	-4.1	147.1	54.3	-87.7	133.5	395.1	217.2	131.3	71.5	56.3	73.0
Emerging Market and Middle-Income Economies	22.0	24.2	86.8	227.5	450.0	803.6	388.7	493.9	513.0	388.9	296.5
Low-Income Developing Countries	-31.5	-57.2	-64.2	-61.0	-67.3	-107.3	-84.9	-48.5	-35.9	-56.4	-90.1

Table A10. Summary of Current Account Balances (continued)
(Percent of GDP)

	2017	2018	2019	2020	2021	2022	2023	2024	Projections		
									2025	2026	2030
Advanced Economies	1.0	0.8	0.7	0.2	0.8	-0.4	0.0	0.1	-0.1	0.1	0.1
United States	-1.9	-2.1	-2.1	-2.8	-3.6	-3.8	-3.3	-4.0	-4.0	-3.6	-3.5
Euro Area	3.4	3.0	2.4	1.8	2.8	-0.1	1.7	2.6	2.3	2.2	2.1
Germany	8.1	8.4	7.9	6.3	6.9	3.8	5.5	5.6	5.4	5.1	4.2
France	-0.5	-0.7	0.6	-2.0	0.3	-1.4	-1.0	0.1	-0.1	-0.2	0.0
Italy	2.4	2.5	3.2	3.8	2.1	-1.7	0.1	1.1	1.0	1.0	2.0
Spain	2.8	1.9	2.1	0.8	0.8	0.4	2.7	3.2	2.7	2.6	1.8
Japan	4.1	3.5	3.4	3.0	3.9	2.1	3.7	4.8	3.9	3.6	3.5
United Kingdom	-3.5	-3.9	-2.7	-2.9	-0.4	-2.1	-3.5	-2.7	-3.1	-3.0	-2.2
Canada	-2.8	-2.4	-2.0	-2.0	0.0	-0.3	-0.6	-0.5	-1.4	-1.3	-0.2
Other Advanced Economies ¹	4.5	4.3	4.4	5.0	6.7	6.5	5.5	6.5	6.3	6.1	5.8
Emerging Market and Developing Economies	0.0	-0.1	0.1	0.5	0.9	1.6	0.7	1.0	1.0	0.6	0.3
Regional Groups											
Emerging and Developing Asia	0.9	-0.3	0.4	1.5	1.2	1.3	1.0	1.6	2.2	1.7	1.0
Emerging and Developing Europe	-0.6	1.8	1.4	0.1	1.6	2.6	-0.4	-0.1	-1.1	-1.0	-0.8
Latin America and the Caribbean	-1.8	-2.7	-2.1	-0.2	-1.8	-2.2	-1.2	-0.9	-1.1	-1.1	-1.2
Middle East and Central Asia	-0.6	3.3	0.9	-3.0	3.1	8.0	4.0	2.3	1.1	0.6	0.5
Sub-Saharan Africa	-1.7	-1.8	-2.5	-2.4	-0.7	-2.0	-2.4	-1.5	-1.7	-1.8	-1.8
Analytical Groups											
By Source of Export Earnings											
Fuel	1.5	5.6	2.2	-2.6	5.0	10.6	5.7	4.7	3.0	2.3	2.2
Nonfuel	-0.2	-0.8	-0.2	0.8	0.5	0.5	0.1	0.6	0.8	0.5	0.1
Of Which, Primary Products	-2.1	-3.1	-2.8	-0.3	-1.3	-3.8	-2.3	-1.1	-1.4	-1.4	-2.2
By External Financing Source											
Net Debtor Economies	-2.2	-2.7	-2.0	-0.9	-1.9	-2.7	-1.5	-1.5	-1.8	-1.9	-1.8
Net Debtor Economies by Debt-Servicing Experience											
Economies with Arrears and/or Rescheduling during 2020-24	-4.7	-3.7	-3.5	-2.3	-2.4	-2.4	-2.9	-3.3	-4.6	-4.3	-2.7
<i>Memorandum</i>											
World	0.6	0.4	0.4	0.3	0.8	0.4	0.3	0.4	0.4	0.3	0.2
European Union	3.3	3.2	2.9	2.4	3.3	0.8	2.5	3.2	2.9	2.8	2.6
Middle East and North Africa	-0.1	4.5	1.7	-3.1	4.0	9.6	5.4	3.2	1.7	1.3	1.3
Emerging Market and Middle-Income Economies	0.1	0.1	0.3	0.7	1.2	2.0	0.9	1.1	1.1	0.8	0.5
Low-Income Developing Countries	-1.6	-2.7	-2.9	-2.8	-2.9	-4.2	-3.4	-2.1	-1.4	-2.1	-2.4

Table A10. Summary of Current Account Balances (continued)
(Percent of exports of goods and services)

	2017	2018	2019	2020	2021	2022	2023	2024	Projections		
									2025	2026	2030
Advanced Economies	3.3	2.6	2.4	0.9	2.6	-1.4	-0.1	0.2	-0.3	0.2	0.4
United States	-15.4	-17.3	-17.3	-27.3	-33.2	-32.5	-30.0	-36.7	-36.4	-35.2	-36.1
Euro Area	12.3	10.8	8.6	7.0	9.8	-0.5	5.8	9.2	...	...	...
Germany	19.0	19.7	18.6	16.1	16.2	8.3	12.9	13.6	13.1	12.7	10.9
France	-1.7	-2.1	1.8	-7.3	0.9	-3.9	-3.0	0.3	-0.2	-0.6	0.1
Italy	8.1	8.1	10.2	13.1	6.7	-4.9	0.4	3.4	3.1	3.1	6.5
Spain	8.0	5.4	6.1	2.6	2.3	1.1	7.2	8.6	7.1	7.1	4.5
Japan	23.2	19.1	19.5	18.9	21.3	9.7	16.9	21.0	17.8	17.0	17.0
United Kingdom	-11.3	-12.4	-8.5	-9.9	-1.5	-6.3	-11.0	-8.7	-10.3	-9.9	-7.7
Canada	-8.9	-7.4	-6.0	-6.8	-0.1	-0.9	-1.9	-1.4	-4.6	-4.3	-0.8
Other Advanced Economies ¹	8.0	7.4	7.8	9.4	11.7	10.3	9.2	10.7	10.3	10.0	9.8
Emerging Market and Developing Economies	-0.2	-0.5	0.2	2.1	3.5	5.5	2.5	3.6	3.7	2.5	1.3
Regional Groups											
Emerging and Developing Asia	4.0	-1.1	2.1	7.4	5.1	5.5	4.3	6.7	9.2	7.3	4.9
Emerging and Developing Europe	-1.6	4.5	3.6	0.2	4.1	6.6	-1.0	-0.2	-3.7	-3.4	-2.5
Latin America and the Caribbean	-8.3	-11.4	-8.6	-0.9	-6.6	-7.7	-4.7	-3.7	-4.3	-4.5	-4.7
Middle East and Central Asia	-2.1	7.7	2.1	-9.1	8.3	18.6	9.4	5.9	2.8	1.4	1.2
Sub-Saharan Africa	-8.4	-8.2	-12.3	-13.1	-3.5	-8.4	-10.2	-5.4	-6.4	-6.7	-7.4
Analytical Groups											
By Source of Export Earnings											
Fuel	3.9	13.5	5.7	-7.8	12.7	24.2	13.3	10.9	6.7	5.3	5.0
Nonfuel	-0.9	-3.3	-0.8	3.5	2.1	1.9	0.4	2.2	3.1	2.0	0.6
Of Which, Primary Products	-7.9	-11.2	-10.5	-1.0	-4.1	-11.5	-7.5	-3.6	-4.5	-4.6	-7.3
By External Financing Source											
Net Debtor Economies	-9.0	-10.3	-8.0	-3.9	-7.1	-9.0	-5.4	-5.3	-6.5	-7.0	-7.5
Net Debtor Economies by Debt-Servicing Experience											
Economies with Arrears and/or Rescheduling during 2020-24	-17.9	-12.9	-12.7	-9.9	-9.3	-8.5	-10.7	-12.3	-16.5	-15.5	-10.1
<i>Memorandum</i>											
World	2.0	1.5	1.6	1.3	2.9	1.3	0.9	1.5	1.3	1.1	0.7
European Union	7.0	6.6	6.0	5.3	6.6	1.4	4.9	6.3	5.8	5.7	5.4
Middle East and North Africa	-0.7	9.9	3.8	-8.5	9.6	20.7	11.8	7.3	3.8	2.8	2.9
Emerging Market and Middle-Income Economies	0.2	0.1	0.9	2.9	4.3	6.7	3.3	4.1	4.1	3.0	1.9
Low-Income Developing Countries	-9.3	-14.9	-15.8	-17.9	-16.3	-21.7	-17.4	-9.4	-6.3	-9.0	-10.9

