

INTERNATIONAL MONETARY FUND

FISCAL MONITOR

Curbing Corruption

2019
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Editor's Note (May 6, 2019):

The online edition of this report has been updated to reflect the following changes to the print edition:

- The blurb for Figure 1.12 has been updated to include Italy.
- Data in Figure 1.15 were updated.

ASSUMPTIONS AND CONVENTIONS

The following symbols have been used throughout this publication:

- . . . to indicate that data are not available
- to indicate that the figure is zero or less than half the final digit shown, or that the item does not exist
- between years or months (for example, 2008–09 or January–June) to indicate the years or months covered, including the beginning and ending years or months
- / between years (for example, 2008/09) 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).

“n.a.” means “not applicable.”

Minor discrepancies between sums of constituent figures and totals are due to rounding.

As used in this publication, the term “country” does 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

Corrections and Revisions

The data and analysis appearing in the *Fiscal Monitor* are compiled by the IMF staff at the time of publication. Every effort is made to ensure their timeliness, accuracy, and completeness. When errors are discovered, corrections and revisions are incorporated into the digital editions available from the IMF website and on the IMF eLibrary (see below). All substantive changes are listed in the online table of contents.

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PREFACE

The projections included in this issue of the *Fiscal Monitor* are drawn from the same database used for the April 2019 *World Economic Outlook* and *Global Financial Stability Report* (and are referred to as “IMF staff projections”). Fiscal projections refer to the general government, unless otherwise indicated. Short-term projections are based on officially announced budgets, adjusted for differences between the national authorities and the IMF staff regarding macroeconomic assumptions. The medium-term fiscal projections incorporate policy measures that are judged by the IMF staff as likely to be implemented. For countries supported by an IMF arrangement, the medium-term projections are those under the arrangement. In cases in which the IMF staff has insufficient information to assess the authorities’ budget intentions and prospects for policy implementation, an unchanged cyclically adjusted primary balance is assumed, unless indicated otherwise. Details on the composition of the groups, as well as country-specific assumptions, can be found in the Methodological and Statistical Appendix.

The *Fiscal Monitor* is prepared by the IMF Fiscal Affairs Department under the general guidance of Vitor Gaspar, Director of the Department. The project was directed by Paolo Mauro, Deputy Director; and Catherine Pattillo, Assistant Director. The main authors of this issue are John Ralyea and Elif Ture (team leaders), Jean-Marc Fournier, Moses Kabanda, Raphael Lam, Susan Yang, and Jing Zhou for Chapter 1, which also benefited from contributions by Ruud de Mooij, Alexander Klemm, Marialuz Moreno Badia, and Mehdi Raissi; and Paulo Medas (team leader), Olivier Basdevant, Anja Baum, Racheeda Boukezia, Jean-Marc Fournier, Jan Gottschalk, Klaus Hellwig, Salma Khalid, Amanda Sayegh, Gwenaelle Suc, and Benoit Wiest for Chapter 2, which also benefited from contributions from Enriko Aav, Debra Adams, Alpa Shah, Mouhamadou Sy, and Justin Zake. Sebastiaan Pompe and Jay Purcell of the Legal Department also contributed to Chapter 2. Excellent research contributions were provided by Juliana Arbelaez, Clay Hackney, Nghia Piotr Le, and Yuan Xiang. The Methodological and Statistical Appendix was prepared by Yuan Xiang. Meron Haile and Joni Mayfield provided excellent coordination and editorial support. Runit Pancholi from the Communications Department led the editorial team and managed the report’s production, with editorial assistance from Sherrie Brown, David Einhorn, Susan Graham, Linda Long, Lucy Morales, and Vector Talent Resources.

Inputs, comments, and suggestions were received from other departments in the IMF, including area departments—namely, the African Department, Asia and Pacific Department, European Department, Middle East and Central Asia Department, and Western Hemisphere Department—as well as the Communications Department, Institute for Capacity Development, Legal Department, Monetary and Capital Markets Department, Research Department, Secretary’s Department, Statistics Department, and Strategy, Policy, and Review Department. Chapter 2 of this *Fiscal Monitor* also benefited from comments by Raymond Fisman (Boston University), Dev Kar (Global Financial Integrity), Daniel Kaufmann (Natural Resource Governance Institute), Roberto de Michele (Inter-American Development Bank), David Szakonyi (The George Washington University), Frank Vogl (The Partnership for Transparency Fund), and Tito Cordella, Aart Kraay, Francesca Recanatini, and Sanjay Vani (all World Bank). Both projections and policy considerations are those of the IMF staff and should not be attributed to Executive Directors or to their national authorities.

EXECUTIVE SUMMARY

Chapter 1: Fiscal Policy for a Changing Global Economy

Over the past decade, fiscal policy has focused primarily on macroeconomic stabilization in response to shocks, notably the global financial crisis. Less emphasis has been placed on reforms to foster long-term inclusive growth by adapting to changing demographics, advancing technology, and deepening global integration. In many countries, public and private debt hover near historical peaks, long-term growth and development prospects are uninspiring, and inequality remains striking. With global growth slowing and uncertainty rising, fiscal policy should prepare for possible downturns—balancing growth and sustainability objectives—while also putting more emphasis on reforms to adapt to a fast-changing global economy. The latter will require inclusive and growth-friendly budget recomposition to upgrade tax, social spending, and active labor market policies, as well as investment in infrastructure for better public service delivery. Greater international cooperation is also needed to address multilateral issues, including corporate taxation, climate change, corruption, and, more generally, to achieve the 2030 Sustainable Development Goals (SDGs).

Preparing for the Next Downturn

The global expansion has softened. Growth is expected to slow this year in several large advanced and emerging market economies (China, euro area, United States), although it remains firm in many areas of the world (India and parts of sub-Saharan Africa). Downside risks have risen, mainly from unresolved trade tensions, heightened policy uncertainty, and financial market volatility. At the same time, public debt remains high in advanced economies and has increased in emerging market and developing economies. Major economies have turned to expansionary fiscal policies (China, euro area, United States); and tighter financial conditions and concerns over fiscal sustainability have pushed up borrowing costs in vulnerable advanced, emerging market, and frontier market economies.

In this environment, fiscal policy should tread carefully to balance growth and sustainability objectives. Where actual output exceeds potential (United States), or borrowing costs are high and financing needs are large (Brazil, Italy) and enhancing market access remains important (Argentina), growth-friendly fiscal adjustment remains appropriate to reduce debt vulnerabilities and build buffers to be deployed in case of a major downturn. Where there is some fiscal space and risk of a sharper slowdown, there could be a case for limited, high-quality fiscal stimulus (Australia, Germany, Korea), in some cases coupled with a credible medium-term consolidation plan (China, Japan). In low-income developing countries, fiscal policy should support development objectives subject to financing constraints. And if a severe downside scenario were to materialize, available monetary policy tools could be complemented with fiscal easing by countries that have appropriate fiscal space and financing conditions; in the euro area, a synchronized fiscal response, albeit appropriately differentiated across member countries, can strengthen the area-wide impact.

Adapting to Global Trends

To foster higher and more inclusive growth, fiscal policy should adapt to key trends reshaping the global economy. Shifting demographics, rapid technological progress, and rising global economic integration bring structural challenges. Advanced and many emerging market economies are faced with aging populations, raising concerns about the sustainability of public pensions and healthcare. Low-income developing countries and several emerging market economies must create jobs and upgrade public infrastructure as well as education and healthcare services to meet the needs of their rapidly expanding and urbanizing populations. Social spending and tax policies in all countries need to keep pace with the labor and product market changes brought on by technological advances and by deeper trade and financial links across countries. Adapting policies to global trends would foster long-term economic growth—a crucial ingredient for a durable reduction in public debt burdens—and spread the

gains from openness and innovation within and across countries. This would also help to restore the public trust in institutions necessary for economic stability.

Where there is limited budgetary room, such adaptation will have to occur through budget repositioning. Key to this process will be reprioritizing expenditures to achieve cost savings by cutting wasteful spending and curbing corruption in all countries. For example, removing fuel subsidies through efficient pricing could gradually yield up to 4 percent of global GDP in additional fiscal resources. Public financial management reforms can also expand the fiscal envelope through efficiency gains. Managing public sector assets more effectively could yield up to an estimated 3 percent of GDP a year in additional revenue in some countries. In emerging market and developing economies, where tax revenue remains relatively low, revenue mobilization will have to play an important role given the significant infrastructure and social spending needs to meet their SDGs. Sub-Saharan African countries could raise, on average, 3 to 5 percent of GDP in additional revenue over the next five years through reforms that improve the efficiency of current tax systems.

International cooperation is also essential to amplify and spread the gains from reforms globally. Prime issues that could be addressed through a multilateral approach include taxation of multinational companies (including digitalized ones), climate change (which could be mitigated through carbon taxes), and corruption. Coordinated international support and financing, combined with improvements in governance in both donor and recipient countries, could complement the efforts of low-income developing countries to achieve their SDGs. A renewed effort to work within an improved multilateral structure would complement national policies adapted to a fast-changing global economy.

Chapter 2: Curbing Corruption

Corruption—the abuse of public office for private gain—distorts the activities of the state and undercuts efforts to achieve sustainable and inclusive economic growth. Corruption helps some people evade taxes, whereas others often end up paying more. The loss of revenues can also hamper governments’ ability to provide social spending. Moreover, the quality of public services and infrastructure is undermined when government decisions are driven by bribes or nepotism. Ultimately, corruption erodes trust in government and can lead to social and political instability.

This chapter presents evidence that the fiscal costs of corruption can be substantial for economies at all levels of development. For example, comparing countries at similar income levels, the least corrupt governments collect 4 percent of GDP more in tax revenues than their peers with the highest levels of corruption. Based on such cross-country comparisons, if all countries today were to reduce corruption by a similar extent, on average, as those that reduced it over the past two decades, global tax revenues could be higher by \$1 trillion, or 1¼ percent of global GDP; the gains would likely be greater considering that lower corruption would increase economic growth, further boosting revenues. Countries that managed to reduce corruption significantly were rewarded with surges in tax revenues as a share of GDP (for example, Georgia by 13 percentage points, Rwanda by 6 percentage points). The evidence also suggests that corruption distorts how governments use public money. Less corrupt countries dedicate a higher share of resources to social spending (for example, among low-income countries, the share of the budget dedicated to education and health is one-third lower in highly corrupt countries). In addition, more corrupt countries overpay for building roads and hospitals, and their school-age students have lower test scores.

Fighting corruption requires mustering political will. To ensure lasting improvements, however, it also requires developing good institutions to promote integrity and accountability throughout the public sector. Drawing on new data regarding a large set of fiscal institutions and individual country experiences, the chapter provides specific advice by examining in greater detail where corruption leakages occur in government operations and how different institutions can help reduce such leakages. Some of the lessons for national decision makers are:

- Build a professional civil service, based on transparent, merit-based hiring and remuneration procedures. It is vital for heads of agencies, ministries, and public enterprises to promote ethical behavior by setting a clear tone at the top.
- Invest in high levels of transparency and independent external scrutiny, to allow audit agencies and the public at large to provide effective oversight.
- Focus on “hotspots” where international experience suggests that corruption occurs frequently—for example, public procurement, infrastructure, complex goods and services that are hard to price, natural resources, and public enterprises.

- Increase the chances of success by improving several mutually supportive institutions to tackle corruption. For example, reforms to tax administration will have a greater payoff if tax laws are simplified and the scope for discretion by tax officials is reduced. Efforts to improve integrity in the civil service or to pursue tax evaders will depend on timely and evenhanded court proceedings. Likewise, the benefits of fiscal transparency are enhanced by the presence of a free press.
- Commit to improving institutions assiduously to reduce vulnerabilities to constantly evolving corruption challenges. Adopting new technologies helps to strengthen key fiscal functions, such as budget processes and revenue administration, as well as internal controls. For example, electronic procurement systems (e-procurement) can be a powerful tool to fight corruption by promoting transparency and improving competition (for example, Chile, Korea).

Corruption is also a global problem demanding greater international cooperation to fight it. A growing

number of international initiatives are under way to fight corruption and to make it more difficult to hide corrupt proceeds. However, more could be done:

- Countries should be more proactive in combating bribery by national companies that bribe officials in foreign countries, aggressively pursuing anti-money laundering activities, and reducing opportunities to hide corruption proceeds in opaque destinations.
- Greater transparency in the extractive industries (oil and mining) is needed given the presence of large economic rents and the role of major international players.
- Despite some improvements, international exchange of information remains limited. More cooperation is critical to fight tax evasion and to investigate and prosecute corrupt acts.
- Finally, donors and international institutions can lead by example, by strengthening their own transparency. They can also help by disseminating good practices in institution building. This is the goal of this chapter.

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FISCAL POLICY FOR A CHANGING GLOBAL ECONOMY

With global growth slowing and uncertainty rising, fiscal policy should prepare for potential downturns—balancing stabilization and sustainability objectives—and put more emphasis on reforms to foster long-term inclusive growth in a fast-changing global economy. Shifting demographics, rapid technological progress, and deepening international economic integration bring challenges. To remain effective, fiscal policy needs to adapt to these key trends reshaping the global economy. Where there is limited budgetary room, such adaptation will have to occur through inclusive and growth-friendly budget recomposition. International cooperation to improve the taxation of multinational companies, and to tackle climate change and corruption could amplify and spread the reform gains.

Introduction

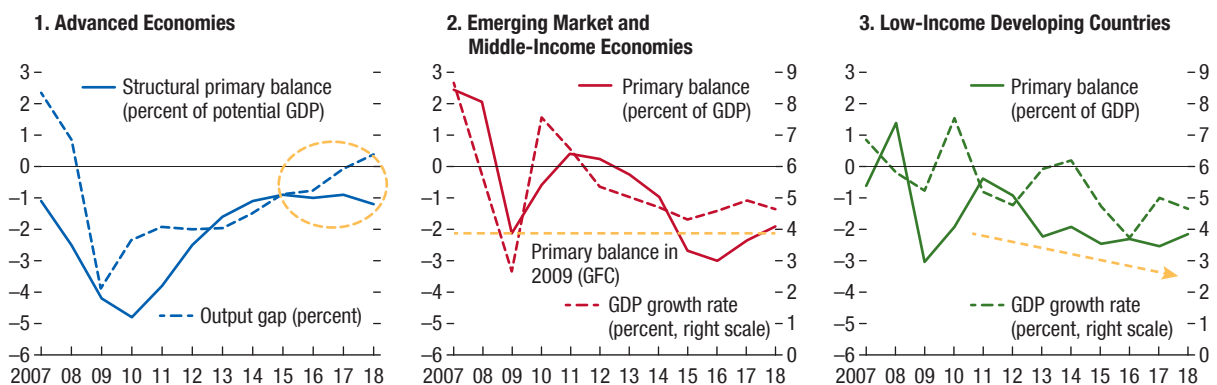
Over the past decade, fiscal policies have focused on economic stabilization, whereas less attention has been given to reforms to foster long-term inclusive growth. Major fiscal expansions across the globe after the 2007–08 global financial crisis helped address demand-side weaknesses, including through support for financial systems in some cases (Figure 1.1). Emerging market and developing economies returned to

expansionary fiscal policies during 2012–15, notably in commodity exporters to cushion the blow from persistently lower commodity prices. In most countries, however, subsequent fiscal adjustment remains incomplete. Advanced economies, on average, have reverted to a neutral fiscal stance rather than gradually restoring depleted fiscal buffers, and in emerging market and developing economies deficits have remained high or risen further. As a result, public debt ratios are now significantly higher than before the global financial crisis in all country groups; and emerging market and developing economies face notably higher interest burdens whereas low interest rates have reduced the interest bill in advanced economies (Figure 1.2). Meanwhile, per capita income growth has trended downward in advanced economies since the mid-1970s and in emerging market and developing economies during the past decade; moreover, income inequality has risen in many advanced economies and remains pervasive in most emerging market and developing economies (Figure 1.3).

Getting fiscal policy right at this juncture requires more attention to growth-friendly and inclusive reforms. Demographic shifts, technological advances, and international economic integration have left fiscal policy, in some cases, unsustainable or outdated.

Figure 1.1. General Government Fiscal Stance and Cyclical Position, 2007–18

Fiscal expansions following the global financial crisis and commodity price shocks have yet to be reversed.

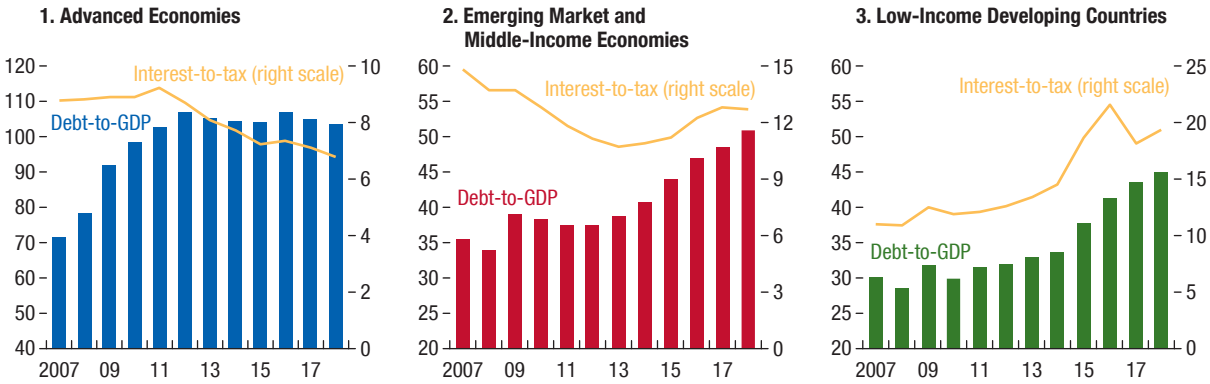


Source: IMF, World Economic Outlook database.

Note: The averages are weighted by PPP-adjusted nominal GDP in US dollars. GFC = global financial crisis; PPP = purchasing power parity.

Figure 1.2. General Government Gross-Debt-to-GDP and Interest-Bill-to-Tax-Revenue, 2007–18
(Percent)

Public debt vulnerabilities are higher today than before the global financial crisis.



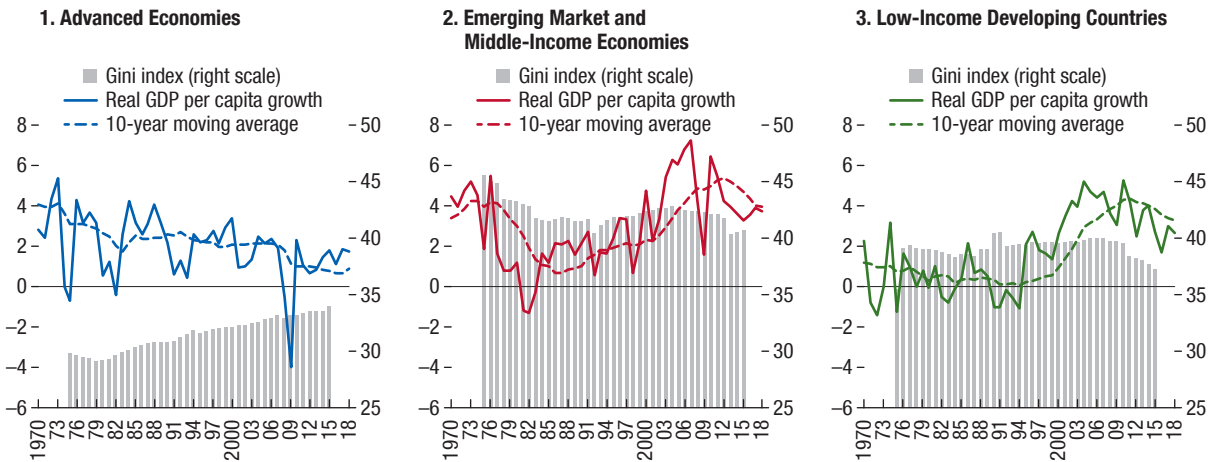
Source: IMF, World Economic Outlook database.

Populations are aging in advanced and some emerging market economies (for example, China), while they are rapidly expanding and urbanizing in many low-income developing countries (for example, sub-Saharan Africa) and several emerging market economies (for example, India). Labor-saving innovations such as automation and digitalization, combined with increasingly integrated global production and distribution, are having a profound impact on the relative contributions

of labor, capital, land, and productivity in generating economic activity. These forces also reshape the relative contributions of skilled versus unskilled labor and manufacturing versus services sectors to economic output within countries. Income gains are increasingly accruing to those at the top, and wealth is becoming more concentrated. Fiscal policies need to adapt to these global trends by upgrading tax, social spending, and active labor market policies, and by providing

Figure 1.3. Real GDP per Capita Growth and Income Inequality, 1970–2018
(Percent)

GDP per capita has trended down and inequality remains a concern across the globe.



Sources: IMF, World Economic Outlook database; Standardized World Income Inequality Database; and IMF staff estimates.
Note: The averages are weighted by PPP-adjusted nominal GDP in US dollars. PPP = purchasing power parity.

the infrastructure needed for better service delivery. Taking such steps will help to foster higher potential growth—which is also key for durably reducing public debt levels—and to ensure that gains from openness and innovation are broadly shared within and across countries. Moreover, it is likely that rising distrust in public institutions and growing support for protectionism reflect, among other causes, the failure of fiscal policy choices to spread the gains from globalization and technological innovation across individuals and localities.

Even so, the case for fiscal restraint remains strong. High debts and deficits, along with the associated financing requirements, leave countries vulnerable to interest rate and other fiscal risks and may be a drag on long-term growth.¹ Gradual fiscal adjustment remains appropriate in many countries in the current environment of slowing but still respectable global growth (see Chapter 1 of the April 2019 *World Economic Outlook*) and a risk of tightening financial conditions worldwide (see Chapter 1 of the April 2019 *Global Financial Stability Report*). Fiscal expansions are usually less effective (that is, fiscal multipliers are lower) when economic slack is limited, and monetary policy is normalizing, because the impact of fiscal stimulus on inflation prospects would lead central banks to offset it (DeLong and Summers 2012; Mineshima, Poplawski-Ribeiro, and Weber 2014). In addition, global policy uncertainty is elevated, particularly surrounding trade relations among the world's largest economies. Uncertainty makes businesses and consumers more cautious in responding to fiscal stimulus, thereby dampening the effects of expansionary fiscal policy (Bloom and others 2018). Moreover, although negative interest-growth rate differentials, as currently experienced by many advanced economies, help fiscal solvency (Blanchard 2019), market confidence is often lost abruptly resulting in sharp increases in borrowing costs. Lowering public debt ratios would create room for countercyclical fiscal policy to operate during the next recession.² Fiscal restraint is important, particularly if rising public debt leads to higher sovereign

bond spreads, which can increase private borrowing costs and further reduce economic activity (Corsetti and others 2013; Zoli 2013).

Fiscal policy also needs to remain nimble in view of the downside risks to the global economy. At present, these risks include further escalation in trade tensions, a sharper slowdown in China, a deterioration in risk sentiment amplified by high public and private debt (totaling \$184 trillion, or 225 percent of global GDP at the end of 2017), financial market volatility, and political developments (including uncertainty about Brexit). Previous studies show that backloading of adjustment could be warranted if, after a significant worsening in the outlook, a recession became likely.³ However, a decision to delay fiscal adjustment should be anchored in a clear and credible medium-term adjustment plan to ensure debt sustainability (Gaspar, Obstfeld, and Sahay 2016).

Against the current backdrop, the case for pursuing growth-friendly and inclusive policies is even stronger. Fiscal restraint alone is unlikely to significantly reduce public debts; robust economic growth is also necessary (Baldacci, Gupta, and Mulas-Granados 2015; Best and others 2019; Cottarelli and Jaramillo 2013).⁴ However, the argument for fiscal policy to focus on measures that raise potential growth extends beyond reducing the public debt burden. The quality of fiscal spending in terms of boosting growth and making it more inclusive has deteriorated in member countries of the Organisation for Economic Co-operation and Development (OECD) in the aftermath of the global financial crisis (Bloch and Fournier 2018). For their part, emerging market and developing economies face significant infrastructure and social spending needs, as well as revenue gaps to meet their Sustainable Development Goals (SDGs) (Gaspar and others 2019).

To remain effective, policies to enhance long-term growth also need to evolve with the key trends reshaping the global economy, including *demographic shifts, technological advances, and global integration*.

¹See Chapter 1 of the April 2018 *Fiscal Monitor* for a review of evidence on why high government debts and deficits are a cause for concern.

²Countries with stronger public sector balance sheets (proxied by higher public sector net financial worth) have faced shallower recessions and returned to growth more quickly than did those with weaker ones (see the October 2018 *Fiscal Monitor*). Similarly, countries entering a financial crisis with weak fiscal positions (proxied by

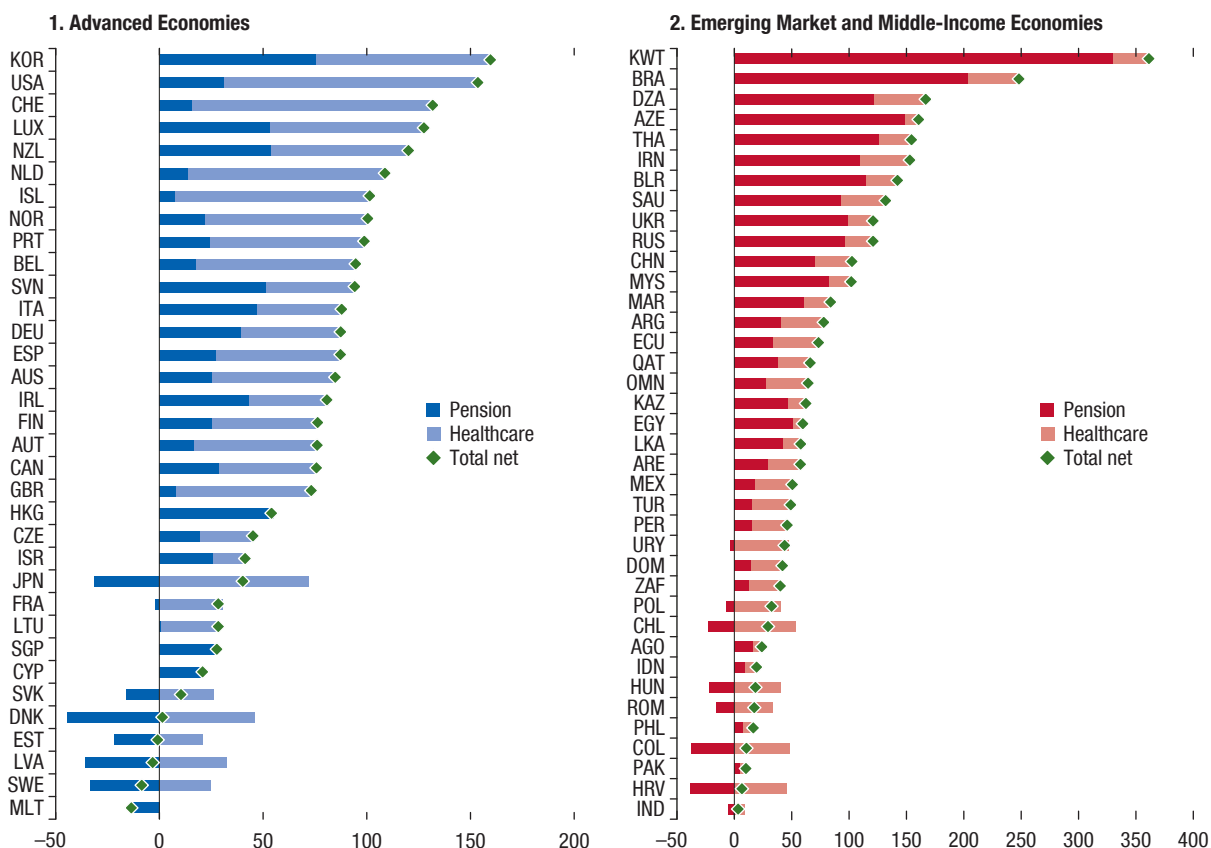
high public debt) have experienced deeper and longer recessions than did those with stronger ones (see the October 2016 *Fiscal Monitor*).

³See Blanchard and Leigh (2013) for an overview of studies on the appropriate speed of fiscal adjustment.

⁴Beyond fiscal restraint, fiscal policy could also remove incentives for debt financing over equity financing that have contributed to the buildup of public and private corporate debt (IMF 2016b).

Figure 1.4. Implicit Liabilities of Pension and Healthcare Spending, 2015–50
(Percent of GDP in present value terms)

Pension and healthcare spending for aging populations will add significantly to government obligations.



Source: IMF staff estimates.

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

Demographic Shifts

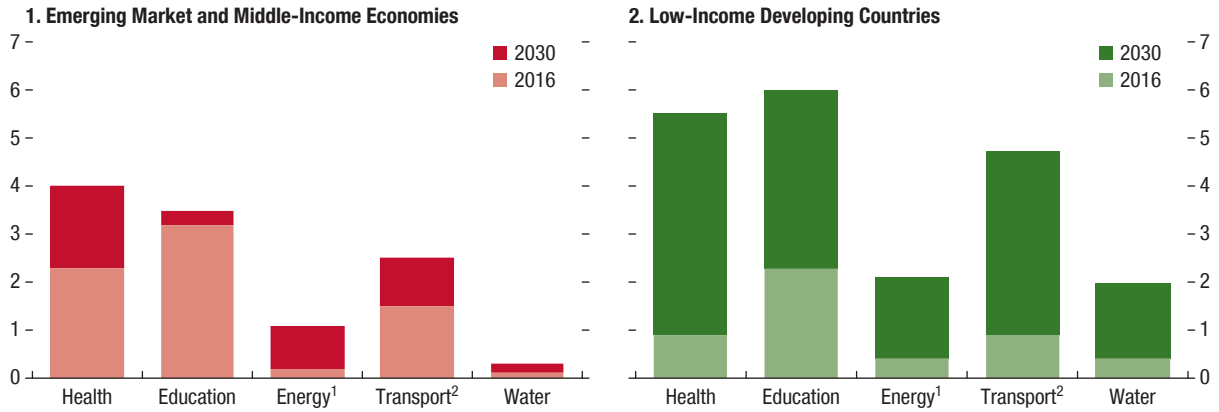
Aging populations will strain public finances in many advanced and emerging market economies as fewer workers will need to finance more retirees. Age-related government expenditures on public pensions and healthcare already account for 17 percent of GDP in advanced economies and 7 percent of GDP in emerging market economies and are projected to rise to 23 percent and 14 percent of GDP, respectively, by 2050. These spending profiles add considerably to the current government obligations when portrayed in net present value terms (Figure 1.4). At the same time, the projected decline in working age populations will reduce payroll tax revenues and social security contributions. To ensure the sustainability of such spending while providing adequate social insurance, further parametric pension and healthcare reforms are necessary in many countries (Clements and

others 2015; IMF 2019a). Migration can also help ease fiscal pressures in aging economies (Clements and others 2015). Rapid labor market integration of migrants would help maximize the public financial benefits (Aiyar and others 2016).

In contrast, rapidly growing and urbanizing populations in low-income developing countries present significant development spending needs. The population of sub-Saharan Africa is projected to increase by 70 percent over the next 30 years, accounting for more than half of the anticipated global population growth (United Nations 2017). This increase will require creating 20 million jobs a year in the region over the next two decades (Abdychev and others 2018). In addition, urban populations are projected to double in many African and Asian countries by 2050 (United Nations 2018). Fiscal policies will need to support the ensu-

Figure 1.5. Additional Spending Required to Achieve High Performance in Selected Sustainable Development Goals in 2030
(Percent of GDP)

Upgrading public services and infrastructure for growing populations requires substantial additional spending.



Source: Gaspar and others 2019.

Note: The data for 2030 refer to the spending in that year as a share of GDP that would be consistent with high performance in the selected Sustainable Development Goal areas reported in the figure. For education and healthcare, additional spending corresponds to the difference between spending as a share of GDP consistent with high performance in 2030 and the 2016 level of spending as a share of GDP. For physical capital, additional spending corresponds to the annualized spending required to close infrastructure gaps between 2019 and 2030.

¹Increase reflects only additional spending need for electricity.

²Increase reflects only additional spending need for roads.

ing need for infrastructure (housing, transportation, energy) and services (education, healthcare), including by encouraging private sector development and participation (Hellebrandt and Mauro 2016). Delivering high performance on core infrastructure and services SDGs will require additional spending in 2030 of \$2.6 trillion (2.5 percent of 2030 world GDP) in emerging market and developing economies (Gaspar and others 2019) (Figure 1.5).

Technological Advances

Existing social spending programs may become inadequate as technological advances reshape employment modalities. The digital economy has given rise to more part-time, short-term, on-demand, and self-employment jobs. Automation has replaced positions that entail routine or repetitive work (see Chapter 3 of the April 2017 *World Economic Outlook*). While boosting productivity and per capita incomes, technological progress has contributed to the decline in labor income shares and favored high-skilled over low-skilled workforces (IMF 2018) (Figure 1.6). These changes have increased income uncertainty and created a need to continuously upgrade skills. Adapting to

these new realities through social spending reforms would support labor mobility and facilitate a more equitable distribution of income.

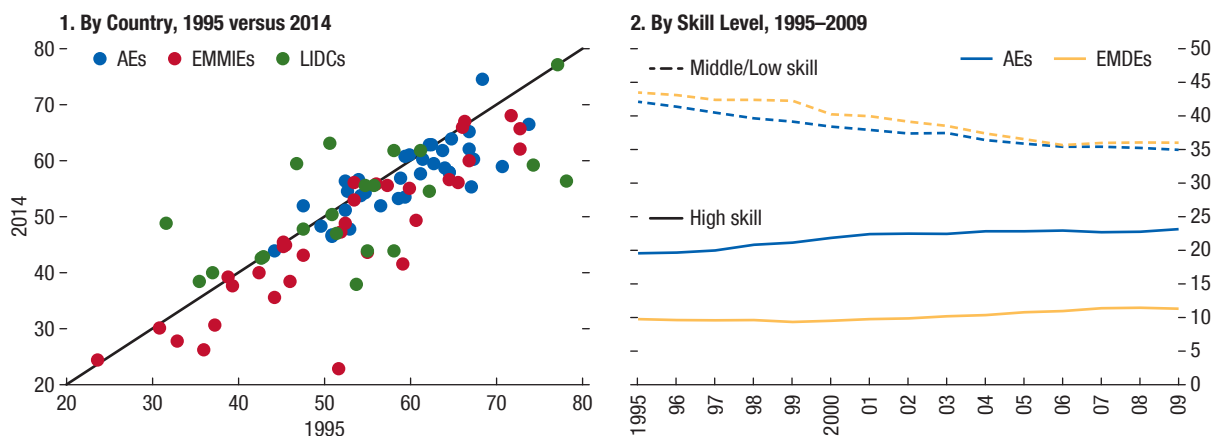
Global Integration

Global integration of production and distribution has altered labor, capital, and goods market dynamics, aiding some and leaving out others, and creating a need to reform tax and spending policies to share its benefits. International economic integration has supported an unprecedented reduction in worldwide poverty in recent decades. However, this welcome development has been accompanied by growing income and wealth inequality within many countries, particularly advanced economies (see the October 2017 *Fiscal Monitor* and Dabla-Norris and others 2015). At the same time, private capital can move easily around the globe. Although this can allow for a more efficient allocation of capital, some of the flows are driven by efforts to avoid national taxes,⁵ wors-

⁵Damgaard and Elkjaer (2017) find that almost 40 percent of all foreign direct investment positions globally (\$12 trillion) pass through empty corporate shells in low-tax jurisdictions with no real activity. Similarly, Tørsløv, Wier, and Zucman (2018) estimate that close to 40 percent of multinational profits are shifted to low-tax jurisdictions each year globally.

Figure 1.6. Evolution of Labor Income Shares since 1995
(Percent of GDP)

The income share of labor has declined globally, in particular for low- and middle-skilled labor.



Source: World Input-Output Database Socio-Economic Accounts.

Note: Labor income share refers to the portion of gross domestic product allocated to labor compensation. AEs = advanced economies; EMDEs = emerging market and developing economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries.

ening inequalities and undermining trust in government (Zucman 2015). With rising protectionism, policies urgently need to be adapted to better distribute the benefits of global economic integration and to ensure that capital movements are driven by economic efficiency considerations rather than by tax avoidance.

Adapting to Global Trends

The pivot to structural reforms that take global economic trends into account will require inclusive and growth-friendly fiscal adjustments or budget recomposition in countries without fiscal space. With elevated debt levels, financing fiscal reforms to support medium-term growth and adapt to the changing global economy will require savings or budget-neutral policy shifts. This puts a premium on (1) expenditure reprioritization, including cost savings from cutting wasteful spending such as energy subsidies and curbing corruption (see Chapter 2); (2) reforms to achieve efficiency gains; and (3) revenue generation, particularly in emerging market and developing economies where tax intake remains relatively low. These reforms can involve difficult tradeoffs and can be politically challenging. To be sustainable, they must be accompanied by efforts to protect vulnerable populations. Synergies across reforms should also be used. For example, reform of education and training policies

to align skills with rapid technological change could encourage people to lengthen their productive work lives and move across regions within a country for better opportunities. These developments would boost growth and could ease financial pressures on public pensions. Budget-neutral tax reforms aimed at enhancing the efficiency of the tax system and recomposition toward infrastructure investment have been shown to yield significant growth dividends (Bussière and others 2017; IMF 2015a). Moreover, making tax systems more progressive would help distribute the benefits of technology and trade more evenly.

International cooperation will be critical to manage transnational concerns with a bearing on national fiscal policies. Corporate taxation, climate change, and corruption (see Chapter 2) are prime candidates to be addressed through a multilateral approach. For instance, multilateral cooperation would provide a more effective and efficient approach to taxing the rents of multinational firms, including those that are highly digitalized (IMF 2019b). Similarly, it can mitigate the negative consequences of international corporate tax competition, which can lead to global tax inefficiencies. A multilateral approach also remains the best framework for national fiscal policies to mitigate and manage climate change, including through carbon taxes (IMF 2019c; Krogstrup and Obstfeld 2018). Moreover, coordinated international support and

financing could help low-income developing countries achieve their SDGs (Gaspar and others 2019).

The rest of this chapter reviews country-specific fiscal trends, as well as policies to adapt to a rapidly changing global economy. The next section presents recent fiscal developments and the outlook. A key take-away is that little fiscal room exists in many countries to respond if risks discussed in the subsequent section materialize. Given the limited progress with rebuilding buffers, the final section reemphasizes the need for fiscal restraint tailored to country-specific circumstances. It also proposes that greater attention be paid

to designing and implementing fiscal policies that are responsive to evolving demographics, advancing technology, and deepening economic integration to foster inclusive growth.

Recent Fiscal Developments and Outlook

This section examines recent fiscal developments in the three main country groups (advanced economies, emerging market and middle-income economies, and low-income developing countries) and provides an overview of the fiscal outlook (Tables 1.1–1.4).

Table 1.1. General Government Fiscal Balance, 2012–24: Overall Balance
(Percent of GDP)

	2012	2013	2014	2015	2016	2017	2018	Projections					
								2019	2020	2021	2022	2023	2024
World	-3.7	-2.8	-2.8	-3.2	-3.4	-2.9	-2.8	-3.3	-3.1	-3.1	-3.1	-3.0	-2.9
Advanced Economies	-5.4	-3.6	-3.0	-2.5	-2.5	-2.1	-2.1	-2.4	-2.3	-2.2	-2.2	-2.1	-2.0
United States ¹	-7.6	-4.1	-3.7	-3.2	-3.9	-3.8	-4.3	-4.6	-4.4	-4.4	-4.4	-4.0	-3.7
Euro Area	-3.7	-3.1	-2.5	-2.0	-1.6	-1.0	-0.6	-1.0	-0.9	-1.0	-1.1	-1.1	-1.1
France	-5.0	-4.1	-3.9	-3.6	-3.4	-2.7	-2.6	-3.3	-2.4	-2.5	-2.5	-2.6	-2.6
Germany	0.0	-0.1	0.6	0.8	0.9	1.0	1.7	1.1	1.1	0.8	0.8	0.7	0.7
Italy	-2.9	-2.9	-3.0	-2.6	-2.5	-2.4	-2.1	-2.7	-3.4	-3.5	-3.7	-3.7	-3.8
Spain ²	-10.5	-7.0	-6.0	-5.3	-4.5	-3.1	-2.7	-2.3	-2.3	-2.4	-2.5	-2.7	-2.8
Japan	-8.6	-7.9	-5.6	-3.8	-3.7	-3.2	-3.2	-2.8	-2.1	-1.9	-1.8	-1.9	-2.1
United Kingdom	-7.5	-5.3	-5.3	-4.2	-2.9	-1.8	-1.4	-1.3	-1.2	-1.1	-0.8	-0.6	-0.6
Canada	-2.5	-1.5	0.2	-0.1	-0.4	-0.3	-0.4	-0.6	-0.6	-0.6	-0.7	-0.6	-0.6
Others	0.5	0.2	0.2	0.1	0.8	1.4	1.3	1.0	0.9	0.9	0.8	0.8	0.8
Emerging Market and Middle-Income Economies	-0.9	-1.4	-2.4	-4.4	-4.8	-4.3	-4.0	-4.8	-4.4	-4.4	-4.4	-4.3	-4.3
Excluding MENAP Oil Producers	-1.9	-2.3	-2.6	-4.0	-4.4	-4.2	-4.1	-4.9	-4.5	-4.5	-4.5	-4.4	-4.3
Asia	-1.6	-1.8	-1.9	-3.3	-3.9	-4.1	-4.7	-5.6	-5.2	-5.1	-5.1	-5.0	-5.0
China	-0.3	-0.8	-0.9	-2.8	-3.7	-3.9	-4.8	-6.1	-5.5	-5.4	-5.4	-5.3	-5.3
India	-7.5	-7.0	-7.1	-7.2	-7.1	-7.0	-6.7	-6.9	-6.6	-6.4	-6.3	-6.2	-6.1
Europe	-0.7	-1.5	-1.4	-2.7	-2.9	-1.9	0.2	-0.8	-1.2	-1.4	-1.6	-1.6	-1.6
Russia	0.4	-1.2	-1.1	-3.4	-3.7	-1.5	2.8	1.0	0.8	0.4	0.0	-0.2	-0.4
Latin America	-2.8	-3.1	-4.8	-6.8	-6.2	-5.6	-4.9	-4.8	-4.2	-4.1	-3.8	-3.6	-3.4
Brazil	-2.5	-3.0	-5.4	-10.2	-9.0	-7.9	-6.8	-7.3	-7.0	-6.9	-6.6	-6.2	-5.8
Mexico	-3.7	-3.7	-4.5	-4.0	-2.8	-1.1	-2.3	-2.5	-2.4	-2.3	-2.3	-2.3	-2.3
MENAP	5.6	3.9	-1.5	-8.5	-9.5	-5.7	-3.4	-4.4	-3.7	-3.8	-3.7	-3.6	-3.7
Saudi Arabia	11.9	5.6	-3.5	-15.8	-17.2	-9.2	-4.6	-7.9	-5.7	-7.2	-6.8	-6.5	-6.4
South Africa	-4.4	-4.3	-4.3	-4.8	-4.1	-4.4	-4.4	-5.1	-5.1	-4.9	-5.0	-5.0	-4.9
Low-Income Developing Countries	-2.0	-3.5	-3.3	-3.9	-3.9	-4.2	-4.0	-4.0	-3.8	-3.6	-3.5	-3.4	-3.4
Nigeria	0.2	-2.3	-2.1	-3.5	-4.0	-5.4	-4.5	-5.1	-4.6	-4.5	-4.5	-4.5	-4.4
Oil Producers	1.6	0.4	-1.2	-4.2	-4.6	-2.7	-0.8	-1.7	-1.3	-1.4	-1.5	-1.5	-1.6
Memorandum													
World Output (percent change)	3.5	3.5	3.6	3.4	3.4	3.8	3.6	3.3	3.6	3.6	3.6	3.6	3.7

Source: IMF staff estimates and projections.

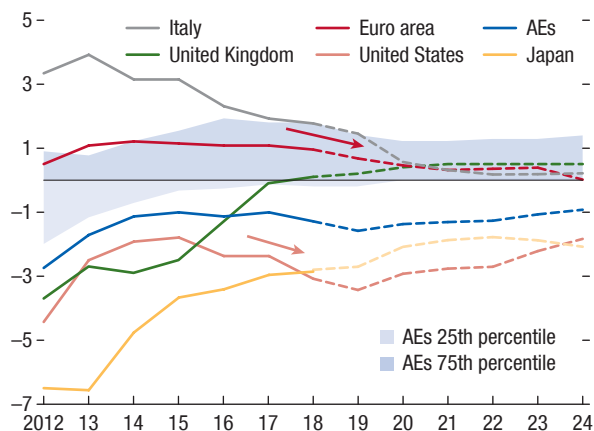
Note: All country averages are weighted by nominal GDP converted to US dollars (adjusted by purchasing power parity only for world output) at average market exchange rates in the years indicated and based on data availability. Projections are based on IMF staff assessments of current policies. In many countries, 2018 data are still preliminary. For country-specific details, see "Data and Conventions" and Tables A, B, C, and D in the Methodological and Statistical Appendix. MENAP = Middle East, North Africa, and Pakistan.

¹ For cross-country comparability, expenditure and fiscal balances of the United States are adjusted to exclude the imputed interest on unfunded pension liabilities and the imputed compensation of employees, which are counted as expenditures under the 2008 System of National Accounts (2008 SNA) adopted by the United States, but not in countries that have not yet adopted the 2008 SNA. Data for the United States in this table may thus differ from data published by the US Bureau of Economic Analysis.

² Including financial sector support.

Figure 1.7. Advanced Economies: General Government Structural Primary Balance, 2012–24
(Percent of potential GDP)

The fiscal stance is easing across major advanced economies.



Source: IMF, World Economic Outlook database.
Note: AEs = advanced economies.

Advanced Economies: Shifting Gears to Fiscal Easing

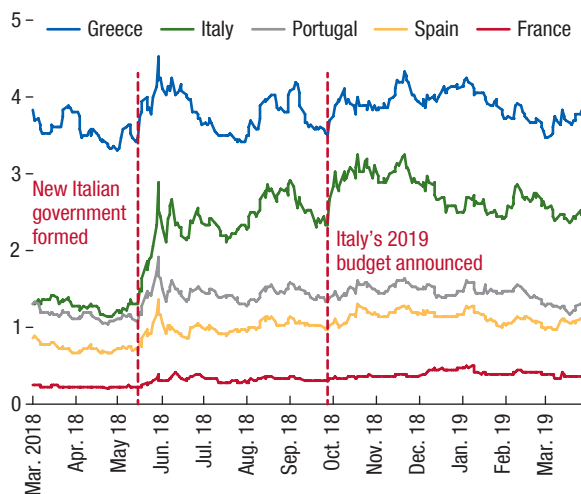
The aggregate fiscal stance for advanced economies eased slightly in 2018, after remaining broadly neutral during 2014–17 (Figure 1.7).⁶ The average structural primary deficit edged up to 1½ percent of GDP in 2018 from 1 percent a year earlier. The easing was driven, to a large extent, by strong procyclical fiscal policy in the United States, mainly through higher discretionary spending and the reduction in effective tax rates under the 2017 Tax Cuts and Jobs Act (TCJA).

In contrast, fiscal policy was tightened in Korea by ¾ percentage point of GDP, partly because of higher marginal tax rates on the top two income tax brackets. In Australia, Canada, Japan, and the United Kingdom, fiscal policy remained broadly neutral in 2018. The aggregate euro area fiscal stance also remained broadly neutral in 2018, with heterogeneity across member countries. The stance was broadly neutral in France, Italy, Portugal, and Spain. It tightened slightly in Germany, reflecting underspending partly because of a

⁶A neutral fiscal stance is defined as a change in the structural primary balance between $-\frac{1}{4}$ and $\frac{1}{4}$ of a percentage point of potential GDP in a year. Any change above $\frac{1}{4}$ (below $-\frac{1}{4}$) of a percentage point is defined as fiscal tightening/contraction (loosening/expansion).

Figure 1.8. Advanced Economies: Spread over 10-Year German Bond Yield, 2018–19
(Percentage points)

Italian spreads widened over the past year, but spillover to other euro area countries was limited.



Source: Bloomberg Finance L.P.
Note: Spread data through March 29, 2019.

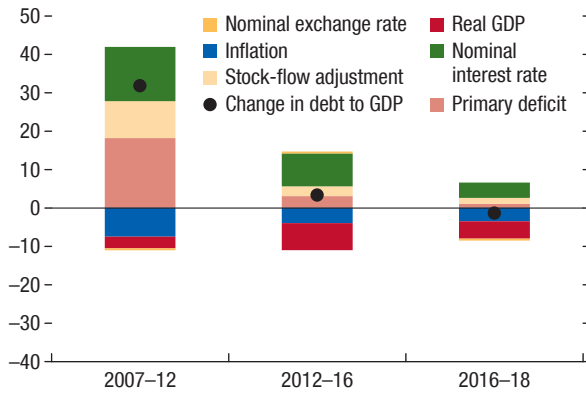
delay in forming the coalition government, and eased in the Netherlands by close to 1 percentage point of GDP, reflecting public investment increases. Interest expenditures, reflecting the European Central Bank's loose monetary policy, continued to fall relative to GDP in most euro area countries. In Italy, spreads rose in the second half of 2018, although spillovers to other euro area economies with high debt levels were limited (Figure 1.8).

Nevertheless, gross public debt as a share of GDP fell in advanced economies in 2018, on average, for a second year in a row. General government debt eased from a recent peak of almost 107 percent of GDP in 2016 to 103½ percent of GDP in 2018. This mainly reflected a decline in nominal interest rates, and, in some cases, a cyclical recovery in primary balances (euro area) (Figure 1.9).⁷ Total government expenditures have declined by almost 5 percentage points of GDP since reaching a peak in 2009 but remain higher than precrisis levels (Figure 1.10). Over the same period, investment as a share of GDP has remained low and below 2007 levels in many countries. Total

⁷A decline in the GDP shares of highly indebted economies (for example, Japan) also contributed to the decline in the weighted average debt ratio for advanced economies.

Figure 1.9. Advanced Economies: Drivers of Change in General Government Debt, 2007–18
(Percent of GDP)

The contribution of primary balances to debt accumulation has diminished since the financial crisis.



Sources: IMF, World Economic Outlook database; and IMF staff estimates.

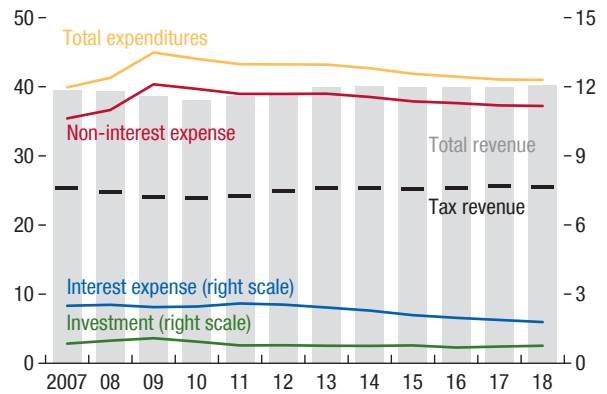
revenues, on the other hand, remained broadly unchanged as a share of GDP.

The fiscal stance in advanced economies is expected to ease further in 2019, mainly driven by expansionary budget plans in major euro area countries, Korea, and the United States, and—to a lesser extent—in Australia. The projected fiscal stimulus in Germany is 2/3 percentage point of GDP in 2019, and includes personal income tax relief and higher spending on public investment, childcare, and education, as well as targeted transfers to reduce poverty risks. The Netherlands plans a stimulus of 1/2 percentage point of GDP, including higher public investment in both physical and human capital. In Italy, the fiscal stance will loosen by 1/3 percentage point of GDP, reflecting current spending increases with a new minimum income program and a partial reversal of past pension reforms, including easing of early retirement rules for a trial period of three years. Korea is also projected to ease fiscal policy by 2/3 percentage point of GDP in 2019, with an increase in welfare spending. In the United States, the structural primary deficit is projected to widen by 1/3 percentage point of GDP in 2019 because of higher mandatory spending, and in Australia by 1/4 percentage point of GDP because of increased infrastructure investment.

Fiscal policy in other large advanced economies is expected to be broadly neutral in 2019 (Canada, France, Japan, and the United Kingdom—albeit with large

Figure 1.10. Advanced Economies: General Government Expenditures and Revenue, 2007–18
(Percent of GDP)

Spending restraint has driven the recent increase in the primary balances.



Source: IMF, World Economic Outlook database.

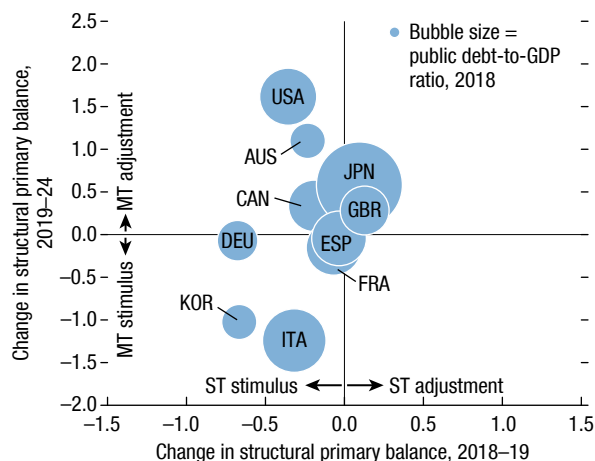
uncertainty surrounding Brexit). In Japan, the planned measures to mitigate the impact of the forthcoming hike in the consumption tax rate—including reduced taxes on car ownership, an extension of tax breaks on housing, rebates on cashless purchases, and infrastructure investment—will keep the fiscal stance neutral in 2019.

The medium-term outlook foresees fiscal adjustment across several large economies outside the euro area (Figure 1.11). The structural primary balance is projected to improve by more than 1 percentage point of GDP in Australia and the United States, and more than 1/2 percentage point of GDP in Japan between 2019 and 2024. The improvement reflects higher tax revenues from stronger terms of trade and suspended corporate tax cuts (Australia), expiration of some provisions in the TCJA after 2022 (United States), and the increase in the consumption tax rate in 2019 (Japan), respectively. Conversely, the fiscal stance is projected to further ease in Italy with a rise in spending on pensions, social assistance, and infrastructure investment, as well as in Korea with a medium-term plan to strengthen the social safety net and create jobs.

General government gross debt in advanced economies is projected to remain broadly unchanged over the medium term, at more than 103 percent of GDP. While public debt is projected to decline in all euro area countries except Italy, it will increase in the United States, and—to a lesser extent—in Japan and Korea (Figure 1.12). Gross public debt in the United States

Figure 1.11. Advanced Economies: Change in General Government Structural Primary Balance, 2018–24
(Percent of GDP)

Medium-term fiscal adjustment is projected for most advanced economies outside the euro area.



Source: IMF, World Economic Outlook database.
Note: Data labels in the figure use International Organization for Standardization (ISO) country codes. MT = medium term; ST = short term.

is expected to exceed 110 percent of GDP by 2024, as headline fiscal deficits remain above 4 percent of GDP until 2024. In several advanced economies, the debt-to-GDP ratio is projected to increase further after 2024, reflecting rising age-related expenditures (Italy, Japan). With high debt burdens and tightening financial conditions, interest payments as a share of GDP are expected to rise in the medium term for some advanced economies (for example, Canada, Italy, Spain, and the United States) (Figure 1.12). These countries, as well as Belgium, France, Japan, and Portugal, all face annual financing requirements ranging from 10 to 40 percent of GDP over the next three years (Table 1.3).

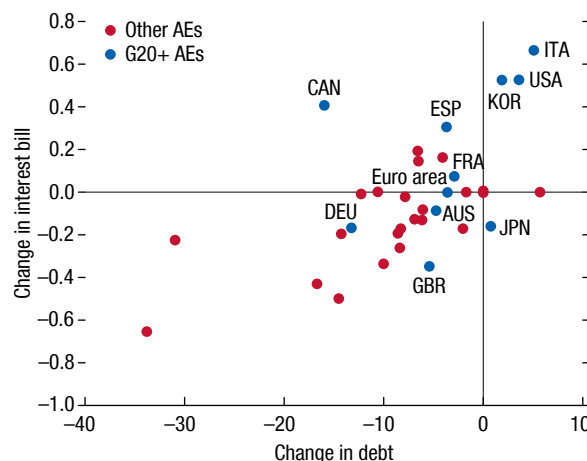
Emerging Market and Middle-Income Economies: Fiscal Consolidation on Hold

Overall fiscal deficits in 2018 declined in emerging market and middle-income economies for a second year in a row, driven primarily by fiscal adjustment in oil exporters (Figure 1.13). The average overall deficit declined from $4\frac{1}{3}$ percent of GDP in 2017 to 4 percent of GDP in 2018, with diverging fiscal developments across countries.

Headline fiscal balances improved for most oil exporters, supported by a pickup of oil prices in the

Figure 1.12. Advanced Economies: Change in General Government Gross Debt and Interest Bill, 2018–24
(Percent of GDP)

The debt-to-GDP ratio is projected to rise materially only in Italy and the United States over the medium term.



Source: IMF, World Economic Outlook database.
Note: Data labels in the figure use International Organization for Standardization (ISO) country codes. AEs = advanced economies; G20+ = Group of Twenty plus Spain.

first half of 2018 and continued adjustments to adapt to lower medium-term oil prices (Angola, Azerbaijan, Gulf countries, Kazakhstan, Russia). In Saudi Arabia, the overall deficit declined by half to $4\frac{1}{2}$ percent of GDP as higher oil and non-oil revenues more than offset additional spending on capital and social benefits, including compensatory payments to households to help ease the impact of energy price and value-added tax (VAT) reforms, and new allowances for public sector workers, retirees, and students. In Russia, the overall budget turned from a deficit of $1\frac{1}{2}$ percent of GDP to a surplus of $2\frac{3}{4}$ percent of GDP, owing to higher oil revenues and expenditure restraint on social benefits and subsidies. In Mexico, however, the overall deficit increased in 2018—after benefiting from a significant one-off central bank transfer in 2017—but remained $\frac{1}{2}$ percentage point of GDP below its 2016 level.

Headline deficits for non-oil exporters deteriorated on average, with some offsetting outturns across countries. General government overall deficits widened in China and Turkey by around 1 percentage point of GDP in 2018 because of demand support in response to slowing growth. The measures included cuts in personal income and value-added taxes, and additional public investment in China; and increases in employment incentives, civil

Table 1.2. General Government Debt, 2012–24
(Percent of GDP)

	2012	2013	2014	2015	2016	2017	2018	Projections								
								2019	2020	2021	2022	2023	2024			
Gross Debt																
World	79.7	78.4	78.7	79.8	82.9	81.7	82.0	82.9	83.0	83.2	83.4	83.4	83.4	83.5	83.5	83.5
Advanced Economies	106.6	105.1	104.6	104.2	106.7	104.6	103.6	104.0	103.7	103.7	103.6	103.6	103.3	103.0	103.0	103.0
United States ¹	103.2	104.8	104.4	104.7	106.9	106.2	105.8	106.7	107.5	108.4	109.4	110.0	110.0	110.3	110.3	110.3
Euro Area	89.7	91.6	91.8	89.9	89.1	86.8	85.0	83.6	81.8	80.2	78.6	77.2	75.7	75.7	75.7	75.7
France	90.6	93.4	94.9	95.6	96.6	98.5	98.6	99.2	98.7	98.2	97.6	97.0	96.2	96.2	96.2	96.2
Germany	79.9	77.4	74.5	70.8	67.9	63.9	59.8	56.9	53.8	51.1	48.5	46.0	43.7	43.7	43.7	43.7
Italy	123.4	129.0	131.8	131.6	131.3	131.3	132.1	133.4	134.1	135.3	136.4	137.5	138.5	138.5	138.5	138.5
Spain	85.7	95.5	100.4	99.3	99.0	98.1	97.0	96.0	94.9	94.1	93.3	92.7	92.3	92.3	92.3	92.3
Japan	229.0	232.5	236.1	231.6	236.3	235.0	237.1	237.5	237.0	237.4	237.8	238.0	238.3	238.3	238.3	238.3
United Kingdom	84.1	85.2	87.0	87.9	87.9	87.1	86.9	85.7	84.4	83.6	82.6	81.5	80.3	80.3	80.3	80.3
Canada ¹	85.5	86.2	85.7	91.3	91.8	90.1	90.6	88.0	84.7	81.3	78.0	74.9	72.0	72.0	72.0	72.0
Emerging Market and Middle-Income Economies	37.5	38.7	40.8	43.9	46.8	48.5	50.8	53.4	55.1	56.8	58.4	59.8	61.2	61.2	61.2	61.2
Excluding MENAP Oil Producers	39.9	41.3	43.5	45.9	48.5	50.1	52.7	55.2	57.0	58.7	60.4	61.8	63.1	63.1	63.1	63.1
Asia	39.8	41.5	43.6	44.8	47.2	49.4	52.0	55.5	58.2	60.7	63.1	65.0	66.8	66.8	66.8	66.8
China	34.3	37.0	39.9	41.1	44.2	46.8	50.5	55.4	59.5	63.2	66.7	69.7	72.4	72.4	72.4	72.4
India	69.1	68.5	67.8	69.9	69.0	69.8	69.8	69.0	67.8	66.5	65.3	64.2	63.1	63.1	63.1	63.1
Europe	25.7	26.6	28.7	31.0	31.9	30.2	29.4	29.6	29.4	29.6	30.0	30.5	30.8	30.8	30.8	30.8
Russia	11.9	13.1	16.1	16.4	16.1	15.5	14.0	13.8	13.9	14.1	14.7	15.9	16.9	16.9	16.9	16.9
Latin America	48.8	49.5	51.5	55.1	58.8	62.6	69.5	70.0	70.0	70.0	70.0	69.7	69.5	69.5	69.5	69.5
Brazil ²	62.2	60.2	62.3	72.6	78.3	84.1	87.9	90.4	92.4	94.1	95.6	96.5	97.6	97.6	97.6	97.6
Mexico	42.7	45.9	48.9	52.8	56.8	54.0	53.6	54.1	54.5	54.5	54.5	54.4	54.3	54.3	54.3	54.3
MENAP	22.8	23.5	23.6	33.3	40.7	40.0	38.6	41.2	41.4	41.6	41.5	42.2	43.2	43.2	43.2	43.2
Saudi Arabia	3.0	2.1	1.6	5.8	13.1	17.2	19.1	23.7	25.4	27.6	28.1	32.4	37.5	37.5	37.5	37.5
South Africa	41.0	44.1	47.0	49.3	51.5	53.0	56.7	57.8	59.8	61.8	63.5	65.1	66.5	66.5	66.5	66.5
Low-Income Developing Countries	31.8	32.9	33.7	37.7	41.3	43.7	45.0	45.1	44.5	44.1	43.6	43.2	42.8	42.8	42.8	42.8
Nigeria	17.7	18.6	17.5	20.3	23.4	25.3	28.4	30.1	31.4	32.7	33.8	34.9	35.9	35.9	35.9	35.9
Oil Producers	32.5	33.3	34.2	39.8	43.2	42.7	43.8	44.1	43.2	42.6	41.9	41.6	41.3	41.3	41.3	41.3
Net Debt																
World	65.7	64.8	65.0	66.6	69.3	67.7	68.1	69.3	69.9	70.3	71.1	71.3	71.4	71.4	71.4	71.4
Advanced Economies	76.5	75.7	75.5	75.6	77.4	75.4	75.4	76.4	77.2	77.7	78.6	78.9	79.0	79.0	79.0	79.0
United States ¹	80.3	80.9	80.5	80.4	81.7	80.7	80.9	83.4	86.2	88.2	91.3	93.0	94.3	94.3	94.3	94.3
Euro Area	72.1	74.6	75.0	73.8	72.8	70.9	68.9	67.9	66.7	65.5	64.4	63.4	62.3	62.3	62.3	62.3
France	80.0	83.0	85.5	86.4	87.5	87.5	87.6	88.2	87.7	87.3	86.7	86.0	85.2	85.2	85.2	85.2
Germany	58.4	57.5	54.0	51.0	48.2	44.5	41.0	38.6	36.2	34.1	32.1	30.2	28.4	28.4	28.4	28.4
Italy	111.6	116.7	118.8	119.5	118.9	119.0	120.1	121.5	122.5	123.8	125.2	126.6	127.8	127.8	127.8	127.8
Spain	71.5	80.8	85.2	85.3	86.2	84.8	84.1	83.5	82.9	82.4	82.1	81.9	81.8	81.8	81.8	81.8
Japan	146.7	146.4	148.5	147.8	152.6	151.1	153.2	153.6	153.2	153.6	153.9	154.1	154.5	154.5	154.5	154.5
United Kingdom	75.5	76.8	78.8	79.3	78.8	77.5	77.5	76.2	75.0	74.2	73.2	72.1	70.9	70.9	70.9	70.9
Canada ¹	29.0	29.8	28.6	28.5	28.8	27.6	27.9	26.6	25.8	25.0	24.3	23.6	23.0	23.0	23.0	23.0
Emerging Market and Middle-Income Economies	22.4	22.6	23.9	28.3	34.2	35.6	36.4	38.6	39.6	40.5	41.4	42.1	42.6	42.6	42.6	42.6
Asia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Europe	32.0	31.6	29.7	28.8	31.1	30.1	30.3	30.9	30.4	30.5	30.9	31.0	30.9	30.9	30.9	30.9
Latin America	29.3	29.3	31.9	35.2	40.7	43.0	43.7	45.3	46.6	47.6	48.4	48.9	49.4	49.4	49.4	49.4
MENAP	-3.2	-4.0	-0.7	14.6	28.2	28.9	30.8	36.2	38.9	41.2	43.5	45.6	47.5	47.5	47.5	47.5
Low-Income Developing Countries	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Source: IMF staff estimates and projections.

Note: All country averages are weighted by nominal GDP converted to US dollars (adjusted by purchasing power parity only for world output) at average market exchange rates in the years indicated and based on data availability. Projections are based on IMF staff assessments of current policies. In many countries, 2018 data are still preliminary. For country-specific details, see "Data and Conventions" and Tables A, B, C, and D in the Methodological and Statistical Appendix.

MENAP = Middle East, North Africa, and Pakistan.

¹ For cross-country comparability, gross and net debt levels reported by national statistical agencies for countries that have adopted the 2008 System of National Accounts (Australia, Canada, Hong Kong SAR, United States) are adjusted to exclude unfunded pension liabilities of government employees' defined-benefit pension plans.² Gross debt refers to the nonfinancial public sector, excluding Eletrobras and Petrobras, and includes sovereign debt held on the balance sheet of the central bank.

Table 1.3. Selected Advanced Economies: Gross Financing Needs, 2019–21
(Percent of GDP)

	2019			2020			2021		
	Maturing Debt	Budget Deficit	Total Financing Need	Maturing Debt ¹	Budget Deficit	Total Financing Need	Maturing Debt ¹	Budget Deficit	Total Financing Need
Australia	1.6	1.5	3.0	2.6	0.7	3.3	2.4	0.0	2.3
Austria	7.6	0.1	7.7	5.8	0.3	6.0	4.8	0.3	5.1
Belgium	15.8	1.2	17.0	15.6	1.4	17.0	15.3	1.4	16.7
Canada	8.9	0.6	9.6	10.4	0.6	11.1	8.2	0.6	8.8
Czech Republic	4.4	-1.1	3.3	3.2	-0.8	2.3	2.6	-0.6	2.0
Denmark	4.0	0.4	4.4	3.4	0.4	3.8	4.3	0.3	4.6
Finland	5.7	0.3	6.0	7.7	0.0	7.8	4.1	-0.1	4.0
France	10.2	3.3	13.5	11.4	2.4	13.8	10.6	2.5	13.1
Germany	4.7	-1.1	3.5	4.8	-1.1	3.8	2.9	-0.8	2.1
Iceland	2.2	-0.7	1.5	4.1	-0.5	3.7	1.9	-0.5	1.3
Ireland	7.2	0.0	7.2	8.2	-0.2	8.0	3.4	-0.3	3.1
Italy	21.0	2.7	23.7	20.6	3.4	24.0	21.2	3.5	24.7
Japan	36.7	2.8	39.5	36.3	2.1	38.5	31.2	1.9	33.0
Korea	2.0	-2.1	-0.1	2.9	-1.5	1.4	2.9	-1.1	1.9
Lithuania	3.2	-0.4	2.8	5.2	-0.3	4.9	5.1	-0.3	4.8
Malta	5.7	-0.6	5.1	5.5	-0.6	4.9	5.2	-0.7	4.5
Netherlands	6.2	-1.0	5.1	6.0	-0.8	5.3	4.2	-0.8	3.5
New Zealand	4.5	-0.1	4.4	3.6	-0.7	3.0	4.6	-1.0	3.6
Portugal	13.7	0.6	14.4	12.9	0.1	13.1	15.8	-0.4	15.4
Slovak Republic	2.9	0.0	2.9	4.0	-0.3	3.7	2.0	-0.3	1.6
Slovenia	6.2	-0.5	5.7	4.3	-0.2	4.1	5.9	-0.4	5.5
Spain ²	14.4	2.3	16.7	14.2	2.3	16.5	14.1	2.4	16.5
Sweden	4.3	-0.5	3.7	3.7	-0.3	3.4	1.2	-0.3	0.9
Switzerland	1.6	-0.3	1.4	1.4	-0.2	1.2	1.3	-0.2	1.1
United Kingdom	8.2	1.3	9.5	7.4	1.1	8.5	6.6	1.1	7.7
United States ³	20.5	4.6	25.1	20.5	4.4	24.9	17.6	4.4	21.9
Average	16.5	2.6	19.1	16.5	2.4	19.0	14.3	2.4	16.7

Sources: Bloomberg Finance L.P.; and IMF staff estimates and projections.

Note: For most countries, data on maturing debt refer to central government securities. For some countries, general government deficits are reported on an accrual basis. For country-specific details, see "Data and Conventions," and Table B in the Methodological and Statistical Appendix.

¹ Assumes that short-term debt outstanding in 2019 and 2020 will be refinanced with new short-term debt maturing in 2020 and 2021, respectively. Countries projected to have budget deficits in 2019 or 2020 are assumed to issue new debt based on the maturity structure of debt outstanding at the end of 2018.

² Data refer to the general government on a consolidated basis. Data are from staff estimates and not based on Ministry of Finance data for upcoming amortization.

³ For cross-country comparability, expenditure and fiscal balances of the United States are adjusted to exclude the imputed interest on unfunded pension liabilities and the imputed compensation of employees, which are counted as expenditures under the 2008 System of National Accounts (2008 SNA) adopted by the United States, but not in countries that have not yet adopted the 2008 SNA. Data for the United States in this table may thus differ from data published by the US Bureau of Economic Analysis.

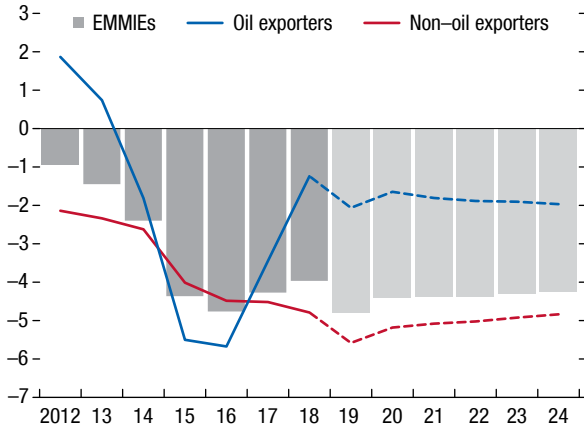
servant salaries, and pensions in Turkey. In Pakistan, the overall deficit was 2½ percentage points of GDP looser than budgeted, owing to underperforming revenues and expenditure overruns related to the political cycle. In contrast, overall deficits declined in Argentina and Egypt by 1½ and 1 percentage point of GDP, respectively, largely from higher VAT collection and increased export taxes. In Brazil, the overall deficit also declined by 1 percentage point of GDP as a result of a reduction in net interest payments, while the primary deficit remained broadly unchanged at 1¾ percent of GDP. In India, the general government deficit declined by ½ percentage point of GDP in fiscal year 2018/19, although a recently announced farm-income-support program

alongside weaker-than-expected goods and services tax revenues led to a deterioration relative to the previous central government budget outturn.

The general government debt-to-GDP ratio for the group rose by 2½ percentage points in 2018 to almost 51 percent of GDP on average, a level not seen since the early 1980s. More than half of those countries saw debt rising in 2018, and almost a fifth had debt ratios exceeding 70 percent of GDP—the threshold beyond which debt sustainability is considered at high risk for emerging market economies. The rise in debt was mainly driven by currency depreciations against the US dollar and the increase in government borrowing costs. The sharp depreciation against the US dollar

Figure 1.13. Emerging Market and Middle-Income Economies: General Government Overall Balance, 2012–24
(Percent of GDP)

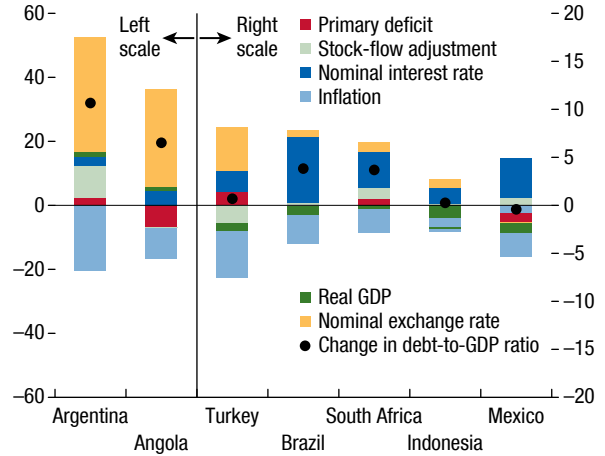
After narrowing in the past three years, the average overall deficit is projected to widen in 2019.



Source: IMF, World Economic Outlook database.
Note: EMMIEs = emerging market and middle-income economies.

Figure 1.14. Emerging Market and Middle-Income Economies: Drivers of Change in General Government Debt, 2017–18
(Percent of GDP)

Exchange rate and interest rate shocks boosted debt ratios in several countries with debt vulnerabilities.



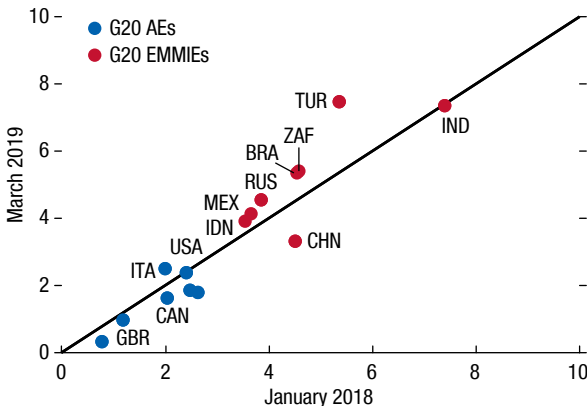
Source: IMF, World Economic Outlook database.

led to a spike in government debt in countries with high exposure to foreign-currency-denominated debt (Angola, Argentina) (Figure 1.14, left side). As global financial conditions tightened in 2018, interest rates on sovereign bonds denominated in US dollars rose

for several large emerging markets that rely on external financing (Indonesia, Mexico, Turkey) (Figure 1.14, right side; Figure 1.15). Risk premiums, measured by the spreads over 10-year US Treasury yields, have risen by 40 percent on average in selected economies since

Figure 1.15. Emerging Market and Middle-Income Economies: Sovereign 10-Year US Dollar Bond Yields, 2018–19
(Percent)

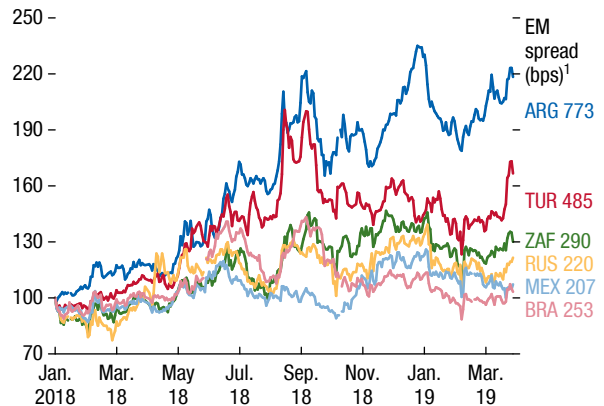
Tighter financial conditions in 2018 led to an increase in bond yields in large emerging markets.



Source: Bloomberg Finance L.P.
Note: AEs = advanced economies; EMMIEs = emerging market and middle-income economies; G20 = Group of Twenty.

Figure 1.16. Emerging Market and Middle-Income Economies: Sovereign Spreads over 10-Year US Treasury Bond Yields, 2018–19
(Index = 100 for January 1, 2018)

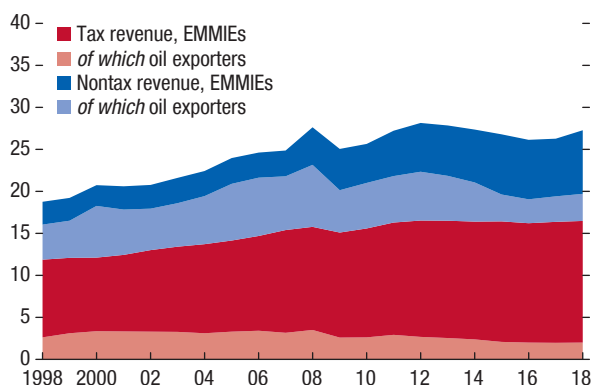
Spreads have widened in many emerging markets over the past year.



Source: Bloomberg Finance L.P.
Note: bps = basis points; EM = emerging market. Data labels in the figure use International Organization for Standardization (ISO) country codes.
¹Actual sovereign spreads as of March 29, 2019.

Figure 1.17. Emerging Market and Middle-Income Economies: General Government Revenue, 1998–2018
(Percent of GDP)

Revenue has remained broadly flat since 2010, despite a drop in nontax revenue of oil exporters.



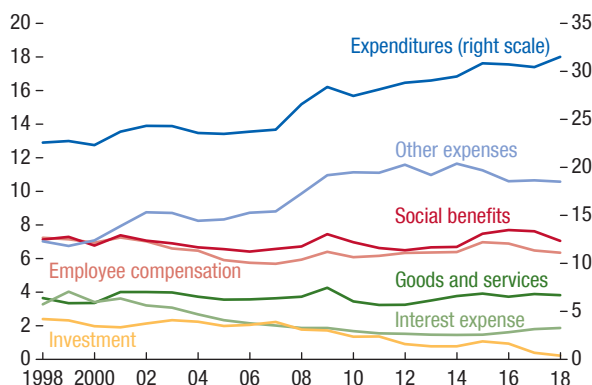
Source: IMF, World Economic Outlook database.
Note: EMMIEs = emerging market and middle-income economies.

the beginning of 2018, in part driven by deteriorating investor confidence (Figure 1.16). For economies that are less reliant on global market financing or issue debt largely in local currency (Brazil, India, South Africa) domestic financial conditions also tightened in 2018. Thus, many economies saw rising interest burdens, which exceeded 20 percent of total revenue in 2018 in Egypt, Pakistan, and Sri Lanka. As a result, emerging market economies have become vulnerable to rollover risks if they face large financing needs (see Table 1.4).

Fiscal developments in 2018 did not reverse the structural revenue and spending trends of the past decade. Tax-to-GDP ratios remained flat on average (Figure 1.17), while spending rigidities on wage bills and transfers continued to crowd out public investment (Figure 1.18). Of note, nontax revenues increased in non-oil exporters since 2012, largely reflecting gains from improved administration of the social security system in China. This was offset by a decline in nontax revenues among oil exporters during 2012–15, partly because of lower dividends from state-owned oil companies. Meanwhile, expenditures as a share of GDP have declined in oil exporters, reflecting both current and capital spending cuts, but have continued to rise across most categories for non-oil exporters, apart from investment spending, which has remained low over the years (Figure 1.19).

Figure 1.18. Emerging Market and Middle-Income Economies: General Government Expenditures, 1998–2018
(Percent of GDP)

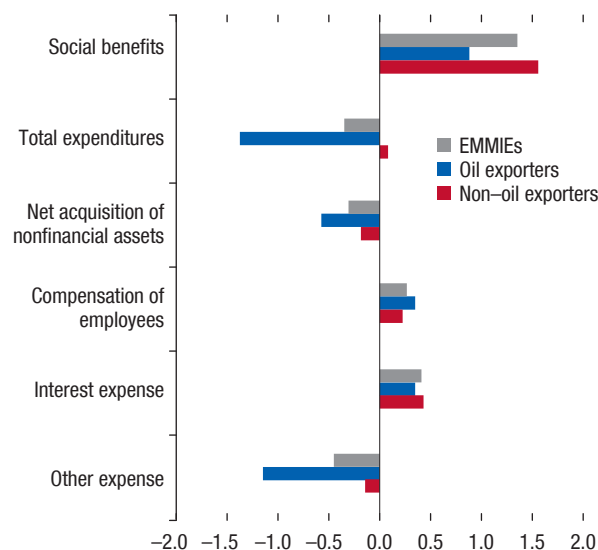
Total expenditure has increased following the global financial crisis, but investment continued to fall.



Source: IMF, World Economic Outlook database.

Figure 1.19. Emerging Market and Middle-Income Economies: Change in General Government Expenditures, 2012–18
(Percent of GDP)

Spending on social benefits and interest increased substantially since 2012.



Source: IMF, World Economic Outlook database.
Note: EMMIEs = emerging market and middle-income economies.

Table 1.4. Selected Emerging Market and Middle-Income Economies: Gross Financing Needs, 2019–20
(Percent of GDP)

	2019			2020		
	Maturing Debt	Budget Deficit	Total Financing Need	Maturing Debt	Budget Deficit	Total Financing Need
Argentina	12.7	2.7	15.3	8.4	1.5	9.8
Brazil	7.7	7.3	15.0	12.6	7.0	19.5
Chile	0.6	1.8	2.4	1.2	1.5	2.7
Colombia	2.3	2.6	4.9	1.6	1.0	2.7
Croatia	8.6	0.0	8.7	8.4	-0.1	8.3
Dominican Republic	3.6	3.1	6.7	3.2	3.3	6.5
Ecuador	5.6	0.0	5.6	6.1	-3.8	2.3
Egypt	28.0	8.6	36.6	25.9	6.5	32.4
Hungary	13.6	1.9	15.5	13.2	1.9	15.1
India	3.8	6.9	10.7	3.7	6.6	10.4
Indonesia	1.9	1.8	3.8	1.7	1.8	3.5
Malaysia	7.0	3.0	10.0	6.5	2.5	9.1
Mexico	7.6	2.5	10.1	7.9	2.4	10.3
Morocco	5.5	3.7	9.1	5.5	3.3	8.7
Pakistan	35.1	7.2	42.3	37.2	8.7	46.0
Peru	2.5	1.9	4.4	2.4	1.3	3.7
Philippines	3.1	1.2	4.3	2.9	1.4	4.3
Poland	5.7	2.2	7.9	5.0	3.1	8.1
Romania	4.2	3.8	8.0	3.8	4.1	8.0
Russia	1.3	-1.0	0.4	1.2	-0.8	0.4
South Africa	9.0	5.1	14.0	8.6	5.1	13.7
Sri Lanka	13.5	4.6	18.1	12.0	3.5	15.5
Thailand	5.3	0.1	5.4	5.2	0.7	5.9
Turkey	3.9	3.1	7.1	4.7	3.5	8.1
Ukraine	5.7	2.3	8.1	6.0	2.3	8.3
Uruguay ¹	15.2	2.7	17.9	17.1	2.6	19.7
Average	6.1	3.8	9.9	6.5	3.6	10.2

Source: IMF staff estimates and projections.

Note: Data in the table refer to general government data. For some countries, general government deficits are reported on an accrual basis. For country-specific details, see “Data and Conventions,” and Table C in the Methodological and Statistical Appendix.

¹ Data correspond to the consolidated public sector (as presented in the authorities’ budget documentation), which includes the nonfinancial public sector, local governments, Banco Central del Uruguay, and Banco de Seguros del Estado.

The overall deficit is expected to increase in 2019 before gradually declining over the medium term, but debt is expected to continue trending up (see Table 1.5 on the fiscal outlook in selected emerging market and middle-income economies in 2019 and beyond).

- The increase in the 2019 general government deficit is largely driven by the projected stimulus in China (about 1¼ percentage point of GDP) to mitigate the growth slowdown, and partly by the deteriorating fiscal positions among oil exporters—particularly Russia and Saudi Arabia—that are expected to face lower oil revenues and plan to increase spending. In contrast, several countries plan fiscal adjustment through expenditure rational-

ization or increased tax revenue (Argentina, Egypt, Malaysia, Turkey).

- The medium-term adjustment is expected to rely on spending restraint (over 1 percentage point of GDP by 2024) without mobilizing higher revenues. Countries aim to contain current spending, including pensions and the wage bill (Brazil), while protecting capital spending (India) or increasing it (Indonesia). Overall investment spending is expected to edge up steadily (cumulatively by ½ percentage point of GDP by 2024), albeit decline in oil exporters. Meanwhile, total revenues as a share of GDP are expected to further decline over the medium term. For oil-exporting countries, this reflects the expected moderation of oil

Table 1.5. Selected Emerging Market and Middle-Income Economies: Fiscal Outlook in 2019 and over the Medium Term

Argentina	The authorities plan a zero-primary balance in 2019 at the federal level by raising taxes on exports, drawing down assets of the national pension fund, scaling down energy subsidies, and reducing other non-entitlement spending. Medium-term budget projections foresee a primary surplus of 1 percent of GDP by 2020.
Brazil	To comply with the constitutional expenditure ceiling, the authorities plan to implement pension reform and contain personnel spending. However, even complying with the constitutional spending ceiling, IMF staff projections are for public debt to continue increasing to just below 100 percent of GDP in 2024.
China	The government plans a more proactive fiscal stance for 2019 that would include reductions in the value-added, personal income, and corporate income tax rates. General government debt is projected to rise over the medium term to over 72 percent of GDP by 2024.
India	The interim federal government budget of February 2019 envisages a slower pace of adjustment than previously planned, primarily due to the newly announced rural farm income-support scheme. IMF staff projections are that the achievement of the federal government deficit target of 3 percent of GDP will likely be delayed and that the debt target of 40 percent of GDP will be achieved after 2024.
Indonesia	The authorities intend to keep the deficit unchanged at 1.8 percent of GDP in 2019 and increase tax revenue by at least 3 percentage points of GDP in five years through tax policy and administration reforms. Extra revenue is to be spent on infrastructure, health, education, and structural reforms. In the medium term, public debt is projected to remain below 30 percent of GDP.
Mexico	The government targets a public sector borrowing requirement of 2½ percent of GDP in 2019—corresponding to a general government primary surplus of more than 1 percent of GDP—which would fall slightly over the medium term and stabilize the public debt around its current level. The 2019 budget envisages significant expenditure reallocation, including public wage cuts and higher investment in the energy sector.
Russia	The government temporarily relaxed its fiscal rule, by allowing a primary deficit of ½ percent of GDP at the benchmark oil price for the next six years. The authorities increased the main value-added tax rate in January 2019 and plan to increase spending by about 1 percentage point of GDP per year (half to be spent on infrastructure, and half on health, education, and other current spending).
Saudi Arabia	The government's medium-term fiscal plan envisages a balanced budget by 2023, with increased spending on infrastructure development offset by continued non-oil revenue and energy price reforms after 2019. IMF staff projections are for continued fiscal deficits through 2024 reflecting lower oil prices and higher spending than envisaged by the authorities.
South Africa	The government's medium-term budget envisages a widening of the overall deficit to 4.5 percent of GDP in 2019 to accommodate financing for the public utility Eskom, before declining to 4 percent of GDP over the medium term. IMF staff projections suggest that additional consolidation in the next few years would be needed to stabilize the public debt well below 60 percent of GDP.
Turkey	The government's medium-term fiscal plan projects the overall deficit to remain below 2 percent of GDP through 2019–21, helped by spending cuts, including on public investment. IMF staff projections are that the overall deficit will gradually fall below 3 percent of GDP by 2024 and that debt will remain below 30 percent of GDP over the medium term.