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)*

	2017	2018	2019	2020	2021	2022	2023	2024	Projections		
									2025	2026	2030
Advanced Economies	1.0	0.8	0.7	0.2	0.8	-0.4	0.0	0.1	-0.1	0.1	0.1
United States	-1.9	-2.1	-2.1	-2.8	-3.6	-3.8	-3.3	-4.0	-4.0	-3.6	-3.5
Euro Area ¹	3.4	3.0	2.4	1.8	2.8	-0.1	1.7	2.6	2.3	2.2	2.1
Germany	8.1	8.4	7.9	6.3	6.9	3.8	5.5	5.6	5.4	5.1	4.2
France	-0.5	-0.7	0.6	-2.0	0.3	-1.4	-1.0	0.1	-0.1	-0.2	0.0
Italy	2.4	2.5	3.2	3.8	2.1	-1.7	0.1	1.1	1.0	1.0	2.0
Spain	2.8	1.9	2.1	0.8	0.8	0.4	2.7	3.2	2.7	2.6	1.8
The Netherlands	8.1	8.8	6.8	5.7	10.2	6.8	9.4	9.1	9.5	9.3	9.4
Belgium	0.7	-0.9	0.1	0.9	1.8	-1.3	-0.7	-0.9	-0.9	-0.9	-0.2
Ireland	1.1	4.3	-20.7	-7.1	12.2	8.8	7.0	16.2	11.1	11.5	9.6
Austria	1.3	0.8	2.4	3.4	1.7	-0.9	1.3	2.4	1.8	2.2	2.6
Portugal	1.5	0.8	0.8	-0.7	-0.7	-2.0	0.6	2.1	1.8	1.9	1.1
Greece	-2.6	-3.6	-2.2	-7.2	-7.0	-10.7	-6.7	-7.0	-5.8	-5.3	-3.1
Finland	-0.7	-1.6	-0.1	0.4	0.3	-2.4	-0.8	0.0	0.1	-0.1	-0.3
Slovak Republic	-1.7	-1.6	-3.5	-0.5	-4.8	-9.6	-1.7	-2.8	-2.9	-2.5	-1.0
Croatia	3.4	1.1	2.5	-1.3	0.5	-3.5	0.4	-1.2	-1.6	-2.0	-0.7
Lithuania	1.0	0.4	3.8	7.2	1.4	-6.1	1.1	2.5	2.1	2.1	2.0
Slovenia	6.8	6.5	6.4	7.3	3.5	-0.9	4.8	4.5	2.9	2.9	2.8
Luxembourg	6.4	8.3	8.5	4.9	6.4	6.5	5.5	6.9	12.2	12.4	12.0
Latvia	1.5	-0.4	-0.2	3.0	-4.1	-5.5	-3.8	-1.6	-2.1	-2.3	-2.5
Estonia	1.7	0.6	2.0	-2.5	-3.7	-3.1	-1.2	-1.2	-0.9	-2.2	-1.4
Cyprus	-5.0	-3.9	-5.5	-9.7	-5.5	-6.9	-11.3	-8.4	-8.5	-9.1	-10.0
Malta	18.9	13.3	17.9	16.0	9.4	-0.8	6.3	5.5	5.1	4.4	3.4
Japan	4.1	3.5	3.4	3.0	3.9	2.1	3.7	4.8	3.9	3.6	3.5
United Kingdom	-3.5	-3.9	-2.7	-2.9	-0.4	-2.1	-3.5	-2.7	-3.1	-3.0	-2.2
Korea	4.4	4.2	3.4	4.4	4.4	1.4	1.8	5.3	4.8	3.9	4.7
Canada	-2.8	-2.4	-2.0	-2.0	0.0	-0.3	-0.6	-0.5	-1.4	-1.3	-0.2
Australia	-2.8	-2.6	0.0	1.7	2.4	0.4	-0.2	-1.9	-1.8	-1.7	-2.0
Taiwan Province of China	14.0	11.6	10.7	14.4	15.0	13.2	14.0	14.1	13.8	13.1	12.8
Singapore	18.6	15.7	15.4	17.5	19.8	18.4	17.7	17.5	17.4	17.3	16.9
Switzerland	5.3	6.1	4.1	0.6	7.7	9.3	5.9	7.7	7.0	7.0	7.5
Sweden	2.2	2.1	5.2	5.6	6.2	4.0	5.8	5.9	5.8	5.7	4.5
Czech Republic	1.5	0.4	0.3	1.8	-2.1	-4.7	-0.1	1.7	0.6	0.4	0.0
Norway	6.3	9.0	3.8	1.1	14.9	29.6	17.4	16.7	16.2	15.9	12.9
Hong Kong SAR	4.6	3.7	5.9	7.0	11.8	10.2	8.5	13.0	12.5	12.2	11.5
Israel	3.2	2.6	2.8	3.7	3.2	2.7	3.1	2.8	2.8	3.0	2.8
Denmark	7.3	6.3	7.4	7.2	8.5	11.2	11.0	12.2	12.2	11.7	11.2
New Zealand	-2.9	-4.2	-2.9	-1.1	-6.0	-9.2	-6.9	-6.1	-4.7	-4.4	-3.4
Puerto Rico	...	...	...	...	...	...	...	...	...	...	...
Macao SAR	30.8	32.9	33.5	14.8	8.7	13.9	31.4	35.8	35.5	34.9	33.2
Iceland	4.9	4.4	7.4	1.9	-2.6	-1.7	-1.0	-2.6	-3.6	-1.1	0.7
Liechtenstein	31.1	24.0	16.1	17.7	17.0	14.3	15.5	14.6	13.2	12.9	11.9
Andorra	...	...	18.0	15.5	15.0	11.6	14.2	15.0	15.2	15.3	15.4
San Marino	-0.4	-1.9	2.0	2.8	5.4	13.6	22.0	18.3	17.5	17.8	15.1
<i>Memorandum</i>											
Major Advanced Economies	0.1	-0.1	0.0	-0.7	-0.7	-2.0	-1.4	-1.6	-1.8	-1.6	-1.4
Euro Area ²	3.6	3.6	3.1	2.4	3.6	1.0	2.5	3.4	3.1	3.0	2.9

Note: SAR = Special Administrative Region.

¹ Data are corrected for reporting discrepancies in intra-area transactions.² Data are 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)

	2017	2018	2019	2020	2021	2022	2023	2024	Projections		
									2025	2026	2030
Emerging and Developing Asia	0.9	-0.3	0.4	1.5	1.2	1.3	1.0	1.6	2.2	1.7	1.0
Bangladesh	-0.5	-3.0	-1.3	-1.5	-1.1	-4.0	-2.6	-1.4	0.0	-0.9	-2.0
Bhutan	-22.0	-17.4	-19.2	-14.8	-11.2	-29.5	-37.0	-23.6	-16.8	-18.0	-22.3
Brunei Darussalam	16.4	6.9	6.6	4.3	11.1	19.5	12.9	14.4	16.4	16.6	16.4
Cambodia	-6.4	-8.9	-8.2	-1.0	-29.6	-19.4	1.3	0.5	-2.5	-3.9	-2.6
China	1.5	0.2	0.7	1.6	1.9	2.4	1.4	2.3	3.3	2.8	2.1
Fiji	-6.6	-8.4	-11.8	-12.0	-6.5	-15.3	-6.6	-7.8	-7.5	-7.1	-5.6
India	-1.8	-2.1	-0.9	0.9	-1.2	-2.0	-0.7	-0.6	-1.0	-1.4	-1.9
Indonesia	-1.6	-2.9	-2.7	-0.4	0.3	1.0	-0.1	-0.6	-1.1	-1.2	-1.1
Kiribati	31.6	32.6	40.0	32.2	7.1	-12.0	-1.8	-19.3	-10.5	-8.6	-7.5
Lao P.D.R.	-7.4	-9.1	-7.0	-1.6	2.3	-3.0	2.7	3.3	5.3	2.7	0.1
Malaysia	2.8	2.2	3.5	4.2	3.9	3.2	1.1	1.4	1.5	1.8	2.1
Maldives	-20.7	-27.8	-26.1	-35.1	-8.7	-16.3	-21.2	-17.8	-12.5	-11.2	-8.4
Marshall Islands	-0.9	-2.0	-31.2	14.9	22.7	10.0	16.8	14.0	10.3	4.0	3.4
Micronesia	10.4	21.4	16.1	-5.8	2.3	8.9	3.9	1.1	-0.9	-3.5	-4.6
Mongolia	-10.1	-16.7	-15.2	-5.1	-13.8	-13.4	0.6	-10.4	-14.4	-13.0	-12.5
Myanmar	-5.5	-1.3	-2.5	-0.4	-2.2	-2.9	-1.9	-1.1	-2.3	-3.6	-4.3
Nauru	12.4	7.6	4.6	2.5	3.8	1.9	1.3	6.2	2.7	2.4	2.0
Nepal	-0.3	-7.1	-6.9	-1.0	-7.7	-12.6	-0.9	3.9	6.6	-0.8	-3.5
Palau	-22.9	-18.6	-30.4	-43.8	-43.8	-49.2	-48.9	-22.2	-15.0	-14.2	-14.0
Papua New Guinea	15.9	13.6	14.4	14.4	12.6	14.4	9.1	15.2	10.8	12.7	11.5
Philippines	-0.7	-2.6	-0.8	3.2	-1.5	-4.5	-2.8	-4.0	-3.8	-3.5	-2.8
Samoa	-1.8	0.8	2.8	0.9	-14.6	-10.6	-3.0	4.4	4.5	-1.5	-2.1
Solomon Islands	-4.3	-3.0	-9.5	-1.6	-5.1	-13.7	-10.4	-3.7	-4.6	-7.4	-7.5
Sri Lanka ¹	-2.4	-3.0	-2.1	-1.4	-3.7	-1.0	2.9	1.8	...	...	...
Thailand	9.6	5.6	7.0	4.2	-2.1	-3.5	1.4	2.5	1.7	1.3	2.7
Timor-Leste ¹	-17.9	-12.3	21.9	23.8	46.8	12.7	-8.5	-28.0	-31.1	-32.3	-33.9
Tonga	-7.1	-7.0	-3.8	-5.7	-6.3	-5.4	-5.9	-3.8	-5.2	-6.4	-6.9
Tuvalu	1.7	59.3	-16.5	16.2	29.8	-0.3	40.0	7.3	15.1	5.7	-4.9
Vanuatu	-8.4	2.8	5.2	-6.4	-11.7	-17.6	-6.6	-15.4	-11.6	-11.6	-5.0
Vietnam	-0.6	1.9	3.8	4.3	-2.2	0.3	6.4	6.6	4.0	2.4	1.1
Emerging and Developing Europe	-0.6	1.8	1.4	0.1	1.6	2.6	-0.4	-0.1	-1.1	-1.0	-0.8
Albania	-7.5	-6.7	-7.5	-8.6	-7.7	-5.8	-1.2	-2.4	-2.4	-2.7	-2.6
Belarus	-1.7	0.0	-1.9	-0.3	3.2	3.4	-1.8	-3.2	-1.8	-3.1	-2.5
Bosnia and Herzegovina	-4.8	-3.2	-2.6	-2.8	-1.8	-4.4	-2.3	-4.0	-3.9	-3.9	-3.9
Bulgaria	3.2	0.7	1.7	0.4	-1.1	-2.7	-0.9	-1.6	-3.8	-3.2	-0.1
Hungary	1.8	0.2	-0.6	-0.9	-4.1	-8.5	0.3	2.2	1.2	0.9	1.7
Kosovo	-5.3	-7.6	-5.7	-7.0	-8.7	-10.5	-7.5	-8.7	-9.2	-8.3	-7.3
Moldova	-5.8	-10.8	-9.4	-7.7	-12.4	-17.1	-11.3	-16.0	-19.3	-20.4	-14.8
Montenegro	-16.3	-17.2	-14.4	-26.3	-9.3	-12.9	-11.2	-17.1	-18.1	-17.5	-15.6
North Macedonia	-0.8	0.2	-3.0	-2.9	-2.8	-6.1	0.4	-2.3	-3.6	-3.1	-2.5
Poland	-1.2	-2.0	-0.3	2.4	-1.3	-2.3	1.8	0.0	-0.7	-0.8	-1.6
Romania	-3.2	-4.6	-4.9	-5.1	-7.2	-9.5	-6.6	-8.4	-8.0	-6.6	-5.0
Russia	2.0	7.0	3.9	2.4	6.8	10.4	2.4	2.9	1.7	1.6	1.4
Serbia	-5.0	-4.6	-6.6	-3.9	-4.1	-6.5	-2.3	-4.7	-5.3	-5.3	-4.8
Türkiye	-4.1	-1.8	1.9	-4.2	-0.8	-5.0	-3.6	-0.8	-1.4	-1.3	-1.3
Ukraine	-2.2	-3.3	-2.7	3.3	-1.9	4.9	-5.3	-7.2	-16.5	-12.6	-4.3
Latin America and the Caribbean	-1.8	-2.7	-2.1	-0.2	-1.8	-2.2	-1.2	-0.9	-1.1	-1.1	-1.2
Antigua and Barbuda	-7.7	-14.0	-6.5	-15.6	-17.8	-15.6	-13.5	-8.2	-11.0	-10.4	-8.7
Argentina	-4.8	-5.2	-0.8	0.7	1.4	-0.6	-3.2	0.9	-1.2	-0.4	0.3
Aruba	1.0	-0.5	0.2	-17.3	-2.3	6.5	5.6	9.5	10.1	9.2	6.7
The Bahamas	-13.3	-9.4	-2.1	-22.0	-20.2	-8.9	-7.0	-7.6	-7.6	-7.3	-6.0
Barbados	-3.4	-3.6	-1.6	-5.0	-10.3	-9.9	-8.8	-4.5	-6.3	-5.7	-5.0
Belize	-7.0	-6.6	-7.8	-6.2	-6.5	-8.3	-0.6	-1.6	-1.7	-1.6	-1.4
Bolivia ¹	-5.0	-4.3	-3.3	0.0	3.9	2.6	-2.5	-3.0	-3.4	...	...
Brazil	-1.2	-2.8	-3.5	-1.7	-2.4	-2.2	-1.3	-2.7	-2.5	-2.3	-1.7
Chile	-2.8	-4.5	-5.2	-1.9	-7.3	-8.8	-3.1	-1.5	-2.5	-2.2	-2.9
Colombia	-3.2	-4.2	-4.6	-3.4	-5.6	-6.0	-2.3	-1.7	-2.3	-2.6	-3.6