Sources: IMF, World Economic Outlook database; and IMF staff reports.

prices, whereas non-oil revenue is expected to pick up in some cases (Kuwait, Russia). The projected improvement in the overall fiscal balance of emerging market and middle-income economies will not be sufficient to stabilize debt over the medium term, particularly in non-oil-exporting countries (Brazil, China).

Low-Income Developing Countries: Fiscal Expansion Slows

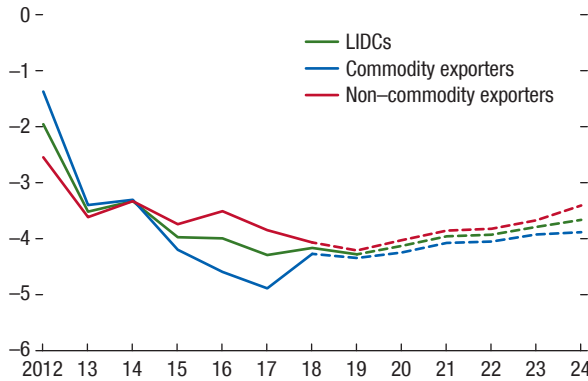
The overall fiscal deficit in low-income developing countries tightened slightly in 2018 to 4 percent of GDP. An improvement in the average overall deficit

of commodity exporters more than offset the slight deterioration in non-commodity exporters' balances (Figure 1.20). Higher commodity prices in the first half of 2018, particularly for oil, boosted revenue in oil exporters. Commodity exporters used half the increased fiscal space to cover additional spending on interest and other recurrent activities and the other half for deficit reduction. Non-commodity exporters' balances slipped further as overall expenditures rose slightly faster than revenues (Figure 1.21).

In 2018, weighted-average expenditures increased by ½ percentage point of GDP in low-income developing countries, including ¾ percentage point of GDP in commodity exporters. Nigeria increased spending on

Figure 1.20. Low-Income Developing Countries: General Government Overall Balance, 2012–24
(Percent of GDP)

The average fiscal deficit has bottomed out in low-income developing countries.

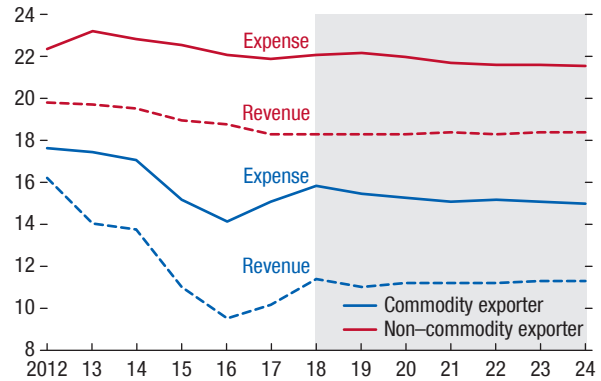


Source: IMF, World Economic Outlook database.
Note: LIDCs = low-income developing countries.

capital projects while implicit fuel subsidies rose amid higher oil prices; and Ghana increased its spending by more than 3½ percentage points of GDP in large part to address banking sector problems. Among non-commodity exporters, significant increases in recurrent spending (Bangladesh) or transfers (Nepal) and capital

Figure 1.21. Low-Income Developing Countries: General Government Revenue and Expense, 2012–24
(Percent of GDP)

In line with commodity price developments, revenues and expenditures rose notably in commodity exporters in 2017–18.

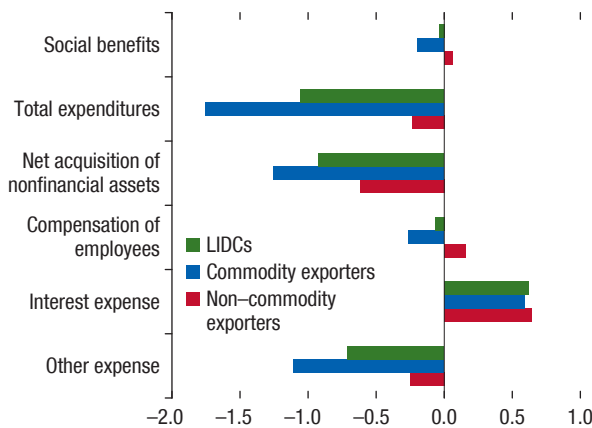


Source: IMF, World Economic Outlook database.

investments (Moldova, Nepal, Rwanda, Uganda) were partially offset by investment cuts in other countries (Ethiopia, Honduras, Kenya, Kyrgyz Republic). Between 2012 and 2018, the expenditure composition of low-income developing countries shifted away from public investments that could support long-term growth to servicing existing debt burdens (Figure 1.22). For the group, the proportion of tax revenue spent on servicing debt increased by 7 percentage points between 2012 and 2018 to 19½ percent, and increased particularly sharply in Bangladesh, Kenya, Nigeria, and Zambia (Figure 1.23). In Ghana, interest expenditures consume about 40 percent of domestic tax revenue.

Figure 1.22. Low-Income Developing Countries: Change in General Government Expenditures, 2012–18
(Percent of GDP)

Interest expense has crowded out investment.

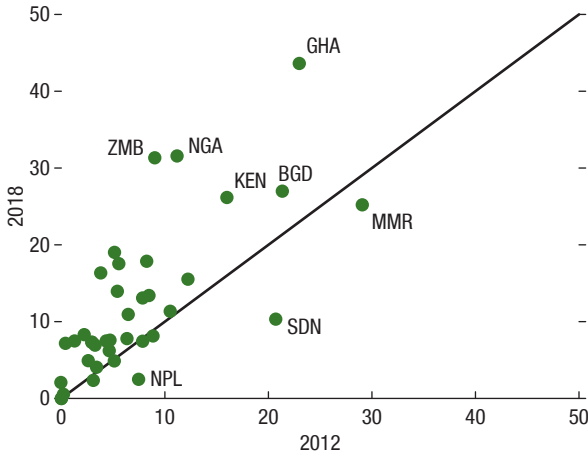


Source: IMF, World Economic Outlook database.
Note: LIDCs = low-income developing countries.

Public debt rose further in 2018 and reached 45 percent of GDP. As in prior years, debt drivers varied considerably across countries. General government debt increased by more than 2 percentage points of GDP in Bangladesh (deficit and exchange rate depreciation), Ethiopia (deficit and financial asset accumulation to prefinance public investment), Ghana (deficit and exchange rate depreciation), Kenya (deficit), and Nigeria (deficit), and by close to 10 percentage points of GDP in Zambia (deficit and exchange rate depreciation). The share of low-income developing countries in debt distress or at high risk of debt distress increased by almost a half from 2012 to 43 percent in 2018 (Figure 1.24).

Figure 1.23. Low-Income Developing Countries: General Government Interest Expense, 2012–18
(Percent of tax revenue)

As debt levels rise, interest payments are consuming evermore tax revenue.



Source: IMF, World Economic Outlook database.

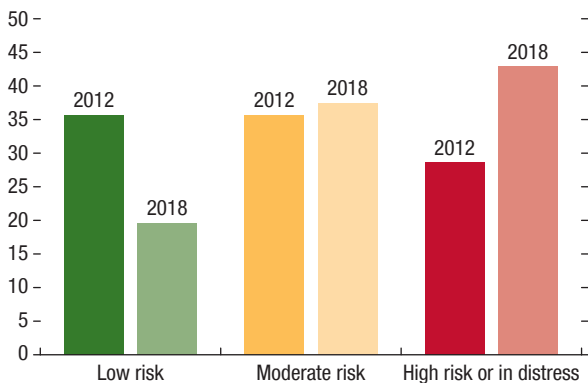
The average headline fiscal deficit is projected to remain broadly unchanged in 2019 among both commodity and non-commodity exporters. In several non-commodity exporters headline deficits are expected to widen owing to higher spending on social programs (Uzbekistan) and capital investments (Kyrgyz Republic, Madagascar, Uganda). However, this widening

will be offset by fiscal adjustment in other countries, through cuts in non-investment spending (Senegal) and income tax and revenue administration measures (Benin, Nepal). The headline fiscal deficit in Ethiopia, on the other hand, is expected to remain unchanged in 2019–20 as foreign-financed projects are curtailed. Among commodity exporters, the narrowing headline deficits in Côte d’Ivoire (as current spending growth is kept below GDP growth) and Ghana (as spending on bank resolution diminishes) will counterbalance a deterioration in Nigeria’s fiscal balance caused by lower projected oil revenues.

General government debt is expected to trend down after 2019 if deficits decline as projected (Figure 1.25), largely through expenditure control. However, given large spending gaps to meet the SDGs, there is some tension associated with expenditure-based debt stabilization. At the same time, continued reliance on non-concessional financing in many countries (Côte d’Ivoire, Ethiopia, Ghana, Kenya, Senegal) could add to their debt vulnerability if the proceeds are not properly managed to generate growth and repayment capacity. In Nigeria, non-interest spending growth is expected to align with revenue growth, while expenditures in Bangladesh are expected to contract by about 1 percentage point of GDP between 2018 and 2024, because of gradual winding down of large infrastructure investment and current spending restraint. Tax collections are projected to be rela-

Figure 1.24. Low-Income Developing Countries: Risk of Debt Distress, 2012 and 2018
(Percent of total countries)

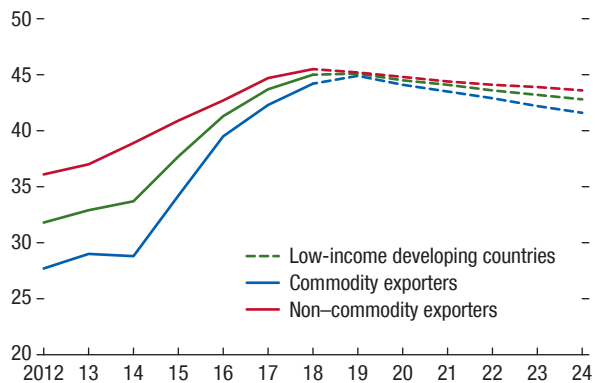
Over 40 percent of countries face a high risk of debt distress or are in debt distress.



Source: IMF staff estimates.

Figure 1.25. Low-Income Developing Countries: General Government Gross Debt, 2012–24
(Percent of GDP)

The pace of debt accumulation slowed in 2018, following three years of rapid increase.



Source: IMF, World Economic Outlook database.

tively level in terms of GDP over the period, with an increase in tax revenue for non-commodity producers (Kenya, Ethiopia) offsetting a fall for commodity producers (Nigeria). Several countries plan to focus on reforms to improve public investment management (Kenya, Uzbekistan) as part of their medium-term fiscal adjustment planning.

Risks to the Fiscal Outlook

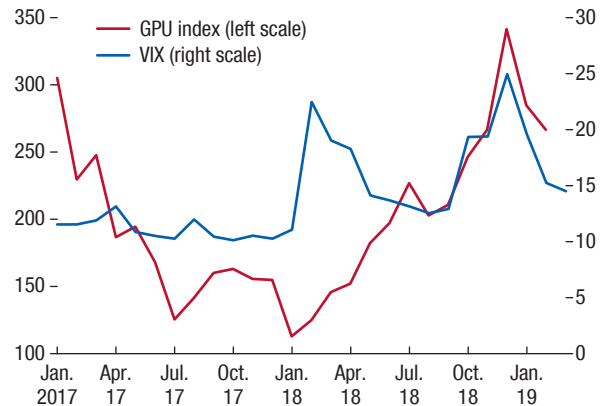
Many of the risks outlined in the April 2018 *Fiscal Monitor* have materialized: rising tariffs and trade policy uncertainty have weighed on global growth and fiscal prospects; reduced social and political cohesion has delayed fiscal adjustment in several advanced economies; higher borrowing costs and US dollar appreciation have contributed to deteriorating debt dynamics in vulnerable emerging market and frontier market economies with high external and foreign currency debt; and oil price volatility has increased uncertainty in revenues for oil exporters and in energy bills for oil importers.

Looking ahead, fiscal risks have intensified amid an increase in policy uncertainty and market volatility (Figure 1.26). Key sources of risk include *weaker global growth* because of a further escalation in trade tensions and continued deterioration in investor sentiment, in particular from a sharper slowdown in China; *tighter financial conditions* resulting from stress on vulnerable sovereigns as well as leveraged firms and households; *large swings in oil prices*, which would have a differential impact on fiscal outturns in oil exporters and importers; and *contingent liabilities* triggered by any of these factors.

- **Weaker nominal growth:** As noted in Chapter 1 of the April 2019 *World Economic Outlook*, failure to reach a negotiated resolution of existing trade tensions between the United States and China could sharpen the recent global slowdown, worsening fiscal accounts amid limited policy space. Relatedly, weaker-than-expected growth in China could negatively affect activity in trading partners as well as global commodity prices and could also prompt China to undertake a larger fiscal stimulus. In the United Kingdom and, to a lesser extent, the European Union, failure to ratify an agreement for an orderly Brexit could disrupt the smooth functioning of goods, labor, and financial markets, potentially prompting a stimulus in response. With weaker growth, policy rates would be lower, but risk

Figure 1.26. Global Economic Uncertainty Indices, 2017–19

Economic policy uncertainty and financial market volatility are at their highest levels in two years.



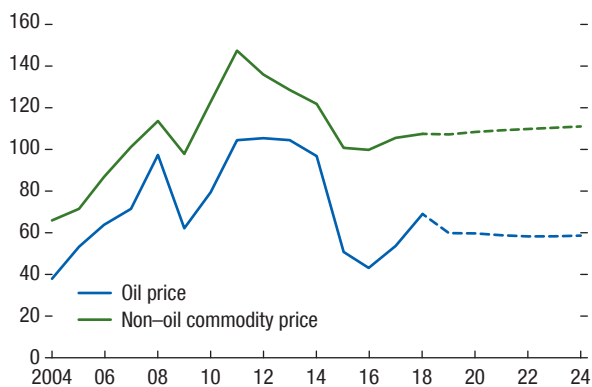
Sources: Bloomberg Finance L.P.; and Baker, Bloom, and Davis 2016. Note: Global EPU was calculated as the GDP-weighted average of monthly EPU index values for the United States, Canada, Brazil, Chile, the United Kingdom, Germany, Italy, Spain, France, Netherlands, Russia, India, China, South Korea, Japan, Ireland, Sweden, and Australia, using GDP data from the IMF's World Economic Outlook database. National EPU index values are from www.PolicyUncertainty.com and Baker, Bloom and Davis 2016. Each national EPU Index is renormalized to a mean of 100 from 1997 to 2015 before calculating the Global EPU Index. EPU = economic policy uncertainty; GPU = global policy uncertainty; VIX = Chicago Board Options Exchange Volatility Index.

premiums could be higher as corporate earnings and credit quality decline. If, however, trade disputes are resolved, and market sentiment recovers, growth and fiscal outturns could rise above the baseline forecast.

- **Tighter financial conditions:** Alternatively, as outlined in Chapter 1 of the April 2019 *Global Financial Stability Report*, while major central banks have paused the process of monetary normalization, financial conditions could tighten unexpectedly from a sudden change in risk sentiment due to factors other than weak growth. A sharp tightening of financial conditions caused by risk aversion across investors could expose high-debt emerging market and frontier economies to debt service, refinancing, and exchange rate risks (Box 1.1). In Italy, sustained high sovereign spreads would weigh on growth, fiscal, and banking prospects, while renewed stress through a spike in borrowing costs could spill over to other countries in the region.
- **Commodity price volatility:** Commodity prices are projected to remain low relative to recent peaks (Figure 1.27). In oil markets, slowing global demand

Figure 1.27. Commodity Price Outlook, 2004–24
(Oil: US dollar per barrel; non-oil: 2016 = 100)

Commodity prices have shown large swings, creating further uncertainty.



Source: IMF, World Economic Outlook database.

could reduce oil prices further, whereas rising political tensions in the Middle East, or supply cuts by the Organization of the Petroleum Exporting Countries, pose an upward risk to prices. Lower oil prices would worsen the fiscal position in oil exporters directly through lower commodity revenues and indirectly through weak activity, affecting both oil and non-oil sector growth, while improving the fiscal position in oil importers, on average.

- *Contingent liabilities:* Weaker global growth, tighter financial conditions, and a pullback in private investment induced by policy uncertainty could lower profitability in public and private corporations, especially those with high external and foreign currency debt as well as non-transparent financing agreements. Persistently lower oil prices could also lower the profitability of state-owned energy companies in oil exporters. In that event, recapitalizations or debt assumption of distressed financial and nonfinancial corporations could also weaken public balance sheets.

The next section outlines the policy recommendations under the baseline forecasts and discusses the policy options available should downside risks materialize.

Setting the Right Course for Fiscal Policy

Preparing for the Next Downturn

Public debt remains elevated in advanced economies and has grown in emerging market and developing

economies. The associated vulnerabilities could limit the ability of many advanced and emerging market and middle-income economies to pursue countercyclical policies in the event of a major economic downturn. Where growth remains favorable in these countries, growth-friendly fiscal adjustment is still appropriate to make room to manage the next downturn. The size, pace, and composition of adjustment will need to be tailored to country circumstances, such as the unemployment rate, excess capacity, and access to financial markets, to balance growth and sustainability objectives. Where growth is slowing toward a lower potential rate, policymakers should prioritize growth-enhancing expenditures. Should the downside risks outlined earlier materialize in the form of a major cyclical downturn, fiscal stimulus could complement monetary easing where there is policy space. For low-income developing countries, efforts to boost revenue would help stabilize high public debt and provide resources to aggressively pursue their development objectives.

In advanced economies, fiscal restraint is appropriate for most countries with high debt levels to provide room for countercyclical policies during the next downturn. In addition, pressure on expenditures from an aging population add to the argument for fiscal prudence. Efforts to gradually rebuild buffers would also help keep interest bills in check, thereby freeing resources for growth-friendly uses or further debt reduction over the medium term. Those countries with fiscal space should draw on it wisely to accelerate growth-enhancing reforms and adapt to changing trends in the global economy.

- High-debt economies should pursue gradual fiscal adjustment (Canada, France, Japan, Spain, United Kingdom, United States), especially in view of fiscal balances remaining below long-term debt stabilizing levels, unless there are signs of a major economic downturn. The need for adjustment is particularly relevant if spreads remain high and financing needs are large (Italy). Signaling the intention to credibly reduce debt over the medium term and taking high-quality measures to do so (for example, reforming pensions in Italy and social security and healthcare programs in the United States) will be important to address any drag on growth from the debt overhang. In the euro area, better compliance with and enforcement of the EU fiscal rules would help reduce fiscal vulnerabilities and preserve the credibility of the common fiscal

framework.⁸ In Japan, despite very high public debt, maintaining a neutral fiscal stance during 2019–20 is advisable to support growth momentum and reflation. Japan's public debt is, however, unsustainable under current policies and will start to increase again amid rapid aging and depopulation beyond the medium term. Thus, starting in 2021, an annual consolidation of ½ percentage point of GDP in the structural primary balance could stabilize public debt below the current level of 235 percent of GDP by 2030.

- Where there is fiscal space, fiscal policy should strive to boost aggregate demand if slack remains. In Korea, besides allowing for automatic stabilizers to operate in 2019, frontloading the planned increase in spending is warranted to tackle sluggish growth. In Australia, if the growth slowdown in late 2018 worsens in 2019, discretionary infrastructure spending could be used to boost growth momentum, as well as to reduce infrastructure gaps.
- Several advanced economies operating above potential and enjoying low public debt could pursue fiscal reforms to raise potential GDP. In Germany, the general government fiscal buffer in relation to the EU fiscal rules remains large. This gives room for forceful policy action, beyond the expansion that is already planned, especially if the current weakness in activity persists. With a focus on investment in physical and human capital, this could boost potential growth. In the Netherlands, more ambitious fiscal reforms, such as further reducing labor income taxes and increasing public spending on research and development and lifelong learning, could raise potential output while leaving an ample fiscal buffer to address demographic pressures.

In emerging market and middle-income economies, debt vulnerabilities, volatile oil prices, and the risk of tightening financial conditions call for fiscal restraint but limited fiscal support could be warranted in a few countries where demand is weak and there is some fiscal space.

- Among non-oil exporters, those with no fiscal space (Argentina, Brazil) should continue consolidating to put debt on a firm downward trend. Improving fiscal sustainability is imperative in Argentina and Brazil to contain financing risks, which prevails over demand support. Among those with limited fiscal

space, a faster pace of consolidation is affordable in India given an expected acceleration in growth, and it is necessary in South Africa to stabilize debt at a lower level than currently projected. Nevertheless, well-designed social transfers and productive infrastructure investment should be protected.

- Where there is some fiscal space and also the risk of a sharper growth slowdown (China, Turkey), fiscal policy should carefully balance stabilization and sustainability objectives. China should adopt a targeted high-quality stimulus to facilitate rebalancing, complemented by continued efforts on deleveraging and a credible medium-term consolidation plan (Box 1.2). In Turkey, automatic stabilizers should be allowed to operate in the near term, while improvements in fiscal transparency would help identify the scope for discretionary stimulus if additional support is needed.
- Among oil exporters, consolidation is planned and should continue at an appropriate pace, also balancing growth, equity, and sustainability objectives. Mexico and Russia could aim for faster consolidation to better deal with demographic pressures and raise intergenerational equity. Countries with available fiscal space and weak non-oil growth (Kuwait, United Arab Emirates) can afford to adjust gradually, while saving any revenue windfalls if oil prices rise. More broadly, oil exporters, particularly in the Gulf region, need to support the development of the non-oil and private sector to diversify and mobilize revenue, and to reduce large public-sector wage bills. In addition, energy subsidies should be eliminated (for example, in Gulf countries and Indonesia) to make room for social and productive spending.

In low-income developing countries, fiscal policy should focus on supporting long-term growth and development objectives. The estimated resources needed to achieve high development outcomes by 2030 in developing and emerging market economies are immense (Figure 1.5). Efforts to boost revenues, improve spending quality, and better manage debt burdens will be critical to meeting these objectives.

- Noncommodity exporters with high debt should pursue gradual adjustment to reduce financing risks and lower macroeconomic vulnerabilities. In Kenya, an adjustment of 3 percentage points of GDP over the next two fiscal years, including revenue measures, is recommended to keep public debt on a downward trajectory. In Vietnam, more ambitious revenue-based fiscal consolidation than currently planned is required

⁸At the same time, the EU fiscal rule framework should be reformed to make the rules simpler and more enforceable (Andrieu and others 2015; Eyraud and others 2018).

to ensure long-term debt sustainability. Noncommodity exporters with low to moderate debt ratios should strive to keep debt stable while pursuing revenue and expenditure reforms that support development. For Bangladesh, this implies keeping spending growth in line with the revenue increases, while carrying through with reforms to boost tax revenue. In Myanmar and Tanzania, a low risk of debt distress allows for a fiscal deficit of 4 percent over the medium term to support social and infrastructure development objectives.

- In commodity exporters with high debt vulnerabilities the focus should be on growth-friendly adjustment. For Ghana this means running a positive primary budget balance and building the domestic tax revenue base. Commodity exporters not facing debt distress can afford a more gradual adjustment. In Nigeria, fiscal consolidation based on non-oil revenue mobilization is necessary over the medium term to make room for priority expenditure. For Côte d'Ivoire, streamlining the still-substantial tax exemptions as well as containing broader fiscal risks associated with public enterprises and public-private partnerships is key to building the much-needed fiscal space.

Should downside risks materialize in the form of a major slowdown in growth, countries will have less fiscal space to respond than they had during the global financial crisis. Fiscal stimulus would have potency in the presence of prolonged slack and monetary policy near the effective lower bound, though it may be feasible only in countries without substantial public debt vulnerabilities. Given the potential for implementation lags in fiscal policy, policymakers also need to plan policy actions to support demand in advance of the actual realization of a major slowdown. At a minimum, automatic stabilizers should be allowed to work—without discretionary measures to offset the impact on the deficit—for those that have fiscal space.⁹ Where output falls substantially below potential, fiscal adjustment could be back-loaded or fiscal stimulus could be pursued in tandem with monetary easing. Any discretionary fiscal expansion, however, should consider the quality of revenue and expenditure measures employed to ensure the effectiveness of the stimulus. If a severe

⁹To reduce the problem of lags in providing fiscal support, consideration could be given to designing better automatic stabilizers—for example, pre-legislated support conditional on observable measures such as a decline in job creation below a given threshold (see Blanchard, Dell'Ariccia, and Mauro 2010 for a review).

downside scenario were to materialize, in the euro area available monetary policy tools could be complemented with fiscal easing by countries that have appropriate fiscal space and financing conditions. A synchronized fiscal response, albeit appropriately differentiated across member countries, can strengthen the area-wide impact.¹⁰

Adapting to Global Trends

Reforms to adapt to global trends, including shifting demographics, technological advances, and global economic integration, will require inclusive and growth-friendly fiscal adjustments or budget recomposition, as well as multilateral cooperation. Reprioritization of expenditures, particularly in economies with public debt vulnerabilities, will be imperative to create room for reforms within existing budget envelopes. This implies cutting wasteful spending, such as untargeted energy subsidies, containing rigid recurrent spending, such as wage bills, channeling resources to investment and social spending to build infrastructure and skills fit for the future, and providing better services and equal opportunities for all. Public financial management reforms could also improve spending efficiency and should be accompanied by efforts to mobilize revenues in emerging market and low-income developing economies through tax policy and administration reforms. Tax policy reforms in advanced economies should be geared toward fostering efficiency and a more equitable distribution of disposable income. International cooperation on global public policy issues, such as corporate taxation, climate change, corruption, and more generally, on achieving the 2030 SDGs, could amplify and spread the gains from reforms.

Expenditure Reprioritization and Efficiency

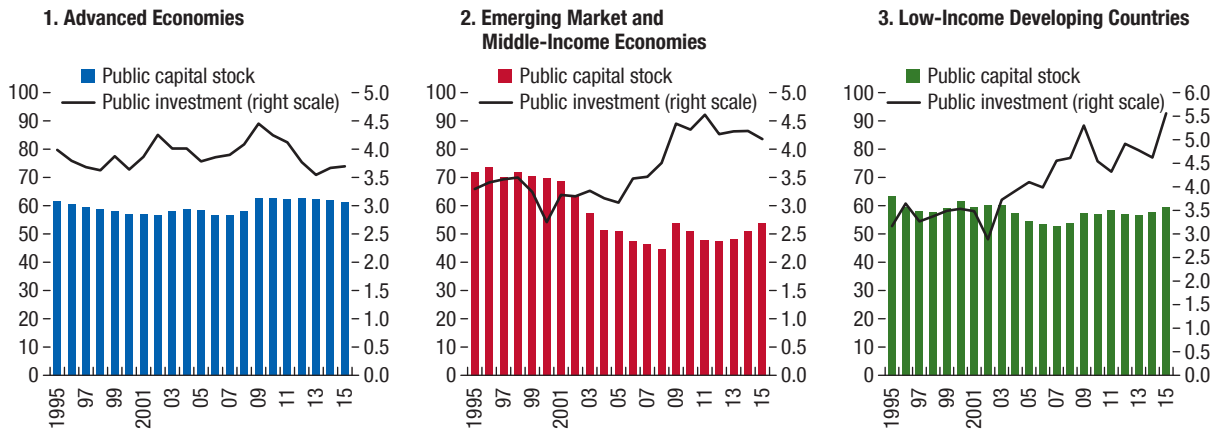
Shift Expenditures to High-Quality Investment in Physical and Human Capital

Reprioritizing public spending toward infrastructure investment can boost growth (see Chapter 3 of the October 2014 *World Economic Outlook*) and support inclusion through its positive impact on education and health outcomes (Agénor 2013). Yet the stock of public capital (a proxy for infrastructure capital) as a share of output trended downward across advanced, emerging market, and developing economies in the two decades preceding the global financial crisis and

¹⁰Indeed, these are circumstances when a central fiscal capacity to provide euro-area-wide stimulus would be beneficial (Arnold and others 2018).

Figure 1.28. Public Capital Stock and Investment, 1995–2015
(2001 PPP adjusted, in percent of GDP)

Over the past decade, gross public investment has been insufficient to expand the public capital stock.



Source: IMF, Fiscal Affairs Department Investment and Capital Stock Dataset.

Note: "Public investment" refers to gross fixed capital formation. PPP = purchasing power parity.

has plateaued following the stimulus-driven investment spending increase during the crisis (Figure 1.28).

In emerging market and developing economies with growing and urbanizing populations, more and better-quality infrastructure is also critical, to support urban transportation, energy, and water and sanitation networks (India, Indonesia). In addition, in many of these economies increased investment in digital infrastructure is needed to create an environment in which the technology sector can thrive. Internet usage rates are well below those in advanced economies (Figure 1.29). In sub-Saharan Africa, investment needs in digital communication are estimated at \$4 billion to \$7 billion a year (0.2 to 0.4 percent of the region's GDP) (Abdychiev and others 2018). More broadly, delivering high performance on SDGs related to core infrastructure (that is, electricity, roads, and water) will require additional spending in 2030 of 4 and 9 percent of GDP in emerging market economies and low-income developing countries, respectively (Gaspar and others 2019), as well as policy measures that facilitate private sector involvement. By inviting private participation in infrastructure development, public-private partnerships can help improve public services. Yet strong governance institutions are needed to manage risks and avoid unexpected costs from these partnerships.¹¹

¹¹To use public-private partnerships wisely, governments should (1) develop and implement clear rules for their use; (2) identify, quantify, and disclose their risks and expected costs; and (3) reform

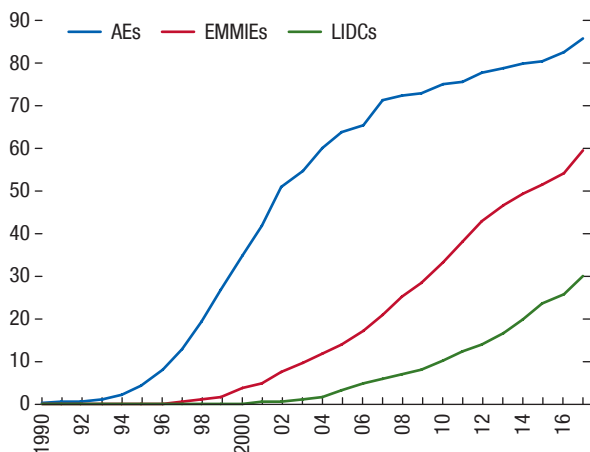
Improving the quality of infrastructure investment matters as much as increasing its size. A significant share of investment—an estimated 30 percent, on average—is lost due to inefficiencies, with larger losses in emerging market and developing economies (IMF 2015a), including from vulnerabilities to corruption in infrastructure provision (see Chapter 2). The reforms necessary to improve investment efficiency frequently cover project planning, allocation, and implementation phases. For example, Nigeria should strengthen project appraisal and selection processes, cash disbursement practices, and coordination of states' capital investment; in Vietnam, improvements are required in spending allocation and coordination to avoid persistent delays and project overruns. In emerging market economies such as India and Indonesia, as infrastructure investment is scaled up the focus should be on improving public financial management, including planning coordination among agencies, within-year budget execution, and implementation capacity.

Expenditure reprioritization and efficiency are also required to support human capital development and facilitate equal opportunities for all. Creating a workforce fit for the future requires meeting the growing demand for advanced cognitive skills, an ability to work with others, and adaptability (World Bank 2019). At the same time, policies aimed at human capital formation, such as access to quality education and healthcare, can improve the dis-

budget and government accounting frameworks to capture all fiscal costs comprehensively (Irwin, Mazraani, and Saxena 2018).

Figure 1.29. Individuals Using the Internet, 1990–2016
(Percent of population)

Internet usage in developing economies lags the rest of the world.



Source: World Bank, World Development Indicators.

Note: AEs = advanced economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries.

tribution of market income by providing equal opportunities (see the October 2017 *Fiscal Monitor*). In emerging market and developing economies, delivering high performance on SDGs related to education and health-care services will require additional spending in 2030 of 8 and 12 percent of GDP, respectively (Gaspar and others 2019). Similarly, more accessible and flexible social safety nets could provide insurance against the growing informality of work arrangements and the job churn associated with rapid technological progress. Efficiency gains can also be leveraged to obtain more value from public investment in education and healthcare. Among emerging market and developing economies, those in the bottom quartile of efficiency could raise healthy life expectancy by up to five years by addressing inefficiencies in public health spending (Grigoli and Kapsoli 2018).

- Education and training measures could move toward pre-emptive acquisition of new skills (“lifelong learning”) (World Bank 2019). For example, Singapore offers unconditional grants to all adults for training throughout their working lives. Tax deductions for training those already in the workforce, such as in the Netherlands, and portable individual learning accounts, as in France, could help remove barriers to lifelong learning. Likewise, it is critical to help workers adapt to the transition arising from new technologies (see Chapter 3 in the April 2017 *World Economic Outlook*). Chile plans to address skill mismatches by

establishing targeted scholarships and creating new technical institutes. South Africa should improve teacher training, strengthen their accountability, and align training with evolving business requirements. Colombia should further expand higher-education coverage by supporting access for low-income students and improve the quality of education. In Bangladesh, Indonesia, and Uganda, initiatives that promote technical and vocational training should be strengthened to develop skills for better job opportunities.

- Social protection could be strengthened and adapted to evolving labor market realities in advanced economies by making social benefits more portable, as in most Nordic countries (IMF 2018). In Korea, where there is ample fiscal room, more generous unemployment benefits would give the temporarily unemployed time and resources to adapt to technological changes. In Singapore, introduction of universal, transparent, and time-bound unemployment insurance would complement existing policies on lifelong learning, training, and reskilling. In emerging market and developing economies a major challenge is to expand safety nets that offer some income security. As highlighted in recent IMF staff reports, increasing coverage of social safety net programs (Bangladesh, Zambia) would expand opportunities for the more vulnerable and encourage long-term human capital development.

Cut Wasteful Subsidies and Unsustainable Social Spending

Cutting wasteful spending could create room for the public investment in human and physical capital necessary to adapt to a changing global economy. After ensuring that appropriate protection for the most vulnerable populations is in place, untargeted energy subsidies should be cut in many advanced economies (Finland, Italy, Latvia, Norway), emerging markets (Egypt, Kuwait, Saudi Arabia), and developing economies (Angola, Ethiopia, Nigeria). Effective management of the public sector payroll through better medium-term wage forecasting and position-based employment systems could generate savings in many countries (IMF 2016a). Limiting public sector job creation (for instance in sub-Saharan Africa) and incentivizing private sector employment could also help contain large wage bills. Expenditure reforms to root out corruption could improve the efficiency of public investment and social spending (see Chapter 2).

For advanced and emerging market economies facing fiscal pressures from aging populations, pension and healthcare reforms could also create fiscal

room. In the United States, raising the income ceiling for payroll taxes and indexing benefits to chained inflation would help shore up social security finances and free fiscal resources for other priority spending. Safeguarding the financial viability of pension systems requires a comprehensive set of measures, including measures to offset the implications from the recent relaxation of pension indexation in Spain and early retirement rules that were eased for a trial period of three years in Italy. In Brazil, necessary measures include increasing the retirement age, delinking the minimum pension from the minimum wage, and moderating the generosity of pensions (particularly for public employees). To contain healthcare costs, Japan and the United States should adopt efficiency-improving technology and pursue greater cost sharing with beneficiaries.

Expand the Budget Envelope through Public Financial Management Reforms, Revenue Mobilization, and International Cooperation

Public Financial Management Reforms

Public financial management reforms could extend the limited public resource envelope through efficiency gains. In emerging market and developing economies, enhancing debt management capacity (for instance in Gulf countries) and reducing off-budget activities (for instance in China and Ghana) could improve the monitoring of debt levels and fiscal risks, lead to more prudent debt strategies, and promote transparency. These steps could serve to reduce the interest bill, unlocking government resources for other expenditures. In all countries, public financial assets can play an important role in an economy in terms of revenue, employment, and value added (European Commission 2019). Better management of public sector balance sheets, in particular, nonfinancial public corporations and government financial assets, could yield up to 3 percent of GDP a year in additional revenue (see the October 2018 *Fiscal Monitor*). This is equivalent to the average corporate income tax revenue in advanced economies. Gains could be even higher, as this figure does not account for the potential returns from better management of government nonfinancial fixed assets.

New technologies can also be employed to improve the efficiency of government operations. Taking advantage of the Internet, big data, and increased connectivity, governments could improve service delivery and strengthen governance, accountability,

and social infrastructure. For example, technology can enable governments to reduce the cost of tax compliance, facilitate better targeting of social assistance programs, and deliver cash transfers more efficiently (see the October 2018 *Regional Economic Outlook for Sub-Saharan Africa*). India's Direct Benefit Transfer program uses digital technology to provide direct subsidies to the bank accounts of the poorest members of society. In terms of improving government accountability, Slovenia has online platforms for citizens to inform authorities about problems and monitor their solution.

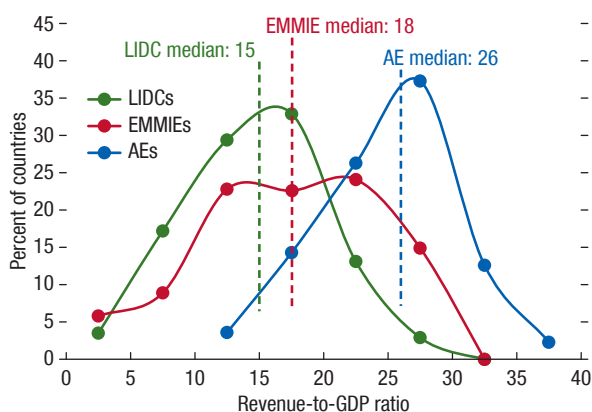
Revenue Mobilization

In emerging market and developing economies, sustained efforts to mobilize revenues can provide for much needed investment in human and physical capital. Tax revenues in these countries are low relative to those in advanced economies (Figure 1.30). There is ample scope to increase tax revenue through measures that broaden the tax base and improve efficiency (for instance by shifting from direct to indirect taxation), which can be accomplished with little impact on growth over the long term (Dabla-Norris and others 2018; IMF 2015b). This should be predicated on building the appropriate public financial management institutions to channel the revenues toward productive expenditures. Removal of tax exemptions (in sub-Saharan Africa and elsewhere, such as in Argentina, China, Sri Lanka, and Turkey) and improving administrative efficiency would yield more revenue for priority initiatives. Sub-Saharan African countries could raise from 3 to 5 percent of GDP in additional revenue, on average, through reforms that improve the efficiency of the current tax systems (see the October 2018 *Regional Economic Outlook for Sub-Saharan Africa*). Key steps include strengthening VAT systems, streamlining exemptions, and expanding the coverage of income taxes, including by tackling informality. More broadly, adoption and implementation of carefully crafted medium-term revenue strategies that include a combination of policy and administrative reforms can be a useful guide to increasing revenue. Papua New Guinea has launched its medium-term revenue strategy, several other countries (Egypt, Lao P.D.R., Uganda) are working to develop theirs, and several others plan to do so (Indonesia, Senegal, Thailand).

In advanced economies, tax systems could be reformed to ensure that the gains from technology

Figure 1.30. Tax Revenue, 2017

Room exists to boost tax revenues in emerging market and developing economies.



Source: Gaspar and others 2019.

Note: AEs = advanced economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries.

and global integration are spread more evenly across the population.¹²

Higher tax rates for upper-income groups compared with those in the middle yield redistributive gains that exceed efficiency costs (Diamond 1998; Saez 2001). Tax systems could also be adapted to the broad shift in income from labor to capital. For instance, given that wealth tends to be more unevenly distributed than income, especially in the OECD countries, wealth taxes could be considered. Most countries have room to enhance revenues significantly from taxing inheritances, land, and real estate (October 2017 *Fiscal Monitor*). As in Korea and Lithuania, where top marginal income tax rates have been increased in 2018 and 2019 to address worsening income inequality, some advanced economies (for example, Hong Kong Special Administrative Region and Latvia) should consider increasing the top personal income tax rate. Hong Kong Special Administrative Region should also avoid relief on recurrent property taxes. In Italy, wealth could be taxed through a modern property tax on primary residences.

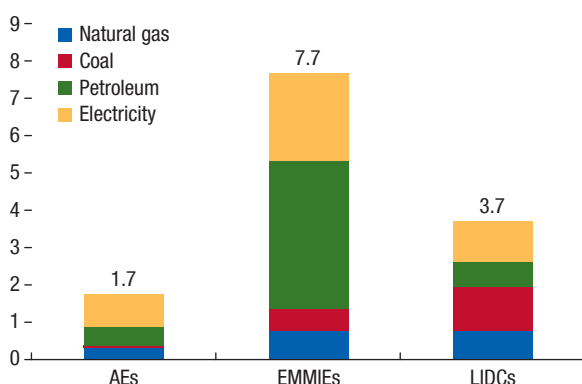
Pricing fuel efficiently could also gradually build room for adaptation of fiscal policies to a changing global economy in most countries. Global fuel subsidies in 2017 were estimated at \$5.2 trillion, or 6.5 percent of global GDP (Coady and others forthcoming).

¹²Digitalization also poses challenges for tax policy and administration (Aslam and Shah 2017).

Figure 1.31. Energy Subsidies, 2017

(Percent of GDP)

Estimated energy subsidies are significant around the world.



Source: Coady and others, forthcoming.

Notes: AEs = advanced economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries.

Raising fuel prices to efficient levels through taxes,¹³ for instance, would generate additional revenue of \$3.2 trillion (4 percent of global GDP) over the long run (Figure 1.31). To help ease the impact of higher fuel prices, mechanisms to compensate those households most affected should be put in place beforehand. Countries can provide compensation by scaling up benefit levels or expanding coverage of existing assistance programs, or by designing and implementing new social safety nets (Abdallah and others 2018). For example, measures to mitigate the impact of fuel subsidy reforms—particularly on the poor—and facilitate public support for the reforms have been employed recently in Saudi Arabia and are recommended for other countries (for instance, Ethiopia and Nigeria). Transparent and extensive communication and consultation with stakeholders—including information on the size of subsidies, how they affect the government's budget, and how the savings will be used to improve public services or lower taxes on households and businesses—are also necessary to build societal support for these desirable measures (IMF 2013).

International Cooperation

International cooperation will be critical for advancing fiscal efforts to address issues related to global

¹³Efficient fuel prices are achieved by applying (1) the same consumption taxes as levied on other consumption goods in general and (2) additional taxes to reflect the supply and environmental costs of fuel.

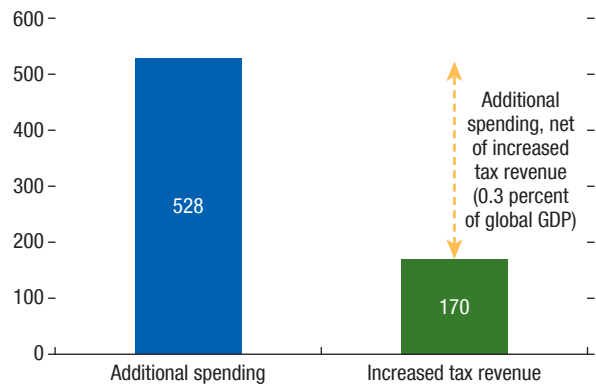
economic integration and convergence. Multilateralism has proven a powerful driver of strong growth, poverty reduction, and welfare gains. It is clear that coordinated fiscal stimulus helped speed the recovery from the global financial crisis (see Chapter 4 in the October 2017 *World Economic Outlook*). Multilateralism can take on the many transnational challenges that have a bearing on national fiscal policies and that no one government alone, or even a few governments working together, can handle. These include taxation of multinational corporations, climate change, support for SDGs, and corruption (see Chapter 2) (Lipton 2018).

- The taxation of multinational companies, including highly digitalized ones, is ripe for a multilateral approach. Several countries (Benin, France, India, Italy, Spain, Tanzania, Uganda, United Kingdom, Zambia) plan to or have put in place measures to tax digital companies and their users. Uncoordinated, ad hoc measures targeted to specific firms or activities could lead to significant distortions such as double taxation of cross-border digital activities. Similarly, international corporate tax competition can lead to global tax inefficiencies. Multilateral cooperation would provide a more effective and efficient approach to taxing the rents of multinational companies (Box 1.3).
- Climate change is a worldwide, macro-critical phenomenon, with a particularly severe potential impact on low-income developing countries and small island states (see October 2017 *World Economic Outlook* Chapter 3), and large fiscal implications for all countries. However, current mitigation pledges submitted for the Paris Agreement are highly heterogeneous and imply considerable cross-country dispersion in emission prices (IMF 2019c). For mitigation, carbon taxation or similar pricing is the most efficient tool, though other instruments may have a role due to political economy, distributional, or other factors. A carbon price floor arrangement among large emitters could promote some degree of price coordination while strengthening the Paris Agreement and provide some reassurance against losses in competitiveness. The international commu-

Figure 1.32. Additional Spending on the Sustainable Development Goals, Net of Increased Tax Revenue, 2030

(Billions of 2016 US dollars)

Additional spending required to make meaningful progress toward SDGs is more than half a trillion US dollars.



Source: Gaspar and others 2019.

nity should also help low-income developing countries build resilience to climate change, including the development of climate-resilient infrastructure, sustainable macro-fiscal frameworks, and transition to cleaner energy. The commitment by advanced economies to jointly contribute \$100 billion a year by 2020 for mitigation of and adaptation to climate change in developing economies is an important step to help the latter make progress on their climate strategies.

- International financial support for low-income developing countries is also needed to complement their efforts to meet their SDGs. The annual spending gap to attain meaningful progress on the SDGs related to infrastructure alone in low-income developing countries amounts to \$358 billion, even after assuming an increase in their tax-to-GDP ratio of 5 percentage points over the next decade (Figure 1.32) (Gaspar and others 2019).

A renewed effort to work within an improved multilateral structure would complement national policies adapted to a fast-changing global economy.

Box 1.1. Fiscal Implications of Potential Stress in Global Financial Markets

This box examines the effects of potential stress in global financial markets on the public finances of large advanced and emerging market economies. Stress in global financial markets could emanate from an increase in risk premiums in reaction to a decline in investor sentiment triggered by a deteriorating outlook (including from trade tensions) or weak policy frameworks amidst concerns about debt in some euro area countries. Such shocks could lead to higher interest rates, exchange rate volatility, corrections in stretched asset valuations (for example, equity and real estate), and sudden international financial flow reversals. These developments would strain leveraged companies, households, and sovereigns; worsen bank balance sheets and profitability; and damage the public finances of advanced and emerging market economies.

Modeling Strategy

The analysis is based on an extended version of the Global Vector Autoregression models of Cashin and others (2014); Cashin, Mohaddes, and Raissi (2016, 2017a, 2017b); and Mohaddes and Raissi (2018). This framework comprises 33 country-specific models, solved in a global setting where key macro-economic variables of each economy interact with corresponding foreign variables (designed to capture the international trade pattern of each country). The model includes both real and financial variables during 1981:Q2–2018:Q2 (that is, real GDP, inflation, the real exchange rate, short- and long-term interest rates,¹ the government debt-to-GDP ratio, the primary fiscal balance, and the price of oil), as well as an index of financial stress in advanced economies (capturing pressures in banking, securities, and exchange markets, as well as risk aversion).

Fiscal Costs of Financial Stress

Stress in global financial markets—measured by a one standard deviation positive shock to the financial stress index (FSI)² in advanced economies—trans-

lates into higher public debt-to-GDP ratios in most country groups (with average effects ranging between ½ and 1¼ percentage point of GDP after one year, and large variations across each group) (Figure 1.1.1). Debt-to-GDP dynamics largely depend on the primary fiscal balance and the gap between inflation-adjusted average borrowing costs and the real GDP growth rate of the economy (the interest rate–growth differential). In response to a temporary FSI shock, real GDP growth slows worldwide (by ¼–½ percentage point on average) and the inflation-adjusted long-term interest rate rises (by 10 basis points on average, and higher in emerging market economies)—resulting in increases in the interest rate–growth differentials. In addition, lower revenues from weaker economic activity across countries would lead to worse primary balances (by 0.1–0.2 percentage point of GDP on average). These factors would worsen countries’ debt dynamics, albeit with significant size variation across countries.

Which Countries Will Be Affected More?

The impact on the public finances of different countries depends on the magnitude and duration of the FSI shock; countries’ economic fundamentals; the size of safe-haven flows; and the level, currency, maturity, and residency holding structure of public debt. For instance, model estimates show that the impact is greater for countries with high debt ratios, because the increase in interest rates applies to larger debts, and for those with a shorter residual maturity of public debt, because the pass-through of higher spreads affects a greater share of the debt. Moreover, emerging market economies with higher debt vulnerabilities (for example, those that have a larger share of foreign-currency-denominated debt in total public debt or a higher share of nonresident holdings of public debt) experience larger debt increases through higher spreads, asset price corrections, depreciated exchange rates, and nonresident capital outflows.

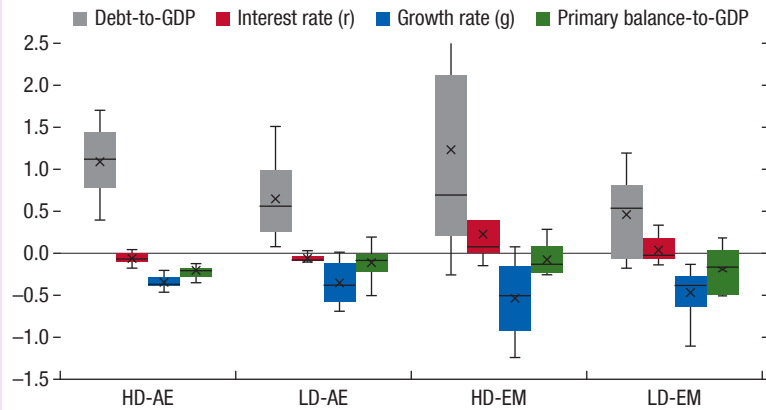
¹Following Wu and Xia (2016), shadow interest rates are used for time periods during which policy rates were at their effective lower bounds to capture the impact of unconventional monetary policies of advanced economies.

²The FSI for advanced economies facilitates the identification of large shifts in asset prices (stock and bond market returns); an abrupt increase in risk/uncertainty (stock and foreign exchange volatility); liquidity tightening (difference between three-month

Treasury bill and three-month London interbank offered rate based on US dollars); and the health of the banking system (the beta of banking sector stocks and the yield curve). A one standard deviation positive shock to FSI in advanced economies is ⅔ of the shock that occurred during the European sovereign debt crisis and ⅓ of the global financial crisis shock.

Box 1.1 (continued)

Figure 1.1.1. Responses of Key Variables to Potential Stress in Global Financial Markets
(Percentage point of GDP difference)



Source: IMF estimates.

Note: The figure depicts the range of change in macroeconomic/financial variables of a given group of countries—high-debt (HD) and low-debt (LD) advanced economies (AE) and emerging markets (EM) after one year associated with a one-standard-deviation positive shock to FSI. Symbols × and — denote the average and median responses across countries in each group, respectively. The boxes show the 25th–75th percentile responses, and the whiskers show the minimum and maximum responses. The HD-AE group consists of Austria, Belgium, Canada, France, Italy, Japan, Spain, the United Kingdom, and the United States. The LD-AE group consists of Australia, Finland, Germany, Korea, Netherlands, New Zealand, Norway, Sweden, and Switzerland. The HD-EM group consists of Argentina, Brazil, China, India, Philippines, and South Africa. The LD-EM group consists of Chile, Indonesia, Mexico, Peru, Thailand, and Turkey. The median gross-debt-to-GDP ratio in each group (advanced and emerging market economies) is used as the cutoff value to classify countries as high debt or low debt.

Box 1.2. China: How Can Fiscal Policy Support Economic Activity and Rebalancing?

China's growth has slowed over the past year and is set to further decline in 2019, owing to trade tensions and much-needed financial regulatory tightening. The authorities have acted to mitigate the slowdown through various measures including tax cuts and infrastructure spending. Should downside risks further increase, this would bring knock-on effects from a domestic as well as a global perspective (see the April 2019 *World Economic Outlook* and *Global Financial Stability Report*). What would be the appropriate fiscal policy to support economic activity and rebalancing?

Three principles should guide the choice of fiscal measures. First, the policy response should be on budget, to ensure transparency and avoid risks from excessive leverage incurred by borrowing entities. Second, it should facilitate the macroeconomic rebalancing of the Chinese economy. Third, fiscal measures should be targeted to maximize their multiplier effects and to reduce poverty and inequality. Measures could include:

- **On the revenue side**, the recently announced personal income tax cuts, while supporting consumption temporarily, have reduced the progressivity of the overall tax system. Going forward, the tax cuts should be accompanied by medium-term reforms to broaden the overall tax base, improve the progressivity of the tax system (including by alleviating the highly regressive nature of the social security system), and introduce a recurrent property tax.
- **On the expenditure side**, reprioritizing spending toward education, healthcare, and social security can facilitate rebalancing. At the same time, providing a better social safety net by increasing rural pension benefits and widening the coverage of unemployment insurance (currently 40 percent of urban workers) would help cushion the impact of slower growth and reduce poverty and inequality.

Large-scale infrastructure investment would be less desirable, given the build-up of vulnerabilities from past stimuli (IMF 2017). Assessing the risks from such strategy requires looking into the general government's balance sheet, as well as the infrastructure investment's returns, and the broader macroeconomic growth impact, because a large component of past investment-led stimulus occurred in the broader public sector—mainly off-budget through local governments and state-owned enterprises (SOEs). We estimate the general government financial balance sheet for 1997–2017 based on the methodology in the

Table 1.2.1. China: Long Shadows of Investment-Led Stimulus during the Global Financial Crisis

	Fiscal Stimulus during the Great Recession (2009–12)		2017 or Latest Data Available
	2009	2015	
General government			
Debt to GDP ¹	34	57	68
Net financial worth to GDP	23	19	11
Macroeconomy			
Potential growth rate	10.4	6.3	6.3
Credit intensity ratio ²	2.5	3.5	4.1
State-owned enterprises			
Credit ³	51	66	74
Returns on equity	5.9	3.9	4.2

Sources: CEIC; *World Economic Outlook*; Deutsche Bank; and IMF staff estimates.

Note: Indicators are in percent unless otherwise stated.

¹ Debt is measured using the augmented concept as in IMF 2017.

² The credit intensity ratio is measured by the change of credit per unit change of output.

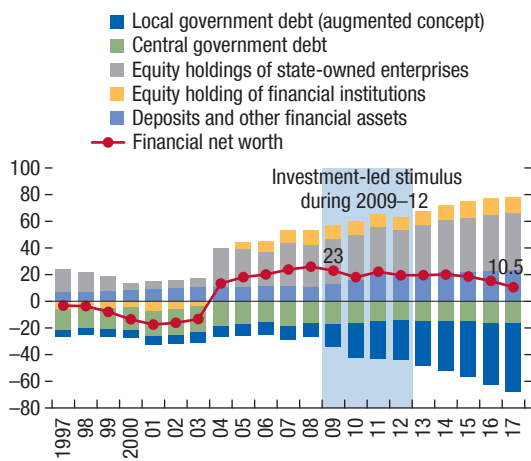
³ State-owned enterprise credit is measured in percent of GDP based on IMF 2017.

October 2018 *Fiscal Monitor*, using various sources (Garcia-Herrero, Gavila, and Santabarbara 2006; Ma 2006; Yang, Zhang, and Tang 2017) and adjusting for nonperforming assets of public corporations from the China Public Finance Yearbooks (Lam and Moreno Badia forthcoming). Data on the valuation of fixed assets, required to calculate the full government net worth, are limited. Instead, we estimate the shortfall of the returns of infrastructure asset relative to the cost of liabilities to finance such investment.

The balance sheet analysis reveals that the investment-led stimulus undertaken during 2009–12 contributed to a deterioration in the general government's financial position. Several points are worth noting. First, while the stimulus—amounting to some 10 percent of GDP—supported economic growth in the early part of the decade, estimates of potential growth declined from double-digit levels to about 6¼ percent by 2015 (Table 1.2.1). Second, the stimulus led to a decline of net financial worth from 23 percent of GDP in 2009 to 11 percent of GDP in 2017 (still above the average for emerging market economies) as the rise in general government debt outstripped the increase in the general government's financial assets (Figure 1.2.1). Third, although nonfinancial infrastructure assets have also risen, the gap between government asset returns—along with those on nonfinancial infrastructure assets—and the

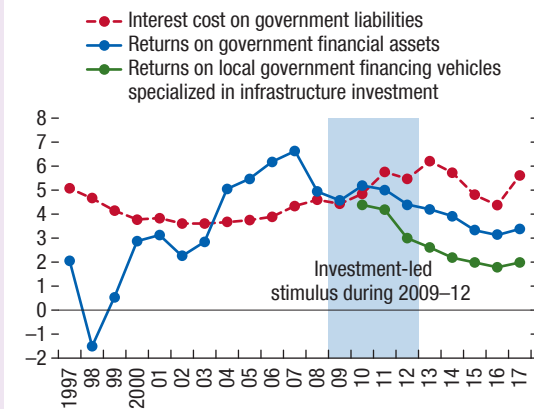
Box 1.2 (continued)

Figure 1.2.1. China: General Government Net Financial Worth after the Investment-Led Stimulus (Percent of GDP)



Sources: CEIC; and IMF staff estimates.

Figure 1.2.2. China: General Government Financial Asset Returns and Liability Costs (Percent)



Sources: CEIC; China Public Finance Statistical Yearbook; Li and Mano 2019; and IMF staff estimates.

interest rate on debt widened, with an estimated shortfall of 1½–2 percentage points during 2013–15, partly driven by low profitability among SOEs (Figure 1.2.2; Lardy 2019; Bai, Hsieh, and Song 2016).

This analysis suggests that, at the current juncture, a large-scale public investment stimulus, while temporarily boosting growth, would add to vulnerabilities and raise the likelihood of a sharp slowdown down the road when overall leverage is already high and credit allocation is increasingly inefficient (IMF 2016c).

Beyond the targeted and pro-rebalancing fiscal stimulus measures, efforts to deleverage, particularly among SOEs, should also continue to ensure a sustainable growth path. At the current juncture, SOEs are highly leveraged and account for a large share of corporate credit. Further deleveraging of underperforming SOEs could improve medium-term growth (IMF 2016c)

and strengthen the general government balance sheet. Notwithstanding differences relative to the current environment, the restructuring of public corporations during 1999–2003—which involved SOE closures and restructuring and recapitalization of state banks—is also illustrative of the large potential payoffs of such strategy. Those reforms improved SOE profitability and the equity valuation of state-owned banks (Lardy 2014; Hsieh and Song 2015) and, in turn, raised the general government’s net financial worth from –8 percent of GDP in 1999 to 18 percent of GDP in 2005 (Figure 1.2.1). In addition to continued efforts on deleveraging, advancing other fiscal structural reforms such as intergovernmental relations, improving fiscal data, and parametric reforms to the social security system to ensure the long-term sustainability will also be necessary (IMF 2017).

Box 1.3. Avoiding International Tax Wars

The International Tax System under Stress

Strains on the current system for taxing multinational enterprises have become more salient than ever. The joint project of the Group of 20 and the Organisation for Economic Co-operation and Development (OECD) project on Base Erosion and Profit Shifting (BEPS) has made significant progress in addressing some of the most egregious forms of tax avoidance. But the project has not sought to change the fundamentals of the international corporate tax system. Cracks in the century-old architecture are now in plain sight.

- *Profit-shifting* by multinationals—moving profit from high- to low-tax jurisdictions—is pervasive. Problems center on the norm that companies are liable to corporation tax only where they are physically present, as well as on the implementation of the arm’s length principle (which requires that transactions between related parties within multinational groups be priced, for tax purposes, as if they took place between unrelated parties). Application of these has become increasingly complex and arbitrary, owing to the importance of hard-to-value intangible assets and the ability that digitalization creates to conduct business in a country while having little or no presence there.
- *Tax competition* has been largely unaddressed and may intensify in the future, imposing ever-larger pressures on tax revenues. This is especially problematic for low-income countries, which rely relatively more on corporate taxation as a revenue source.
- *Developing countries’ interests*, reflecting their being the home of few multinational enterprises but a source of income for many, are not well reflected in current norms; and complexity and profit shifting bear disproportionately on them.
- *Fairness* concerns have sparked debate on the allocation of taxing rights, not only in the context of protecting the interests of developing economies but also more broadly.

Preserving Multilateralism under Threat

Unilateral initiatives going beyond BEPS, some of which challenge international norms, risk jeopardizing the considerable cooperation that the BEPS project has achieved. Some, for instance, see the “diverted profits taxes” adopted by the United Kingdom and Australia in 2016 (anti-avoidance provisions that recoup tax on income that is diverted to low-tax jurisdictions) as early

departures from the consensual approach of the BEPS project. The 2017 US tax reform brought fundamental and novel changes in its international provisions (Chalk, Keen, and Perry 2018)—one of which, some have suggested, may violate World Trade Organization (WTO) rules. And proposals in Europe for “digital service taxes” on revenues associated with selected digital activities might be seen as attempts to circumvent the norm that firms with no physical presence are not liable to corporate tax. Talk of “tax wars” may be premature, but strains in international tax relations have become apparent.

The BEPS slogan was to “tax where value is created.” This was meant to guide real progress in international tax cooperation. However, differing interpretations of this principle can make it hard to agree on practical implementation. This is most clearly illustrated by the debate on the tax consequences of digitalization. For some countries, the targeted digital service taxes seem to be a political imperative, given domestic perceptions of under-taxation and pending some longer-term global solution. Indeed, the international tax framework should avoid giving highly digitalized and other companies a way to pay very little or no tax. For others, however, these digital service taxes are little more than a grab for revenue from a few prominent and largely US-owned companies. Moreover, pursuing the suggestion by some that tax be levied where the users of digital services, such as social media and search engines, are located would be akin to attributing taxing rights to destination or “market” jurisdictions—a fundamental departure from current norms (April 2018 *Fiscal Monitor*). The digitalization debate has become emblematic of the need for more ambitious reforms to the international tax system.

Evaluating Alternative Reform Directions

In January, the members of the “Inclusive Framework” on BEPS agreed to examine a wide range of policy options—with the aim to come up with a consensus on the multilateral approach by 2020 to reform the international corporate tax system (OECD 2019a). The different options are reflected in a recent consultation document by the OECD’s task force on the digital economy (OECD 2019b). The options vary in several dimensions, but broadly set out three directions for reform: (1) minimum effective taxation; (2) shift in taxing rights to the country where users/consumers

Box 1.3 (continued)

reside; and (3) departure from the arm's-length principle in favor of apportionment by formula (that is, sharing a multinational enterprise's total profits across countries by a formula reflecting measures of its presence in each), perhaps only for some residual profit (left after something like a normal profit is allocated to countries in which the multinational enterprise's functions take place). While not evaluating the precise proposals or endorsing any of these broad approaches, IMF (2019b) offers an assessment of these broad directions for reform, based on various criteria: their economic properties (how they address profit shifting and tax competition), impact on developing economies, ease of enforcement, departure from current norms (and thus legal feasibility), and required degree of cooperation. The impact of such proposals will also differ depending on whether adoption is by one country, a few, or all. For the case of global adoption, these are the main conclusions:

- *Minimum tax proposals* can relate to either outbound or inbound investment or both. On outbound investment, they ensure some minimum amount of tax is paid wherever in the world its income arises. This can offer significant (though incomplete) protection against profit shifting and tax competition; it also generates positive spillovers for other jurisdictions, except those with very low tax rates. A minimum tax on inbound investment (for example, limiting deduction for some payments often used to shift profits) can be especially appealing for developing economies to protect against tax avoidance, because it can be simple to administer. It can, however, also risk jeopardizing inward investment.
- *Allocating taxing rights to destination countries:* In its pure form, a destination-based system could rely on “border-adjusted” taxes, which combine value-added tax (VAT)-like treatment of trade (that is, exempting exports and taxing imports) with a wage subsidy (or payroll tax relief). While global tax competition is already spontaneously leading to increased reliance on the VAT instead of corporate and labor taxes, conscious movement in this direction can be more appealing. Examples of such border adjustment include the destination-based cash flow tax (see the April 2017 *Fiscal Monitor*) and a destination-based allowance for corporate equity system. These are the most complete solutions to tax competition and profit shifting because consumers are less mobile than corporate source or residence. Tax calculation would also be simplified, and distortions in investment and corporate finance would disappear. Yet they are also the furthest from current practice and face potential WTO issues. Moreover, a destination-based cash flow tax may amplify refund problems that arise under the VAT, and unilateral adoption could have significant adverse spillover effects (Hebous, Klemm, and Strausholm 2019).
- *Unitary taxation with formula apportionment*—proposed by the European Commission for EU member states and common practice in subnational corporate taxation in Canada, Germany, Japan, and the United States. All affiliates of a company consolidate their accounts, generating a unitary tax base apportioned across participating jurisdictions based on a formula, according, for example, for the shares of assets, payroll, employees, and/or sales located in each. Jurisdictions then apply their own tax rate to the apportioned base. Formula apportionment reduces scope for profit shifting, because prices on intragroup transactions become immaterial; this can also simplify tax calculation. The ultimate economic effects depend on the way in which the unitary base is allocated: tax competition is more limited the greater the weight placed on allocation by the destination of sales (or similar criterion), given the relative immobility of final consumers. Agreeing on a common base might be difficult, however, because the redistribution of tax revenues can be large. Developing economies would most likely gain if employment receives a large weight in the allocation formula.
- *“Residual profit allocation”* schemes split a multinational enterprise's income into a “routine” return on investment and a “residual” return that exceeds normal returns. The schemes then allocate a “normal” return to source countries, potentially by pricing routine activities on the basis of the current arm's-length principle. They differ from the current system by sharing the residual profit according to a formula—which avoids problems with arm's-length pricing where they are often most severe. Residual profit allocation is further from current practice than minimum taxation, but closer to it than formula apportionment. It also addresses the weaknesses of the current system more fully than minimum taxes by substantially

Box 1.3 (continued)

reducing profit-shifting opportunities and simplifying the system.

Urgent Need for Coordination

The ultimate assessment of alternatives will depend on the specific details of reform proposals and on one's preferred weighting of the various criteria—and no reform direction outlined here scores best on all accounts. Agreement on potential international tax reforms would require overcoming several fundamental obstacles, not least the differing views and interests of countries of different size and level of development.

For example, tax cooperation has thus far been driven by the most advanced economies—causing some unease because their circumstances differ from those of developing economies. Finding agreement might thus be hard. Yet putting international corporate tax on a sound basis requires a cooperative multilateral approach—and if international tax order is to be maintained, urgent action is called for. The current deliberations in the OECD's Inclusive Framework will be critical to the future of the international tax system, with the 2020 deadline providing the necessary impetus.

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Introduction

Corruption—the abuse of public office for private gain—distorts the activities of the state and ultimately takes a toll on economic growth and the quality of people’s lives. It weakens key functions of the public sector, including the ability to collect taxes or to make expenditure choices in a fair and efficient way. If, in exchange for bribes, civil servants facilitate tax evasion or corrupt politicians provide ad hoc tax breaks for some people or firms, others will end up facing higher tax rates, and the government may be unable to generate enough revenue to pay for productive spending. Likewise, the quality of public services and infrastructure suffers when project selection reflects opportunities for kickbacks or nepotism. Bribery of foreign officials by multinationals and the use of opaque financial centers, or secrecy jurisdictions, to hide corrupt gains or to evade taxes add a global dimension to the challenge.¹ Against this backdrop, and by contributing to growing inequality, corruption undermines trust in government and can lead to social and political instability.

The widespread acknowledgment that tackling corruption is critical for macroeconomic performance and economic development has led to its inclusion in the United Nations Sustainable Development Goals; it has also prompted several initiatives, including the Framework for Enhanced IMF Engagement in Governance (IMF 2018).² This chapter assesses the fiscal costs of corruption and explores the practices and institutions in the fiscal area that can help curb opportunities and incentives for corruption.

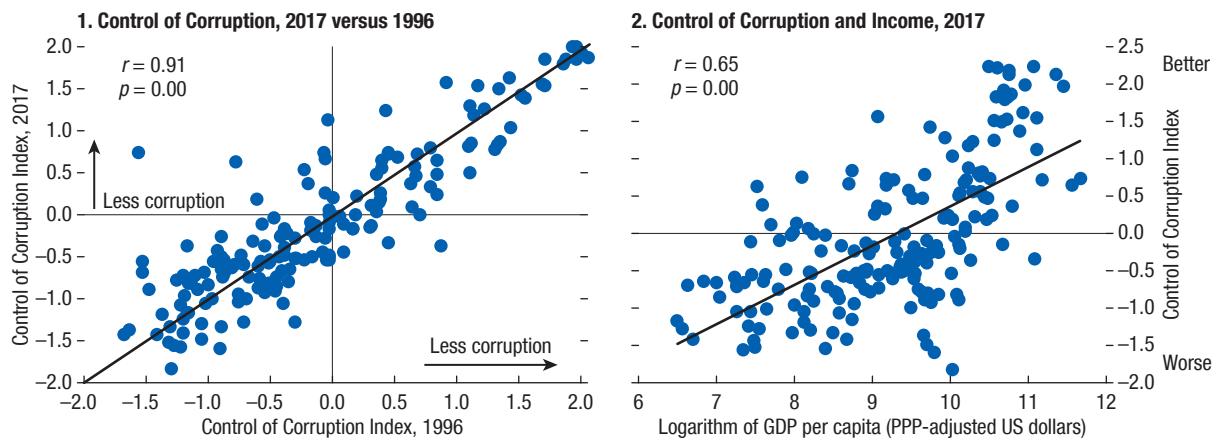
¹Such jurisdictions have features that facilitate the ability to hide assets abroad, allowing corrupt officials to hide illicit gains or multinational firms and wealthy individuals to escape paying their fair share of taxes (Damgaard, Elkjaer, and Johannesen 2018). Tax evasion may occur without corruption, but it is more likely if corrupt officials facilitate it in exchange for bribes (Alm, Martinez-Vazquez, and McClellan 2016).

²The IMF has long been engaged in efforts to help its member countries address governance and corruption issues, guided by its 1997 Governance Policy (IMF 1997). The 2018 framework is designed to promote more systematic, candid, and evenhanded engagement (IMF 2018).

Corruption’s hidden nature and diverse manifestations make it hard to measure, posing challenges to systematic analysis. To gauge the prevalence of corruption across countries and over time, most assessments rely on indirect measures based on perceptions by political experts or those conducting business in the country, or surveys of the experiences of corporate employees or ordinary people.³ Although these measures are imperfect and need to be interpreted with caution, they reveal two important patterns in the data.⁴ First, corruption is persistent: over the past two decades, large improvements have been rare and have built on opportunities created by major political changes. In more stable political environments, progress has been gradual, highlighting the need for perseverance over many years or even decades. Second, perceptions of control of corruption are positively correlated with GDP per capita (Figure 2.1). This raises the question of whether reduced corruption is a cause or a symptom of economic development, or whether both reflect stronger institutions or other factors. Fully disentangling the links between corruption, institutions, and fiscal outcomes may not be feasible. Even so, the country experiences presented in this chapter, complemented with cross-country analysis, provide suggestive evidence on the ways in which policymakers can reduce vulnerabilities to corruption.

³All such measures present advantages and disadvantages. The estimates presented in this chapter use the Control of Corruption Index from the Worldwide Governance Indicators, available since 1996, because it aggregates information from more than 30 different sources. Caution is needed in interpreting scores for any individual country given measurement error because the quality of underlying data can vary across countries and data sources. The estimation uses a version of the Control of Corruption Index that strips out its sub-components explicitly related to actual or perceived features of fiscal institutions. The results are similar using alternative measures, such as those assembled by Transparency International.

⁴Beyond potential concerns regarding the subjective nature of many such measures of corruption, a further limitation is that, while highlighting the perception of a general problem, the measures usually do not provide operational guidance on how to address it. This chapter shifts the attention to fiscal institutions and practices that are under the control of policymakers.

Figure 2.1. Perceptions of Corruption over Time and at Different Income Levels

Sources: IMF, World Economic Outlook database; and Worldwide Governance Indicators.

Note: The Control of Corruption Index provides a relative measure of perceived corruption that ranges from -2.5 (high corruption) to 2.5 (low corruption). Panel 2 shows the logarithm of GDP per capita in PPP-adjusted US dollars. p = p value; PPP = purchasing power parity; r = coefficient of correlation.

More specifically, this chapter has three main goals:

- *Raise the veil on how corrupt activities affect government decisions and operations:* Corruption can pervert the drafting of laws and the core operations of the state, such as collecting taxes, building roads, or managing public schools or hospitals.
- *Assess the fiscal costs of corruption:* Corrupt activities can lead to leakages of public money. Governments will collect less tax revenues and pay too much for goods and services or for investment projects. But the cost of corruption is larger than the sum of the lost money: distortions in spending priorities undermine the ability of the state to promote sustainable and inclusive growth.
- *Highlight the core elements of an effective fiscal governance framework:* The chapter discusses how fiscal institutions can strengthen integrity and accountability in the public sector. It provides evidence based on the analysis of new data on a large set of fiscal institutions and individual country experiences.⁵

In view of corruption's persistence, curbing corruption is a challenging endeavor requiring persevering with efforts on many fronts. As documented in the chapter, with opportunities for funds to leak at

⁵By providing evidence on the fiscal institutions and practices that reduce vulnerabilities to corruption, this chapter further informs the IMF's enhanced engagement on fiscal governance in its surveillance, program, and capacity-building work.

myriad points as they flow through the public sector, plugging a few holes would simply lead wrongdoers to exploit other vulnerabilities. Indeed, the chapter's findings highlight the importance of a comprehensive approach and the need for several institutions to complement one another. The following lessons are also identified:

- Politicians need to take a stand to fight corruption. It is vital for heads of agencies, ministries, and public enterprises to promote ethical behavior by setting a clear tone at the top.
- Countries need to invest in a high degree of transparency and independent external scrutiny. This will allow audit agencies and the public at large to provide effective oversight and promote accountability.
- To reduce opportunities for corruption, institutions need to be upgraded continuously, to keep pace with new challenges as technologies and opportunities for wrongdoing evolve. It is necessary to ensure integrity of processes, especially in higher-risk areas (for example, procurement, tax administration, public enterprises), and to promote effective internal controls. The chances of success are higher when countries improve several, mutually supporting institutions. For example, reforms to tax administration will have greater payoff if tax laws are simplified and the scope for discretion by tax officials is reduced.
- Finally, corruption is also a global problem demanding greater international cooperation to

tackle it. For example, countries should be more proactive in combating bribery by national companies that bribe officials in foreign countries, aggressively pursuing anti-money laundering activities, and reducing opportunities to hide corruption proceeds in opaque destinations. There is also room to improve international exchange of information to fight tax evasion, as well as investigate and prosecute corrupt acts.

Corruption and Government: Channels and Fiscal Costs

What Is Corruption?

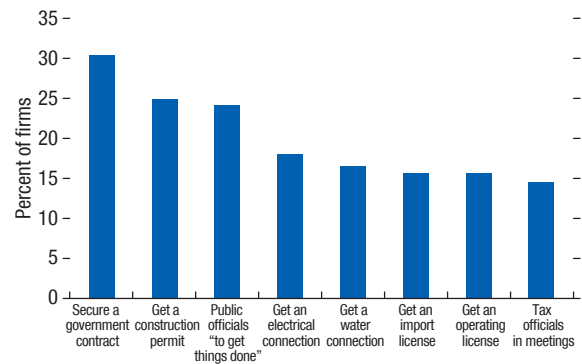
In this chapter, corruption is defined as the abuse of public office for private gain.⁶ This implies a focus on corrupt practices involving civil servants or elected officials that are detrimental to the public interest. The private sector is involved in corrupt acts either by being a counterpart—for example, when it obtains a public contract by paying a bribe—or by facilitating the corrupt act (for example, by helping to hide corrupt proceeds).

Fighting corruption requires an understanding of the multifaceted forms through which it operates, including administrative corruption, in which corrupt acts take existing laws and regulations as given; and state capture, whereby politicians or officials accept bribes in exchange for altering legislation or regulation to favor private firms or individuals (Hellman, Jones, and Kaufmann 2000). Depending on the scale of the amounts involved, one can also distinguish between grand corruption (as in the allocation of large investment projects) and petty corruption (for example, bribes to avoid a traffic violation). Drawing on Rose-Ackerman and Palifka (2016), corrupt acts include the following (among others):

- *Payment of bribes* (whether offered or extorted) to get public services or to evade taxes (Figure 2.2).
- *Embezzlement and public service fraud*, even if not involving bribes. For example, officials may steal money from investment funds, or civil servants may pilfer supplies or neglect their jobs for private sector work.

⁶This is the usual definition of corruption used by the IMF and the World Bank (IMF 1997, 2018). Fisman and Golden (2017) discuss alternative definitions and provide an excellent overview of previous work on this topic.

Figure 2.2. Share of Firms Expected to Pay Bribes to . . . (Percent)



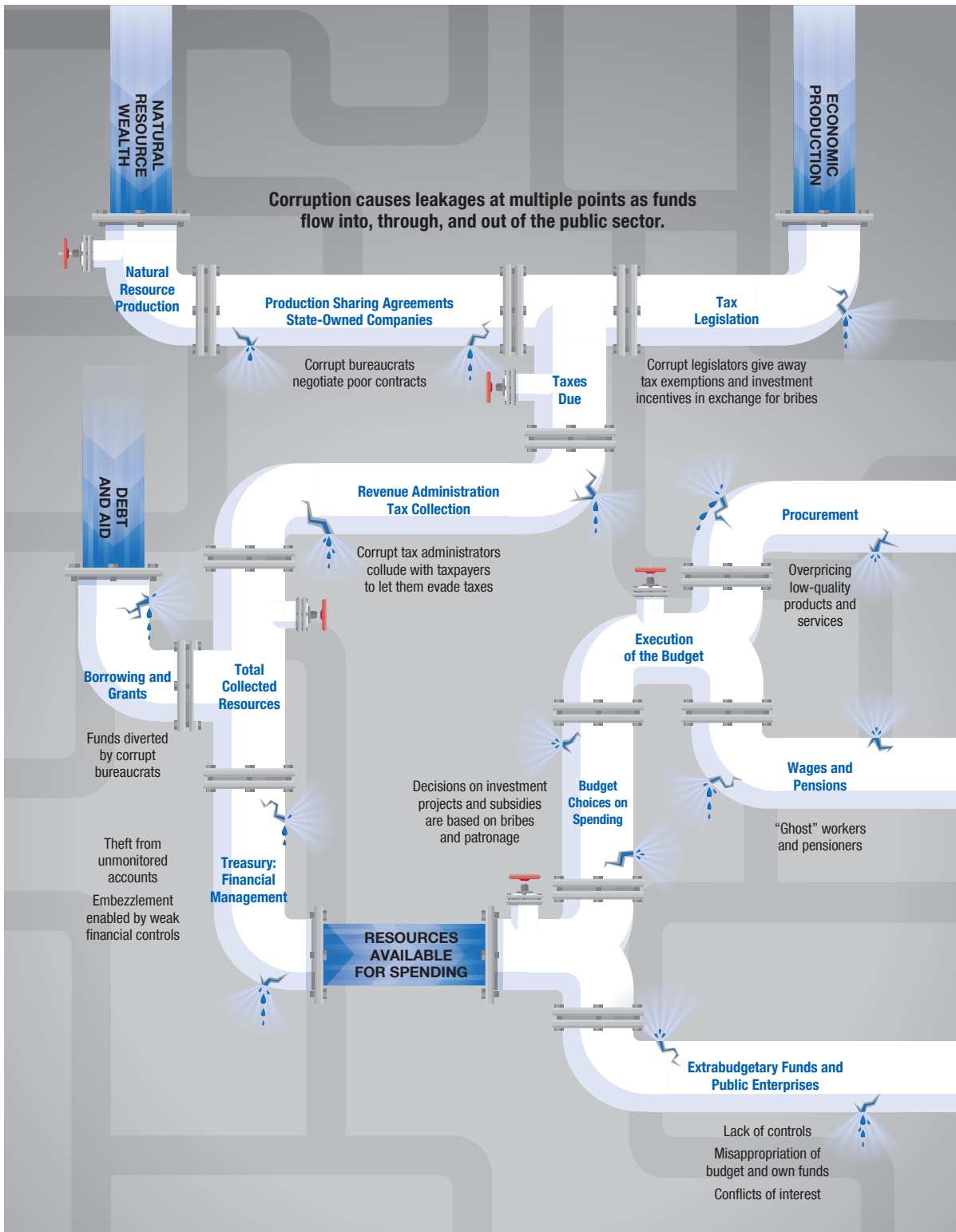
Source: World Bank, Enterprise Surveys.

- *Nepotism or cronyism* to benefit family or a particular group.
- *Influence peddling and conflicts of interest*, when individuals take advantage of their position in government to extract favors or personal benefits from a government decision. Kleptocracy is the most extreme form of state capture, in which the state is managed to maximize the personal wealth of its leaders.

Corrupt activities can be pervasive, and deeply concealed, throughout the public sector. While corruption can have significant negative impacts in other areas, including regulatory and judicial state functions (IMF 2016), this chapter will focus on the fiscal costs. Figure 2.3 illustrates the way corruption causes leakages as funds flow into, through, and out of the public sector. The remainder of this section describes the “hotspots” for corruption and provides evidence regarding its fiscal costs. Beyond the leakage of funds, these effects include the negative impact on the quality of public policies, wasted talent and effort in the private sector as individuals and firms engage in unproductive activities to capture economic rents,⁷ as well as the loss of revenues that stems from corruption’s harmful effects on economic growth.

⁷For example, excessive government restrictions (for example, price controls or licensing mechanisms) create economic rents (that is, proceeds well beyond what would be required to engage in a given activity). People or firms may then pay bribes or engage in other forms of corruption to capture such rents (Krueger 1974).

Figure 2.3. Corruption Leakages in the Public Sector



Source: IMF staff.

How Corruption Undermines the Funding of the Government

Corruption can harm revenue collection at both the legislative and collection stages.⁸ For example, the introduction of tax exemptions or other tax loopholes in exchange for bribes reduces revenue potential. Furthermore, a complex and opaque tax system enables corruption by requiring more discretion in its administration (Asher 2001) and by facilitating hidden corrupt dealings. Customs administration is also vulnerable to corruption. In many countries, customs officials enjoy discretionary powers (including the power to delay the clearance of goods) with limited supervision.⁹ The distortion of tax laws and the corruption of tax officials,¹⁰ by reducing trust in the state, weaken the culture of tax compliance.¹¹

A cross-country comparison confirms that government revenues are significantly lower in countries perceived to be more corrupt.

- The pattern holds among the different country groups (Figure 2.4). For example, among advanced economies, a country in the top 25 percent in terms of control of corruption collects 4½ percent of GDP more in revenues, on average, than a country in the lowest 25 percent. The gap in revenue collection is 2¾ percent of GDP among emerging market economies and 4 percent of GDP among low-income countries.
- The empirical association between corruption and revenues is confirmed by cross-country econometric analysis, controlling for the level of economic development (Figure 2.5) and other factors. An improvement in the Control of Corruption Index by one-third of a standard deviation (equivalent to the average improvement for those countries that

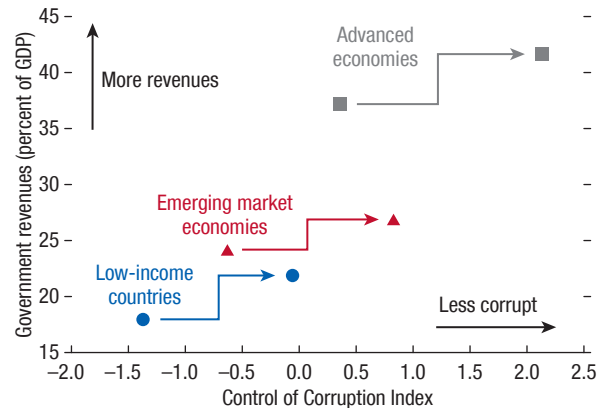
⁸For example, in a case that was described as the largest tax fraud in the history of New York City government, city officials made it appear as if the unpaid taxes had been paid in exchange for bribes from property owners. See <https://www.nytimes.com/1996/11/22/nyregion/29-arrested-in-tax-fraud-scheme-described-as-new-york-s-largest.html>.

⁹Fisman and Wei (2004), by comparing reported exports from Hong Kong SAR to China and the corresponding reported imports, estimate a tax evasion rate of 40 percent for highly taxed products.

¹⁰Examples include bribery to reduce taxation, undervaluation or underdeclaration of goods at customs, and extortion by tax or customs officials who threaten to use their powers to administer ambiguous tax laws against taxpayers (Martini 2014).

¹¹Alm, Martinez-Vasquez, and McClellan (2016) find that the presence of tax inspectors who request bribes results in a reduction of sales reported for taxes by 4–10 percentage points. Also, larger bribes result in higher levels of evasion.