Table A12. Emerging Market and Developing Economies: Current Account Balance (continued)
(Percent of GDP)

	2017	2018	2019	2020	2021	2022	2023	2024	Projections		
									2025	2026	2030
Latin America and the Caribbean (continued)	-1.8	-2.7	-2.1	-0.2	-1.8	-2.2	-1.2	-0.9	-1.1	-1.1	-1.2
Costa Rica	-3.6	-3.0	-1.2	-1.0	-3.2	-3.3	-1.4	-1.4	-1.9	-2.1	-1.7
Dominica	-11.0	-46.7	-38.1	-37.0	-33.5	-27.0	-34.2	-33.4	-32.9	-26.4	-13.8
Dominican Republic	-0.2	-1.6	-1.3	-1.7	-2.8	-5.8	-3.7	-3.3	-2.5	-2.5	-2.5
Ecuador	-0.4	-1.5	-0.5	2.1	2.8	1.9	1.9	5.7	4.9	3.4	2.8
El Salvador	-1.9	-3.3	-0.4	1.1	-4.3	-6.7	-1.1	-1.8	-0.8	-1.8	-1.4
Grenada	-11.5	-12.8	-10.3	-16.1	-14.4	-12.1	-18.2	-16.3	-15.9	-13.9	-12.3
Guatemala	1.2	0.9	2.4	5.0	2.2	1.2	3.1	2.9	3.9	2.2	0.0
Guyana	-4.9	-29.0	-68.8	-17.3	-24.8	25.9	9.9	16.4	7.9	11.8	25.3
Haiti	-2.2	-2.9	-1.1	0.4	0.4	-2.5	-3.5	-0.6	0.0	-0.6	-2.0
Honduras	-1.2	-6.6	-2.6	2.9	-5.5	-6.7	-3.9	-4.4	-0.4	-2.5	-4.0
Jamaica	-2.5	-1.4	-1.8	-1.0	0.9	-0.7	2.7	3.1	1.8	0.4	0.3
Mexico	-1.8	-2.1	-0.3	2.4	-0.3	-1.3	-0.7	-0.9	-0.2	-0.3	-0.6
Nicaragua	-7.2	-1.8	5.9	3.8	-2.8	-2.9	8.2	4.2	7.1	2.1	-2.9
Panama	-5.8	-7.9	-5.1	0.2	-1.2	0.0	-3.1	1.9	-0.9	-1.7	-2.5
Paraguay	3.4	-0.2	-0.6	1.9	-1.1	-7.0	-0.4	-3.9	-3.5	-3.7	-1.2
Peru	-0.9	-1.2	-0.7	0.7	-2.2	-4.0	0.3	2.2	1.8	1.2	-1.5
St. Kitts and Nevis	-10.3	-5.8	-4.8	-10.8	-3.4	-11.4	-11.5	-14.4	-14.5	-14.0	-12.5
St. Lucia	-1.9	1.5	3.3	-18.8	-11.3	-3.6	-1.6	-1.0	-1.5	-1.0	-0.5
St. Vincent and the Grenadines	-11.9	-10.3	-2.4	-15.9	-23.2	-20.6	-16.9	-18.4	-15.8	-13.5	-8.9
Suriname	1.9	-2.8	-11.2	9.0	5.7	1.9	4.3	0.2	-33.4	-51.8	28.2
Trinidad and Tobago	5.9	6.8	4.3	-6.5	10.9	17.5	11.8	4.8	4.9	2.9	7.0
Uruguay	0.0	-0.5	1.3	-0.6	-2.4	-3.8	-3.4	-1.0	-1.4	-1.5	-1.7
Venezuela ¹	7.5	8.4	5.9	-3.2	-0.9	4.0	5.8	4.9	4.2	2.5	...
Middle East and Central Asia	-0.6	3.3	0.9	-3.0	3.1	8.0	4.0	2.3	1.1	0.6	0.5
Afghanistan ¹	7.6	12.1	11.7	14.0	-0.1	-18.5	-20.3	...	...	...	...
Algeria	-11.8	-8.7	-8.7	-11.3	-2.4	8.4	2.4	-1.1	-3.7	-3.8	-2.7
Armenia	-1.3	-7.2	-7.1	-4.0	-3.4	0.7	-2.8	-4.6	-4.7	-4.7	-4.3
Azerbaijan	4.1	12.8	9.1	-0.5	15.1	29.8	11.5	6.3	4.3	2.3	-0.8
Bahrain	-3.9	-6.2	-2.0	-9.1	6.4	14.7	5.8	4.8	3.5	3.8	2.7
Djibouti	-4.8	14.7	18.3	11.7	-6.6	19.0	18.1	14.1	8.1	7.6	8.3
Egypt	-5.8	-2.3	-3.4	-2.9	-4.4	-3.5	-1.2	-5.4	-5.1	-4.3	-3.8
Georgia	-7.9	-6.7	-6.0	-12.4	-10.3	-4.4	-5.6	-4.4	-4.5	-4.6	-4.9
Iran	2.9	7.6	-0.7	-1.7	3.6	3.5	2.0	3.2	1.8	2.0	3.0
Iraq	1.4	10.5	6.2	-5.6	6.1	15.8	7.5	-0.2	0.4	-1.1	0.9
Jordan	-10.6	-6.8	-1.7	-5.7	-8.0	-8.1	-3.6	-5.9	-5.5	-5.9	-4.7
Kazakhstan	-2.1	-1.0	-3.9	-6.5	-1.4	2.9	-3.6	-1.7	-3.8	-4.0	-2.6
Kuwait	8.0	14.3	12.7	4.4	25.2	34.4	31.1	29.1	26.5	24.4	19.2
Kyrgyz Republic	-6.2	-12.1	-11.5	4.5	-8.0	-41.9	-44.9	-25.3	-8.4	-7.7	-6.2
Lebanon ¹	-22.9	-24.3	-21.8	-11.1	-23.0	-30.0	-24.9	-19.7	...	...	...
Libya	6.6	14.7	6.7	-10.2	16.1	23.2	18.3	-4.2	0.9	0.6	0.4
Mauritania	-10.0	-13.1	-10.5	-6.8	-8.6	-14.9	-8.7	-9.4	-7.2	-7.1	-7.4
Morocco	-3.2	-4.9	-3.4	-1.2	-2.3	-3.5	-1.0	-1.2	-2.3	-2.6	-3.0
Oman	-13.6	-4.9	-4.9	-16.5	-5.5	3.7	2.3	2.9	-1.0	-0.7	2.0
Pakistan ¹	-3.6	-5.4	-4.2	-1.5	-0.8	-4.7	-1.0	-0.6	0.5	-0.4	-1.1
Qatar	4.0	9.1	2.4	-2.1	14.6	26.8	17.1	17.4	10.8	10.2	11.6
Saudi Arabia	1.6	8.2	4.3	-3.3	4.1	12.1	2.9	-0.5	-2.1	-2.5	-2.8
Somalia	-3.6	-3.2	-9.7	-4.7	-7.1	-8.6	-8.9	-9.2	-9.5	-8.8	-10.1
Sudan ¹	-9.4	-13.9	-15.2	-16.6	-7.5	-11.3	-3.8	-3.3	-3.1	-7.7	-10.7
Syria ¹	...	...	...	...	...	...	...	...	...	...	...
Tajikistan	2.1	-4.9	-2.2	4.3	8.2	15.3	4.8	6.2	3.4	-0.4	-2.0
Tunisia	-9.7	-10.8	-8.1	-6.0	-6.0	-9.0	-2.7	-1.7	-3.1	-3.3	-4.1
Turkmenistan	-16.4	7.4	3.4	-1.4	4.6	9.7	5.9	4.4	2.3	0.7	-3.6
United Arab Emirates	6.8	9.4	8.6	5.9	11.4	13.0	13.1	14.5	13.2	12.3	10.9
Uzbekistan	2.1	-6.1	-5.0	-4.6	-6.3	-3.2	-7.6	-5.0	-2.4	-4.6	-4.8
West Bank and Gaza ¹	-13.2	-13.2	-10.4	-12.3	-9.8	-10.6	-13.0	-21.1	...	...	...
Yemen	-1.5	-3.2	-4.2	-15.7	-13.9	-15.1	-11.8	-17.1	-9.6	-9.5	4.0