Figure 2.4. Government Revenues and Corruption



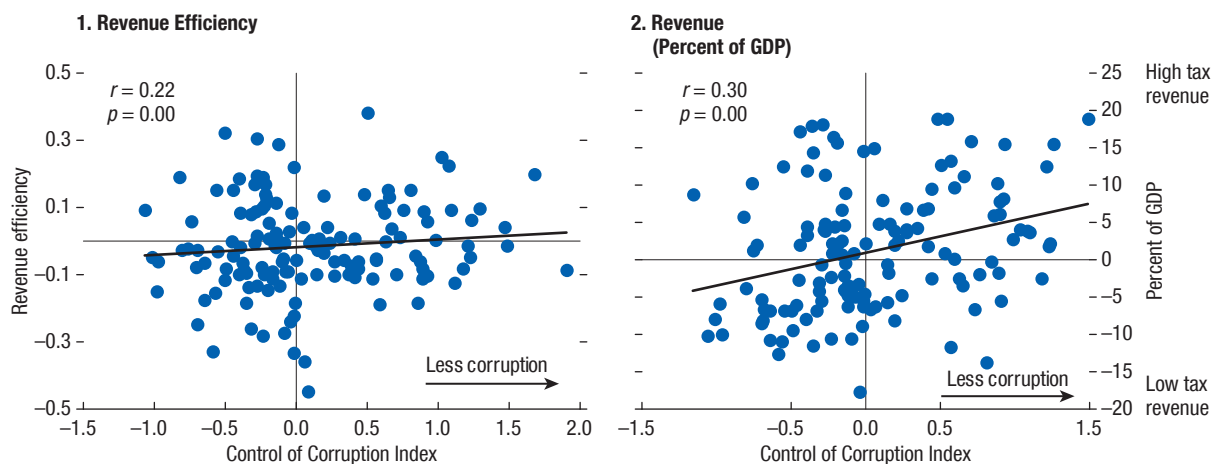
Sources: IMF, World Economic Outlook database; and Worldwide Governance Indicators.

Note: The figure shows the average government revenues as a share of GDP (excluding grants) for countries with the lowest levels of corruption (top 25 percent of control of corruption) and highest levels of corruption (bottom 25 percent) for each of these groups: low-income countries, emerging market economies, and advanced economies. It excludes oil exporters, for which oil revenues are a key driver of total revenues. The Control of Corruption Index provides a relative measure of perceived corruption that ranges from -2.5 (high corruption) to 2.5 (low corruption).

reduced corruption between 1996 and 2017) is associated with an increase of 1.2 percentage points in government revenues as a share of GDP. If that improvement is applied to all countries, the implied increase in total tax revenues could be \$1 trillion, or 1¼ percent of global GDP; the gains would be greater considering that lower corruption would raise economic growth, further boosting revenues. It is also important to note that although the dominant effect is likely to be corruption affecting fiscal outcomes, it is also possible that fiscal outcomes have an impact on the indicators of corruption. It is also not possible to fully disentangle the effect of corruption from the quality of institutions. As such, the results could be interpreted as the benefits of improved governance more generally.¹²

Extractive industries stand out as a hotspot of potential corruption. This reflects the large profits associated with oil and mining exploration. Moreover, because these government revenues come from export receipts and multinationals and do not involve taxing citizens, there is a tendency for less scrutiny and

¹²See the online-only Annex 2.1 for a discussion of the empirical challenges.

Figure 2.5. Corruption and Revenue Collection

Sources: IMF, World Economic Outlook database; and Worldwide Governance Indicators.

Note: Revenue efficiency is calculated based on personal income tax efficiency and value-added tax c-efficiency. It compares what countries collect relative to what they should collect, based on average statutory tax rates. See the online-only Annex 2.1. Both the revenue variables and the Control of Corruption Index are adjusted for GDP per capita. Revenue data is the average of 2015–17 (excludes oil exporters), and revenue efficiency is an average of 2013–16. Control of corruption shows 2017 data. r = coefficient of correlation.

accountability.¹³ Areas particularly prone to corruption include the following:

- *Allocation of exploration rights*, especially if government officials can exercise discretion without proper vetting, and if secrecy around the terms of the contract prevents governments and companies from being held accountable.
- *Revenue collection*, if companies and tax officials have opportunities to negotiate tax payments in exchange for bribes.
- *State-owned enterprises (SOEs) in the natural resources sector*, which present specific concerns because they manage a large share of a country's natural resources. Some may directly negotiate the terms of exploration with foreign corporations (for example, in the case of subcontractor services) with limited oversight. This is one of the most common areas of international corruption. Noncommercial activities of SOEs can also be an area of revenue leakage in the absence of proper vetting.¹⁴

¹³A study by Andersen and others (2017) finds that petroleum windfalls translate into significant increases in wealth hidden abroad by residents of some oil-rich countries.

¹⁴In some countries, mining and oil companies pay for activities that are normally conducted by central or subnational governments. This can include funding social and infrastructure projects, usually with limited scrutiny.

How Corruption Distorts the Use of Public Resources

Corruption affects spending choices and their efficiency at various points in the budget formulation and implementation process. At the budget formulation stage, spending choices can be diverted to projects or activities that offer greater opportunities for kickbacks or spending that is exempt from some controls. Examples include spending on large investment projects or complex defense equipment for which there are limited price comparators. By comparison, in the areas of education and healthcare, it is relatively more difficult for policymakers to levy bribes (Mauro 1998). Indeed, corruption is associated with fewer resources allocated to education or health spending, especially for low-income and emerging market economies (Figure 2.6).

The budget execution stage is more likely to involve civil servants exploiting weaknesses in the control environment in the purchase of goods and services or the wage and pension bills (for example, “ghost” workers). It could also involve extortion of bribes in providing public services or subsidies. For example, according to one study, subsidies for research and innovation became more effective after an anticorruption campaign in China (Fang and others 2018). Greater opportunities for corruption exist in off-budget spending (usually encompassing extra-budgetary funds—for example, road or oil funds—

and SOEs), where controls and external scrutiny are often more lax.¹⁵

Purchase of goods and services by the government as part of its current and capital spending is another hotspot for corruption because of its size (13 percent of GDP among Organisation for Economic Co-operation and Development [OECD] countries). It is not surprising that procurement is the government activity with the highest perception of bribery risk (OECD 2013; World Bank 2012b). An analysis based on five sectors in eight EU countries finds that the direct public loss from corruption varied between 7 and 43 percent of the value of individual procurement contracts that were suspected of being corrupt (PwC 2013). These amounts reflect cost overruns, implementation delays, and loss of effectiveness (for example, poor quality). Corrupt activities involved bid rigging, kickbacks, and conflicts of interest.

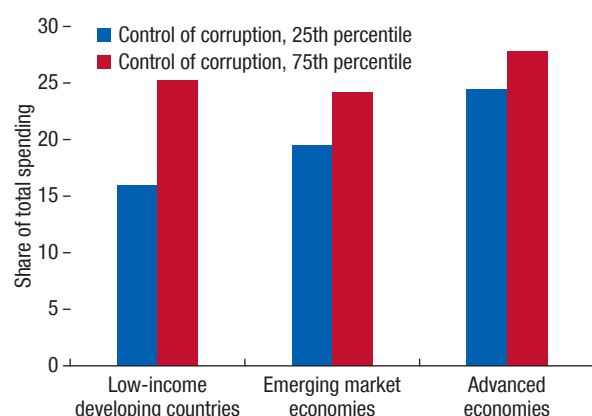
In procurement, public investment is particularly vulnerable to corruption. Investment projects often have unique features, rendering cost comparisons difficult and thus making it easier to conceal bribes and inflate costs. In addition, projects often require numerous licenses and permits, each one providing an opportunity for bribery. Moreover, projects can be designed in a complex way to prevent competition and facilitate corruption. Some estimates suggest that losses from corruption range between 10 and 30 percent of construction value (Matthews 2016). An investigation in the Canadian province of Quebec also found a widespread bribe-for-contracts scandal in the construction industry involving local politicians, contractors, and organized crime groups.¹⁶ Public-private partnerships also present specific challenges because of (1) their complexity; (2) confidentiality clauses in contracts; and (3) frequent renegotiation of contract terms, which opens the door to changes with limited transparency and significant discretion.

The public sector's activities extend beyond the budget through the operations of SOEs. These companies

¹⁵One example is Malaysia's development fund (1Malaysia Development Berhad), which is being investigated for corruption reportedly involving an embezzlement of public funds of at least US\$4.5 billion. See "Malaysia's former prime minister faces trial in the 1MDB scandal," *The Economist*, February 9, 2019, <https://www.economist.com/finance-and-economics/2019/02/09/malaysias-former-prime-minister-faces-trial-in-the-1mdb-scandal>.

¹⁶The investigation was conducted by the Commission of Inquiry on the Awarding and Management of Public Contracts in the Construction Industry (commonly referred to as the Charbonneau Commission).

Figure 2.6. Control of Corruption and Public Spending on Education and Health (Percent)

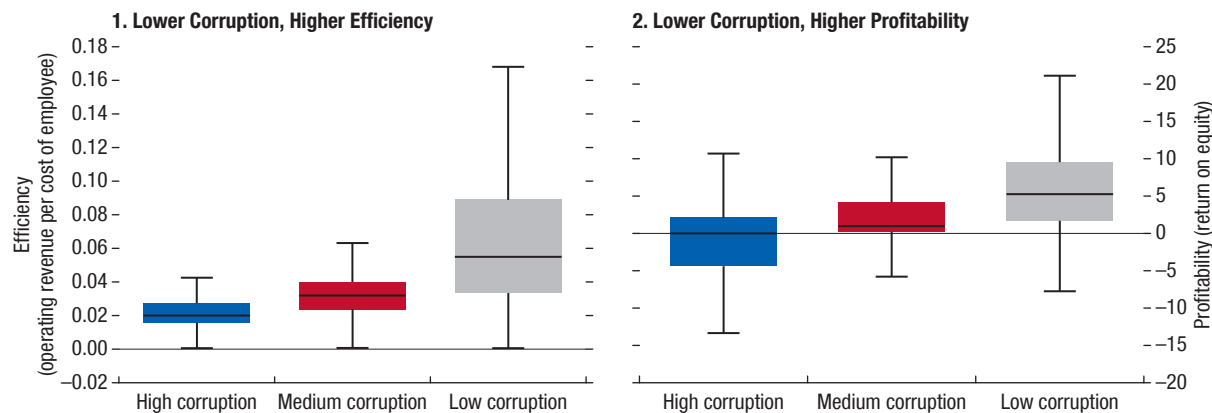


Sources: IMF, Governance Finance Statistics; and IMF staff estimates. Note: Percentiles are computed for each country group. See the online-only Annex 2.1.

range from small enterprises owned by local governments providing core public services, to some of the largest companies in the world. The risks of corruption tend to be higher either because these enterprises operate in corruption-prone sectors, including energy, utilities, and transportation, or, more generally, because of weaker controls and conflicts of interest. SOEs may be unduly influenced by civil servants or elected officials over the company's management for personal benefit. Mismanagement, lending to related entities, and corruption of prudential authorities can also lead to large fiscal costs associated with subsidizing or bailing out public banks—or even private banks (Laeven and Valencia 2012).

The evidence confirms that corruption is one of the main challenges faced by SOEs, including bribes by foreigners:

- In an OECD survey, 42 percent of SOE respondents reported that corrupt acts or other irregular practices occurred in their company during the past three years (OECD 2018a). Several high-profile corruption probes involving SOEs underscore the risk of abuse of public resources, including Petrobras in Brazil, Elf in France, and Eskom and Transnet in South Africa. Corruption has also been highlighted as a key obstacle to reform of SOEs in Ukraine (OECD 2018c).
- In addition, the evidence suggests that 80 percent of foreign bribes go to SOE officials (OECD 2014).
- Cross-country evidence, based on a large SOE data set covering 38 countries, suggests that

Figure 2.7. Corruption and Performance of State-Owned Enterprises

Sources: Orbis; Worldwide Governance Indicators; and IMF staff estimates.

Note: The figure shows performance indicators for state-owned enterprises in the electricity, mining, transport, and water sectors. The database comprises 1,446 firms in 38 countries. The boxes show the median and the 25th and 75th percentiles, while the whiskers show the maximum and minimum values. Countries are divided into high, medium, and low corruption, based on the Control of Corruption Index. Data are from 2000–17.

SOEs' performance (profitability and efficiency) is weaker in countries with high levels of corruption (Figure 2.7).

How Corruption Impairs the Effectiveness of Government Policies

By distorting the incentives of policymakers and civil servants, corruption undermines the quality and effectiveness of government policies. Core public services, such as the provision of quality public infrastructure and education, can be severely hampered (Gupta and others 2000). This, in turn, has a negative effect on governments' ability to promote economic growth and reduce poverty.

Countries with lower levels of perceived corruption have significantly less waste in public investment projects. To assess waste, this analysis uses a measure of public investment efficiency—that is, the degree to which countries turn public investment spending into physical capital.¹⁷ If two countries spend different amounts for a similar output (for example, a mile of two-lane paved road), the country that spends less is more efficient. The difference between a given country and the most efficient one—the efficiency

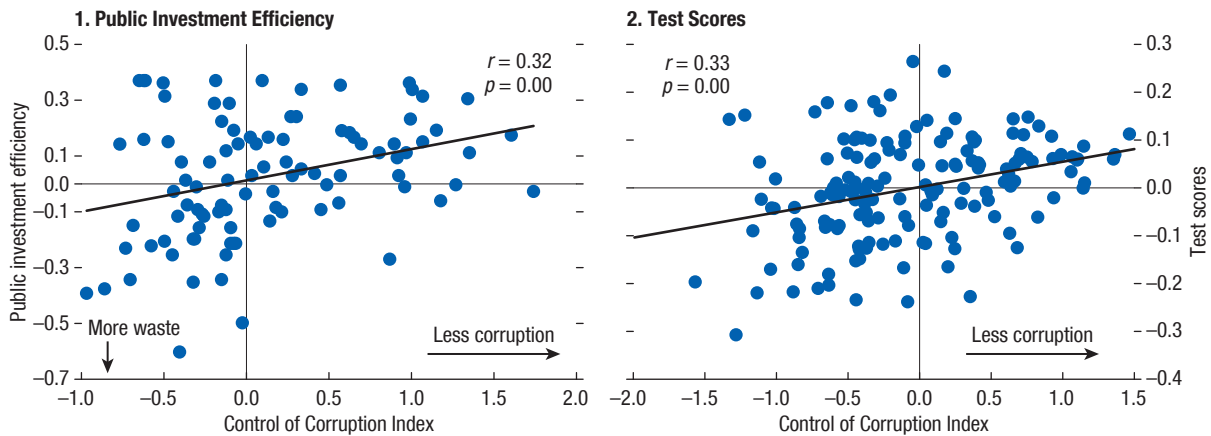
¹⁷The efficiency measure considers the level of GDP per capita because countries at different levels of development have different technologies with which to invest and varying initial capital stocks. A country's level of efficiency is relative to the most efficient country with a similar level of income (IMF 2015).

gap—provides a measure of waste, which reflects corruption (for example, cost overruns, bid rigging) and other factors such as weak project design or poor investment allocation. Panel 1 of Figure 2.8 shows that public investment efficiency is positively associated with control of corruption.¹⁸ The estimates suggest, for instance, that an emerging market economy in the top 25 percent of the control of corruption scale wastes half as much as one in the bottom 25 percent.¹⁹

The quality of education, measured by test scores, is also positively associated with control of corruption (Figure 2.8, panel 2). This effect can be explained by several factors. In some countries, access to teaching positions in public schools is influenced by bribes or connections rather than merit. In addition, teacher absenteeism is a widespread form of petty corruption in several developing economies (Chaudhury and others 2006). Ferraz, Finan, and Moreira (2012) also find evidence that corruption leakages in education grants have a negative impact on test scores and are associated with higher dropout rates.

¹⁸While the cross-country evidence seems to confirm the micro studies and country examples that corruption contributes to lower public investment (and higher waste), it is not possible to rule out a reverse causality effect. While corruption undermines investment efficiency, it is also possible that high inefficiencies could lead to a deterioration in the perceptions of corruption.

¹⁹This result is based on regression analysis reported in the online-only Annex 2.1. Improving the control of corruption by one standard deviation is associated with a fall in the average efficiency gap from 34 to 20 percentage points.

Figure 2.8. Countries with Less Corruption Have Higher Test Scores and Less Waste in Public Investment

Sources: Patrinos and Angrist 2018; Worldwide Governance Indicators; and IMF staff estimates.

Note: Public investment efficiency is estimated using efficiency frontier analysis and measures inefficiency as the distance to the frontier—that is, the maximum level of output for given levels of inputs. Output is measured by a physical indicator of the volume of economic infrastructure and social infrastructure. Inputs include capital stock and income. Test scores for school-age students are harmonized across sources (and adjusted for GDP per capita). See the online-only Annex 2.1. The Control of Corruption Index provides a relative measure of perceived corruption that ranges from -2.5 (high corruption) to 2.5 (low corruption). r = coefficient of correlation.

Governments' ability to borrow as well as to manage risks may also be undermined by corruption, together with other institutional weaknesses. By harming revenue mobilization or through outright theft of public assets, corruption makes it more difficult for governments to service their debt obligations. Some studies find that countries with weaker institutions and weaker policies default more often (Fournier and Bétin 2018; Kraay and Nehru 2006; IMF and World Bank 2012).

The Role of Fiscal Institutions: Country Experiences and Lessons

Can fiscal institutions curb corruption? Is it possible to identify specific budget or tax administration procedures that are more effective in this regard? This section—while acknowledging the role of other institutions, including an effective judicial system—explores the potential role of fiscal institutions in reducing vulnerability to corruption. The discussion highlights the main lessons from selected country experiences and cross-country evidence.

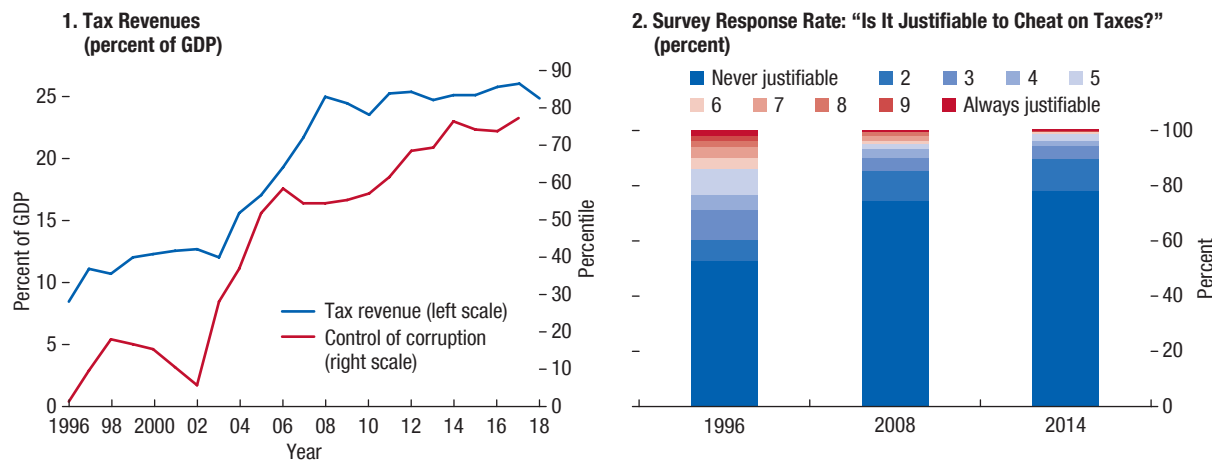
Country Cases: Reducing and Containing Corruption

Corruption tends to be persistent. Government agencies, cities, and even countries can get trapped in an environment of pervasive corruption. A public

official will be more tempted to accept a bribe when “everyone” takes bribes.²⁰ (The opposite is also true: if corruption is rare, individuals will be less tempted to accept bribes because they face a greater chance of being caught.) Thus, escaping the trap of high corruption is difficult. A few countries—such as Estonia, Georgia, Liberia, and Rwanda—have made significant progress over a relatively short period. In these cases, the authorities seized the opportunity of a major political change. These countries reached a “tipping point,” often as a result of a broad-based domestic consensus or an external push to aggressively fight corruption. Some countries also have been able to sustain levels of corruption lower than their regional or income peers (for example, Chile). These country experiences can provide lessons on how to reduce corruption and improve fiscal and economic outcomes.

Georgia and Rwanda have shown the largest improvements on the Control of Corruption Index since 1996. Both countries have made wide-ranging efforts to overcome a pervasive culture of corruption

²⁰The persistence of (or lack of) corruption can be seen as a social equilibrium. Fisman and Golden (2017) characterize it based on a contingent behavior: we make decisions after having considered what we expect others to do. Similarly, Mauro (2004) explores the possible different equilibria in the presence of strategic complementarities. The decision on whether to pay a bribe or denounce it hinges on how many other participate in the bribe or speak out.

Figure 2.9. Georgia: Tax Compliance Surged with Anti-Corruption Reforms

Sources: Country authorities; IMF, World Economic Outlook database; Worldwide Governance Indicators; World Values Survey; and IMF staff estimates.

within a relatively short period. While challenges remain, both countries have achieved remarkable improvements relative to pre-reform periods.

- Until 2003, Georgia was considered one of the most corrupt countries in the world. Many interactions with the state required bribes, and corruption in tax administration decimated revenue collection. In late 2003, a new government launched an all-out anticorruption campaign. It focused on eliminating corruption in the civil service, reducing the number of regulations, and improving the business environment. To show that they were committed to change, the authorities dismissed the entire traffic police force and arrested high-level officials suspected of corruption.
- Over the past two decades, Rwanda has enacted several legal and institutional reforms to fight corruption. The anticorruption legal framework includes legislation criminalizing different types of corruption and money laundering. The government also adopted a code of conduct and rules of disclosure for public officials. Several high-ranking officials were dismissed or prosecuted.

Strengthening fiscal institutions has been an integral part of anticorruption reforms.

- Georgia and Rwanda both undertook major civil service reforms, including reductions in public employment (such as eliminating ghost workers) and increases in wages. The focus has been on establishing competitive, merit-based recruitment. Mandatory asset declarations were introduced in

both countries. Public financial management and transparency were enhanced.

- In Georgia, the tax code was simplified, including elimination of many tax loopholes and a reduction in the number of taxes and import tariffs. One-stop windows were introduced for procedures such as registering businesses and clearing customs. Rwanda undertook tax administration reforms, with significant improvements in collection efforts, auditing procedures, and scrutiny of large taxpayers.

The fight against corruption contributed to improvements in fiscal outcomes. Tax revenues in Georgia increased from 12 percent of GDP in 2003 to 25 percent of GDP in 2008—one of the largest increases recorded for any country, partly due to a new culture of taxpayer compliance (Figure 2.9). Compliance was fostered by renewed trust in government as public services improved, with lower crime rates and fewer power outages. Higher revenues made it possible to clear all wage and pension arrears. In Rwanda, the revenue-to-GDP ratio rose by 6 percentage points (Figure 2.10).

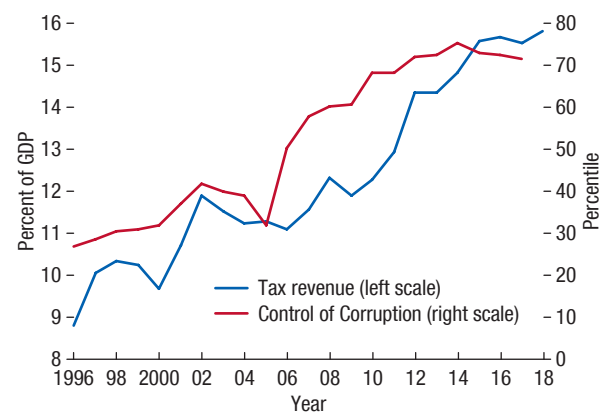
Sustaining the gains requires constant strengthening and modernizing of institutions.

- Georgia and Rwanda have continued to take steps to strengthen institutions over the years after the first wave of reforms. For example, Georgia introduced an e-procurement system in 2011, which has made the system more transparent. Rwanda started implementing one in 2016.

- The need to continue to strengthen institutions over time is also illustrated by other countries that have been able to sustain levels of corruption lower than their peers. One such case is Chile, which has had lower levels of corruption than comparators for decades. Part of the reason is the country's willingness to respond aggressively to corruption cases by addressing institutional weaknesses. The Auditor General has been one of the institutional pillars in Chile since 1925. Legal reforms in the 1960s aimed to reduce the use of slush funds or pork-barrel spending. Economic reforms in the 1970s and 1980s simplified procedures and reduced the scope for excessive public discretion. In 2003, Chile launched ChileCompra (an electronic procurement system, e-procurement), increasing transparency and accountability. The oversight of public money was further strengthened with the 2009 Transparency Law. More recent advances include a 2016 law on public probity to prevent conflicts of interest in the public sector.
- Estonia's strategy of broader and reinforcing reforms over the past two decades also helped reduce corruption. After independence, Estonia undertook an ambitious program of reforms to make the economy more open and business-friendly and to reduce corruption. The judiciary and public administration underwent major transformations and SOEs were privatized. Estonia also embraced digitalization, and 99 percent of state services are now provided online (see the April 2018 *Fiscal Monitor*). Such reforms, together with the adoption of the Public Information Act in 2000 (Terracol 2015), had a large and positive impact, including on tax administration and promotion of transparency.
- Liberia's experience, especially since 2006, demonstrates the possibility of large governance improvements, and fiscal gains, for an aid-dependent country. In the aftermath of the civil war, a donor-supported anticorruption program involving significant reforms of fiscal institutions helped lead to an improvement in corruption perceptions.²¹ The reforms included promoting the independence of the General Auditing Commission, launching transparent budget processes, establishing the Liberia

²¹The Governance and Economic Management Assistance Program, 2006–10, establishes a framework for donors to participate in oversight and institutional capacity building. See Chene (2011) for details on Georgia, Liberia, and Rwanda.

Figure 2.10. Rwanda: Tax Revenues Surged with Anti-Corruption Reforms, 1996–2018
(Percent of GDP)



Sources: IMF, World Economic Outlook database; Worldwide Governance Indicators; and IMF staff estimates.

Note: For the years in which Control of Corruption data are not available, an estimate was created from the average of the previous year and the subsequent year.

Anti-Corruption Commission, and ensuring compliance with the Extractive Industries Transparency Initiative (EITI).

Lessons from Policy Experiments: The Right Incentives and Effective Monitoring

Experiences with specific institutional reforms and the growing literature on policy experiments help shed light on how institutional design can affect incentives and monitoring and lead to better policy outcomes. This section highlights some lessons based on the existing literature (see the online-only Annex 2.2).

Institutional design, supported by technology, can create the right incentives to promote greater integrity in government activities.

- Studies on public procurement show that the design of procedures can have a significant impact on the prices and quality of products. A study for Hungary (Szucs 2017) finds that abandoning an open auction for a negotiation procedure increases corrupt rents, raises the price of every dollar of public spending by 8 cents, and results in a drop in the productivity of selected contractors. In Italy, the introduction of a central procurement agency led to a reduction in waste, measured by the price gap in relation to prices paid by individual public entities. Bandiera, Prat, and Valletti (2009) estimate that corruption

accounted for 20 percent of the waste, with the remainder of the gap attributed to inefficiency.²² The introduction of e-procurement in India and Indonesia also increased competition and led to better quality of construction (Lewis-Faupel and others 2016).

- Some reforms in India show the benefits of digitalization and reducing opportunities for discretion and fraud. For example, the adoption of an electronic platform for managing a social assistance program in India resulted in a 17 percent decline in spending with no corresponding decline in benefits. Similarly, in the state of Andhra Pradesh, the use of smart ID cards that are used to identify beneficiaries of specific programs and improve beneficiaries' access to information helped reduce leakage by 41 percent relative to the control group.²³

A common element of many anticorruption reforms is increasing civil servants' wages. In theory, this helps by (1) reducing the need for civil servants to request bribes to complement very low wages and (2) deterring corrupt activities by raising the cost of being caught. However, there is insufficient evidence that raising wages by itself can play a prominent role in fighting corruption.

- Cross-country data provide tentative support that higher wages may help reduce corruption. For a sample of 90 countries, this chapter finds some evidence of a positive association between higher wages and lower corruption (see the online-only Annex 2.1). As noted by An and Kweon (2017), however, solely relying on higher wages to curtail corruption would likely be too costly and insufficient.
- Country experiences show mixed results, depending on the overall environment and incentives. Studies on absenteeism of teachers and nurses in several developing countries find that the level of wages did not have an impact.²⁴ On performance-related incentives, an experiment in Pakistan also shows

²²Public bodies could choose between buying the goods directly or through the central agency, which allowed for identifying the two types of waste.

²³For details, see the online-only Annex 2.2; Banerjee and others (2015, 2016); and Muralidharan, Niehaus, and Sukhtankar (2016).

²⁴See Chaudhury and others (2006) and Banerjee, Duflo, and Glennerster (2008). On the other hand, there is evidence that pay-for-performance policies can promote greater effort and that higher salaries can improve the likelihood of hiring individuals who are more inclined to public service and less prone to corruption. Dal Bó, Finan, and Rossi (2013) illustrate the effect for Mexico.

the potential for undesirable consequences: while performance-based salaries of tax officials led to a significant increase in tax collection (by as much as 50 percent), bribe requests increased by 30 percent (Khan, Khwaja, and Olken 2015). Some studies suggest that higher wages can be effective if complemented with other institutional features, such as monitoring and sanctions.²⁵

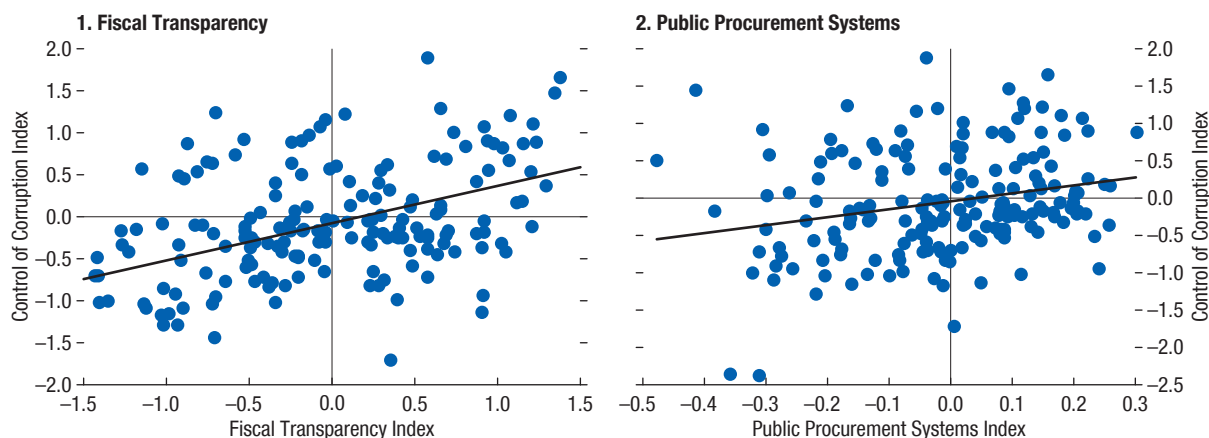
Tax evasion can be fought with the right incentives and by reducing opportunities for corruption. The evidence from policy experiments shows that deterrence approaches improve tax compliance (Hallsworth 2014). For example, a study of taxpayers in Denmark finds that prior audits and threat-of-audit letters have significant effects on self-reported income (Kleven and others 2011). Yang (2008) shows that preshipment inspections of containers increase import duty collection by 15–30 percentage points.²⁶ In Tajikistan, introducing e-filing led to lower compliance costs, and tax payments doubled among firms previously more likely to evade, probably by disrupting collusion with officials (Okunogbe and Pouliquen 2018).

Monitoring and credible sanctions are another element on the anticorruption agenda. For example, audits can decrease costs of public purchases (Di Tella and Schargrodsky 2003), and performance monitoring helps improve the performance of public sector workers (Banerjee and others 2012). Several studies in Brazil show that increased audit risk or having been audited in the past tends to deter future corruption in subnational governments (Ferraz and Finan 2008; Zamboni and Litschig 2018). Muralidharan and others (2017) also find that increased frequency of inspections can help reduce teacher absenteeism. However, to be effective, audits may need to be supported by sanctions or other forms of penalties (Olken 2007).

Providing more information on public programs can help promote greater accountability. More transparency appears to be particularly effective when supported by

²⁵In a study of hospitals in Buenos Aires in 1996–97, Di Tella and Schargrodsky (2003) find evidence of a significant negative effect of public managers' wages on the prices paid by hospitals for supplies when there was also a risk of being audited. Chen and Liu (2018) find that in China, while corruption is reduced by increasing lower-scale wages, the relationship is inverted for higher-scale wages, suggesting that, for the latter, sanctions may be more effective.

²⁶Yang (2008) also finds that developing economies that have hired private firms to conduct preshipment inspections of imports subsequently experience large increases in import duty collections.

Figure 2.11. Fiscal Transparency, Procurement Systems, and Corruption, 2017

Sources: IMF, World Economic Outlook database; International Budget Partnership, Open Budget Index; Worldwide Governance Indicators; and IMF staff estimates.

Note: The Fiscal Transparency Index was built by IMF staff, and the Public Procurement Systems Index is based on the World Bank's GDP per capita adjusted data. See the online-only Annex 2.1.

the media and fostered by civil society participation. For example, in Brazil, the results of audits of municipalities have a significant impact on the reelection prospects of officials suspected of misuse of public money, but these effects were larger in areas with local radio stations. Similarly, two experiences in Uganda illustrate (1) the positive impact of information on local officials' use of education grants; and (2) how community monitoring, together with the provision of "report cards" on the performance of health facilities, improved health outcomes. The introduction of ID cards for recipients of a social program in Indonesia, which displayed the copay to be paid by beneficiaries, led to a significant reduction in leakages (likely as a result of corruption) and a 26 percent increase in actual received benefits in villages with the new ID cards.²⁷

Cross-Country Evidence

The case studies suggest that fiscal institutions can play a role in preventing and containing corruption. To assess whether these results hold more broadly, the chapter now turns to systematic analysis for a larger sample of countries. Some fiscal institutions—such as the quality of procurement systems or tax institutions—refer to

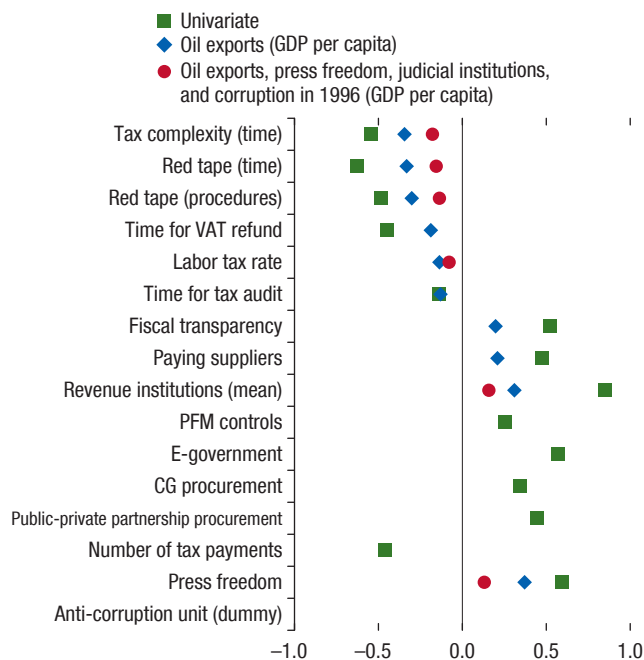
specific areas (see the online-only Annex 2.1 for details). Others have an overarching impact on the public sector, such as the degree of fiscal transparency (Figure 2.11), digitalization (e-government), or the degree of administrative burden (red tape) citizens face when dealing with the state. The analysis explores whether these institutional measures are associated with indicators of perceptions of corruption.

Results from the cross-country analysis support the role of fiscal institutions found in the selected country experiences.

- The analysis of individual institutions one by one shows that they are significantly associated with control of corruption (Figure 2.12). Institutional features for which the relationship holds, controlling for other factors, include tax complexity (time required to pay taxes) as well as other aspects of revenue administration (for example, audits). These results are in line with the view that complex tax laws and weaknesses in tax audits or systems to assess compliance risks lead to higher tax evasion. Fiscal transparency and a lower administrative burden are also correlated with lower corruption.
- When assessing the impact of institutions together (Online Annex 2.1), the analysis suggests that fiscal transparency is particularly effective when there is more press freedom. The degree of digitalization of the government also has a positive relationship (Andersen 2009; Elbahasawy 2014).

²⁷For details on these cases, see Banerjee and others (2015); Björkman, de Walque, and Svensson (2017); Ferraz and Finan (2008); Ferraz, Finan, and Moreira (2012); and Reinikka and Svensson (2005).

Figure 2.12. Fiscal Institutions and Control of Corruption



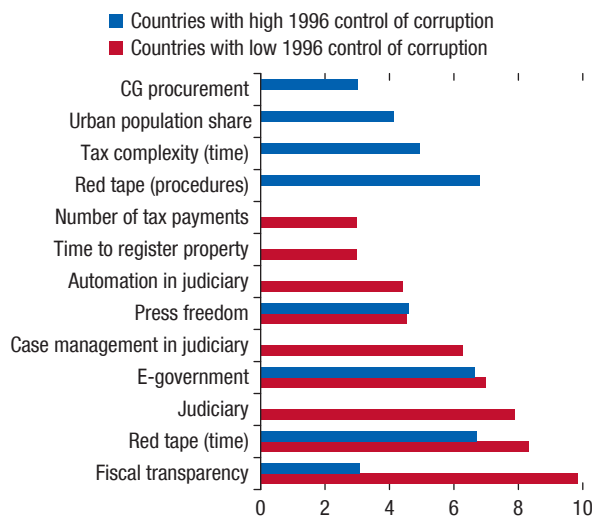
Source: IMF staff estimates.

Note: The figure shows coefficients when regressing the control of corruption on different fiscal institutions. For example, the more complex the laws, the lower the control of corruption. Coefficients are shown if they are significant at the 5 percent level. Series are standardized. See the online-only Annex 2.1. CG = central government; PFM = public financial management; VAT = value-added tax.

The cross-country analysis explores complementarities among institutions. For example, complex tax laws may enhance opportunities for corruption, but the outcome will depend on the quality of the tax administration. Or, the ability of good public financial management or procurement processes to prevent corrupt (illicit) behavior may depend on the timeliness and impartiality of judicial proceedings. The analysis of these interactions provides the following insights:

- Good revenue institutions and lower tax complexity, not surprisingly, reinforce each other; that is, they have a stronger association with lower corruption. Administratively efficient judiciary institutions display complementarities with some fiscal institutions (tax complexity and public financial management). Finally, the results further suggest that fiscal transparency is relevant only when there is press freedom.
- Furthermore, the analysis indicates that revenue institutions are particularly important (higher

Figure 2.13. Relative Importance of Fiscal Institutions



Source: IMF staff estimates.

Note: The results show the topmost relevant institutions out of more than 50 variables. See the online-only Annex 2.1. CG = central government.

correlation with control of corruption) when other institutions are weak.²⁸

The importance of specific institutions also appears to vary depending on the history of corruption. Use of a regression tree approach, which allows for interactions between institutions,²⁹ shows that for countries with a tradition of low corruption, the fiscal institutions that appear more relevant are the degree of digitalization, administrative burden, procurement, and complexity of the tax system (Figure 2.13). For countries that start with a high level of corruption, fiscal transparency and digitalization stand out as key institutional features associated with better control of corruption. Among other institutions, press freedom and the speed of judicial processes are also important.

Promoting Good Governance in the Public Sector

How can countries ensure that fiscal institutions are designed to help fight corruption? The previous

²⁸This finding is based on threshold models analyzing whether some institutions are more relevant depending on the quality of other institutions (Online Annex 2.1).

²⁹Nonlinearities are explored using a regression tree approach (Breiman and others 1984), which has several advantages. Regression trees allow for flexible interactions and for making use of the entire sample of countries, despite missing values for some variables.

sections indicated some of the key elements needed. First, strong political commitment is necessary for comprehensive and profound reforms to broader institutions (encompassing not just fiscal but also effective courts and supervision of the financial sector). Second, countries must ensure integrity of core fiscal operations (tax collection, procurement, management of public enterprises). Third, transparency and external oversight (audit agencies, free press) are needed to promote accountability. Finally, while promoting appropriate incentives, there is also a need to effectively sanction corrupt acts.

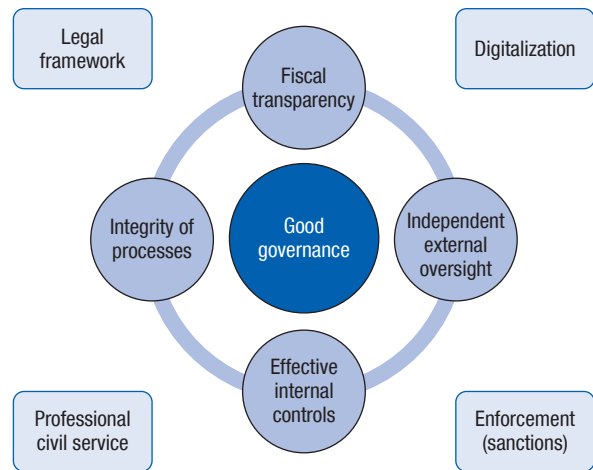
Building on the findings of the previous analysis and the experience of countries across the world, the chapter next discusses a comprehensive approach to strengthening fiscal governance (Figure 2.14). Such an approach will help to not only fight corruption but also more generally contribute to reducing tax evasion and waste in public programs and fostering accountability in decision making. The following are key elements of strong fiscal governance, with an emphasis on reducing vulnerabilities to corruption:

- Overarching, cross-cutting elements that affect all agencies: the legal framework, a professional civil service, and the degree of digitalization (good information technology systems that support management, control, and transparency). An effective system of sanctions is also necessary to ensure good governance
- Design of the organizational structures and integrity of the processes, especially those that are higher risk, to reduce opportunities for corruption.
- An effective control framework, including (1) internal controls and internal audits and (2) an independent external oversight
- Finally, fiscal transparency, a core pillar to ensure accountability and support the other elements of the governance framework.

Fiscal Governance Framework

As illustrated by country experiences and by the many vulnerabilities to leakages, the chances of successfully containing corruption are higher when countries improve several, mutually supporting institutions. When capacity is constrained, governments can prioritize areas of higher risk—for example, procurement or tax administration—but eventually should expand efforts to all the core institutions.

Figure 2.14. Fiscal Governance Framework



Source: IMF staff.

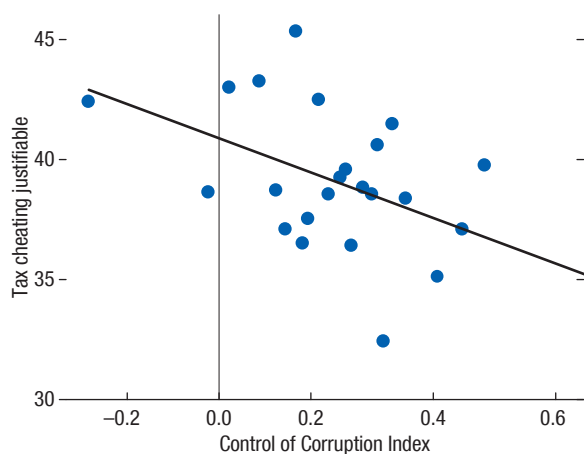
Overarching Legal Framework and Information Systems

County experiences highlight some overarching elements that promote a robust governance framework across the public sector:

- A legal and regulatory framework clearly defining the accountability, transparency, and control environment for the use of public resources. For example, in Australia, the Public Governance, Performance and Accountability Act of 2013 established a system of governance and accountability for the use and management of public resources for all central government agencies and SOEs. Some countries are also moving toward an ex ante review of new laws (known as “corruption proofing”) to minimize the risk of future corruption (for example, Albania, Lithuania, South Korea).³⁰
- A professional civil service, based on transparent, merit-based hiring and remuneration procedures. Codes of conduct and financial accountability principles, including conflict of interest guidelines, mandatory reporting of gifts, and declaration of assets and interests accessible to the public, should be in place.