Table A12. Emerging Market and Developing Economies: Current Account Balance (*continued*)
(Percent of GDP)

	2017	2018	2019	2020	2021	2022	2023	2024	Projections		
									2025	2026	2030
Sub-Saharan Africa	-1.7	-1.8	-2.5	-2.4	-0.7	-2.0	-2.4	-1.5	-1.7	-1.8	-1.8
Angola	-0.5	6.5	5.4	1.3	10.0	8.3	3.7	5.4	0.9	0.5	0.9
Benin	-4.2	-4.5	-3.9	-1.7	-4.2	-5.7	-8.2	-6.6	-5.5	-5.0	-4.2
Botswana	5.6	0.4	-6.9	-9.8	-1.8	-0.6	1.5	-4.2	-7.6	-5.9	-1.1
Burkina Faso	-5.0	-4.2	-3.3	4.2	0.4	-7.5	-5.1	-5.7	-1.6	-1.3	-3.9
Burundi	-11.8	-12.8	-11.6	-11.2	-12.6	-16.8	-14.8	-8.6	-6.7	-5.8	-8.9
Cabo Verde	-7.0	-4.8	0.2	-15.4	-12.1	-3.5	-2.7	3.8	-0.9	-2.3	-3.4
Cameroon	-2.6	-3.5	-4.3	-3.7	-4.0	-3.4	-4.1	-3.1	-3.4	-3.9	-3.6
Central African Republic	-7.4	-7.7	-4.6	-7.9	-10.8	-12.6	-8.8	-9.1	-7.1	-4.1	-2.5
Chad	-5.7	-4.0	-3.0	-2.5	-0.5	6.3	1.6	1.0	-2.3	-2.9	-2.8
Comoros	-2.2	-3.0	-3.5	-1.8	-0.3	-0.4	-1.5	-2.2	-2.2	-3.2	-2.2
Democratic Republic of the Congo	-3.1	-3.5	-3.2	-2.0	-1.0	-4.9	-6.2	-3.9	-3.3	-2.1	-3.2
Republic of Congo	-6.4	18.5	11.7	12.6	12.8	17.0	4.7	0.1	-5.9	-7.0	-7.5
Côte d'Ivoire	-2.0	-3.9	-2.2	-3.1	-3.9	-7.6	-8.2	-4.2	-2.1	-1.7	-2.4
Equatorial Guinea	-7.8	-2.7	-7.5	-0.8	5.7	6.6	-3.5	-3.3	-3.0	-3.8	-3.0
Eritrea ¹	24.8	15.5	13.0	...	...	...	...	...	...	...	...
Eswatini	6.2	1.4	3.8	6.8	2.7	-2.7	2.4	1.3	-1.7	-1.4	0.5
Ethiopia	-8.5	-6.5	-5.3	-4.6	-3.2	-4.3	-2.9	-4.2	-2.9	-2.6	-1.8
Gabon	-0.7	7.1	4.6	-0.5	3.5	10.9	8.0	4.0	1.8	-0.3	-3.5
The Gambia	-7.4	-9.5	-6.1	-5.8	-4.2	-4.2	-5.6	-6.7	-4.9	-4.6	-1.3
Ghana	-3.3	-3.0	-2.2	-2.5	-2.7	-2.3	-1.6	1.1	1.8	1.7	-0.1
Guinea	-6.7	-18.5	-15.5	-16.1	4.1	-5.7	-9.7	-14.0	-9.7	-2.3	-0.1
Guinea-Bissau	0.3	-3.5	-8.5	-2.6	-0.8	-8.6	-8.6	-8.2	-6.0	-5.3	-4.0
Kenya	-5.6	-4.0	-2.2	-3.7	-5.1	-5.1	-3.6	-2.3	-2.8	-3.4	-3.0
Lesotho	-7.0	-7.0	-6.3	-5.7	-9.1	-14.0	-0.8	2.3	-3.9	-2.5	-1.1
Liberia	-22.3	-21.3	-19.6	-16.3	-17.6	-19.6	-25.2	-10.9	-13.1	-11.8	-12.3
Madagascar	-0.4	0.7	-2.3	-5.4	-4.9	-5.4	-4.1	-5.4	-6.0	-6.5	-5.0
Malawi	-15.5	-12.0	-12.6	-13.8	-15.2	-17.6	-17.3	-21.9	-18.3	-16.4	-10.1
Mali	-7.3	-4.9	-7.5	-2.2	-7.6	-7.7	-7.6	-4.6	-4.6	-2.6	-4.5
Mauritius	-4.5	-3.8	-5.0	-8.9	-13.1	-11.1	-5.1	-6.5	-4.8	-5.7	-1.7
Mozambique	-19.5	-29.5	-16.1	-26.5	-21.3	-36.4	-10.9	-11.0	-39.9	-36.6	-15.0
Namibia	-4.4	-3.6	-1.8	3.0	-11.2	-12.8	-15.3	-15.4	-14.7	-12.1	-9.9
Niger	-11.4	-12.7	-12.2	-13.2	-14.1	-16.2	-13.9	-6.0	-3.3	-5.2	-4.0
Nigeria ¹	2.6	1.2	-2.0	-2.7	-0.5	0.2	1.3	6.8	5.7	3.6	1.3
Rwanda	-9.5	-10.1	-11.9	-12.1	-10.9	-9.4	-11.5	-12.7	-13.8	-15.9	-7.6
São Tomé and Príncipe	-15.3	-13.0	-12.8	-11.2	-13.1	-14.5	-12.3	-1.9	-3.3	-3.6	-3.7
Senegal	-7.3	-8.8	-7.9	-10.9	-12.1	-20.0	-19.8	-12.5	-8.0	-5.4	-4.9
Seychelles	0.3	-2.4	-2.8	-12.5	-10.5	-7.5	-6.5	-8.1	-6.6	-6.9	-8.0
Sierra Leone	-11.7	-9.3	-7.8	-5.8	-7.3	-6.4	-9.5	-3.8	-3.4	-2.0	-3.3
South Africa	-2.4	-2.9	-2.6	2.0	3.7	-0.3	-1.1	-0.7	-0.9	-1.2	-1.9
South Sudan	23.7	-11.4	-4.8	-31.7	-0.1	-7.9	-18.4	-13.9	-3.8	4.4	6.0
Tanzania	-2.8	-4.2	-2.3	-2.3	-3.5	-7.4	-3.8	-2.6	-2.6	-2.7	-2.8
Togo	-1.5	-2.6	-0.8	-0.3	-2.2	-3.5	-4.0	-3.2	-1.8	-0.6	0.2
Uganda	-4.8	-6.1	-6.9	-9.5	-8.4	-8.6	-7.6	-7.5	-5.0	-3.7	-1.6
Zambia	-1.7	-1.3	0.5	11.8	11.9	3.7	-3.0	-2.6	1.3	2.7	3.3
Zimbabwe	-0.9	-2.6	2.3	1.7	0.7	0.6	0.3	1.0	3.1	3.6	3.1

¹ See the country-specific notes for Afghanistan, Bolivia, Eritrea, Lebanon, Nigeria, Pakistan, 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)*