³⁰These reviews include identifying factors such as unclear definitions of the rights and duties of public officials, excessive discretionary powers, inadequate sanctions, lack of (or conflicting) regulatory and administrative procedures, and disproportionate burdens on citizens to exercise their rights (Hoppe 2014).

Figure 2.15. Corruption Control and Attitude toward Tax Cheating



Sources: Afrobarometer; Latinobarómetro; Worldwide Governance Indicators; and World Values Survey.

Note: The Control of Corruption Index provides a relative measure of perceived corruption that ranges from -2.5 (high corruption) to 2.5 (low corruption).

- Investment in digitalization to improve the integrity of processes and facilitate transparency. Digitalization affects many areas of the government, including e-procurement, transparency (easier access to data), and controls. A core element is a robust and comprehensive integrated financial management information system to reduce human interaction and keep an audit trail of financial transactions. As part of larger reforms, France implemented a comprehensive system of this type for the central government in the 2010s, integrating all budget and accounting processes and strengthening financial controls.³¹ Governments will also need to invest in technology to fight evolving corrupt practices as new technologies present both a challenge to and an opportunity for the fight against corruption. Governments will need to tackle new threats, including cyberattacks (Kopp, Kaffenberger, and Wilson 2017).

Strong Institutions, Mechanisms, and Processes

A key pillar of governance is ensuring integrity in the normal processes across the public sector. Design-

³¹The adoption of the new overarching public financial management law in 2001 was a key step toward greater fiscal transparency, with modernized budget documentation and reporting as well as increased parliamentary oversight after a review of the accountability framework by all stakeholders in the budget execution process.

ing sound mechanisms and tools that create appropriate incentives, limit discretion by public servants, and include controls can reduce vulnerabilities to corruption. Most exposed to corruption are processes that involve bank transactions; interactions with third parties (revenue collection, public procurement, and management of SOEs); and recurrent, less-scrutinized operations (such as payments for wages or goods and services).

The ability of revenue administrations to fight corruption and tax evasion depends on the institutional framework of the agency and the broader governance context (Figure 2.15). For example, a study based on interviews with Greek experts on tax administration highlighted impunity and political interventions among the most frequently cited challenges (Antonokas, Giokas, and Konstantopoulos 2013). In addition, a tax system that is clear, stable, and not overly complex will be easier to administer and harder to evade. Other features that can promote better governance include (1) processes that reduce compliance costs and are based on a risk-based approach, (2) operational independence and effective internal audit and anti-corruption units, (3) revenue administration processes that are digitalized and automated (including automated system of internal controls and risk assessment), and (4) institutional efforts to promote integrity (see the online-only Annex 2.3). For example, Estonia's Tax and Customs Board is using big data analysis to create risk profiles of tax payment transactions and permit close monitoring of high-risk transactions.³²

Tax authorities can also play a critical role in helping fight corruption. Tax crime and corruption are often linked, as criminals do not report income derived from corrupt activities for tax purposes or overreport to launder the proceeds of corruption. As such, tax and law enforcement authorities can benefit from more effective cooperation and sharing of information (OECD and World Bank 2018).

Public procurement and public investment management remain among the most challenging areas. Procurement processes should be competitive and

³²Some custom authorities in Africa (Tanzania, Uganda) are using online platforms to allow the trading community to report problems, including corruption. Real-time information could be displayed at strategic points in the offices or public areas where taxpayers are served. The deterrent potential appears high with this approach to visibility, but there are limitations (Fisman and Golden 2017), and care is needed in the design and safeguards (Ryvkin, Serra, and Tremewan 2017).

transparent and should allow for fair and effective treatment of complaints. Noncompetitive procedures or unsolicited proposals should be limited and tightly regulated.³³ For example, South Africa obtained significant savings on its public-private partnership program by increasing competition.³⁴ Initiatives in the areas of public procurement and public investment management include the following:

- A growing number of countries and institutions use alert systems, or “red flags,” to minimize the risk of corruption and fraud in public procurement. The indicators that are more correlated with corruption are large tenders, lack of transparency and collusion among bidders, complaints from nonwinning bids, substantial changes in the project after the award, and a shortened time span for the bidding process (Ferwerda, Deleanu, and Unger 2017). For example, the European Commission assesses performance of procurement across EU countries based on a set of indicators,³⁵ with several countries having unsatisfactory scores in many indicators (Greece, Italy, Portugal, Spain).³⁶
- An increasing number of countries are adopting e-procurement systems because they promote transparency and efficiency, thus reducing corruption opportunities. Korea has one of the most complete e-procurement systems, covering the entire procurement cycle electronically. A corrupt activity analysis system is in place and suspicious cases are investigated.
- Investment projects, especially large ones, also require proper oversight in other stages—project planning, selection, and implementation—to ensure that decisions are consistent with the public interest. For example, in Malaysia, the central coordination

³³In Côte d’Ivoire, the degree of openness in procurement procedures (competitive versus restricted or closed tendering process) is reviewed, presented in the Council of Ministers quarterly, and published.

³⁴In 2011, South Africa launched a competitive procurement program for renewable energy, resulting in significant drops in prices of renewable energy, mainly owing to a clear, transparent, and comprehensive public-private partnership and Independent Power Producer procurement framework and a dedicated public-private partnership unit of the Ministry of Finance (Eberhard and others 2016).

³⁵The three most important are (1) the proportion of contracts awarded with a single bidder; (2) the proportion of procurement procedures negotiated with a company without a call for bids; and (3) the value of public procurement advertised to businesses, that is, the access and openness of public procurement.

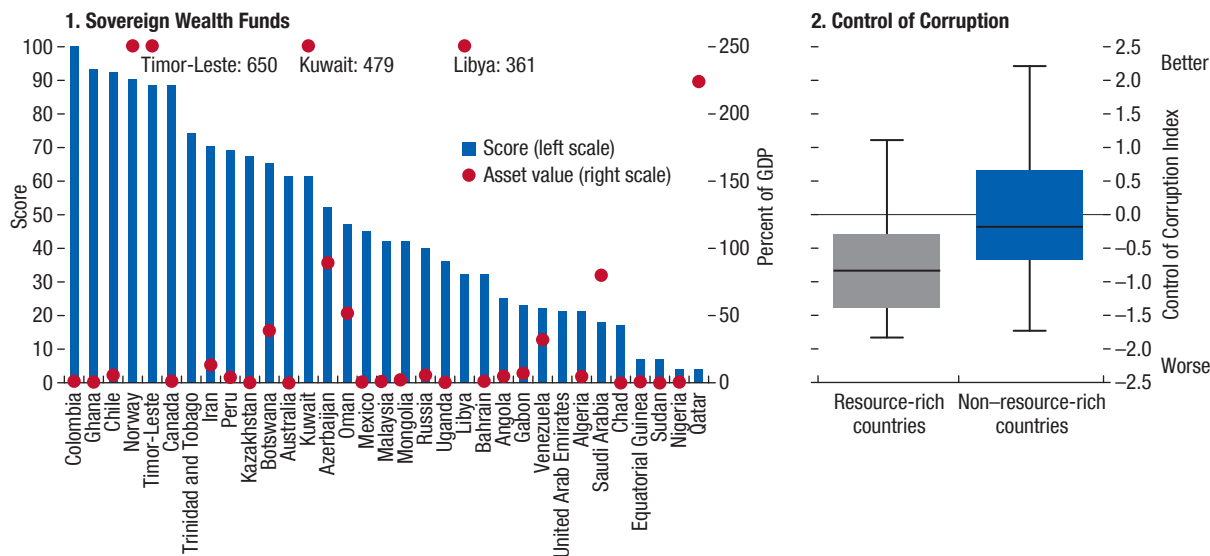
³⁶Some progress has been made; for example, Spain adopted a new procurement law in 2018.

unit produces weekly monitoring reports, measuring both financial and physical progress of investment projects.

Well-functioning budget and treasury systems are also critical for good management of public money. Budget execution processes should be governed by a strong chain of control throughout the process, with adequate segregation of duties. The budget system should be comprehensive, and borrowing should be centralized and authorized by law. The use of extra-budgetary funds (including donor-financed activities) should be avoided because it tends to involve less-stringent controls and scrutiny, increasing vulnerability to misuse of the funds. Digitalization of wage bill payments, combined with payroll monitoring systems, can help identify irregularities or ghost workers. Treasury systems and bank transactions should be comprehensive and subject to tightly controlled processes. A Treasury single account, consolidating all government receipts and payment transactions, is crucial to monitor and control flows.

Many countries either lack key elements of good corporate governance for SOEs in their laws or do not fully implement such elements in practice. The OECD guidelines on corporate governance for SOEs provide the core international standards.

- One crucial element is the relationship between the state (as owner) and SOE management. The governance responsibilities of the state (at the national or subnational level) include proper exercise of its ownership duties. This implies monitoring performance regularly and avoiding undue political interference (including addressing conflicts of interest). One challenge has been transparently selecting SOE boards that are independent and qualified. For example, a study of local public utilities in Italy finds that when boards were dominated by politically connected directors, SOE employment was higher and firm performance was worse (Menozzi, Urtiaga, and Vannoni 2012).
- Another challenge is to fully integrate good corporate governance practices in day-to-day activities, including effective internal controls and risk management systems. Good corporate governance also means ensuring a high degree of accountability through wide-ranging transparency. Even countries that were perceived to have relatively good monitoring and reporting of SOEs activities previously

Figure 2.16. Corruption Is a Challenge for Many Resource-Rich Countries

Sources: Natural Resource Governance Institute 2017; and Worldwide Governance Indicators.

Note: Panel 1 shows the corporate governance and transparency scores of the sovereign wealth funds and the size of assets as a percentage of 2016 GDP. Caution is needed in interpreting scores for any individual country as the quality of underlying data can vary across countries and data sources. In panel 2, the boxes show the median as well as the 25th and 75th percentiles, while the whiskers show the bottom and top 5 percent of the data. The definition of resource-rich countries follows the October 2015 *Fiscal Monitor*. The Control of Corruption Index provides a relative measure of perceived corruption that ranges from -2.5 (high corruption) to 2.5 (low corruption).

have been struggling with corruption in some of their largest companies, leading to further reforms to improve corporate governance (Brazil, South Africa). In 2017, Transparency International issued a guide to further strengthening corporate governance by committing to specific procedures to reduce corruption risks.

The governance challenges of commodity-rich countries—that is, the management of public assets—call for ensuring a high degree of transparency and accountability in the exploration of such resources. Countries should develop frameworks that limit discretion, given the high risk of abuse, and allow for heavy scrutiny (Box 2.1). For example, Mexico adopted high transparency standards to recover public trust in the management of the oil sector.³⁷ At the international level, the EITI has promoted new disclosure

³⁷The National Hydrocarbons Commission awards license contracts through open tender processes with clear prequalification and evaluation criteria and independent verification of the final award. All final bids and associated scores are made public, and bid awards are published (Pattanayak and others 2018). (The new government has canceled all auctions temporarily.)

standards—both within countries and for foreign companies operating in the sector in a country—and monitors countries' abidance. Some progress has been made, but only a few countries follow most EITI recommendations.

The sheer size of economic rents associated with natural resources demands especially strong institutional safeguards.³⁸ Such rents create incentives for payment of bribes or even state capture to secure control over the country's natural wealth. It is then critical to develop a strong institutional framework to manage these resources—including good management of the financial assets kept in sovereign wealth funds—and to ensure that proceeds are appropriately spent. This remains a significant challenge in many resource-rich countries that, on average, have weaker institutions and higher corruption (Figure 2.16). The economic costs (sometimes referred to as the “resource curse”) can be significant (see the October 2015 *Fiscal Monitor*).

³⁸Economic rent is the extra amount paid (over what would be paid for the best alternative use) to somebody or for something useful whose supply is limited. Natural resources are a source of rents because their market price far exceeds their cost of exploration.

Effective Internal Control Environment

Internal controls and audits are essential to help minimize waste, mismanagement, and corruption. Internal controls need to apply to all activities of the government units, and it is important to set a clear “tone at the top” for integrity. The control environment should be (1) based on risk assessments with corresponding mitigating measures, (2) documented and disseminated, and (3) regularly assessed by both internal and external auditors.

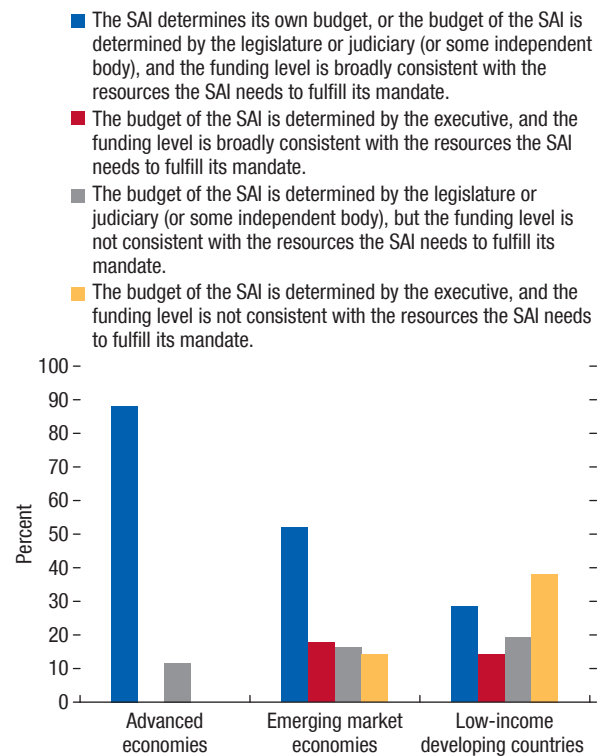
Implementation of an effective control system remains one of the major challenges. The public sector is usually characterized by considerable levels of “formal” controls (such as signatures and approvals), but their efficiency has proved uneven. In the private sector, the Sarbanes-Oxley Act of 2002 in the United States spurred a profound overhaul of financial controls, the oversight role of boards of directors, and the independence of the external auditor after major financial scandals in that country associated with weak governance, fraud, and corruption. The principles in this framework are being gradually adopted by public sectors around the world, especially in EU countries. Even so, weak internal controls continue to undermine the ability to ensure that public money is used properly (Peru, United States).³⁹ More generally, countries are still making progress on core elements, including managerial accountability, independent internal audits, and development of capacity to prevent and detect fraud and corruption.

Independent External Oversight

External scrutiny by supreme audit institutions (SAIs), parliaments, and civil society helps safeguard the integrity of public finances and hold civil servants and elected officials accountable. SAIs certify that public resources are raised and spent in accordance with legal requirements; they also ensure that these activities are accurately reported to the public. Focused audits can help fight corruption by identify-

³⁹In Peru, the external auditor is pushing for a reform given that most public institutions have weak internal control systems. In the United States, over the past 20 years, the Government Accountability Office has not been able to express an opinion on the consolidated financial statements of the US government, mostly because of inadequate financial management and internal control weaknesses at the Department of Defense. In response, the Department of Defense has conducted the first audit (2018) of its operations and is planning to address the weaknesses identified.

Figure 2.17. Many Audit Agencies Are Constrained by a Lack of Resources
(Percent)



Source: International Budget Partnership, Open Budget Index 2017.
Note: SAI = supreme audit institution.

ing waste and mismanagement. For example, social audits have been in place in India since 2005 to oversee the implementation of a large job guarantee program and to fight corruption in the program. These audits were endorsed and supported by the Indian SAI and relied on the strong and direct participation of citizens. SAIs also help promote integrity by reviewing the reliability of the internal control and audit framework.

SAIs face challenges in fulfilling their role as independent external auditors. According to a 2014 survey of 177 such institutions (IDI 2014), 40 percent indicated that the executive interfered with their budget process, including unapproved cuts by the Ministry of Finance, undermining their effectiveness and independence (Figure 2.17). The survey also indicated that many SAIs in developing countries need further capacity-building and political support to fulfill their mandates of preventing, detecting, and reporting on corruption.

Transparency Standards

A high degree of transparency allows for more intrusive scrutiny, which is essential to ensure accountability. For example, timely and accurate fiscal reports are critical to monitor budget execution and help detect fraudulent use of public funds. Making fiscal information accessible to the public ensures that the legislature, audit institutions, the media, and civil society groups can effectively perform their oversight roles. In that context, the IMF's Fiscal Transparency Code sets standards for international good practices in fiscal transparency.⁴⁰

Transparency practices vary significantly (as shown earlier), with many countries still providing limited or incomplete reporting on their activities. A growing number of countries, recognizing the crucial role of transparency, have established legislation that sets out requirements for public disclosure of information. For example, after misreporting on the state of public finances in New Zealand and Australia in the early 1990s, both countries moved to strengthen fiscal transparency requirements through the Fiscal Responsibility Act and the Charter of Budget Honesty Act 1998, respectively, which mandate standards for disclosure of fiscal information. Some countries are taking advantage of new technologies to increase the availability and timeliness of information. For example, Colombia, Costa Rica, and Paraguay, with the support of the Inter-American Development Bank, use an online platform that allows citizens to monitor the physical and financial progress of investment projects, leading to increases in completion rates and more reporting of irregularities (Kahn, Baron, and Vieyra 2018).

Enforcement

The elements of the governance framework discussed above need to be supported by an effective system to detect and punish corrupt acts. The deployment of tip-off boxes, confidential public hotlines, and feedback mechanisms can encourage reporting of corrupt acts. Whistleblower protections are crucial for those who report misconduct (OECD 2016). Moreover, financial institutions should be

⁴⁰The Fiscal Transparency Code is complemented by several other guidelines and accountability tools. Some of the key principles regarding fiscal reports are that they should be timely and comprehensive, covering all transactions of public sector institutions including fiscal flows, assets and liabilities, and contingent commitments; classify information in ways that make clear the use of public resources; and be in line with international standards.

obligated to report to their national financial intelligence units when they suspect that a client is involved in corruption or related money laundering. Different institutions and instruments can uncover corrupt transactions. Some SAIs can enforce sanctions, including requiring monies to be refunded and imposing fines, and some have a judicial role (France). Ministries of finance can also enforce a variety of sanctions (for example, administrative, disciplinary). But the main route is criminal enforcement by law enforcement agencies. These often are specialist units (and sometimes agencies) tasked to investigate, prosecute, and adjudicate corruption (Box 2.2).

An effective system of sanctions is critically important in creating effective disincentives to corruption, but the system also needs to allow for flexibility to minimize damage to the economy and policy objectives. This has been a challenge, particularly when corruption is detected in large public investments (including public-private partnerships and SOEs). For example, in some Latin American countries, discovery of a corrupt act can lead to suspension of projects in line with a zero-tolerance policy (Michele, Prats, and Revol 2018).⁴¹ One possible approach is to continue a project if it is in the public interest, while adopting additional safeguards and still prosecuting and imposing sanctions on corrupt actors (Canada, European Union).

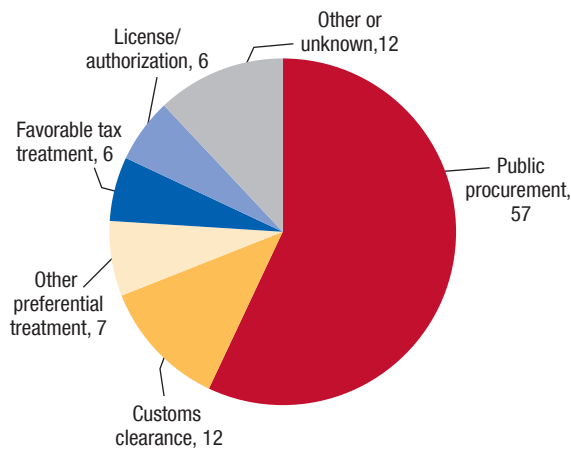
International Cooperation

Corruption is a global challenge with important transnational dimensions: multinational companies offer bribes to facilitate their business abroad; likewise, bribe recipients take advantage of opacity in secrecy jurisdictions, including international financial centers, to hide corruption proceeds. The involvement of multinationals in corrupt acts, in turn, is related to institutional weaknesses in recipient countries and usually involves bribes to obtain contracts or concessions (Figure 2.18).⁴² Conversely, corruption at home is

⁴¹Corruption scandals in some Latin American countries (for example, Brazil, Peru) affected large infrastructure investments with a macroeconomic impact. In some cases, projects were stopped after already-large initial investments.

⁴²Recent examples involving multinationals paying bribes to officials in several countries include Siemens (Germany), which, according to the US Securities and Exchange Commission, paid more than \$1.4 billion in bribes to government officials across Asia, Africa, Europe, the Middle East, and the Americas; and Odebrecht (Brazil), which paid bribes in at least 12 countries (10 in Latin America and two in Africa), according to Transparency International.

Figure 2.18. Purpose of Foreign Bribes (Percent)



Source: OECD 2014.

facilitated by the ability to hide illicit gains abroad—in opaque offshore financial centers. These are estimated to hold about \$7 trillion in hidden wealth deposited by individuals—equivalent to 10 percent of world GDP (Damgaard, Elkjaer, and Johannesen 2018). Although not all of these assets are related to corrupt activities, these flows greatly facilitate corruption.

International cooperation is an increasingly important element in anticorruption efforts and in building stronger institutions. More countries, especially OECD member countries, have been following the example of the US Foreign Corrupt Practices Act, which makes it an offense for US firms to pay bribes to get business abroad. These efforts include coordinated action through international initiatives, such as the OECD Anti-Bribery Convention. However, enforcement by individual countries has been uneven, and the flow of information between countries is slow and unreliable, making it harder to investigate and prosecute corrupt acts (OECD 2018b).⁴³ Improving the sharing of information on international trade could also help fight corruption in customs.

International institutions and aid donors can also play a role. Donors can promote aid that supports good governance. They can also lead by example by improv-

⁴³The United Nations also adopted a convention against corruption (United Nations Convention against Corruption) in 2003. The work of the United Nations has mainly been to encourage countries to share information. See Rose-Ackerman and Palifka (2016) for a history of international efforts.

ing transparency in how their aid is used—at present, practices vary greatly across donors.⁴⁴ International institutions, including the IMF (Box 2.3), have promoted international standards and disseminated country experiences in areas such as transparency and good governance. The Group of 20 and the OECD have developed a new global standard on the automatic exchange of information to fight tax evasion.⁴⁵ This includes stricter requirements to disclose beneficial owners.

Conclusion

Curbing corruption is a challenging endeavor, but one that can bring substantial benefits. On the fiscal front, less corruption means lower revenue leakage and less waste in expenditures, and higher quality of public education and infrastructure. It also increases the chances of success in meeting the Sustainable Development Goals and restoring trust in government. Whereas major political changes occasionally present opportunities for ambitious reforms and rapid improvements, in most circumstances, progress in fighting corruption is likely to be gradual and requires political will, perseverance, and a commitment to continuously upgrade institutions over many years.

Improving fiscal institutions and practices is essential to enhancing integrity and accountability throughout the public sector. The chances of success are greater when countries improve several mutually supporting institutions to tackle corruption. A fiscal governance framework requires a professional and ethical civil service as a key pillar. It demands assiduously upgrading fiscal processes, such as procurement and revenue administration, as well as internal controls. It also requires embracing high levels of transparency and independent external scrutiny, including by civil society and the media.

The benefits of better fiscal institutions will be enhanced if accompanied by other institutions, such as appropriate legal frameworks, as well as timely and

⁴⁴Publish What You Fund publishes the Aid Transparency Index showing how donors perform relative to the International Aid Transparency Initiative standards. The 2018 index shows large differences in the degree of transparency across donors.

⁴⁵Participating jurisdictions that implement this standard send and receive previously agreed-upon information each year. This initiative runs in parallel with another initiative to address Base Erosion and Profit Shifting, whereby companies use tax planning strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low- or no-tax locations.

evenhanded enforcement by the courts. Likewise, transparency has a more beneficial impact in the presence of press freedom and an active civil society. Moreover, adopting new technologies, such as digitalization, is key to fighting constantly evolving corruption challenges. For example, e-procurement can be an effective tool to promote greater transparency, increase competition, and reduce the scope for discretionary decisions.

Finally, to fight corruption effectively in a global economy, international cooperation is necessary in

several areas, including the design and enforcement of legislation against bribery of foreign officials, transparency in international transactions in the natural resource sector, anti-money-laundering activities and greater international information sharing among the relevant authorities, and a reduction in the opacity of ultimate (or beneficial) ownership of assets abroad. Finally, international institutions can help by promoting dissemination of good practices and peer learning.

Box 2.1. Governance in the Extractive Industries

The IMF Fiscal Transparency Code sets out principles and practices for resource-rich countries at each stage of natural resource management. Areas to reduce opportunities for corruption include:

Allocation and Disclosure of Rights

- Open and clear procedures for allocating resource rights are fundamental for the extractive industries to develop in an efficient and transparent manner. Procedures should be based on clear objectives, such as finding the most suitable investor to develop the resource (Mexico's recent licensing rounds).
- Disclosure of resource rights in a license or contract registry is internationally recognized as best practice (for example, Colombia, Liberia, United Kingdom). The availability of this information makes the government and company accountable to parliament and the public at large. Reducing opportunities for corruption also requires defining fiscal regimes in model contracts and legislation, establishing the variable parameters along with clear qualification and bid evaluation criteria ahead of time, and limiting officials' discretion in negotiating new contracts, changes to existing contracts, or licensing procedures—for example, by using competitive and open allocation processes.
- Reporting on beneficial owners of resource rights is emerging as an international norm, with all 51-member countries of the Extractive Industries Transparency Initiative (EITI) having established plans for such disclosure by 2020. As a next step, publication of the associated corporate structure (that is, the chain of intermediaries connecting the beneficial owner and license holder) would ensure complete transparency regarding the ultimate owner of a resource right.

Resource Revenue Administration and Collection

- Clear resource revenue collection, audit, and compliance procedures are needed to ensure that the correct amounts of revenue are collected. Revenues should be reported at the project level. Several EITI

members (Indonesia, Kazakhstan) have made progress in project-level reporting.

- Governments can enhance transparency by requiring that companies report on all payments to government. The disclosure requirement should extend to any corporate entity engaging in natural resource exploration, extraction, or commodity trading.

National Oil and Mining Companies

- Awareness of the need to strengthen transparency and governance among state-owned enterprises (SOEs), especially in the extractive sector, is growing. The 2016 EITI Standard outlines the requirements and recommendations applicable to SOEs from participating countries, including disclosure requirements on beneficial ownership, commodity sales, revenue transfers, and quasi-fiscal expenditures.
- SOEs are increasingly defining clear governance guidelines and codes and publishing information on governance policies and practices (Chile's Codelco and Brazil's Petrobras provide such information on their websites). Transparency can be further strengthened with detailed disclosure of quasi-fiscal spending and procurement contract awards, both high-risk areas of mismanagement.

Sovereign Wealth Funds

- Another challenge is to ensure that the large financial assets included in oil or other sovereign wealth funds are well managed in a transparent way to reduce the potential for misuse. While some sovereign wealth funds are highly transparent in governance and operations (Norway), others—including several major oil exporters in the Gulf—provide little information.
- Sovereign wealth funds should abide by clearly established rules and governance arrangements, and report regularly on operations and investment performance, with externally audited annual financial statements. The Santiago Principles present a sound basis for the transparency practices of sovereign wealth funds (IWG 2008). Preferably they should not be allowed to undertake extrabudgetary spending.

Box 2.2. Supportive Legal Systems

Robust legal systems for detecting, investigating, and prosecuting acts of corruption are critical to the effectiveness of fiscal governance frameworks. They motivate compliance and discourage criminal behavior, such as violation of the relevant laws, rules, and regulations.

Anticorruption

An effective anticorruption regime includes a sound statutory framework implemented by effective institutions, focusing on detection and investigation, prosecution, and adjudication.

- These functions often are carried out by the regular law enforcement agencies, sometimes with officers or sections specializing in corruption.
- Some countries have anticorruption agencies. Most of these agencies are either preventive, repressive, or a hybrid pursuing both objectives (Hong Kong Special Administrative Region, Latvia). Preventive agencies typically provide policy advice and public information. Repressive covers investigation, prosecution, or both. Some have only investigative powers, while others also have prosecution powers.
- Corruption cases are most often filed before the regular courts, sometimes staffed by specialized judges. However, when faced with judicial corruption, countries may opt for distinct courts (or court units) with distinct procedures, staffing, and other facilities, as well as special safeguards, to process corruption and financial crimes cases impartially and with efficiency.

Anti-Money-Laundering Regimes

The proceeds of corruption must almost always be laundered, that is, made to appear legitimate in order to be spent, transferred, or invested. As such, anti-money-laundering (AML) tools strengthen the deterrent value and effectiveness of “traditional” repressive frameworks by:

- *Helping to detect corrupt practices via the laundering of the related proceeds:* The Financial Action Task

Force, the global AML standards setter, requires countries to mandate and ensure that financial institutions monitor their customers’ transactions, with special attention to those conducted by “Politically Exposed Persons,”¹ and report those that are suspicious.

- *Supporting the investigation of corrupt practices and related money laundering:* Countries should conduct financial investigations (“follow the money”) in the case of proceeds-generating crimes and should ensure the transparency of beneficial ownership, typically by requiring that legal entities (for example, opaque investment vehicles) and arrangements (for example, trusts) disclose the names of the natural persons who ultimately own or control them—whether to official registries or to the financial institutions holding their accounts. This can help in the investigation of cases in which public officials steer government contracts to companies that they or their associates own.²
- *Establishing adequate sanctions for convicted officials and their accomplices:* First, officials convicted of both corruption and money laundering face more severe penalties. Second, because money laundering is a stand-alone offense, the accomplices of corrupt officials may be convicted of money laundering even if they were not involved in the act of corruption. And third, the sanctions prescribed for money laundering should be “dissuasive,” such that corrupt officials face serious consequences for laundering the proceeds of their crimes.

¹Such as senior politicians, senior government, judicial, or military officials, and executives of state-owned enterprises.

²Nigeria illustrates the importance of transparency with respect to beneficial ownership. In 1998, a former oil minister granted himself the rights to exploit a large oil field by signing them over, right before leaving office, to an ostensibly independent firm that he secretly controlled.

Box 2.3. IMF Work on Fiscal Governance

Over the years, the International Monetary Fund has built up comprehensive diagnostics on the quality of fiscal institutions, supplying a wealth of information on many aspects of fiscal governance, including public financial management and revenue administration. These tools have been part of the IMF's capacity-building work across its membership. They help strengthen core institutional processes, promote integrity in public administration, and promote fiscal transparency. This work has been undertaken in cooperation with other international institutions (for example, the World Bank) and donors.

Public Investment Management Assessments (PIMAs) help countries evaluate the strength of their public investment management practices.¹ They evaluate 15 institutions that shape public investment decision making at three key investment stages: planning, allocation, and implementation. As of February 2019, 51 countries had completed a PIMA, providing a basis to set up a reform plan tailored to each country's needs.

Fiscal Transparency Evaluations (FTEs) assess fiscal transparency practices against the principles outlined in the Fiscal Transparency Code with a focus on four pillars: (1) fiscal reporting; (2) fiscal forecasting and budgeting; (3) fiscal risk analysis and management; and (4) resource revenue management for specific needs of resource-rich countries. As of February 2019, 25 FTEs were publicly available.²

Other tools in public financial management include the long-established *Public Expenditure and Financial Accountability* assessment, which has covered many low-income countries, and the *Public-Private Partnership Fiscal Risk Assessment Model*, which gauges potential fiscal costs and risks arising from public-private partnerships. Another diagnostic tool related to resource revenue management is the *Fiscal Analysis of Resource Industries* framework, which assists countries in designing fiscal regimes for natural resources.

A similar suite of tools is available to assess the performance of tax and customs administrations. The *Tax Administration Diagnostic Tool* (TADAT) is designed to provide an objective assessment of the health of key components of a country's system of tax administration.³ TADAT assessments identify relative strengths and weaknesses, which helps in setting and prioritizing reform agendas and facilitating external support for reforms. Other IMF diagnostic tools for revenue administration include the *Revenue Administration Fiscal Information Tool*, which compiles a set of performance indicators, and the *Revenue Administration–Gap Analysis Program*, which helps countries estimate the size of tax gaps for major taxes; it provides a better understanding of factors affecting the size of, and changes in, those gaps—in particular, those stemming from taxpayer noncompliance.

¹<https://www.imf.org/external/np/fad/publicinvestment/#3>.

²<https://www.imf.org/external/np/fad/trans/index.htm>.

³<http://www.tadat.org/>.

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COUNTRY ABBREVIATIONS

Code	Country name	Code	Country name
AFG	Afghanistan	DOM	Dominican Republic
AGO	Angola	DZA	Algeria
ALB	Albania	ECU	Ecuador
ARE	United Arab Emirates	EGY	Egypt
ARG	Argentina	ERI	Eritrea
ARM	Armenia	ESP	Spain
ATG	Antigua and Barbuda	EST	Estonia
AUS	Australia	ETH	Ethiopia
AUT	Austria	FIN	Finland
AZE	Azerbaijan	FJI	Fiji
BDI	Burundi	FRA	France
BEL	Belgium	FSM	Micronesia, Federated States of
BEN	Benin	GAB	Gabon
BFA	Burkina Faso	GBR	United Kingdom
BGD	Bangladesh	GEO	Georgia
BGR	Bulgaria	GHA	Ghana
BHR	Bahrain	GIN	Guinea
BHS	Bahamas, The	GMB	Gambia, The
BIH	Bosnia and Herzegovina	GNB	Guinea-Bissau
BLR	Belarus	GNQ	Equatorial Guinea
BLZ	Belize	GRC	Greece
BOL	Bolivia	GRD	Grenada
BRA	Brazil	GTM	Guatemala
BRB	Barbados	GUY	Guyana
BRN	Brunei Darussalam	HKG	Hong Kong Special Administrative Region
BTN	Bhutan	HND	Honduras
BWA	Botswana	HRV	Croatia
CAF	Central African Republic	HTI	Haiti
CAN	Canada	HUN	Hungary
CHE	Switzerland	IDN	Indonesia
CHL	Chile	IND	India
CHN	China	IRL	Ireland
CIV	Côte d'Ivoire	IRN	Iran
CMR	Cameroon	IRQ	Iraq
COD	Congo, Democratic Republic of the	ISL	Iceland
COG	Congo, Republic of	ISR	Israel
COL	Colombia	ITA	Italy
COM	Comoros	JAM	Jamaica
CPV	Cabo Verde	JOR	Jordan
CRI	Costa Rica	JPN	Japan
CYP	Cyprus	KAZ	Kazakhstan
CZE	Czech Republic	KEN	Kenya
DEU	Germany	KGZ	Kyrgyz Republic
DJI	Djibouti	KHM	Cambodia
DMA	Dominica	KIR	Kiribati
DNK	Denmark	KNA	St. Kitts and Nevis

Code	Country name	Code	Country name
KOR	Korea	ROU	Romania
KWT	Kuwait	RUS	Russia
LAO	Lao P.D.R.	RWA	Rwanda
LBN	Lebanon	SAU	Saudi Arabia
LBR	Liberia	SDN	Sudan
LBY	Libya	SEN	Senegal
LCA	St. Lucia	SGP	Singapore
LKA	Sri Lanka	SLB	Solomon Islands
LSO	Lesotho	SLE	Sierra Leone
LTU	Lithuania	SLV	El Salvador
LUX	Luxembourg	SMR	San Marino
LVA	Latvia	SOM	Somalia
MAR	Morocco	SRB	Serbia
MDA	Moldova	STP	São Tomé and Príncipe
MDG	Madagascar	SUR	Suriname
MDV	Maldives	SVK	Slovak Republic
MEX	Mexico	SVN	Slovenia
MHL	Marshall Islands	SWE	Sweden
MKD	Macedonia, former Yugoslav Republic of	SWZ	Swaziland
MLI	Mali	SYC	Seychelles
MLT	Malta	SYR	Syria
MMR	Myanmar	TCD	Chad
MNE	Montenegro	TGO	Togo
MNG	Mongolia	THA	Thailand
MOZ	Mozambique	TJK	Tajikistan
MRT	Mauritania	TKM	Turkmenistan
MUS	Mauritius	TLS	Timor-Leste
MWI	Malawi	TON	Tonga
MYS	Malaysia	TTO	Trinidad and Tobago
NAM	Namibia	TUN	Tunisia
NER	Niger	TUR	Turkey
NGA	Nigeria	TUV	Tuvalu
NIC	Nicaragua	TWN	Taiwan Province of China
NLD	Netherlands	TZA	Tanzania
NOR	Norway	UGA	Uganda
NPL	Nepal	UKR	Ukraine
NZL	New Zealand	URY	Uruguay
OMN	Oman	USA	United States
PAK	Pakistan	UZB	Uzbekistan
PAN	Panama	VCT	St. Vincent and the Grenadines
PER	Peru	VEN	Venezuela
PHL	Philippines	VNM	Vietnam
PLW	Palau	VUT	Vanuatu
PNG	Papua New Guinea	WSM	Samoa
POL	Poland	YEM	Yemen
PRT	Portugal	ZAF	South Africa
PRY	Paraguay	ZMB	Zambia
QAT	Qatar	ZWE	Zimbabwe

GLOSSARY

Automatic stabilizers Revenue and some expenditure items that adjust automatically to cyclical changes in the economy—for example, as output falls, revenue collections decline and unemployment benefits increase, which “automatically” provides demand support.

Balance sheet Statement of the values of the stock positions of assets owned and liabilities owed by a unit, or group of units, drawn up in respect of a particular point in time.

Contingent liabilities Obligations that are not explicitly recorded on government balance sheets and that arise only in the event of a particular discrete situation, such as a crisis.

Countercyclical fiscal policy Active changes in expenditure and tax policies to smooth the economic cycle (by contrast with the operation of automatic stabilizers); for instance, by cutting taxes or raising expenditures during an economic downturn.

Coverage of public benefits Share of individuals or households of a particular socioeconomic group who receive a public benefit.

Cyclically adjusted balance (CAB) Difference between the overall balance and the automatic stabilizers; equivalently, an estimate of the fiscal balance that would apply under current policies if output were equal to potential.

Cyclically adjusted primary balance (CAPB) Cyclically adjusted balance excluding net interest payments (interest expenditure minus interest revenue).

Fiscal buffer Fiscal space created by saving budgetary resources and reducing public debt in good times.

Fiscal multiplier Measures the short-term impact of discretionary fiscal policy on output. Usually defined as the ratio of a change in output to an exogenous change in the fiscal deficit with respect to their respective baselines.

Fiscal stabilization Contribution of fiscal policy to output stability through its impact on aggregate demand.

General government All government units and all nonmarket, nonprofit institutions that are controlled and mainly financed by government units comprising the central, state, and local governments; includes social security funds and does not include public corporations or quasicorporations.

Gross debt All liabilities that require future payment of interest and/or principal by the debtor to the creditor. This includes debt liabilities in the form of special drawing rights, currency, and deposits; debt securities; loans; insurance, pension, and standardized guarantee programs; and other accounts payable. (See the IMF’s 2001 *Government Finance Statistics Manual* and *Public Sector Debt Statistics Manual*.) The term “public debt” is used in the *Fiscal Monitor*, for simplicity, as synonymous with gross debt of the general government, unless specified otherwise. (Strictly speaking, public debt refers to the debt of the public sector as a whole, which includes financial and nonfinancial public enterprises and the central bank.)

Liquid assets Assets that can be readily converted to cash.

Net debt Gross debt minus financial assets corresponding to debt instruments. These financial assets are monetary gold and special drawing rights; currency and deposits; debt securities; loans, insurance, pensions, and standardized guarantee programs; and other accounts receivable. In some countries, the reported net debt can deviate from this definition based on available information and national fiscal accounting practices.

Net (financial) worth Net worth is a measure of fiscal solvency. It is calculated as assets minus liabilities. Net financial worth is calculated as financial assets minus liabilities.

Nonfinancial public sector General government plus nonfinancial public corporations.

Output gap Deviation of actual from potential GDP, in percent of potential GDP.

Overall fiscal balance (also “headline” fiscal balance) Net lending and borrowing, defined as the difference between revenue and total expenditure, using the IMF’s 2001 *Government Finance Statistics Manual* (GFSM 2001). Does not include policy lending. For some countries, the overall balance is still based on the GFSM 1986, which defines it as total revenue and grants minus total expenditure and net lending.

Potential output Estimate of the level of GDP that can be reached if the economy’s resources are fully employed.

Primary balance Overall balance excluding net interest payments (interest expenditure minus interest revenue).

Procyclical fiscal policy Fiscal policy is said to be “procyclical” when it amplifies the economic cycle, for instance by raising taxes or cutting expenditures during an economic downturn.

Progressive (or regressive) taxes Taxes that feature an average tax rate that rises (or falls) with income.

Public debt See *gross debt*.

Public sector Includes all resident institutional units that are deemed to be controlled by the government. It includes general government and resident public corporations.

Structural fiscal balance Extension of the cyclically adjusted balance that also corrects for other nonrecurrent effects that go beyond the cycle, such as one-off operations and other factors whose cyclical fluctuations do not coincide with the output cycle (for instance, asset and commodity prices and output composition effects).

METHODOLOGICAL AND STATISTICAL APPENDIX

This appendix comprises four sections. “Data and Conventions” provides a general description of the data and conventions used to calculate economy group composites. “Fiscal Policy Assumptions” summarizes the country-specific assumptions underlying the estimates and projections for 2019–20 and the medium-term scenario for 2021–24. “Definition and Coverage of Fiscal Data” summarizes the classification of countries in the various groups presented in the *Fiscal Monitor* and provides details on the coverage and accounting practices underlying each country’s *Fiscal Monitor* data. Statistical tables on key fiscal variables complete the appendix. Data in these tables have been compiled based on information available through March 29, 2019.

Data and Conventions

Country-specific data and projections for key fiscal variables are based on the April 2019 World Economic Outlook database, unless indicated otherwise, and compiled by the IMF staff. Historical data and projections are based on information gathered by IMF country desk officers in the context of their missions and through their ongoing analysis of the evolving situation in each country; they are updated on a continual basis as more information becomes available. Structural breaks in data may be adjusted to produce smooth series through splicing and other techniques. IMF staff estimates serve as proxies when complete information is unavailable. As a result, *Fiscal Monitor* data can differ from official data in other sources, including the IMF’s *International Financial Statistics*.

Sources for fiscal data and projections not covered by the World Economic Outlook database are listed in the respective tables and figures.

The country classification in the *Fiscal Monitor* divides the world into three major groups: 35 advanced economies, 40 emerging market and middle-income economies, and 40 low-income developing countries. The seven largest advanced economies as measured by GDP (Canada, France, Germany, Italy, Japan, United Kingdom, United States) constitute the subgroup of major advanced economies, often referred to as the Group of Seven (G7). 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. Data for most European Union member countries have been revised following the adoption of the new European System of National and Regional Accounts (ESA 2010). The low-income developing countries (LIDCs) are countries that have per capita income levels below a certain threshold (currently set at \$2,700 in 2016 as measured by the World Bank’s Atlas method), structural features consistent with limited development and structural transformation, and external financial linkages are insufficient open to be widely seen as emerging market economies. Zimbabwe is included in the group. Emerging market and middle-income economies include those not classified as advanced economies or low-income developing countries. See Table A, “Economy Groupings,” for more details.