	2017	2018	2019	2020	2021	2022	2023	2024	Projections	
									2025	2026
Advanced Economies										
Financial Account Balance	398.4	477.3	126.2	-42.8	445.5	-118.1	-139.2	165.7	-76.3	42.6
Direct Investment, Net	231.8	-117.0	1.0	48.7	678.9	484.8	324.9	436.6	268.4	333.1
Portfolio Investment, Net	24.0	503.0	61.1	121.9	274.4	-763.1	-415.8	-352.8	-682.6	-393.2
Financial Derivatives, Net	37.9	50.9	3.7	71.1	42.5	5.4	-15.4	60.6	103.6	59.5
Other Investment, Net	-144.6	-90.7	-8.2	-643.8	-1,184.1	366.3	10.7	-1.9	79.3	-127.4
Change in Reserves	249.1	131.2	69.9	360.5	635.3	-210.8	-42.5	23.7	155.5	171.0
United States										
Financial Account Balance	-373.2	-302.9	-558.4	-672.0	-825.6	-875.6	-1,073.0	-1,128.6	-1,240.8	-1,154.5
Direct Investment, Net	28.6	-345.4	-201.1	145.3	-135.8	-28.0	-10.9	25.1	-145.0	-95.7
Portfolio Investment, Net	-250.1	78.8	-244.9	-540.2	97.4	-438.3	-1,184.1	-961.1	-966.0	-639.9
Financial Derivatives, Net	24.0	-20.4	-41.7	-5.1	-39.0	-80.7	-15.6	-42.3	32.5	-26.0
Other Investment, Net	-174.1	-20.8	-75.4	-280.9	-862.2	-334.4	137.5	-152.4	-164.3	-392.9
Change in Reserves	-1.7	5.0	4.7	9.0	114.0	5.8	0.0	2.1	2.0	0.0
Euro Area										
Financial Account Balance	377.0	358.1	237.8	226.0	420.4	61.4	337.4	508.1	...	...
Direct Investment, Net	18.6	130.1	67.7	-191.2	488.1	266.0	51.3	172.4	...	...
Portfolio Investment, Net	407.0	268.3	-104.9	525.7	300.0	-263.5	-59.1	-80.4	...	...
Financial Derivatives, Net	7.6	60.8	-9.8	21.7	75.5	112.8	8.8	51.2	...	...
Other Investment, Net	-54.7	-131.0	278.2	-145.4	-597.5	-72.7	349.8	359.8	...	...
Change in Reserves	-1.5	29.9	6.6	15.2	154.3	18.9	-13.4	5.0	...	...
Germany										
Financial Account Balance	310.3	308.5	224.9	192.8	242.7	158.8	211.4	273.8	271.7	271.3
Direct Investment, Net	41.7	46.7	95.5	-31.4	86.7	64.2	26.1	32.8	46.8	39.2
Portfolio Investment, Net	220.7	177.4	82.9	19.7	237.7	14.6	2.3	34.0	21.5	20.7
Financial Derivatives, Net	12.6	26.8	23.0	106.3	58.3	47.0	38.7	45.5	47.1	46.0
Other Investment, Net	36.8	57.1	24.1	98.2	-177.7	28.4	143.3	163.1	156.3	165.4
Change in Reserves	-1.4	0.5	-0.6	-0.1	37.7	4.7	1.0	-1.6	0.0	0.0
France										
Financial Account Balance	-30.4	-13.3	0.4	-69.9	1.8	-43.9	-39.4	-7.5	3.5	0.3
Direct Investment, Net	2.8	60.9	31.0	10.5	21.0	-10.5	51.9	-10.5	14.2	28.5
Portfolio Investment, Net	11.8	7.8	-75.1	-33.2	11.0	-90.2	-129.6	55.1	53.6	44.7
Financial Derivatives, Net	-1.4	-30.5	4.1	-27.2	21.0	-41.3	-18.0	-28.0	-18.6	-13.8
Other Investment, Net	-40.2	-63.7	37.1	-24.6	-78.2	96.0	78.1	-25.6	-49.3	-64.0
Change in Reserves	-3.4	12.3	3.2	4.6	27.0	2.0	-21.7	1.5	3.7	5.0
Italy										
Financial Account Balance	63.5	44.6	61.6	85.6	53.5	-8.3	34.0	55.2	26.1	27.2
Direct Investment, Net	2.9	-3.6	4.0	23.9	31.2	-14.3	-11.5	12.3	3.7	4.1
Portfolio Investment, Net	103.1	157.1	-55.7	133.5	148.8	178.5	-26.9	-79.8	-16.9	-24.2
Financial Derivatives, Net	-8.4	-3.3	3.0	-2.9	-0.2	12.2	-5.0	3.8	2.2	1.4
Other Investment, Net	-37.1	-108.7	106.7	-73.4	-150.7	-186.8	74.4	116.5	37.2	45.9
Change in Reserves	3.0	3.1	3.6	4.6	24.5	2.1	3.0	2.3	0.0	0.0
Spain										
Financial Account Balance	40.2	36.7	30.0	12.1	30.6	19.5	58.7	90.8	66.5	75.2
Direct Investment, Net	14.9	-21.2	10.4	18.8	-13.7	0.9	3.8	28.9	30.7	32.5
Portfolio Investment, Net	36.9	28.3	-56.7	87.8	44.5	29.7	-24.8	-6.4	32.4	33.2
Financial Derivatives, Net	8.7	-1.1	-6.2	-8.1	1.0	2.1	-7.1	1.3	0.0	0.0
Other Investment, Net	-24.5	28.1	81.7	-86.0	-13.4	-17.9	80.3	65.6	3.4	9.4
Change in Reserves	4.1	2.6	0.8	-0.4	12.2	4.7	6.5	1.4	0.0	0.0

Table A13. Summary of Financial Account Balances (continued)
(Billions of US dollars)

	2017	2018	2019	2020	2021	2022	2023	2024	Projections	
									2025	2026
Japan										
Financial Account Balance	168.3	183.9	228.3	132.2	153.3	53.1	174.3	170.7	164.8	159.8
Direct Investment, Net	155.0	134.6	218.9	87.5	174.7	126.7	176.1	190.6	178.2	183.3
Portfolio Investment, Net	-50.6	92.2	87.4	38.5	-198.3	-142.6	195.3	93.0	-22.6	-20.5
Financial Derivatives, Net	30.4	0.9	3.2	7.8	19.9	38.0	44.6	29.1	27.9	31.9
Other Investment, Net	10.0	-67.9	-106.7	-12.4	94.1	78.4	-271.5	-77.7	-30.2	-46.4
Change in Reserves	23.6	24.0	25.5	10.9	62.8	-47.4	29.8	-64.4	11.5	11.5
United Kingdom										
Financial Account Balance	-102.4	-124.0	-98.5	-93.8	-14.2	-78.6	-114.5	-79.6	-128.5	-132.1
Direct Investment, Net	46.1	-4.9	-42.2	-140.4	156.8	80.7	15.0	65.3	7.9	8.5
Portfolio Investment, Net	-92.8	-354.9	34.9	36.5	-261.9	-44.9	217.2	-41.8	-214.8	-229.2
Financial Derivatives, Net	19.3	10.3	2.5	33.1	-37.5	-59.8	1.3	-7.6	6.9	7.4
Other Investment, Net	-83.7	200.7	-92.5	-19.7	104.0	-53.2	-343.3	-92.6	62.5	74.1
Change in Reserves	8.8	24.8	-1.1	-3.3	24.4	-1.3	-4.6	-3.0	9.0	7.2
Canada										
Financial Account Balance	-44.2	-35.8	-37.9	-34.3	4.4	-7.6	-11.7	-14.0	-31.1	-31.9
Direct Investment, Net	53.4	20.4	26.9	18.1	44.5	38.2	46.8	27.7	3.7	26.5
Portfolio Investment, Net	-74.9	3.4	-1.6	-67.7	-43.2	-115.3	15.4	-58.4	-13.5	-20.3
Financial Derivatives, Net	...	...	...	...	...	...	...	...	...	...
Other Investment, Net	-23.5	-58.2	-63.3	14.0	-17.1	59.0	-81.0	11.2	-21.3	-38.1
Change in Reserves	0.8	-1.5	0.1	1.3	20.2	10.6	7.0	5.4	0.0	0.0
Other Advanced Economies¹										
Financial Account Balance	308.1	358.6	315.8	377.2	617.4	492.7	490.9	586.1	605.4	622.8
Direct Investment, Net	-163.8	39.4	-35.6	70.1	-49.1	-14.8	-1.0	-64.3	-29.4	-47.5
Portfolio Investment, Net	153.5	367.7	308.1	263.0	501.8	313.1	416.0	581.0	469.4	471.7
Financial Derivatives, Net	-1.8	23.3	14.1	-16.5	-11.0	29.7	-30.2	31.3	1.7	7.3
Other Investment, Net	105.3	-122.9	-2.0	-262.9	-79.2	362.4	165.7	-38.3	41.7	50.0
Change in Reserves	214.8	51.2	32.3	324.8	256.4	-196.9	-58.5	76.9	122.4	141.7
Emerging Market and Developing Economies										
Financial Account Balance	-278.9	-263.4	-141.8	47.7	218.5	560.4	198.0	380.3	488.3	360.2
Direct Investment, Net	-297.1	-366.1	-345.1	-313.8	-486.9	-247.1	-129.4	-125.9	-164.9	-246.0
Portfolio Investment, Net	-212.3	-106.9	-75.9	-10.5	121.9	508.8	207.8	264.7	205.6	155.3
Financial Derivatives, Net	...	...	...	...	...	...	...	...	...	...
Other Investment, Net	47.0	97.8	103.9	253.3	69.3	176.1	-69.9	141.8	-115.2	-77.3
Change in Reserves	186.4	113.8	170.1	89.7	520.7	111.1	175.9	62.8	538.3	508.1

Table A13. Summary of Financial Account Balances (continued)*(Billions of US dollars)*

	2017	2018	2019	2020	2021	2022	2023	2024	Projections	
									2025	2026
Regional Groups										
Emerging and Developing Asia										
Financial Account Balance	-58.8	-261.0	-51.6	157.1	141.2	207.3	214.9	411.5	604.3	498.9
Direct Investment, Net	-108.4	-168.2	-143.4	-163.6	-258.6	-64.2	116.9	92.5	57.8	21.1
Portfolio Investment, Net	-70.0	-100.4	-71.6	-106.8	-20.3	309.6	39.2	215.3	174.3	132.4
Financial Derivatives, Net	2.3	4.7	-2.5	15.8	-2.3	18.3	21.2	34.5	24.8	24.8
Other Investment, Net	-81.9	-18.5	69.5	243.5	147.3	-104.7	-37.6	126.3	-15.6	-43.3
Change in Reserves	199.1	22.0	96.8	168.5	275.8	49.1	74.9	-57.3	361.8	364.2
Emerging and Developing Europe										
Financial Account Balance	-26.7	105.2	58.9	9.9	94.0	158.3	-22.5	-26.8	-52.6	-37.9
Direct Investment, Net	-28.0	-26.3	-51.3	-38.6	-40.8	-40.7	-31.4	-34.6	-43.5	-60.7
Portfolio Investment, Net	-34.9	9.9	-2.8	21.5	49.2	32.2	-16.1	-25.9	-25.2	-11.4
Financial Derivatives, Net	-2.2	-3.0	1.3	0.3	-4.6	-5.6	5.0	4.8	0.2	0.8
Other Investment, Net	25.0	79.0	19.5	31.2	-37.2	140.7	-27.8	-4.9	-39.3	-16.1
Change in Reserves	13.4	45.6	92.2	-4.4	127.2	31.6	47.9	33.7	55.2	49.5
Latin America and the Caribbean										
Financial Account Balance	-111.1	-166.6	-124.5	-13.4	-107.7	-147.3	-98.2	-97.4	-98.7	-103.6
Direct Investment, Net	-120.7	-148.2	-114.3	-94.4	-102.9	-120.2	-132.6	-119.9	-114.0	-132.7
Portfolio Investment, Net	-45.7	-16.5	-1.9	-9.5	-16.5	12.3	24.2	13.1	1.2	-6.1
Financial Derivatives, Net	3.9	4.0	4.9	5.7	2.0	2.3	-7.1	1.6	-1.4	-2.8
Other Investment, Net	33.9	-17.0	19.3	69.4	-41.1	-24.1	15.7	-0.6	-37.8	-2.2
Change in Reserves	17.3	11.0	-32.3	15.4	50.8	-17.8	1.5	8.3	52.9	40.1
Middle East and Central Asia										
Financial Account Balance	-37.4	96.9	30.2	-86.0	109.0	394.3	167.1	116.6	64.8	32.9
Direct Investment, Net	-4.0	-11.0	-8.3	-9.3	-22.0	-4.0	-40.3	-24.4	-15.3	-22.1
Portfolio Investment, Net	-37.7	5.5	19.1	82.3	67.6	153.4	161.3	72.2	63.3	44.7
Financial Derivatives, Net	...	...	...	...	...	...	...	...	...	...
Other Investment, Net	71.5	78.6	8.2	-82.5	17.4	192.4	-10.6	1.6	-45.8	-34.2
Change in Reserves	-60.0	30.4	9.2	-83.1	46.9	56.7	60.0	70.7	61.9	46.3
Sub-Saharan Africa										
Financial Account Balance	-44.9	-38.0	-54.6	-19.9	-18.0	-52.2	-63.2	-23.6	-29.4	-30.1
Direct Investment, Net	-35.9	-12.4	-27.9	-7.8	-62.7	-18.0	-41.9	-39.5	-49.9	-51.5
Portfolio Investment, Net	-24.1	-5.4	-18.6	2.1	41.9	1.3	-0.9	-10.0	-8.0	-4.3
Financial Derivatives, Net	0.0	-0.6	0.2	0.9	-0.2	1.4	-2.4	-0.9	-1.0	-0.8
Other Investment, Net	-1.4	-24.4	-12.6	-8.4	-17.1	-28.2	-9.6	19.4	23.3	18.6
Change in Reserves	16.5	4.8	4.3	-6.7	20.0	-8.6	-8.4	7.3	6.3	7.9

Table A13. Summary of Financial Account Balances (continued)
(Billions of US dollars)

	2017	2018	2019	2020	2021	2022	2023	2024	Projections	
									2025	2026
Analytical Groups										
By Source of Export Earnings										
Fuel										
Financial Account Balance	16.5	165.1	63.0	-51.8	163.2	476.6	194.0	192.1	126.0	102.8
Direct Investment, Net	23.7	17.5	6.1	6.8	-7.4	26.0	-22.3	33.9	11.2	7.3
Portfolio Investment, Net	-32.4	6.1	16.9	81.7	83.6	118.9	152.7	76.8	63.3	44.1
Financial Derivatives, Net	...	...	...	...	...	...	...	...	...	...
Other Investment, Net	99.3	108.0	27.7	-61.4	38.1	258.0	11.6	25.8	4.2	21.4
Change in Reserves	-67.1	40.0	10.6	-85.7	49.8	78.1	55.6	59.5	46.9	31.9
Nonfuel										
Financial Account Balance	-295.5	-428.6	-204.8	99.5	55.3	83.8	4.0	188.2	362.3	257.4
Direct Investment, Net	-320.8	-383.7	-351.2	-320.6	-479.6	-273.1	-107.2	-159.8	-176.1	-253.3
Portfolio Investment, Net	-180.0	-113.0	-92.8	-92.1	38.2	389.9	55.1	187.9	142.3	111.2
Financial Derivatives, Net	4.1	5.0	3.9	22.8	-5.1	16.4	16.8	40.1	22.6	22.1
Other Investment, Net	-52.2	-10.2	76.1	314.7	31.1	-81.9	-81.5	116.1	-119.4	-98.7
Change in Reserves	253.5	73.9	159.5	175.4	470.9	32.9	120.3	3.3	491.4	476.2
By External Financing Source										
Net Debtor Economies										
Financial Account Balance	-330.2	-356.6	-296.0	-115.8	-290.8	-421.9	-281.7	-299.5	-331.9	-366.1
Direct Investment, Net	-256.5	-287.8	-273.3	-233.5	-285.0	-292.8	-270.2	-296.9	-275.5	-321.6
Portfolio Investment, Net	-129.1	-38.3	-35.4	-55.8	-18.9	75.6	-35.5	-44.0	-39.8	-37.9
Financial Derivatives, Net	...	...	...	...	...	...	...	...	11.9	11.3
Other Investment, Net	-27.0	-27.2	-64.7	33.7	-199.5	-161.5	-132.9	-57.5	-168.5	-156.2
Change in Reserves	78.4	-3.3	78.3	131.5	208.1	-48.0	149.6	72.5	138.5	138.3
Net Debtor Economies by Debt-Servicing Experience										
Economies with Arrears and/or Rescheduling during 2020-24										
Financial Account Balance	-57.7	-43.6	-48.2	-28.1	-39.5	-38.6	-42.4	-43.2	-76.1	-74.9
Direct Investment, Net	-26.2	-24.6	-32.4	-22.6	-33.8	-22.3	-35.3	-76.5	-49.6	-57.9
Portfolio Investment, Net	-36.9	-21.3	-17.4	3.9	-22.3	31.2	7.8	3.2	2.0	1.9
Financial Derivatives, Net	...	...	...	...	...	...	...	...	...	...
Other Investment, Net	-11.2	-1.6	2.4	11.3	5.7	-25.5	-24.8	10.0	-53.1	-34.9
Change in Reserves	17.2	4.2	-0.9	-20.4	10.5	-21.7	9.6	20.4	25.1	16.5
Memorandum										
World										
Financial Account Balance	119.5	213.9	-15.6	5.0	664.0	442.3	58.9	545.9	412.0	402.8

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		
	2007-16	2011-18	2019	2020	2021	2022	2023	2024	2025	2026	Average 2027-30
Advanced Economies											
Net Lending and Borrowing	0.0	0.5	0.6	0.2	0.8	-0.2	0.0	0.1	-0.1	0.1	0.0
Current Account Balance	0.0	0.5	0.7	0.2	0.8	-0.4	0.0	0.1	-0.1	0.1	0.1
Savings	21.6	22.3	23.2	22.6	23.5	23.0	22.0	21.8	21.9	22.0	22.1
Investment	21.7	21.7	22.7	22.5	22.8	23.4	22.5	22.2	22.1	22.0	22.1
Capital Account Balance	0.0	0.0	-0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
United States											
Net Lending and Borrowing	-3.0	-2.3	-2.1	-2.8	-3.6	-3.8	-3.4	-4.0	-4.0	-3.6	-3.6
Current Account Balance	-2.9	-2.2	-2.1	-2.8	-3.6	-3.8	-3.3	-4.0	-4.0	-3.6	-3.6
Savings	17.2	18.6	19.3	18.2	17.6	18.2	17.0	16.5	17.3	17.6	17.7
Investment	20.3	20.7	21.7	21.4	21.4	22.0	21.6	21.5	21.4	21.2	21.3
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	1.0	2.2	2.2	1.8	3.1	0.9	2.0	2.7	...	...	...
Current Account Balance	0.9	2.2	2.4	1.8	2.8	-0.1	1.7	2.6	2.3	2.2	2.1
Savings	22.5	23.3	25.4	24.4	26.4	24.9	24.9	24.8	24.7	24.6	24.6
Investment	20.9	20.4	22.4	22.0	22.8	23.9	22.4	21.3	21.5	21.5	21.7
Capital Account Balance	0.1	0.0	-0.2	0.0	0.4	1.1	0.3	0.0	...	...	...
Germany											
Net Lending and Borrowing	6.8	7.5	7.7	6.0	6.8	3.3	4.9	5.1	5.4	5.1	4.5
Current Account Balance	6.8	7.6	7.9	6.3	6.9	3.8	5.5	5.6	5.4	5.1	4.5
Savings	26.7	27.9	29.3	28.0	29.6	27.1	27.5	27.1	26.7	25.8	25.6
Investment	19.9	20.3	21.4	21.7	22.7	23.3	22.0	21.5	21.3	20.7	21.2
Capital Account Balance	-0.1	-0.1	-0.1	-0.3	-0.1	-0.5	-0.6	-0.5	0.0	0.0	0.0
France											
Net Lending and Borrowing	-0.7	-0.8	0.7	-2.0	0.6	-1.0	-0.8	0.3	0.1	0.0	0.1
Current Account Balance	-0.7	-0.8	0.6	-2.0	0.3	-1.4	-1.0	0.1	-0.1	-0.2	-0.1
Savings	21.3	21.1	23.6	20.8	23.7	22.6	21.9	21.6	21.6	21.1	20.8
Investment	22.0	22.0	23.0	22.8	23.4	24.0	23.0	21.5	21.7	21.3	20.9
Capital Account Balance	0.0	0.0	0.1	0.1	0.4	0.4	0.3	0.2	0.2	0.2	0.2
Italy											
Net Lending and Borrowing	-0.5	1.1	3.1	3.8	2.2	-1.2	0.9	1.1	1.0	1.0	1.8
Current Account Balance	-0.6	1.1	3.2	3.8	2.1	-1.7	0.1	1.1	1.0	1.0	1.7
Savings	18.7	19.1	21.5	21.7	24.1	22.9	23.1	23.5	23.7	24.7	26.1
Investment	19.3	18.1	18.4	17.9	22.0	24.6	22.9	22.4	22.7	23.8	24.4
Capital Account Balance	0.1	0.1	0.0	0.0	0.1	0.5	0.8	0.0	0.1	0.1	0.1
Spain											
Net Lending and Borrowing	-1.5	1.8	2.5	1.2	1.6	1.3	3.9	4.3	3.5	3.7	2.4
Current Account Balance	-1.9	1.4	2.1	0.8	0.8	0.4	2.7	3.2	2.7	2.6	2.2
Savings	19.9	20.6	23.0	21.4	22.6	23.1	23.9	24.4	24.3	24.4	23.6
Investment	21.8	19.2	20.9	20.6	21.9	22.7	21.1	21.2	21.7	21.8	21.5
Capital Account Balance	0.4	0.4	0.3	0.4	0.9	0.9	1.1	1.1	0.9	1.0	0.2
Japan											
Net Lending and Borrowing	2.5	2.4	3.4	2.9	3.8	2.1	3.6	4.8	3.9	3.6	3.5
Current Account Balance	2.6	2.4	3.4	3.0	3.9	2.1	3.7	4.8	3.9	3.6	3.5
Savings	27.0	27.2	29.2	28.2	29.7	28.9	29.8	30.9	30.4	30.1	29.9
Investment	24.4	24.7	25.8	25.2	25.8	26.8	26.1	26.1	26.5	26.5	26.3
Capital Account Balance	-0.1	-0.1	-0.1	0.0	-0.1	0.0	-0.1	0.0	-0.1	-0.1	0.0
United Kingdom											
Net Lending and Borrowing	-3.9	-4.2	-2.7	-3.1	-0.5	-2.2	-3.7	-2.8	-3.2	-3.1	-2.6
Current Account Balance	-3.8	-4.0	-2.7	-2.9	-0.4	-2.1	-3.5	-2.7	-3.1	-3.0	-2.4
Savings	13.0	13.2	15.6	14.6	17.2	16.6	14.3	15.0	13.8	14.1	14.6
Investment	16.8	17.2	18.2	17.6	17.7	18.7	17.8	17.7	16.9	17.1	17.0
Capital Account Balance	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1