Most fiscal data refer to the general government for advanced economies, while for emerging markets and developing economies, data often refer to the central government or budgetary central government only (for specific details, see Tables B–D). All fiscal data refer to calendar years, except in the cases of Bangladesh, Egypt, Ethiopia, Haiti, Hong Kong Special Administrative Region, India, the Islamic Republic of Iran, the Lao People’s Democratic Republic, Myanmar, Nepal, Pakistan, Singapore, and Thailand, for which they refer to the fiscal year. For economies whose fiscal year ends on or before June 30, data are recorded in the previous calendar year. For economies whose fiscal year ends after June 30, data are recorded in the current calendar year.

Composite data for country groups are weighted averages of individual-country data, unless specified otherwise. Data are weighted by annual nominal GDP converted to US dollars at average market exchange rates as a share of the group GDP.

For the purpose of data reporting in the *Fiscal Monitor*, the Group of 20 (G20) member aggregate refers to the 19 country members and does not include the European Union.

In the majority of advanced economies, and some large emerging market and middle-income economies,

fiscal data follow the IMF's 2014 Government Finance Statistics Manual (GFSM 2014) or are produced using national accounts methodology following System of National Accounts 2008 (SNA 2008) or ESA 2010, both of which are broadly aligned with GFSM 2014. Most other countries follow the GFSM 2001, but some countries, including a significant proportion of low-income developing countries, have fiscal data which is based upon the 1986 Government Finance Statistics Manual. The overall fiscal balance refers to net lending (+) and borrowing (–) of the general government. In some cases, however, the overall balance refers to total revenue and grants minus total expenditure and net lending.

The fiscal gross and net debt data reported in the *Fiscal Monitor* are drawn from official data sources and IMF staff estimates. While attempts are made to align gross and net debt data with the definitions in the IMF's Government Finance Statistics Manual, as a result of data limitations or specific country circumstances, these data can sometimes deviate from the formal definitions. Although every effort is made to ensure the debt 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 can sometimes be substantial.

As used in the *Fiscal Monitor*, the term “country” does 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 whose statistical data are maintained on a separate and independent basis.

Argentina: Total expenditure and the overall balance account for cash interest only. The primary balance excludes profit transfers from the central bank of Argentina. Interest expenditure is net of interest income from the social security administration. For GDP and consumer price index (CPI) data, see the “Country Notes” section in the Statistical Appendix of the April 2018 *World Economic Outlook*.

Australia: For cross-country comparability, gross and net debt levels reported by national statistical agencies for economies that have adopted the 2008 System of National Accounts (2008 SNA) (Australia, Canada, Hong Kong Special Administrative Region, United States) are adjusted to exclude unfunded pension liabilities of government employees, defined-benefit pension plans.

Bangladesh: Data are on a fiscal year basis.

Brazil: General government data refer to the nonfinancial public sector—which includes the federal, state, and local governments, as well as public enterprises (excluding Petrobras and Eletrobras)—and are consolidated with those for the sovereign wealth fund. Revenue and expenditures of federal public enterprises are added in full to the respective aggregates. Transfers and withdrawals from the sovereign wealth fund do not affect the primary balance. Disaggregated data on gross interest payments and interest receipts are available from 2003 only. Before 2003, total revenue of the general government excludes interest receipts; total expenditure of the general government includes net interest payments. Gross public debt includes the Treasury bills on the central bank's balance sheet, including those not used under repurchase agreements. Net public debt consolidates general government and central bank debt. The national definition of nonfinancial public sector gross debt excludes government securities held by the central bank, except the stock of Treasury securities used for monetary policy purposes by the central bank (those pledged as security reverse repurchase agreement operations). According to this national definition, gross debt amounted to 77.2 percent of GDP at the end of 2018.

Canada: For cross-country comparability, gross and net debt levels reported by national statistical agencies for economies that have adopted the 2008 SNA (Canada, Australia, Hong Kong Special Administrative Region, United States) are adjusted to exclude unfunded pension liabilities of government employees defined-benefit pension plans.

Chile: Cyclically adjusted balances refer to the structural balance, which includes adjustments for output and commodity price developments.

China: Public debt data include central government debt as reported by the Ministry of Finance, explicit local government debt, and shares—less than 19 percent, according to the National Audit Office estimate—of contingent liabilities the government may incur. IMF staff estimates exclude central government debt issued for the China Railway Corporation. Relative to the authorities' definition, consolidated general government net borrowing includes (1) transfers to and from stabilization funds, (2) state-administered state-owned enterprise funds and social security contributions and expenses, and (3) off-budget spending by local governments. Deficit numbers

do not include some expenditure items, mostly infrastructure investment financed off budget through land sales and local government financing vehicles. Fiscal balances are not consistent with reported debt because no time series of data in line with the National Audit Office debt definition are published officially.

Colombia: Gross public debt refers to the combined public sector, including Ecopetrol and excluding Banco de la República's outstanding external debt.

Egypt: Data are on a fiscal year basis.

Ethiopia: Data are on a fiscal year basis.

Greece: General government gross debt includes short-term debt and loans of state-owned enterprises.

Haiti: Data are on a fiscal year basis.

Hong Kong Special Administrative Region: Data are on a fiscal year basis. Cyclically adjusted balances include adjustments for land revenue and investment income. For cross-country comparability, gross and net debt levels reported by national statistical agencies for countries that have adopted the 2008 SNA (Australia, Canada, Hong Kong Special Administrative Region, United States) are adjusted to exclude unfunded pension liabilities of government employees, defined-benefit pension plans.

Iceland: Gross debt excludes insurance technical reserves (including pension liabilities) and other accounts payable.

India: Data are on a fiscal year basis.

Ireland: General government balances between 2009 and 2012 reflect the impact of banking-sector support. Fiscal balance estimates excluding these measures are –11.4 percent of GDP in 2009, –10.9 percent of GDP in 2010, –8.6 percent of GDP for 2011, and –7.9 percent of GDP for 2012. In 2015, if the conversion of government's remaining preference shares to ordinary shares in one bank were excluded, the fiscal balance would be –1.1 percent of GDP. Cyclically adjusted balances reported in Tables A3 and A4 exclude financial sector support measures. Ireland's 2015 national accounts were revised as a result of restructuring and relocation of multinational companies, which resulted in a level shift of nominal and real GDP. For more information, see "National Income and Expenditure Annual Results 2015," at <http://www.cso.ie/en/releasesandpublications/er/nie/nationalincomeandexpenditureannualresults2015/>.

Islamic Republic of Iran: Data are on a fiscal year basis.

Japan: Gross debt is on an unconsolidated basis.

Lao People's Democratic Republic: Data are on a fiscal year basis.

Latvia: The fiscal deficit includes bank restructuring costs and thus is higher than the deficit in official statistics.

Mexico: General government refers to the central government, social security, public enterprises, development banks, the national insurance corporation, and the National Infrastructure Fund, but excludes subnational governments.

Myanmar: Data are on a fiscal year basis.

Nepal: Data are on a fiscal year basis.

Norway: Cyclically adjusted balances correspond to the cyclically adjusted non-oil overall or primary balance. These variables are in percent of non-oil potential GDP.

Pakistan: Data are on a fiscal year basis.

Peru: Cyclically adjusted balances include adjustments for commodity price developments.

Singapore: Data are on a fiscal year basis. Historical fiscal data have been revised to reflect the migration to GFSM 2001, which entailed some classification changes.

Spain: Overall and primary balances include financial sector support measures estimated to be –0.1 percent of GDP for 2010, 0.3 percent of GDP for 2011, 3.7 percent of GDP for 2012, 0.3 percent of GDP for 2013, 0.1 percent of GDP for 2014, 0.1 percent of GDP for 2015, and 0.2 percent of GDP for 2016.

Sweden: Cyclically adjusted balances take into account output and employment gaps.

Switzerland: Data submissions at the cantonal and commune level are received with a long and variable lag and are subject to sizable revisions. Cyclically adjusted balances include adjustments for extraordinary operations related to the banking sector.

Thailand: Data are on a fiscal year basis.

Turkey: Information on the general government balance, primary balance, and cyclically adjusted primary balance differs from that in the authorities' official statistics or country reports, which include net lending and privatization receipts.

United States: Cyclically adjusted balances exclude financial sector support estimated at 2.4 percent of potential GDP for 2009, 0.3 percent of potential GDP for 2010, 0.2 percent of potential GDP for 2011, 0.1 percent of potential GDP for 2012, and 0.0 percent of potential GDP for 2013. For cross-country comparability, expenditure and fiscal balances of the United States are adjusted to exclude the imputed interest on unfunded pension liabilities

and the imputed compensation of employees, which are counted as expenditure under the 2008 SNA adopted by the United States, but this is not true for countries that have not yet adopted the 2008 SNA. Data for the United States may thus differ from data published by the US Bureau of Economic Analysis (BEA). In addition, gross and net debt levels reported by the BEA and national statistical agencies for other economies that have adopted the 2008 SNA (Australia, Canada, Hong Kong Special Administrative Region, United States) are adjusted to exclude unfunded pension liabilities of government employees, defined-benefit pension plans.

Uruguay: Data are for the consolidated public sector (as presented in the authorities' budget documentation), which includes Banco Central del Uruguay, the nonfinancial public sector, local governments, and Banco de Seguros del Estado. In particular, Uruguay is one of the few countries for which public debt includes the debt of the central bank, which increases recorded public sector gross debt.

Venezuela: Fiscal accounts for 2010–23 correspond to the budgetary central government and Petr oles de Venezuela S.A. (PDVSA). Fiscal accounts before 2010 correspond to the budgetary central government, public enterprises (including PDVSA), Instituto Venezolano de los Seguros Sociales (IVSS—social security), and Fondo de Garant a de Dep ositos y Protecci n Bancaria (FOGADE—deposit insurance).

Fiscal Policy Assumptions

Historical data and projections of key fiscal aggregates are in line with those of the April 2019 *World Economic Outlook*, unless noted otherwise. For underlying assumptions other than on fiscal policy, see the April 2019 *World Economic Outlook*.

Short-term fiscal policy assumptions are based on officially announced budgets, adjusted for differences between the national authorities and the IMF staff regarding macroeconomic assumptions and projected fiscal outturns. Medium-term fiscal projections incorporate policy measures that are judged likely to be implemented. When 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.

Argentina: Fiscal projections are based on the available information regarding budget outturn

and budget plans for the federal and provincial governments, fiscal measures announced by the authorities, and IMF staff macroeconomic projections.

Australia: Fiscal projections are based on data from the Australian Bureau of Statistics; the fiscal year FY2018/19 budgets of the Commonwealth and States and Territories where available; otherwise FY2018/19 mid-year fiscal and economic reviews by States and Territories; and IMF staff estimates and projections.

Austria: Fiscal projections are based on data from Statistics Austria, the authorities' projections, and IMF staff estimates and projections.

Belgium: Projections are based on the 2018–21 Stability Programme and other available information on the authorities' fiscal plans, with adjustments for IMF staff assumptions.

Brazil: Fiscal projections for 2019 take into account the deficit target approved in the budget law.

Cambodia: Historical fiscal and monetary data are from the Cambodian authorities. Projections are based on the IMF staff's assumptions following discussions with the authorities.

Canada: Projections use the baseline forecasts in the 2018 federal budget and latest provincial budgets as available. The IMF staff makes some adjustments to this forecast, including for differences in macroeconomic projections. The IMF staff forecast also incorporates the most recent data releases from Statistics Canada's Canadian System of National Economic Accounts, including federal, provincial, and territorial budgetary outturns through 2018:Q3.

Chile: Projections are based on the authorities' budget projections, adjusted to reflect the IMF staff's projections for GDP and copper prices.

China: Fiscal expansion is expected for 2019, due to personal income tax reform and other measures to respond to economic slowdown.

Croatia: Projections are based on the macroeconomic framework and the authorities' medium-term fiscal guidelines.

Cyprus: Projections are based on staff assessment of high-frequency fiscal data, budget plans, and IMF staff's macroeconomic assumptions.

Czech Republic: Projections are based on the authorities' budget forecast for 2018–19 with adjustments for the IMF staff's macroeconomic projections. Projections for 2019 onward are based on the country's Convergence Programme and Fiscal Outlook.

Denmark: Estimates for 2018 are aligned with the latest official budget numbers, adjusted where appropriate for the IMF staff's macroeconomic assumptions. For 2019, the projections incorporate key features of the medium-term fiscal plan as embodied in the authorities' 2018 Convergence Program submitted to the EU.

Estonia: Fiscal projections are on an accrual basis and are based on the authorities' 2017 budget.

Finland: Projections are based on the authorities' announced policies, adjusted for the IMF staff's macroeconomic scenario.

France: Projections for 2018 onward are based on the measures of the 2018 budget law, the multi-year law for 2018–22, and the 2019 budget law adjusted for differences in assumptions on macro and financial variables, and revenue projections. Historical fiscal data reflect the September 2018 revisions and update of the historical fiscal accounts, debt data, and national accounts.

Germany: The IMF staff's estimates for 2019 and projections for 2019 and beyond are based on the 2019 Draft Budgetary Plan and data updates from the national statistical agency, adjusted for the differences in the IMF staff's macroeconomic framework and assumptions concerning revenue elasticities. The estimate of gross debt includes portfolios of impaired assets and noncore business transferred to institutions that are winding up, as well as other financial sector and EU support operations.

Greece: Greece's general government primary balance estimate for 2018 is based on preliminary data up to November 2018, provided by the Ministry of Finance as of February 1, 2019. Historical 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 on expenditure.

Hungary: Fiscal projections include IMF staff projections of the macroeconomic framework and of the impact of recent legislative measures, as well as fiscal policy plans announced in the 2018 budget.

India: Historical data are based on budgetary execution data. Projections are based on available information on the authorities' fiscal plans, with adjustments for IMF staff assumptions. Subnational data are incorporated with a lag of up to one year; general government data are thus finalized well after central government data. IMF and Indian

presentations differ, particularly regarding divestment and license auction proceeds, net versus gross recording of revenues in certain minor categories, and some public-sector lending.

Indonesia: IMF projections are based on moderate tax policy and administration reforms, and a gradual increase in social and capital spending over the medium term in line with fiscal space.

Ireland: Fiscal projections are based on the country's Budget 2019.

Israel: Historical data are based on Government Finance Statistics data prepared by the Central Bureau of Statistics. The central government deficit is assumed to increase to 3.5 percent of GDP in 2019. It is assumed to decline afterward but not in line with medium-term fiscal targets, consistent with long experience of revisions to those targets.

Italy: The IMF staff's estimates and projections are informed by the fiscal plans included in the government's 2019 budget. IMF staff assumes that the automatic value-added tax (VAT) hikes for future years will be canceled.

Japan: The projections reflect fiscal measures already announced by the government, including the consumption tax hike in October 2019 and the mitigating measures included in the FY2019 budget and tax reform.

Kazakhstan: Fiscal projections are based on the Budget Code and IMF staff projections.

Korea: The medium-term forecast incorporates the medium-term path for public spending announced by government.

Libya: Against the background of a civil war and weak capacities, the reliability of Libya's data, especially medium-term projections, is low.

Malaysia: Fiscal projections are based on budget numbers, discussion with the authorities, and IMF staff estimates.

Malta: Projections are based on the authorities' latest Stability Programme Update and budget documents, adjusted for the IMF staff's macroeconomic and other assumptions.

Mexico: Fiscal projections for 2018 are broadly in line with the approved budget; projections for 2019 onward assume compliance with rules established in the Fiscal Responsibility Law.

Moldova: Fiscal projections are based on various bases and growth rates for GDP, consumption, imports, wages, and energy prices and on demographic changes.

Myanmar: Fiscal projections are based on budget numbers, discussions with the authorities, and IMF staff estimates.

Netherlands: Fiscal projections for the period 2018–24 are based on the authorities' Bureau for Economic Policy Analysis budget projections, after differences in macroeconomic assumptions are adjusted for. Historical data were revised following the June 2014 Central Bureau of Statistics release of revised macro data because of the adoption of the European System of National and Regional Accounts (ESA 2010) and the revisions of data sources.

New Zealand: Fiscal projections are based on the fiscal year 2018–19 budget; the 2018 Half-Year Economic and Fiscal Update; and IMF staff estimates

Norway: Fiscal projections are based on the latest 2018 revised budget.

Philippines: Revenue projections reflect the IMF staff's macroeconomic assumptions and incorporate anticipated improvements in tax administration. Expenditure projections are based on budgeted figures, institutional arrangements, current data, and fiscal space in each year.

Poland: Data are on an ESA 2010 basis beginning in 2010. Data before 2010 are on the basis of ESA 95. Projections are based on the 2017 budget and take into account the effects of the 2014 pension changes.

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.

Romania: Projections for 2019 reflect the full effect of the budget measures adopted in 2018 (including the increases in wages and pensions, and changes to labor taxation), further implementation of the unified wage law, and the legislated increase in pensions. Apart from the impact of the unified wage law—which is set to be implemented gradually until 2022, and the indexation of public pensions, no additional policy changes are assumed beyond 2019.

Russia: Projections for 2018–21 are staff estimates based on the authorities' budget. Projections for 2022–24 are based on the new oil-price rule, with adjustments by IMF staff.

Saudi Arabia: Staff baseline projections of total government revenues, except exported oil revenues, are based on staff understanding of government policies as announced in their 2019 Budget and the Fiscal Balance Program 2019 Update. Exported oil

revenues are based on the WEO baseline oil prices and the assumption that Saudi Arabia will continue to meet its commitments under the OPEC+ agreement. Expenditure projections take the 2019 Budget and the Fiscal Balance Program 2019 Update as a starting point and reflect staff estimates of the latest changes in policies and economic developments.

Singapore: For fiscal year 2019/20, projections are based on budget numbers. For the remainder of the projection period, the IMF staff assumes unchanged policies.

Slovak Republic: Projections for 2015 take into account developments in the first three quarters of the year and the authorities' new projections presented in the budget for 2016. Projections for 2016 consider the authorities' 2016 budget. Projections for 2017 and beyond reflect a no-policy-change scenario.

Spain: For 2019, projections assume expenditures under the 2018 budget extension scenario and already legislated measures, including pension and public wage increases, and IMF staff projection of revenues. For 2020 and beyond, fiscal projections are IMF staff projections, which assume an unchanged structural primary balance.

Sri Lanka: Projections are based on the authorities' medium-term fiscal framework and the revenue measures proposed.

Sweden: Fiscal projections take into account the authorities' projections based on the 2018 December Budget. The impact of cyclical developments on the fiscal accounts is calculated using the 2014 Organization for Economic Cooperation's elasticity¹ in order to take into account output and employment 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.

Thailand: For the projection period, the IMF staff assumes an implementation rate of 50 percent for the planned infrastructure investment programs.

Turkey: The fiscal projections assume a more negative primary and overall balance than envisaged in the authorities' New Economic Program (NEP) 2019–21, based partly on staff's lower growth forecast and partly on definitional differences. The basis for the projections in the *World Economic Outlook* and *Fiscal Monitor* is the IMF-defined fiscal balance, which

¹Price, R., T. Dang, and Y. Guillemette. 2014. "New Tax and Expenditure Elasticity Estimates for EU Budget Surveillance." OECD Economics Department Working Papers 1174. OECD Publishing, Paris. <https://doi.org/10.1787/5jxrh8f24hf2-en>.

excludes some revenue and expenditure items that are included in the authorities' headline balance.

United Kingdom: Fiscal projections are based on the United Kingdom's Spring 2019 Budget, with expenditure projections based on the budgeted nominal values and with revenue projections adjusted for differences between IMF staff forecasts of macroeconomic variables (such as GDP growth and inflation) and the forecasts of these variables assumed in the authorities' fiscal projections. IMF staff data exclude public sector banks and the effect of transferring assets from the Royal Mail Pension Plan to the public sector in April 2012. Real government consumption and investment are part of the real GDP path, which, according to the IMF staff, may or may not be the same as projected by the UK Office for Budget Responsibility.

United States: Fiscal projections are based on the January 2019 Congressional Budget Office baseline adjusted for IMF staff's policy and macroeconomic assumptions. Projections incorporate the effects of tax reform (Tax Cuts and Jobs Act, signed into law at the end of 2017) as well as the Bipartisan Budget Act of 2018 passed in February 2018. Finally, fiscal projections are adjusted to reflect IMF staff's forecasts for key macroeconomic and financial variables and different accounting treatment of financial sector support and of defined-benefit pension plans and are converted to a general government basis. Data are compiled using SNA 2008, and when translated into GFS this is in accordance with GFSM 2014. Due to data limitations, most series begin 2001.

Venezuela: Projecting the economic outlook in Venezuela, including assessing past and current

economic developments as the basis for the projections, is complicated by the lack of discussions with the authorities (the last Article IV consultation took place in 2004), incomplete understanding of the reported data, and difficulties in interpreting certain reported economic indicators given economic developments. The fiscal accounts include the budgetary central government, social security, FOGADE (insurance deposit institution), and a sample of public enterprises including *Petróleos de Venezuela, S.A. (PDVSA)*, and data for 2018–24 are IMF staff estimates. The effects of hyperinflation and the paucity of reported data mean that IMF staff's projected macroeconomic indicators need to be interpreted with caution. For example, nominal GDP is estimated assuming the GDP deflator rises in line with IMF staff's projection of average inflation. Public external debt in relation to GDP is projected using IMF staff's estimate of the average exchange rate for the year. Wide uncertainty surrounds these projections.

Vietnam: Fiscal data for 2015–17 are the authorities' estimate. From 2018 onward, fiscal data are based on IMF staff projections.

Yemen: Hydrocarbon revenue projections are based on *World Economic Outlook* assumptions for oil and gas prices (the authorities use \$55 a barrel) and authorities' projections of production of oil and gas. Non-hydrocarbon revenues largely reflect authorities' projections, as do most of the expenditure categories, with the exception of fuel subsidies, which are projected based on the *World Economic Outlook* price consistent with revenues. Monetary projections are based on key macroeconomic assumptions about the growth rate of broad money, credit to the private sector, and deposit growth.

Definition and Coverage of Fiscal Data

Table A. Economy Groupings

The following groupings of economies are used in the *Fiscal Monitor*.

Advanced Economies	Emerging Market and Middle-Income Economies	Low-Income Developing Countries	G7	G20 ¹	Advanced G20 ¹	Emerging G20
Australia	Algeria	Bangladesh	Canada	Argentina	Australia	Argentina
Austria	Angola	Benin	France	Australia	Canada	Brazil
Belgium	Argentina	Burkina Faso	Germany	Brazil	France	China
Canada	Azerbaijan	Cambodia	Italy	Canada	Germany	India
Cyprus	Belarus	Cameroon	Japan	China	Italy	Indonesia
Czech Republic	Brazil	Chad	United Kingdom	France	Japan	Mexico
Denmark	Chile	Democratic Republic of the Congo	United States	Germany	Korea	Russia
Estonia	China	Republic of Congo		India	United Kingdom	Saudi Arabia
Finland	Colombia	Côte d'Ivoire		Indonesia	United States	South Africa
France	Croatia	Ethiopia		Italy		Turkey
Germany	Dominican Republic	Ghana		Japan		
Greece	Ecuador	Guinea		Korea		
Hong Kong SAR	Egypt	Haiti		Mexico		
Iceland	Hungary	Honduras		Russia		
Ireland	India	Kenya		Saudi Arabia		
Israel	Indonesia	Kyrgyz Republic		South Africa		
Italy	Iran	Lao P.D.R.		Turkey		
Japan	Kazakhstan	Madagascar		United Kingdom		
Korea	Kuwait	Mali		United States		
Latvia	Libya	Moldova				
Lithuania	Malaysia	Mozambique				
Luxembourg	Mexico	Myanmar				
Malta	Morocco	Nepal				
Netherlands	Oman	Nicaragua				
New Zealand	Pakistan	Niger				
Norway	Peru	Nigeria				
Portugal	Philippines	Papua New Guinea				
Singapore	Poland	Rwanda				
Slovak Republic	Qatar	Senegal				
Slovenia	Romania	Somalia				
Spain	Russia	Sudan				
Sweden	Saudi Arabia	Tajikistan				
Switzerland	South Africa	Tanzania				
United Kingdom	Sri Lanka	Timor-Leste				
United States	Thailand	Uganda				
	Turkey	Uzbekistan				
	Ukraine	Vietnam				
	United Arab Emirates	Yemen				
	Uruguay	Zambia				
	Venezuela	Zimbabwe				

Note: Emerging market and developing economies include emerging market and middle-income economies as well as low-income developing countries.

¹ Does not include European Union aggregate.

Table A. (continued)

Euro Area	Emerging Market and Middle-Income Asia	Emerging Market and Middle-Income Europe	Emerging Market and Middle-Income Latin America	Emerging Market and Middle-Income Middle East and North Africa and Pakistan	Emerging Market and Middle-Income Africa
Austria	China	Azerbaijan	Argentina	Algeria	Angola
Belgium	India	Belarus	Brazil	Egypt	South Africa
Cyprus	Indonesia	Croatia	Chile	Iran	
Estonia	Malaysia	Hungary	Colombia	Kuwait	
Finland	Philippines	Kazakhstan	Dominican Republic	Libya	
France	Sri Lanka	Poland	Ecuador	Morocco	
Germany	Thailand	Romania	Mexico	Oman	
Greece		Russia	Peru	Pakistan	
Ireland		Turkey	Uruguay	Qatar	
Italy		Ukraine	Venezuela	Saudi Arabia	
Latvia				United Arab Emirates	
Lithuania					
Luxembourg					
Malta					
Netherlands					
Portugal					
Slovak Republic					
Slovenia					
Spain					
Low-Income Developing Asia	Low-Income Developing Latin America	Low-Income Developing Sub-Saharan Africa	Low-Income Developing Others	Low-Income Oil Producers	Oil Producers
Bangladesh	Haiti	Benin	Kyrgyz Republic	Cameroon	Algeria
Cambodia	Honduras	Burkina Faso	Moldova	Republic of Congo	Angola
Lao P.D.R.	Nicaragua	Cameroon	Somalia	Côte d'Ivoire	Azerbaijan
Myanmar		Chad	Sudan	Nigeria	Bahrain
Nepal		Democratic Republic of the Congo	Tajikistan	Papua New Guinea	Brunei Darussalam
Papua New Guinea		Republic of Congo	Uzbekistan	Timor-Leste	Cameroon
Timor-Leste		Côte d'Ivoire	Yemen	Yemen	Canada
Vietnam		Ethiopia			Colombia
		Ghana			Republic of Congo
		Guinea			Côte d'Ivoire
		Kenya			Ecuador
		Madagascar			Equatorial Guinea
		Mali			Gabon
		Mozambique			Indonesia
		Niger			Iran
		Nigeria			Iraq
		Rwanda			Kazakhstan
		Senegal			Kuwait
		Tanzania			Libya
		Uganda			Mexico
		Zambia			Nigeria
		Zimbabwe			Norway
					Oman
					Papua New Guinea
					Qatar
					Russia
					Saudi Arabia
					Syria
					Timor-Leste
					Trinidad and Tobago
					United Arab Emirates
					Venezuela
					Yemen

Table B. Advanced Economies: Definition and Coverage of Fiscal Monitor Data

	Overall Fiscal Balance ¹			Cyclically Adjusted Balance			Gross Debt		
	Coverage		Accounting Practice	Coverage		Accounting Practice	Coverage		Valuation of Debt ²
	Aggregate	Subsectors		Aggregate	Subsectors		Aggregate	Subsectors	
Australia	GG	CG,SG,LG,TG	A	GG	CG,SG,LG,TG	A	GG	CG,SG,LG,TG	Nominal
Austria	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	Face
Belgium	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	Face
Canada	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	Face
Cyprus	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Face
Czech Republic	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Nominal
Denmark	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Face
Estonia	GG	CG,LG,SS	C	...	...	...	GG	CG,LG,SS	Nominal
Finland	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Face
France	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Face
Germany	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	Face
Greece	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Nominal
Hong Kong SAR	GG	CG	C	GG	CG	C	GG	CG	Face
Iceland	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Face
Ireland	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Nominal
Israel	GG	CG,LG,SS	Mixed	GG	CG,LG,SS	Mixed	GG	CG,LG,SS	Nominal
Italy	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Face
Japan	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Current market
Korea	CG	CG, SS	C	CG	CG, SS	C	CG	CG, SS	Nominal
Latvia	GG	CG,LG,SS	C	GG	CG,LG,SS	C	GG	CG,LG,SS	Nominal
Lithuania	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Nominal
Luxembourg	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Face
Malta	GG	CG,SS	A	GG	CG,SS	A	GG	CG,SS	Nominal
Netherlands	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Nominal
New Zealand	CG	CG	A	CG	CG	A	CG	CG	Current market
Norway	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Current market
Portugal	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Nominal
Singapore	GG	CG	C	GG	CG	C	GG	CG	Nominal
Slovak Republic	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Face
Slovenia	GG	CG,LG,SS	C	GG	CG,LG,SS	C	GG	CG,LG,SS	Face
Spain	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	Nominal
Sweden	GG	CG,LG,SS	A	GG	CG,LG,SS	A	GG	CG,LG,SS	Nominal
Switzerland	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	A	GG	CG,SG,LG,SS	Nominal
United Kingdom	GG	CG,LG	A	GG	CG,LG	A	GG	CG,LG	Nominal
United States	GG	CG,SG,LG	A	GG	CG,SG,LG	A	GG	CG,SG,LG	Nominal

Note: Coverage: CG = central government; GG = general government; LG = local government; SS = nonfinancial public corporations; PS = state governments; SS = social security funds; TG = territorial governments. Accounting standard: C = cash; A = accrual; Mixed = combination of accrual and cash accounting.

¹ In many economies, fiscal data follow the IMF's *Government Finance Statistics Manual 2014*. The concept of overall fiscal balance refers to net lending (+) and borrowing (-) of the general government. In some cases, however, the overall balance refers to total revenue and grants minus total expenditure and net lending.

² Nominal = debt securities are valued at their nominal values; that is, the nominal value of a debt instrument at any moment in time is the amount that the debtor owes to the creditor. Face = undiscounted amount of principal to be repaid at (or before) maturity. The use of face value as a proxy for nominal value in measuring the gross debt position can result in an inconsistent approach across all instruments and is not recommended, unless nominal and market values are not available. Current market = debt securities are valued at market prices; insurance, pension, and standardized guarantee schemes are valued according to principles that are equivalent to market valuation; and all other debt instruments are valued at nominal prices, which are considered to be the best generally available proxies of their market prices.

Table C. Emerging Market and Middle-Income Economies: Definition and Coverage of Fiscal Monitor Data

	Overall Fiscal Balance ¹			Cyclically Adjusted Balance			Gross Debt		
	Coverage		Accounting Practice	Coverage		Accounting Practice	Coverage		Valuation of Debt ²
	Aggregate	Subsectors		Aggregate	Subsectors		Aggregate	Subsectors	
Algeria	CG	CG	C	...	...	...	CG	CG	Nominal
Angola	GG	CG, LG	Mixed	...	...	...	GG	CG, LG	Nominal
Argentina	GG	CG, SG, SS	C	CG	CG	CG	CG	CG	Nominal
Azerbaijan	GG	CG	C	...	...	...	CG	CG	Face
Belarus ³	GG	CG, LG, SS	C	...	...	...	GG	CG, LG, SS	Nominal
Brazil ⁴	NFPS	CG, SG, LG, SS, MPC, NFPC	C	NFPS	CG, SG, LG, SS, MPC, NFPC	C	NFPS	CG, SG, LG, SS, MPC, NFPC	Nominal
Chile	GG	CG, LG	A	GG	CG, LG	A	GG	CG, LG	Face
China	GG	CG, LG	C	GG	CG, LG	C	GG	CG, LG	Face
Colombia ⁵	GG	CG, SG, LG, SS	Mixed	GG	CG, SG, LG, SS	Mixed	GG	CG, SG, LG, SS	Face
Croatia	GG	CG, LG	A	GG	CG, LG	A	GG	CG, LG	Nominal
Dominican Republic	GG	CG, SG, LG, SS, NMPC	Mixed	GG	CG, SG, LG, SS, NMPC	Mixed	GG	CG, SG, LG, SS, NMPC	Face
Ecuador	NFPS	CG, SG, LG, SS, NFPC	C	NFPS	CG, SG, LG, SS, NFPC	C	NFPS	CG, SG, LG, SS, NFPC	Face
Egypt	GG	CG, LG, SS	C	GG	CG, LG, SS	C	GG	CG, LG, SS	Nominal
Hungary	GG	CG, LG, SS, NMPC	A	GG	CG, LG, SS, NMPC	A	GG	CG, LG, SS, NMPC	Face
India	GG	CG, SG	C	GG	CG, SG	C	GG	CG, SG	Nominal
Indonesia	GG	CG, LG	C	GG	CG, LG	C	GG	CG, LG	Face
Iran	CG	CG	C	...	...	...	CG	CG	Nominal
Kazakhstan	GG	CG, LG	A	...	...	...	GG	CG, LG	Nominal
Kuwait	CG	CG	Mixed	...	...	...	CG	CG	Nominal
Libya	GG	CG, SG, LG	C	...	...	...	GG	CG, SG, LG	Face
Malaysia	GG	CG, SG, LG	C	GG	CG, SG, LG	C	GG	CG, SG, LG	Nominal
Mexico	PS	CG, SS, NMPC, NFPC	C	PS	CG, SS, NMPC, NFPC	C	PS	CG, SS, NMPC, NFPC	Face
Morocco	CG	CG	A	...	...	...	CG	CG	Face
Oman	CG	CG	C	...	...	...	CG	CG	Nominal
Pakistan	GG	CG, SG, LG	C	...	...	...	GG	CG, SG, LG	Nominal
Peru	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	Face
Philippines	GG	CG, LG, SS	C	GG	CG, LG, SS	C	GG	CG, LG, SS	Nominal
Poland	GG	CG, LG, SS	A	GG	CG, LG, SS	A	GG	CG, LG, SS	Face
Qatar	CG	CG	C	...	...	...	CG	CG	Nominal
Romania	GG	CG, LG, SS	C	GG	CG, LG, SS	C	GG	CG, LG, SS	Face
Russia	GG	CG, SG, SS	Mixed	GG	CG, SG, SS	Mixed	GG	CG, SG, SS	Current market
Saudi Arabia	CG	CG	C	...	...	...	CG	CG	Nominal
South Africa ⁶	GG	CG, SG, SS	C	GG	CG, SG, SS	C	GG	CG, SG, SS	Nominal
Sri Lanka	CG	CG	C	...	...	...	CG	CG	Nominal
Thailand ⁷	PS	CG, BCG, LG, SS	A	PS	CG, BCG, LG, SS	A	PS	CG, BCG, LG, SS	Nominal
Turkey	GG	CG, LG, SS	A	GG	CG, LG, SS	A	GG	CG, LG, SS	Nominal
Ukraine	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	Nominal
United Arab Emirates ⁸	GG	CG, BCG, SG, SS	C	...	...	...	GG	CG, BCG, SG, SS	Nominal
Uruguay	PS	CG, LG, SS, MPC, NFPC	A	...	...	...	PS	CG, LG, SS, MPC, NFPC	Face
Venezuela ⁹	GG	BCG, NFPC	C	GG	BCG, NFPC	C	GG	BCG, NFPC	Nominal

Note: Coverage: BCG = budgetary central government; CG = central government; GG = general government; LG = local governments; MPC = monetary public corporations; NFPC = nonfinancial public corporations; NMPC = nonmonetary financial public corporations; PS = public sector; SG = state governments; SS = social security funds. Accounting standard: C = cash; A = accrual; Mixed = combination of accrual and cash accounting.

¹ In many countries, fiscal data follow the IMF's *Government Finance Statistics Manual 2014*. The concept of overall fiscal balance refers to net lending (+) and borrowing (-) of the general government. In some cases, however, the overall balance refers to total revenue and grants minus total expenditure and net lending.

² Nominal = debt securities are valued at their nominal values; that is, the nominal value of a debt instrument at any moment in time is the amount that the debtor owes to be repaid at (or before) maturity. The use of face value as a proxy for nominal value in measuring the gross debt position can result in an inconsistent approach across all instruments and is not recommended, unless nominal and market values are not available. Current market = debt securities are valued at market prices; insurance, pension, and standardized guarantee schemes are valued according to principles that are equivalent to market valuation; and all other debt instruments are valued at nominal prices, which are considered to be the best generally available proxies of their market prices.

³ Gross debt refers to the nonfinancial public debt, including publicly guaranteed debt.

⁴ Gross debt refers to the nonfinancial public sector, excluding Eletrobras and Petrobras, and includes sovereign debt held on the balance sheet of the central bank.

⁵ Revenue is recorded on a cash basis and expenditure on an accrual basis.

⁶ Coverage for South Africa is a proxy for general government. It includes the national and provincial governments and certain public entities, while local governments are only partly covered, through the transfers to them.

⁷ Data for Thailand do not include the debt of specialized financial institutions (SFIs/NMPC), without government guarantee.

⁸ Gross debt covers banking system claims only.

⁹ The fiscal accounts for 2010–22 correspond to the budgetary central government and Petróleos de Venezuela S.A. (PDVSA), whereas the fiscal accounts for years before 2010 correspond to the budgetary central government, public enterprises (including PDVSA), Instituto Venezolano de los Seguros Sociales (IVSS—social security), and Fondo de Garantía de Depósitos y Protección Bancaria (FOGADE—deposit insurance).

Table D. Low-Income Developing Countries: Definition and Coverage of Fiscal Monitor Data

	Overall Fiscal Balance ¹			Cyclically Adjusted Balance			Gross Debt		
	Coverage		Accounting Practice	Coverage		Accounting Practice	Coverage		Valuation of Debt ²
	Aggregate	Subsectors		Aggregate	Subsectors		Aggregate	Subsectors	
Bangladesh	CG	CG	C	CG	CG	C	CG	CG	Nominal
Benin	CG	CG	C	CG	CG	CG	CG	CG	Nominal
Burkina Faso	GG	CG	CB	CG	CG	CG	GG	CG	Face
Cambodia	CG	CG, LG	A	CG	CG, LG	A	CG	CG, LG	Face
Cameroon	NFPS	CG, NFPC	C	CG	CG	CG	NFPS	CG, NFPC	Current market
Chad	NFPS	CG, NFPC	C	CG	CG	CG	NFPS	CG, NFPC	Face
Democratic Republic of the Congo	GG	CG, LG	A	CG	CG	CG	GG	CG, LG	Nominal
Republic of Congo	CG	CG	A	CG	CG	CG	CG	CG	Nominal
Côte d'Ivoire	CG	CG	A	CG	CG	CG	CG	CG	Nominal
Ethiopia	CG	CG, SG, LG, NFPC	C	CG	CG, SG, LG, NFPC	CG	CG	CG, SG, LG, NFPC	Nominal
Ghana	CG	CG	C	CG	CG	CG	CG	CG	Face
Guinea	CG	CG	C	CG	CG	CG	CG	CG	Nominal
Haiti ³	CG	CG	C	CG	CG	CG	CG	CG	Nominal
Honduras	GG	CG, LG, SS	Mixed	GG	CG, LG, SS	Mixed	GG	CG, LG, SS	Nominal
Kenya	CG	CG	A	CG	CG	CG	CG	CG	Current market
Kyrgyz Republic	GG	CG, LG, SS	C	GG	CG, LG, SS	CG	GG	CG, LG, SS	Face
Lao P.D.R. ⁴	CG	CG	C	CG	CG	C	CG	CG	CG
Madagascar	CG	CG, LG	C	CG	CG	CG	CG	CG	CG
Mali	CG	CG	Mixed	CG	CG	CG	CG	CG, LG	Nominal
Moldova	GG	CG, LG, SS	C	GG	CG, LG, SS	C	GG	CG, LG, SS	Nominal
Mozambique	CG	CG, SG	Mixed	CG	CG, SG	Mixed	CG	CG, SG	Nominal
Myanmar ⁵	NFPS	CG, NFPC	C	CG	CG	CG	NFPS	CG, NFPC	Face
Nepal	CG	CG	C	CG	CG	C	CG	CG	Face
Nicaragua	GG	CG, LG, SS	C	GG	CG, LG, SS	C	GG	CG, LG, SS	Nominal
Niger	CG	CG	A	CG	CG	CG	CG	CG	Nominal
Nigeria	GG	CG, SG, LG	C	GG	CG, SG, LG	CG	GG	CG, SG, LG	Current market
Papua New Guinea	CG	CG	C	CG	CG	CG	CG	CG	Face
Rwanda	GG	CG, LG	Mixed	GG	CG, LG	CG	GG	CG, LG	Nominal
Senegal	CG	CG	C	CG	CG	C	CG	CG	Nominal
Somalia	CG	CG	C	CG	CG	C	CG	CG	CG
Sudan	CG	CG	Mixed	CG	CG	CG	CG	CG	CG
Tajikistan	GG	CG, LG, SS	C	GG	CG, LG, SS	CG	GG	CG, LG, SS	Nominal
Tanzania	CG	CG, LG	C	CG	CG, LG	CG	CG	CG, LG	Nominal
Timor-Leste	CG	CG	C	CG	CG	C	CG	CG	CG
Uganda	CG	CG	C	CG	CG	CG	CG	CG	CG
Uzbekistan ⁶	GG	CG, SG, LG, SS	C	GG	CG, SG, LG, SS	CG	GG	CG, SG, LG, SS	Nominal
Vietnam	GG	CG, SG, LG	C	GG	CG, SG, LG	C	GG	CG, SG, LG	Nominal
Yemen	GG	CG, LG	C	GG	CG, LG	CG	GG	CG, LG	Nominal
Zambia	CG	CG	C	CG	CG	CG	CG	CG	Current market
Zimbabwe	CG	CG	C	CG	CG	CG	CG	CG	Current market

Note: Coverage: BCG = budgetary central government; CG = central government; OPS = combined public sector; EA = extrabudgetary units; FC = financial public corporations; GG = general government; LG = local governments; MPC = monetary public corporations, including central bank; NC = non-cash; NFPC = nonfinancial public corporations; NFPS = nonfinancial public sector; NMPC = nonmonetary financial public corporations; PS = public sector; SG = state governments; SS = social security funds. Accounting standard: C = cash; A = accrual; CB = commitments basis accounting; Mixed = combination of accrual and cash accounting.

¹ In many countries, fiscal data follow the IMF's *Government Finance Statistics Manual 2014*. The concept of overall fiscal balance refers to net lending (+) and borrowing (-) of the general government. In some cases, however, the overall balance refers to total revenue and grants minus total expenditure and net lending.

² Nominal = debt securities are valued at their nominal values, that is, the nominal value of a debt instrument at any moment in time is the amount that the debtor owes to the creditor. Face = undiscounted amount of principal to be repaid at (or before) maturity. The use of face value as a proxy for nominal value in measuring the gross debt position can result in an inconsistent approach across all instruments and is not recommended, unless nominal and market values are not available. Current market = debt securities are valued at market prices; insurance, pension, and standardized guarantee schemes are valued according to principles that are equivalent to market valuation; and all other debt instruments are valued at nominal prices, which are considered to be the best generally available proxies of their market prices.