Table A14. Summary of Net Lending and Borrowing (continued)
(Percent of GDP)

	Averages		2019	2020	2021	2022	2023	2024	Projections		
	2007-16	2011-18							2025	2026	Average 2027-30
Canada											
Net Lending and Borrowing	-2.4	-2.9	-2.0	-2.0	0.0	-0.3	-0.6	-0.5	-1.4	-1.3	-0.8
Current Account Balance	-2.4	-2.9	-2.0	-2.0	0.0	-0.3	-0.6	-0.5	-1.4	-1.3	-0.8
Savings	21.5	21.1	21.1	20.7	24.3	25.0	23.3	22.7	21.8	21.9	22.0
Investment	23.9	24.0	23.0	22.7	24.3	25.3	23.9	23.2	23.2	23.2	22.8
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 Economies ¹											
Net Lending and Borrowing	4.2	4.5	4.4	5.1	6.6	6.6	5.7	6.6	6.4	6.2	6.1
Current Account Balance	4.3	4.6	4.4	5.0	6.7	6.5	5.5	6.5	6.3	6.1	6.0
Savings	30.5	30.5	30.0	31.2	33.3	33.1	31.3	32.1	31.2	30.9	31.0
Investment	26.0	25.8	25.5	25.9	26.3	26.3	25.6	25.3	24.8	24.8	25.1
Capital Account Balance	-0.1	-0.1	0.0	0.1	-0.2	0.1	0.2	0.1	0.1	0.1	0.1
Emerging Market and Developing Economies											
Net Lending and Borrowing	1.3	0.5	0.1	0.6	1.0	1.6	0.7	1.0	1.0	0.7	0.5
Current Account Balance	1.3	0.4	0.1	0.5	0.9	1.6	0.7	1.0	1.0	0.6	0.4
Savings	32.4	32.2	32.0	32.6	34.1	34.4	32.7	32.5	31.6	31.7	32.1
Investment	31.2	31.9	32.1	32.2	33.3	32.9	32.1	31.6	30.8	31.1	31.8
Capital Account Balance	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Regional Groups											
Emerging and Developing Asia											
Net Lending and Borrowing	2.5	1.0	0.5	1.5	1.2	1.3	1.0	1.6	2.2	1.7	1.2
Current Account Balance	2.5	1.0	0.4	1.5	1.2	1.3	1.0	1.6	2.2	1.7	1.2
Savings	42.6	41.3	39.3	39.9	40.6	40.6	39.0	39.1	38.2	38.0	38.3
Investment	40.2	40.3	38.8	38.3	39.4	39.2	38.0	37.6	36.1	36.4	37.0
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
Emerging and Developing Europe											
Net Lending and Borrowing	-0.5	0.2	1.8	0.6	2.0	2.8	-0.1	0.2	-0.8	-0.6	-0.5
Current Account Balance	-0.6	-0.1	1.4	0.1	1.6	2.6	-0.4	-0.1	-1.1	-1.0	-0.7
Savings	23.9	24.7	25.0	24.6	26.9	29.1	26.4	25.3	24.8	25.2	25.8
Investment	24.4	24.6	23.5	24.5	25.3	26.3	26.5	25.3	25.9	26.2	26.5
Capital Account Balance	0.2	0.3	0.4	0.5	0.4	0.1	0.3	0.3	0.3	0.5	0.3
Latin America and the Caribbean											
Net Lending and Borrowing	-2.0	-2.6	-2.1	-0.1	-1.9	-2.3	-1.3	-1.1	-1.3	-1.3	-1.3
Current Account Balance	-2.0	-2.6	-2.1	-0.2	-1.8	-2.2	-1.2	-0.9	-1.1	-1.1	-1.2
Savings	19.6	18.2	16.8	17.7	18.7	18.1	18.3	18.6	18.0	18.2	18.6
Investment	21.7	20.8	18.9	18.0	20.6	20.4	19.5	19.5	19.2	19.4	19.9
Capital Account Balance	0.1	0.0	0.0	0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
Middle East and Central Asia											
Net Lending and Borrowing	5.9	4.0	0.7	-3.0	2.9	7.8	3.7	2.3	1.2	0.6	0.4
Current Account Balance	5.9	3.9	0.9	-3.0	3.1	8.0	4.0	2.3	1.1	0.6	0.4
Savings	34.2	31.2	27.4	22.7	28.6	33.4	30.8	28.8	27.9	27.5	27.4
Investment	28.2	27.0	26.6	25.6	25.8	26.1	27.6	27.1	27.3	27.6	28.1
Capital Account Balance	0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	0.0	0.0	0.0
Sub-Saharan Africa											
Net Lending and Borrowing	-1.0	-1.9	-2.2	-2.0	-0.4	-1.7	-2.0	-1.0	-1.3	-1.4	-1.4
Current Account Balance	-1.6	-2.3	-2.5	-2.4	-0.7	-2.0	-2.4	-1.5	-1.7	-1.8	-1.8
Savings	17.8	17.3	19.2	19.0	20.4	19.7	18.5	19.2	19.2	19.8	20.0
Investment	19.3	19.4	21.8	21.4	21.0	21.5	20.8	20.5	21.0	21.7	21.8
Capital Account Balance	0.6	0.4	0.4	0.4	0.4	0.3	0.4	0.5	0.4	0.4	0.4

Table A14. Summary of Net Lending and Borrowing (continued)
(Percent of GDP)

	Averages		2019	2020	2021	2022	2023	2024	Projections		
	2007-16	2011-18							2025	2026	Average 2027-30
Analytical Groups											
By Source of Export Earnings											
Fuel											
Net Lending and Borrowing	7.1	5.1	2.0	-2.7	4.6	10.3	5.4	4.6	2.9	2.3	2.2
Current Account Balance	7.2	5.1	2.2	-2.6	5.0	10.6	5.7	4.7	3.0	2.3	2.2
Savings	33.9	31.2	28.9	24.2	31.2	36.3	33.2	32.6	31.2	30.7	30.2
Investment	26.6	25.6	26.6	26.7	26.6	26.2	28.2	28.5	29.0	29.2	29.4
Capital Account Balance	0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1
Nonfuel											
Net Lending and Borrowing	0.3	-0.3	-0.1	0.9	0.6	0.5	0.2	0.6	0.8	0.5	0.3
Current Account Balance	0.2	-0.4	-0.2	0.8	0.5	0.5	0.1	0.6	0.8	0.5	0.3
Savings	32.1	32.3	32.4	33.5	34.4	34.1	32.6	32.4	31.7	31.8	32.2
Investment	31.9	32.7	32.6	32.7	34.0	33.7	32.5	31.9	30.9	31.3	32.0
Capital Account Balance	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0
By External Financing Source											
Net Debtor Economies											
Net Lending and Borrowing	-2.3	-2.5	-1.8	-0.7	-1.8	-2.6	-1.4	-1.4	-1.6	-1.7	-1.7
Current Account Balance	-2.6	-2.7	-2.0	-0.9	-1.9	-2.7	-1.5	-1.5	-1.8	-1.9	-1.8
Savings	23.0	22.5	22.6	23.0	23.7	23.5	23.7	23.5	23.1	23.3	23.8
Investment	25.6	25.2	24.6	23.9	25.7	26.2	25.1	25.0	24.9	25.2	25.6
Capital Account Balance	0.3	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Net Debtor Economies by Debt-Servicing Experience											
Economies with Arrears and/or Rescheduling during 2020-24											
Net Lending and Borrowing	-3.2	-3.9	-3.0	-1.8	-2.0	-2.0	-2.4	-2.5	-4.2	-3.8	-2.6
Current Account Balance	-4.0	-4.5	-3.5	-2.3	-2.4	-2.4	-2.9	-3.3	-4.6	-4.3	-3.0
Savings	20.6	19.4	19.3	18.3	19.1	19.1	17.2	15.9	14.9	16.1	17.8
Investment	24.9	24.1	23.5	21.1	21.8	21.7	20.4	19.5	19.9	20.6	21.0
Capital Account Balance	0.8	0.5	0.4	0.5	0.4	0.4	0.4	0.8	0.4	0.4	0.4
Memorandum											
World											
Net Lending and Borrowing	0.4	0.5	0.4	0.4	0.9	0.5	0.3	0.5	0.4	0.3	0.2
Current Account Balance	0.4	0.4	0.4	0.3	0.8	0.4	0.3	0.4	0.4	0.3	0.2
Savings	25.5	26.2	26.8	26.6	27.9	27.8	26.4	26.2	25.9	26.0	26.4
Investment	25.1	25.7	26.4	26.3	27.1	27.4	26.5	26.1	25.6	25.7	26.2
Capital Account Balance	0.0	0.0	0.0	0.0	0.0	0.1	0.0	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

					Projections			
	Averages		2023	2024	2025	2026	Averages	
	2007-16	2017-26					2023-26	2027-30
	Annual Percent Change							
World Real GDP	3.4	3.1	3.5	3.3	3.2	3.1	3.3	3.2
Advanced Economies	1.3	1.8	1.7	1.8	1.6	1.6	1.7	1.6
Emerging Market and Developing Economies	5.3	4.0	4.7	4.3	4.2	4.0	4.3	4.1
Memorandum								
Potential Output								
Major Advanced Economies	1.4	1.6	1.9	1.8	1.7	1.6	1.7	1.5
World Trade, Volume ¹	3.4	2.8	1.0	3.5	3.6	2.3	2.6	3.1
Imports								
Advanced Economies	2.5	2.4	-0.7	2.1	3.1	1.3	1.4	2.3
Emerging Market and Developing Economies	5.5	3.4	3.7	5.6	4.3	4.0	4.4	4.4
Exports								
Advanced Economies	3.0	2.2	0.9	1.8	2.1	1.7	1.6	2.5
Emerging Market and Developing Economies	4.1	3.8	1.4	6.5	5.9	3.3	4.3	4.0
Terms of Trade								
Advanced Economies	0.2	0.1	0.4	0.9	0.4	-0.5	0.3	-0.1
Emerging Market and Developing Economies	0.1	0.0	-0.9	0.0	-1.2	-0.3	-0.6	0.0
World Prices in US Dollars								
Manufactures	0.4	1.6	-1.7	1.3	0.6	-0.1	0.0	0.6
Oil	-3.9	4.3	-16.4	-1.8	-12.9	-4.5	-9.1	0.5
Nonfuel Primary Commodities	1.4	5.6	-5.7	3.7	7.4	4.1	2.3	0.2
Consumer Prices								
Advanced Economies	1.6	2.8	4.6	2.6	2.5	2.2	3.0	2.1
Emerging Market and Developing Economies	5.9	6.1	8.2	7.9	5.3	4.7	6.5	4.0
Interest Rates			Percent					
World Real Long-Term Interest Rate ²	1.0	-0.6	-1.3	0.8	1.2	1.4	0.5	1.5
Current Account Balances			Percent of GDP					
Advanced Economies	0.0	0.3	0.0	0.1	-0.1	0.1	0.0	0.1
Emerging Market and Developing Economies	1.3	0.6	0.7	1.0	1.0	0.6	0.8	0.4
Total External Debt								
Emerging Market and Developing Economies	27.3	29.3	28.8	28.1	27.9	27.6	28.1	26.4
Debt Service								
Emerging Market and Developing Economies	9.6	9.9	9.9	9.8	9.2	9.1	9.5	8.7

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

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World Economic Outlook: Uneven Growth—Short- and Long-Term Factors	April 2015
World Economic Outlook: Adjusting to Lower Commodity Prices	October 2015
World Economic Outlook: Too Slow for Too Long	April 2016
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Risk Assessment Surrounding the *World Economic Outlook* Baseline Projection

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Risk Assessment Surrounding the *World Economic Outlook's* Baseline Projection

Risk Assessment Surrounding the *World Economic Outlook's* Baseline Projection

Risk Assessment Surrounding the *World Economic Outlook's* Baseline Projection

Risk Assessment Surrounding the Baseline Projection

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IMF EXECUTIVE BOARD DISCUSSION OF THE OUTLOOK, SEPTEMBER 2025

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 September 29, 2025.

Executive Directors broadly agreed with staff's assessment of the global economic outlook, risks, and policy priorities. They welcomed the recent economic resilience despite repeated shocks, noting the importance of stronger economic fundamentals and policy frameworks in EMDEs. Directors acknowledged, however, that major policy shifts are reshaping the global economic landscape and broadly concurred that the recent resilience, also supported by temporary factors, could be fragile as lingering vulnerabilities, elevated policy uncertainty, and fragmentation continue to weigh on growth prospects. At the same time, a view was held that staff's overall characterization of the global economic environment is overly pessimistic. Directors cautioned that protectionism and significant cuts to foreign aid disproportionately affect the outlook for the world's poorest economies, undermining their convergence prospects.

Directors broadly concurred that risks to the outlook are tilted to the downside, including from prolonged policy uncertainty and any escalation in trade tensions, as well as from rising fiscal vulnerabilities, increased fragilities in financial markets, and their potentially adverse interactions. With high debt service obligations and rollover needs, a continued rise in government borrowing costs would further reduce fiscal space, challenging efforts to rebuild fiscal buffers and making bond market functioning more fragile. Directors also acknowledged that stretched risk asset valuations and higher interconnectedness between banks and nonbank financial institutions (NBFIs) has kept financial stability risks elevated. They also recognized the risks stemming from eroding good governance and the independence of key economic institutions. Labor supply shocks, regional conflicts, including Russia's war in Ukraine, and commodity price volatility are additional risks to the outlook.

Directors broadly underscored the need to reinvigorate multilateral cooperation to meaningfully reduce trade policy uncertainty by re-anchoring trade in an open, rules-based and transparent system. They acknowledged the need to modernize trade rules and lower barriers, including through regional agreements that remain open to and do not discriminate against third parties. There was general recognition that trade diplomacy should work hand in hand with a coordinated approach to implement domestic macroeconomic adjustments and address distortions behind internal and external imbalances. Attention was also brought to the role of the global financial safety net in mitigating systemic risks and, in this regard, the importance of continued progress on Fund concessional resources and a strong, quota-based, and adequately resourced IMF at its center.

Directors highlighted the need for the Fund to provide tailored fiscal advice that takes country specific circumstances into account. They stressed the importance of rebuilding fiscal buffers and creating space for new spending demands while safeguarding debt sustainability. Directors called for fiscal consolidation with realistic and credible plans that are anchored in robust medium term fiscal frameworks and combine spending rationalization and revenue generation, while protecting the vulnerable. They emphasized the need to prioritize measures that raise efficiency of public spending and support sustainable and inclusive private sector led growth, while avoiding blanket spending cuts. Where new discretionary support is warranted, it should be transparent, targeted, and temporary. Directors noted the potential for reforms to pensions, health care, wage bills, and tax expenditures to create fiscal room for spending that promotes long run economic growth. In countries where debt is unsustainable, they emphasized the importance of cooperation through the

G20 Common Framework and the Global Sovereign Debt Roundtable to seek timely and orderly debt restructuring.

Directors emphasized the importance of central bank independence and their insulation from political pressures for the anchoring of inflation expectations and the pursuit of price stability in line with their respective mandates. Monetary policy should be data-driven, calibrated to country-specific circumstances—with careful assessment of the nature of shocks and the output gap—and clearly communicated. In economies experiencing supply shocks, a gradual easing of the policy stance should be considered provided that disinflation is clearly established. Where weaker demand dominates, cautious consideration can be given to a reduction in policy rates. A prudent approach to monetary policy easing can also help contain asset valuation pressures. For countries experiencing excessive exchange rate volatility and with shallow foreign exchange markets, the use of temporary foreign exchange interventions and capital flow measures may be appropriate, consistent with the advice of the Integrated Policy Framework, alongside further deepening local bond markets while managing risks from the bank-sovereign nexus. Directors also called on the authorities to continue to use their macroprudential tools, as appropriate, and generally supported the consistent and timely implementation of internationally-agreed regulatory frameworks, like Basel III, to mitigate macro-financial stability risks. It will also be important to address data gaps and

strengthen regulation of NBFIs and digital assets, including stablecoins.

Directors acknowledged the importance of boosting productivity and re-igniting growth over the medium term. They called for comprehensive and carefully sequenced structural reform packages, taking into account country-specific circumstances including social and political economy considerations. Priority reforms include encouraging labor mobility and participation, increasing digitalization and AI readiness, and improving the business climate and competition to reallocate labor and capital to the most productive firms. Directors generally welcomed the Fund's analysis on industrial policies, with many calling for further work in this area, including expanding its scope to include a discussion of spillover risks and related policy advice. Directors cautioned that the expanding use of industrial policies involves opportunity costs and tradeoffs, including fiscal costs, higher consumer prices, and resource misallocation. Where pursued, industrial policies should be transparent and focus on addressing market failures, targeting areas with the highest potential for positive spillovers and impact on supply-side capacity and job creation, supported by complementary structural reforms. Directors generally noted that strong governance is key for their successful implementation and called on governments to stay agile in monitoring their impact and scaling back or discontinuing ineffective measures. A few Directors also stressed the importance of leveraging historical experiences in the conduct of industrial policies.

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