³ Haiti's fiscal balance and debt data cover the central government, special funds and programs (Fonds d'Entretien Routier and Programme de Scolarisation Universelle, Gratuite, et Obligatoire), and the state-owned electricity company, EDH.

⁴ Lao P.D.R.'s fiscal spending includes capital spending by local governments financed by loans provided by the central bank.

⁵ Overall and primary balances in 2012 are based on the monetary statistics and are different from the balances calculated from expenditure and revenue data.

⁶ Uzbekistan's listing includes the Fund for Reconstruction and Development.

Table A1. Advanced Economies: General Government Overall Balance, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Australia	-5.1	-4.4	-3.5	-2.8	-2.9	-2.8	-2.6	-1.5	-1.2	-1.5	-0.7	0.0	0.1	0.0	0.0
Austria	-4.5	-2.6	-2.2	-2.0	-2.7	-1.0	-1.6	-0.7	-0.2	-0.1	-0.3	-0.3	-0.5	-0.6	-0.6
Belgium	-4.0	-4.2	-4.2	-3.1	-3.1	-2.5	-2.4	-0.9	-0.8	-1.2	-1.4	-1.4	-1.4	-1.4	-1.5
Canada	-4.7	-3.3	-2.5	-1.5	0.2	-0.1	-0.4	-0.3	-0.4	-0.6	-0.6	-0.6	-0.7	-0.6	-0.6
Cyprus ¹	-4.7	-5.7	-5.6	-5.1	-0.2	-0.3	0.3	1.8	2.9	1.8	2.0	2.1	2.1	2.2	2.6
Czech Republic	-4.2	-2.7	-3.9	-1.2	-2.1	-0.6	0.7	1.5	1.5	1.1	0.8	0.6	0.6	0.6	0.6
Denmark	-2.7	-2.1	-3.5	-1.2	1.1	-1.3	-0.1	1.2	-0.1	-0.4	-0.4	-0.3	-0.2	-0.1	0.1
Estonia	0.2	1.2	-0.3	-0.2	0.7	0.1	-0.3	-0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.0
Finland	-2.6	-1.0	-2.2	-2.6	-3.2	-2.8	-1.7	-0.7	-1.0	-0.3	0.0	0.1	0.0	-0.1	0.0
France	-6.9	-5.2	-5.0	-4.1	-3.9	-3.6	-3.4	-2.7	-2.6	-3.3	-2.4	-2.5	-2.5	-2.6	-2.6
Germany	-4.2	-1.0	0.0	-0.1	0.6	0.8	0.9	1.0	1.7	1.1	1.1	0.8	0.8	0.7	0.7
Greece	-11.2	-10.3	-6.6	-3.6	-4.0	-2.8	0.6	1.0	0.4	-0.2	0.1	0.1	0.0	-0.5	-0.6
Hong Kong SAR	4.1	3.8	3.1	1.0	3.6	0.6	4.4	5.5	2.0	1.3	1.6	0.8	0.8	0.8	0.8
Iceland	-9.5	-5.4	-3.6	-1.8	-0.1	-0.8	12.4	0.5	1.1	0.7	0.5	0.5	0.5	0.5	0.5
Ireland ¹	-32.0	-12.8	-8.1	-6.1	-3.6	-1.9	-0.5	-0.2	0.0	0.0	0.2	0.3	0.5	0.7	0.9
Israel	-3.7	-3.0	-4.4	-4.0	-2.4	-1.0	-1.4	-1.0	-2.2	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5
Italy	-4.2	-3.7	-2.9	-2.9	-3.0	-2.6	-2.5	-2.4	-2.1	-2.7	-3.4	-3.5	-3.7	-3.7	-3.8
Japan	-9.5	-9.4	-8.6	-7.9	-5.6	-3.8	-3.7	-3.2	-3.2	-2.8	-2.1	-1.9	-1.8	-1.9	-2.1
Korea	1.5	1.7	1.6	0.6	0.4	0.6	1.7	2.3	2.8	2.1	1.5	1.1	0.7	0.7	0.7
Latvia	-6.5	-3.2	0.2	-0.6	-1.7	-1.5	-0.4	-0.8	-0.7	-0.8	-0.5	-0.7	-0.5	-0.5	-0.2
Lithuania	-6.9	-8.9	-3.1	-2.6	-0.7	-0.2	0.3	0.4	0.9	0.4	0.3	0.3	0.3	0.3	0.2
Luxembourg	-0.7	0.5	0.3	1.0	1.3	1.3	1.6	1.4	2.6	1.0	1.3	1.2	1.5	1.6	1.6
Malta	-2.4	-2.4	-3.5	-2.4	-1.7	-1.1	0.9	3.5	0.9	0.6	0.6	0.7	0.7	0.6	0.6
Netherlands	-5.2	-4.4	-3.9	-2.9	-2.2	-2.0	0.0	1.2	1.1	1.0	0.8	0.8	0.8	0.8	0.8
New Zealand	-5.5	-5.0	-2.3	-1.4	-0.5	0.2	0.9	1.1	0.4	0.1	0.7	1.0	1.3	1.3	1.3
Norway	11.0	13.4	13.8	10.8	8.7	6.1	4.0	5.1	7.5	7.5	7.2	7.3	7.3	7.5	7.7
Portugal	-11.2	-7.4	-5.7	-4.8	-7.1	-4.3	-2.0	-3.0	-0.7	-0.6	-0.1	0.4	0.3	0.3	0.5
Singapore	6.0	8.6	7.8	6.6	5.4	3.5	4.3	5.8	4.0	4.2	3.1	2.9	2.8	2.7	2.5
Slovak Republic	-7.5	-4.3	-4.3	-2.7	-2.7	-2.6	-2.2	-0.8	-0.8	0.0	0.3	0.3	0.3	0.3	0.3
Slovenia	-5.2	-5.5	-3.1	-13.8	-5.8	-3.3	-1.7	-0.7	1.1	0.5	0.2	0.4	0.5	0.6	0.7
Spain ¹	-9.4	-9.6	-10.5	-7.0	-6.0	-5.3	-4.5	-3.1	-2.7	-2.3	-2.3	-2.4	-2.5	-2.7	-2.8
Sweden	0.0	-0.2	-1.0	-1.4	-1.6	0.2	1.1	1.5	0.8	0.5	0.3	0.3	0.3	0.3	0.3
Switzerland	0.4	0.7	0.4	-0.4	-0.2	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3
United Kingdom	-9.3	-7.5	-7.5	-5.3	-5.3	-4.2	-2.9	-1.8	-1.4	-1.3	-1.2	-1.1	-0.8	-0.6	-0.6
United States ²	-10.6	-9.3	-7.6	-4.1	-3.7	-3.2	-3.9	-3.8	-4.3	-4.6	-4.4	-4.4	-4.4	-4.0	-3.7
Average	-7.6	-6.2	-5.4	-3.6	-3.0	-2.5	-2.5	-2.1	-2.1	-2.4	-2.3	-2.2	-2.2	-2.1	-2.0
Euro Area	-6.2	-4.2	-3.7	-3.1	-2.5	-2.0	-1.6	-1.0	-0.6	-1.0	-0.9	-1.0	-1.1	-1.1	-1.1
G7	-8.7	-7.3	-6.3	-4.1	-3.4	-2.8	-3.1	-2.8	-2.9	-3.2	-3.0	-3.0	-3.0	-2.7	-2.6
G20 Advanced	-8.2	-6.9	-5.9	-3.9	-3.2	-2.7	-2.9	-2.6	-2.6	-3.0	-2.7	-2.7	-2.7	-2.5	-2.4

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table B.

¹ Data include financial sector support. For Cyprus, 2014 and 2015 balances exclude financial sector support.

² For cross-economy comparability, expenditure and fiscal balances of the United States are adjusted to exclude the imputed interest on unfunded pension liabilities and the imputed compensation of employees, which are counted as expenditures under the 2008 System of National Accounts (2008 SNA) adopted by the United States, but not in countries that have not yet adopted the 2008 SNA. Data for the United States in this table may thus differ from data published by the US Bureau of Economic Analysis.

Table A2. Advanced Economies: General Government Primary Balance, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Australia	-4.8	-3.9	-2.8	-2.0	-2.0	-1.8	-1.6	-0.6	-0.3	-0.5	0.2	0.9	1.0	0.8	0.8
Austria	-2.3	-0.4	0.0	0.2	-0.7	0.9	0.1	0.8	1.0	1.0	0.8	0.6	0.4	0.3	0.2
Belgium	-0.7	-1.0	-1.0	-0.2	-0.2	0.2	0.1	1.3	1.2	0.6	0.3	0.2	0.2	0.1	0.1
Canada	-3.9	-2.7	-1.8	-1.0	0.5	0.6	0.2	0.0	-0.1	-0.2	0.0	0.3	0.4	0.4	0.4
Cyprus ¹	-3.2	-4.1	-2.9	-1.9	2.8	2.5	2.8	4.2	5.3	4.1	4.2	4.2	4.1	4.0	4.3
Czech Republic	-3.2	-1.7	-2.8	-0.2	-1.0	0.3	1.5	2.2	2.1	1.8	1.6	1.4	1.4	1.4	1.4
Denmark	-2.1	-1.4	-3.0	-0.8	1.6	-0.6	0.4	1.4	0.3	0.1	0.1	0.2	0.3	0.4	0.6
Estonia	0.0	1.0	-0.4	-0.3	0.6	0.0	-0.4	-0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.0
Finland	-2.5	-1.0	-2.0	-2.5	-3.0	-2.6	-1.5	-0.4	-0.9	-0.3	-0.1	0.0	0.1	0.1	0.1
France	-4.5	-2.6	-2.5	-1.9	-1.9	-1.8	-1.7	-1.0	-0.9	-1.7	-0.8	-0.9	-0.9	-0.9	-0.9
Germany	-2.1	1.1	1.8	1.4	1.8	1.9	1.8	1.9	2.4	1.8	1.6	1.3	1.3	1.2	1.2
Greece	-5.3	-3.0	-1.5	0.4	-0.1	0.8	3.8	4.1	3.8	3.5	3.5	3.5	3.5	3.0	2.8
Hong Kong SAR	2.3	1.9	1.3	-0.7	3.6	0.6	3.6	4.7	0.6	-0.2	0.1	-0.8	-1.0	-1.3	-1.3
Iceland	-6.8	-2.8	-0.4	1.6	3.5	2.8	15.5	3.6	3.6	2.8	2.7	2.6	2.3	2.2	1.8
Ireland ¹	-29.7	-10.2	-4.8	-2.6	-0.3	0.4	1.6	1.7	1.7	1.5	1.5	1.5	1.6	1.8	1.9
Israel	0.0	0.6	-1.2	-0.9	-0.3	0.8	0.5	1.0	-0.3	-0.5	-0.5	-0.5	-0.5	-0.4	-0.4
Italy	-0.1	0.8	2.1	1.7	1.4	1.3	1.2	1.2	1.4	0.9	0.3	0.3	0.3	0.4	0.5
Japan	-8.6	-8.3	-7.5	-7.0	-4.9	-3.2	-3.0	-2.7	-2.9	-2.7	-2.1	-1.9	-1.9	-1.9	-2.1
Korea	0.8	0.9	0.8	-0.2	-0.3	-0.3	0.8	1.2	2.0	1.3	0.8	0.6	0.5	0.5	0.5
Latvia	-5.1	-1.8	1.7	0.9	-0.2	0.3	0.8	0.3	0.2	0.0	0.4	0.2	0.2	0.3	0.5
Lithuania	-5.2	-7.2	-1.2	-0.9	1.0	1.3	1.6	1.6	1.8	1.2	1.0	0.9	0.9	0.9	0.8
Luxembourg	-0.9	0.3	0.1	0.8	1.1	1.1	1.4	1.2	2.4	0.8	0.9	0.7	0.9	0.9	0.8
Malta	0.7	0.8	-0.5	0.4	1.0	1.3	3.0	5.3	2.5	2.0	1.9	1.9	2.0	1.8	1.8
Netherlands	-3.9	-3.0	-2.5	-1.6	-0.8	-0.8	1.1	2.1	1.8	1.6	1.4	1.4	1.4	1.4	1.4
New Zealand	-4.9	-4.2	-1.4	-0.6	0.1	0.9	1.5	1.8	1.0	0.9	1.4	1.7	1.9	1.9	1.9
Norway	8.9	11.3	12.0	8.8	6.4	3.5	1.5	2.6	5.0	5.1	4.8	4.8	4.8	5.0	5.2
Portugal	-8.5	-3.6	-1.4	-0.6	-2.7	0.0	1.9	0.7	2.6	2.5	3.1	3.5	3.1	3.1	3.2
Singapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Slovak Republic	-6.4	-2.9	-2.8	-1.1	-1.1	-1.1	-0.9	0.4	0.4	1.1	1.4	1.3	1.3	1.3	1.3
Slovenia	-4.0	-4.2	-1.4	-11.5	-2.8	-0.6	1.0	1.5	3.0	2.2	1.8	2.0	2.1	2.3	2.4
Spain ¹	-7.8	-7.7	-8.0	-4.0	-3.0	-2.6	-1.9	-0.7	-0.4	-0.2	-0.2	-0.2	-0.3	-0.3	-0.4
Sweden	0.3	0.1	-0.8	-1.2	-1.4	0.1	1.0	1.4	0.6	0.3	0.2	0.1	0.1	0.1	0.1
Switzerland	0.8	1.1	0.8	-0.2	0.0	0.9	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4
United Kingdom	-6.8	-4.7	-5.2	-4.0	-3.5	-2.7	-1.3	-0.1	0.1	0.1	0.2	0.4	0.5	0.5	0.5
United States ²	-9.1	-7.5	-5.9	-2.5	-2.1	-1.7	-2.3	-2.2	-2.6	-2.9	-2.4	-2.2	-2.2	-1.8	-1.4
Average	-6.1	-4.5	-3.8	-2.1	-1.6	-1.2	-1.2	-0.8	-0.9	-1.2	-0.9	-0.9	-0.8	-0.7	-0.5
Euro Area	-3.7	-1.6	-1.0	-0.6	-0.2	0.0	0.4	0.8	1.1	0.6	0.7	0.5	0.5	0.5	0.5
G7	-6.9	-5.3	-4.4	-2.5	-1.8	-1.4	-1.6	-1.3	-1.5	-1.8	-1.4	-1.3	-1.3	-1.1	-0.9
G20 Advanced	-6.6	-5.1	-4.2	-2.4	-1.8	-1.4	-1.5	-1.2	-1.3	-1.6	-1.3	-1.2	-1.2	-0.9	-0.8

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: Primary balance is defined as the overall balance excluding net interest payments. For country-specific details, see "Data and Conventions" in text, and Table B.

¹ Data include financial sector support. For Cyprus, 2014 and 2015 balances exclude financial sector support.

² For cross-economy comparability, expenditure and fiscal balances of the United States are adjusted to exclude the imputed interest on unfunded pension liabilities and the imputed compensation of employees, which are counted as expenditures under the 2008 System of National Accounts (2008 SNA) adopted by the United States, but not in countries that have not yet adopted the 2008 SNA. Data for the United States in this table may thus differ from data published by the US Bureau of Economic Analysis.

Table A3. Advanced Economies: General Government Cyclically Adjusted Balance, 2010–24
(Percent of potential GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Australia	-4.9	-4.2	-3.3	-2.6	-2.5	-2.4	-2.2	-1.2	-1.0	-1.2	-0.4	0.2	0.2	0.0	0.0
Austria	-4.1	-3.2	-2.5	-1.5	-1.8	0.0	-0.9	-0.6	-0.6	-0.6	-0.8	-0.7	-0.6	-0.7	-0.6
Belgium	-3.8	-4.3	-4.0	-2.4	-2.5	-2.1	-2.3	-0.9	-0.9	-1.3	-1.5	-1.5	-1.5	-1.5	-1.6
Canada	-4.0	-3.1	-2.0	-1.0	0.5	0.8	0.6	0.0	-0.2	-0.5	-0.7	-0.7	-0.8	-0.7	-0.6
Cyprus	-5.1	-5.7	-4.4	-2.3	1.8	1.7	1.4	1.9	2.3	1.2	1.2	1.3	1.2	1.7	2.0
Czech Republic	-4.1	-3.0	-3.1	0.4	-1.0	-0.6	0.8	1.2	1.2	0.8	0.5	0.4	0.4	0.4	0.5
Denmark	-1.6	-1.3	-2.2	0.1	2.0	-1.0	-0.5	0.2	-0.7	-1.0	-1.1	-1.0	-0.8	-0.6	-0.3
Estonia	3.1	2.2	0.1	0.4	1.1	0.7	0.0	-0.5	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0
Finland	-1.8	-1.5	-1.7	-1.2	-0.9	0.0	0.0	-0.1	-0.8	-0.5	-0.2	-0.1	-0.2	-0.2	0.0
France	-6.2	-5.2	-4.7	-3.6	-3.4	-3.2	-3.0	-2.7	-2.7	-3.4	-2.4	-2.5	-2.6	-2.6	-2.6
Germany	-3.6	-1.5	-0.3	0.0	0.5	0.7	0.8	0.6	1.2	0.7	0.6	0.4	0.5	0.6	0.7
Greece	-8.9	-4.4	1.9	4.8	2.8	3.0	5.6	4.8	3.2	1.8	1.3	0.7	0.3	-0.4	-0.6
Hong Kong SAR ¹	0.7	-1.6	-1.1	-4.3	-1.2	-3.3	-1.3	-2.3	-3.7	-4.7	-3.7	-4.4	-4.5	-4.1	-4.1
Iceland	-7.6	-4.7	-3.0	-1.8	-0.1	-1.2	11.3	-0.4	0.0	0.4	0.3	0.5	0.4	0.5	0.5
Ireland ¹	-8.9	-6.5	-5.4	-4.6	-3.1	-1.3	-1.2	-0.5	-0.4	-0.4	-0.1	0.1	0.4	0.7	0.9
Israel	-3.6	-3.5	-4.3	-4.1	-2.6	-0.9	-1.4	-1.0	-2.3	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6
Italy	-3.5	-3.4	-1.4	-0.8	-0.9	-0.8	-1.2	-1.7	-1.7	-2.1	-3.2	-3.5	-3.8	-4.0	-4.1
Japan	-8.0	-8.0	-7.6	-7.5	-5.5	-4.3	-4.1	-3.4	-3.1	-2.8	-2.1	-1.8	-1.7	-1.8	-2.1
Korea	1.5	1.6	1.7	0.9	0.6	0.8	2.0	2.5	2.9	2.3	1.7	1.2	0.7	0.7	0.6
Latvia	-4.4	-2.7	0.1	-1.4	-1.7	-1.5	-0.4	-1.2	-1.3	-1.2	-0.7	-0.8	-0.6	-0.5	-0.3
Lithuania	-4.1	-7.4	-2.3	-2.1	-0.5	0.0	0.7	0.4	0.7	0.1	0.1	0.1	0.2	0.2	0.2
Luxembourg	-0.5	0.3	1.2	1.4	1.2	0.8	1.3	1.6	2.6	1.0	1.1	1.1	1.4	1.5	1.5
Malta	-2.5	-1.9	-2.5	-1.1	-1.4	-2.1	0.6	3.2	0.5	0.4	0.5	0.7	0.8	0.6	0.6
Netherlands	-4.8	-4.4	-2.7	-1.1	-0.5	-0.8	0.8	1.2	0.5	0.1	0.1	0.2	0.4	0.6	0.8
New Zealand	-4.5	-4.0	-1.3	-0.5	-0.1	0.3	0.8	0.7	-0.1	-0.2	0.3	0.5	0.8	0.9	0.9
Norway ¹	-4.6	-4.0	-4.4	-4.7	-5.5	-6.4	-7.3	-7.4	-6.8	-7.1	-7.2	-7.2	-7.2	-7.2	-7.2
Portugal	-11.0	-6.3	-2.8	-1.6	-4.3	-2.5	-0.8	-2.6	-0.7	-0.8	-0.3	0.4	0.2	0.3	0.4
Singapore	6.5	8.5	7.8	6.5	5.4	3.6	4.3	5.6	3.8	4.2	3.1	2.9	2.8	2.7	2.5
Slovak Republic	-6.2	-3.1	-3.1	-1.6	-2.1	-2.9	-2.8	-1.3	-1.3	-0.4	0.2	0.2	0.3	0.3	0.3
Slovenia	-4.8	-4.3	-2.0	-1.4	-2.2	-0.9	-0.3	0.5	0.5	-0.1	-0.4	-0.3	0.0	0.3	0.5
Spain ¹	-8.5	-7.4	-3.3	-2.3	-1.9	-2.5	-2.9	-2.6	-2.7	-2.6	-2.8	-2.9	-2.9	-3.0	-3.1
Sweden ¹	0.5	-0.2	-0.6	-0.7	-0.8	-0.4	0.7	1.2	0.5	0.4	0.3	0.3	0.3	0.3	0.3
Switzerland ¹	0.4	0.7	0.6	-0.3	-0.3	0.7	0.5	0.4	0.1	0.2	0.2	0.2	0.3	0.3	0.3
United Kingdom ¹	-7.2	-5.9	-5.9	-3.9	-4.6	-3.9	-2.8	-1.9	-1.4	-1.2	-1.0	-0.9	-0.7	-0.6	-0.6
United States ^{1, 2}	-9.3	-7.9	-6.1	-4.0	-3.4	-3.2	-3.9	-4.0	-4.7	-5.2	-5.0	-4.9	-4.9	-4.5	-4.1
Average	-6.6	-5.6	-4.4	-3.1	-2.6	-2.3	-2.5	-2.3	-2.5	-2.9	-2.7	-2.7	-2.6	-2.5	-2.3
Euro Area	-5.1	-3.9	-2.6	-1.4	-1.3	-1.1	-0.9	-0.9	-0.8	-1.1	-1.1	-1.3	-1.3	-1.2	-1.2
G7	-7.5	-6.4	-5.2	-3.7	-3.0	-2.7	-3.0	-2.9	-3.1	-3.5	-3.3	-3.3	-3.2	-3.0	-2.8
G20 Advanced	-7.1	-6.0	-4.9	-3.5	-2.9	-2.6	-2.8	-2.7	-2.8	-3.2	-3.0	-3.0	-3.0	-2.8	-2.6

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table B.

¹ Data for these countries include adjustments beyond the output cycle.

² For cross-economy comparability, expenditure and fiscal balances of the United States are adjusted to exclude the imputed interest on unfunded pension liabilities and the imputed compensation of employees, which are counted as expenditures under the 2008 System of National Accounts (2008 SNA) adopted by the United States, but not in countries that have not yet adopted the 2008 SNA. Data for the United States in this table may thus differ from data published by the US Bureau of Economic Analysis.

Table A4. Advanced Economies: General Government Cyclically Adjusted Primary Balance, 2010–24
(Percent of potential GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Australia	-4.6	-3.7	-2.6	-1.8	-1.7	-1.4	-1.3	-0.3	0.0	-0.3	0.5	1.0	1.1	0.9	0.8
Austria	-1.9	-1.0	-0.3	0.6	0.2	1.9	0.8	0.9	0.6	0.5	0.3	0.3	0.3	0.2	0.2
Belgium	-0.6	-1.1	-0.8	0.4	0.4	0.5	0.2	1.3	1.1	0.5	0.3	0.1	0.1	0.1	0.0
Canada	-3.2	-2.5	-1.4	-0.5	0.8	1.4	1.2	0.3	0.1	0.0	0.0	0.2	0.3	0.3	0.3
Cyprus	-3.9	-4.5	-2.4	0.0	3.9	3.7	3.2	3.7	4.1	3.0	2.8	2.8	2.8	3.1	3.3
Czech Republic	-3.1	-1.9	-2.0	1.4	0.1	0.3	1.6	1.8	1.8	1.5	1.3	1.2	1.2	1.3	1.3
Denmark	-1.0	-0.7	-1.7	0.5	2.4	-0.3	0.0	0.4	-0.3	-0.5	-0.6	-0.5	-0.3	-0.1	0.2
Estonia	3.0	2.0	0.0	0.3	1.0	0.6	-0.1	-0.5	-0.2	-0.1	0.0	0.0	0.0	0.0	-0.1
Finland	-1.8	-1.5	-1.5	-1.1	-0.7	0.1	0.2	0.1	-0.7	-0.4	-0.3	-0.2	-0.1	0.0	0.1
France	-3.8	-2.6	-2.2	-1.4	-1.4	-1.4	-1.3	-1.0	-1.0	-1.7	-0.8	-0.9	-0.9	-0.9	-0.9
Germany	-1.4	0.5	1.6	1.6	1.7	1.8	1.7	1.4	1.9	1.3	1.2	0.9	1.0	1.1	1.2
Greece	-3.3	2.0	6.2	8.2	6.2	6.1	8.4	7.6	6.3	5.4	4.6	4.1	3.7	3.0	2.8
Hong Kong SAR ¹	-1.1	-3.5	-2.9	-6.0	-1.2	-3.3	-2.1	-3.1	-5.1	-6.3	-5.2	-6.0	-6.4	-6.2	-6.2
Iceland	-5.0	-2.1	0.1	1.6	3.5	2.5	14.4	2.8	2.5	2.5	2.6	2.5	2.2	2.2	1.7
Ireland ¹	-6.7	-4.0	-2.3	-1.2	0.3	1.1	1.0	1.5	1.2	1.1	1.2	1.3	1.5	1.8	1.9
Israel	0.0	0.2	-1.1	-1.0	-0.5	1.0	0.5	1.0	-0.3	-0.6	-0.6	-0.5	-0.5	-0.5	-0.4
Italy	0.6	1.0	3.4	3.7	3.3	3.0	2.5	1.9	1.8	1.4	0.5	0.3	0.2	0.2	0.2
Japan	-7.1	-6.9	-6.5	-6.6	-4.7	-3.7	-3.4	-2.9	-2.8	-2.7	-2.1	-1.9	-1.8	-1.9	-2.1
Korea	0.8	0.9	1.0	0.0	-0.1	-0.1	1.0	1.4	2.1	1.5	1.0	0.7	0.5	0.5	0.4
Latvia	-3.1	-1.3	1.6	0.0	-0.2	0.3	0.9	-0.1	-0.3	-0.3	0.2	0.1	0.2	0.3	0.5
Lithuania	-2.6	-5.7	-0.4	-0.4	1.1	1.5	2.0	1.6	1.6	0.9	0.7	0.7	0.8	0.8	0.8
Luxembourg	-0.8	0.1	1.0	1.2	0.9	0.6	1.1	1.4	2.5	0.7	0.8	0.5	0.8	0.8	0.7
Malta	0.6	1.2	0.5	1.6	1.3	0.3	2.7	5.0	2.1	1.8	1.7	1.9	2.0	1.9	1.9
Netherlands	-3.4	-2.9	-1.4	0.2	0.8	0.4	1.9	2.1	1.3	0.8	0.7	0.8	1.0	1.2	1.4
New Zealand	-3.9	-3.2	-0.4	0.2	0.5	1.0	1.5	1.4	0.6	0.5	1.0	1.2	1.5	1.5	1.5
Norway ¹	-7.1	-6.4	-6.5	-6.9	-8.1	-9.4	-10.2	-10.2	-9.6	-9.9	-10.0	-10.0	-10.0	-10.0	-10.0
Portugal	-8.3	-2.6	1.2	2.4	-0.1	1.6	3.0	1.1	2.6	2.4	3.0	3.5	3.1	3.1	3.2
Singapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Slovak Republic	-5.1	-1.8	-1.6	0.0	-0.5	-1.4	-1.4	-0.1	-0.1	0.8	1.2	1.2	1.2	1.3	1.3
Slovenia	-3.6	-3.0	-0.4	0.7	0.6	1.8	2.4	2.7	2.4	1.6	1.2	1.3	1.6	2.0	2.2
Spain ¹	-6.9	-5.5	-0.9	0.4	0.9	0.1	-0.4	-0.3	-0.4	-0.5	-0.6	-0.7	-0.6	-0.7	-0.7
Sweden ¹	0.8	0.2	-0.4	-0.6	-0.7	-0.5	0.6	1.0	0.3	0.2	0.1	0.1	0.1	0.1	0.1
Switzerland ¹	0.8	1.1	1.0	0.0	-0.1	0.9	0.6	0.6	0.3	0.4	0.4	0.4	0.4	0.4	0.3
United Kingdom ¹	-4.9	-3.2	-3.7	-2.6	-2.8	-2.5	-1.3	-0.1	0.1	0.2	0.4	0.5	0.5	0.5	0.5
United States ^{1,2}	-7.8	-6.1	-4.4	-2.5	-1.9	-1.7	-2.3	-2.3	-3.1	-3.4	-2.9	-2.8	-2.7	-2.2	-1.8
Average	-5.1	-3.9	-2.8	-1.7	-1.2	-1.1	-1.2	-1.0	-1.3	-1.6	-1.3	-1.3	-1.2	-1.0	-0.9
Euro Area	-2.6	-1.3	0.0	1.0	1.0	1.0	1.0	0.9	0.9	0.5	0.4	0.3	0.3	0.4	0.4
G7	-5.7	-4.4	-3.4	-2.1	-1.5	-1.3	-1.5	-1.4	-1.7	-2.1	-1.7	-1.6	-1.6	-1.3	-1.1
G20 Advanced	-5.5	-4.3	-3.2	-2.0	-1.4	-1.2	-1.4	-1.3	-1.5	-1.9	-1.5	-1.4	-1.4	-1.2	-1.0

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: Cyclically adjusted primary balance is defined as the cyclically adjusted balance plus net interest payable/paid (interest expense minus interest revenue) following the *World Economic Outlook* convention. For economy-specific details, see "Data and Conventions" in text, and Table B.

¹ The data for these economies include adjustments beyond the output cycle.

² For cross-economy comparability, expenditure and fiscal balances of the United States are adjusted to exclude the imputed interest on unfunded pension liabilities and the imputed compensation of employees, which are counted as expenditures under the 2008 System of National Accounts (2008 SNA) adopted by the United States, but not in economies that have not yet adopted the 2008 SNA. Data for the United States in this table may thus differ from data published by the US Bureau of Economic Analysis.

Table A5. Advanced Economies: General Government Revenue, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Australia	31.9	31.9	33.1	33.7	33.9	34.6	34.8	34.9	35.6	35.9	36.0	35.8	35.7	35.6	35.6
Austria	48.4	48.3	49.0	49.7	49.6	50.0	48.6	48.3	48.3	47.7	48.0	48.0	48.0	48.0	48.0
Belgium	49.3	50.3	51.6	52.7	52.2	51.3	50.6	51.3	51.3	50.7	50.4	50.4	50.4	50.4	50.4
Canada	38.3	38.3	38.4	38.5	38.5	40.0	40.1	39.9	40.1	40.1	40.1	40.1	40.1	40.1	40.1
Cyprus	37.3	36.7	36.4	36.7	39.8	39.0	38.0	38.9	39.6	38.4	37.6	37.4	37.4	37.4	37.6
Czech Republic	39.3	40.3	40.5	41.4	40.3	41.1	40.2	40.5	42.1	42.2	42.1	42.1	42.1	42.1	42.1
Denmark	54.0	54.4	54.5	54.6	56.4	53.2	52.6	52.3	52.1	51.7	51.4	51.2	51.0	50.8	50.7
Estonia	40.7	38.6	39.0	38.3	38.5	39.7	39.2	38.9	40.1	40.1	40.1	39.9	39.7	39.4	39.1
Finland	52.1	53.3	54.0	54.9	54.9	54.4	54.2	53.3	51.8	51.8	51.7	51.8	51.9	51.9	51.8
France	50.0	51.1	52.1	53.1	53.3	53.2	53.2	53.8	53.6	52.4	52.0	51.6	51.5	51.4	51.4
Germany	43.0	43.8	44.3	44.5	44.5	44.5	44.8	45.0	45.6	45.5	45.3	45.0	45.0	44.9	44.9
Greece	41.3	43.8	46.2	47.9	46.2	47.9	49.5	48.3	49.0	47.5	46.0	45.2	44.4	44.2	44.0
Hong Kong SAR	20.7	22.4	21.4	21.0	20.8	18.6	22.6	22.8	20.5	20.7	21.0	20.9	21.2	20.7	20.7
Iceland	38.3	38.8	40.2	40.6	43.7	40.6	56.9	43.8	42.7	42.1	41.9	41.6	41.3	41.3	41.1
Ireland	33.0	33.7	34.0	34.2	33.8	27.0	27.0	26.1	25.8	25.9	25.4	25.3	24.5	24.2	24.0
Israel	36.8	36.8	36.0	36.3	36.5	36.6	36.5	37.8	36.7	36.5	36.4	36.4	36.4	36.4	36.4
Italy	45.7	45.7	47.9	48.1	47.9	47.7	46.5	46.4	46.4	46.5	46.5	46.6	46.7	46.8	46.9
Japan	29.0	30.0	30.8	31.6	33.3	34.2	34.3	34.2	33.9	34.0	34.6	34.7	34.7	34.7	34.7
Korea	21.0	21.6	22.1	21.5	21.2	21.5	22.4	23.2	24.3	24.6	24.6	24.5	24.4	24.4	24.4
Latvia	36.5	35.6	37.4	36.7	36.1	36.2	36.2	35.6	36.9	35.9	35.9	34.7	34.7	34.7	34.7
Lithuania	34.3	32.6	32.1	32.1	33.4	34.1	33.6	32.8	34.1	34.9	34.8	34.8	34.7	34.7	34.6
Luxembourg	43.5	42.9	44.4	44.3	43.3	43.3	43.6	44.5	46.3	45.3	45.5	45.6	45.7	45.8	45.8
Malta	38.7	38.8	39.2	39.5	39.3	38.5	37.4	39.2	38.2	37.5	37.3	37.0	37.1	36.0	36.0
Netherlands	41.8	41.5	42.0	42.8	42.8	41.8	42.8	43.7	43.5	44.4	44.2	44.0	44.1	44.1	44.1
New Zealand	37.6	37.3	37.5	37.2	37.2	37.6	37.5	37.3	37.3	37.2	37.3	37.2	37.1	37.1	37.2
Norway	55.3	56.5	56.1	54.1	53.8	54.1	53.9	54.2	55.1	55.3	54.6	55.0	55.2	55.6	56.0
Portugal	40.6	42.6	42.9	45.1	44.6	43.8	42.8	42.7	43.0	43.2	43.3	43.8	43.5	43.5	43.5
Singapore	21.1	23.1	22.1	21.3	21.1	21.2	21.5	22.6	21.5	21.4	21.1	21.1	21.2	21.3	21.3
Slovak Republic	34.7	36.5	36.3	38.7	39.3	42.5	39.2	39.4	39.2	39.2	39.3	38.6	38.5	38.6	37.6
Slovenia	40.8	40.6	41.6	40.6	41.2	40.4	39.3	39.1	40.5	40.2	40.3	40.6	40.9	41.3	41.5
Spain	36.2	36.2	37.6	38.6	38.9	38.5	37.7	37.9	38.7	38.9	38.7	38.6	38.6	38.5	38.4
Sweden	49.7	49.0	49.3	49.5	48.5	48.9	49.9	49.9	49.5	49.4	49.3	49.1	49.1	49.1	49.1
Switzerland	32.4	32.7	32.6	32.7	32.4	33.5	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3
United Kingdom	35.2	35.7	35.7	36.1	35.2	35.5	36.0	36.6	36.9	37.0	37.0	36.9	37.0	37.1	37.1
United States	29.0	29.3	29.3	31.4	31.3	31.5	31.1	30.9	30.9	31.1	31.5	31.6	31.7	32.0	32.3
Average	34.9	35.5	35.6	36.8	36.8	36.4	36.3	36.4	36.5	36.4	36.6	36.5	36.6	36.7	36.8
Euro Area	44.3	44.9	46.0	46.7	46.6	46.1	45.9	46.1	46.2	45.9	45.7	45.5	45.4	45.4	45.4
G7	34.2	34.8	34.9	36.3	36.4	36.2	36.0	36.0	36.1	36.0	36.2	36.2	36.3	36.4	36.6
G20 Advanced	33.7	34.2	34.4	35.7	35.8	35.6	35.4	35.5	35.6	35.5	35.8	35.7	35.8	35.9	36.1

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For economy-specific details, see "Data and Conventions" in text, and Table B.

Table A6. Advanced Economies: General Government Expenditure, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Australia	37.0	36.3	36.6	36.5	36.8	37.4	37.4	36.4	36.8	37.4	36.6	35.8	35.6	35.6	35.6
Austria	52.8	50.9	51.2	51.6	52.3	51.0	50.2	49.0	48.5	47.8	48.2	48.3	48.4	48.5	48.6
Belgium	53.3	54.5	55.9	55.8	55.3	53.7	53.0	52.2	52.1	51.9	51.8	51.8	51.8	51.8	51.9
Canada	43.1	41.6	40.9	40.0	38.4	40.0	40.6	40.3	40.6	40.7	40.7	40.7	40.7	40.7	40.7
Cyprus	42.0	42.3	41.9	41.9	40.0	39.3	37.7	37.1	36.6	36.6	35.7	35.2	35.3	35.1	35.0
Czech Republic	43.5	43.0	44.5	42.6	42.4	41.7	39.5	39.0	40.6	41.1	41.3	41.5	41.5	41.5	41.5
Denmark	56.7	56.4	58.0	55.8	55.2	54.5	52.7	51.2	52.2	52.1	51.7	51.5	51.2	50.8	50.5
Estonia	40.5	37.4	39.3	38.5	37.9	39.6	39.5	39.2	39.8	39.9	39.9	39.8	39.7	39.3	39.1
Finland	54.8	54.4	56.2	57.5	58.1	57.1	55.9	54.0	52.8	52.1	51.8	51.8	51.9	51.9	51.8
France	56.9	56.3	57.1	57.2	57.2	56.8	56.6	56.5	56.2	55.7	54.4	54.1	54.0	54.0	54.0
Germany	47.3	44.7	44.3	44.7	44.0	43.7	43.9	43.9	43.9	44.3	44.3	44.2	44.2	44.2	44.2
Greece	52.5	54.1	52.8	51.6	50.2	50.6	48.9	47.3	48.6	47.7	45.9	45.1	44.4	44.7	44.7
Hong Kong SAR	16.6	18.6	18.3	20.0	17.3	18.0	18.2	17.3	18.5	19.4	19.4	20.1	20.4	19.8	19.8
Iceland	47.8	44.2	43.8	42.4	43.8	41.4	44.5	43.3	41.7	41.5	41.4	41.1	40.8	40.8	40.6
Ireland	65.0	46.5	42.0	40.4	37.5	29.0	27.5	26.3	25.7	25.9	25.2	25.0	24.0	23.5	23.1
Israel	40.4	39.7	40.4	40.3	38.9	37.7	37.8	38.8	39.0	39.0	39.0	39.0	39.0	39.0	39.0
Italy	49.9	49.4	50.8	51.1	50.9	50.3	49.0	48.9	48.5	49.2	49.9	50.1	50.3	50.5	50.7
Japan	38.5	39.4	39.4	39.5	38.9	38.0	37.9	37.4	37.1	36.9	36.8	36.5	36.4	36.5	36.8
Korea	19.5	19.9	20.6	20.9	20.8	20.9	20.7	20.8	21.5	22.5	23.1	23.5	23.7	23.7	23.7
Latvia	43.0	38.8	37.2	37.3	37.8	37.8	36.6	36.4	37.6	36.7	36.3	35.4	35.2	35.2	34.9
Lithuania	41.2	41.5	35.2	34.7	34.0	34.3	33.3	32.4	33.1	34.5	34.5	34.5	34.5	34.4	34.4
Luxembourg	44.1	42.4	44.1	43.3	42.0	42.0	41.9	43.1	43.7	44.2	44.3	44.4	44.2	44.2	44.3
Malta	41.1	41.2	42.7	41.9	41.1	39.6	36.5	35.7	37.3	36.9	36.7	36.3	36.4	35.4	35.4
Netherlands	47.0	46.0	45.9	45.7	44.9	43.8	42.8	42.6	42.4	43.4	43.5	43.2	43.3	43.3	43.3
New Zealand	43.0	42.3	39.7	38.6	37.7	37.4	36.7	36.2	37.0	37.0	36.6	36.2	35.8	35.9	35.9
Norway	44.3	43.1	42.3	43.3	45.1	48.0	49.9	49.1	47.7	47.8	47.4	47.7	47.9	48.1	48.3
Portugal	51.8	50.0	48.5	49.9	51.7	48.1	44.8	45.7	43.7	43.9	43.5	43.4	43.2	43.2	43.1
Singapore	15.0	14.5	14.4	14.8	15.7	17.6	17.2	16.9	17.5	17.2	17.9	18.2	18.4	18.6	18.8
Slovak Republic	42.1	40.8	40.6	41.4	42.0	45.1	41.5	40.2	40.0	39.2	39.0	38.3	38.1	38.2	37.2
Slovenia	46.0	46.1	44.7	54.4	47.0	43.7	41.0	39.8	39.4	39.7	40.1	40.2	40.4	40.7	40.8
Spain	45.6	45.8	48.1	45.6	44.8	43.7	42.2	41.0	41.4	41.1	41.1	41.0	41.1	41.2	41.2
Sweden	49.7	49.2	50.2	50.9	50.1	48.7	48.8	48.4	48.7	48.8	49.0	48.8	48.8	48.8	48.8
Switzerland	32.0	31.9	32.2	33.1	32.7	32.9	32.9	33.0	33.0	33.1	33.1	33.1	33.1	33.1	33.1
United Kingdom	44.5	43.2	43.3	41.4	40.5	39.7	38.9	38.4	38.3	38.3	38.2	37.9	37.8	37.8	37.8
United States ¹	39.6	38.6	37.0	35.5	35.0	34.6	35.0	34.8	35.1	35.7	35.9	35.9	36.2	36.0	36.0
Average	42.5	41.7	41.0	40.4	39.8	38.9	38.8	38.5	38.6	38.8	38.8	38.7	38.8	38.8	38.8
Euro Area	50.5	49.2	49.7	49.7	49.1	48.2	47.5	47.0	46.8	46.9	46.6	46.5	46.5	46.5	46.5
G7	42.8	42.1	41.2	40.4	39.8	39.0	39.0	38.8	39.0	39.2	39.2	39.2	39.3	39.2	39.2
G20 Advanced	41.9	41.1	40.3	39.6	39.0	38.3	38.3	38.0	38.2	38.5	38.5	38.4	38.5	38.4	38.5

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For economy-specific details, see "Data and Conventions" in text, and Table B.

¹ For cross-economy comparability, expenditure and fiscal balances of the United States are adjusted to exclude the imputed interest on unfunded pension liabilities and the imputed compensation of employees, which are counted as expenditures under the 2008 System of National Accounts (2008 SNA) adopted by the United States, but not in economies that have not yet adopted the 2008 SNA. Data for the United States in this table may thus differ from data published by the US Bureau of Economic Analysis.

Table A7. Advanced Economies: General Government Gross Debt, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Australia ¹	20.5	24.1	27.7	30.7	34.1	37.8	40.5	40.7	40.7	41.1	40.6	39.7	38.9	37.5	36.4
Austria	82.4	82.2	81.7	81.0	83.8	84.4	82.9	78.5	74.2	71.2	68.4	66.1	64.3	62.7	61.2
Belgium	99.7	102.6	104.3	105.5	107.6	106.5	106.1	103.4	101.4	99.6	98.1	96.4	94.7	93.1	91.0
Canada ¹	81.3	81.9	85.5	86.2	85.7	91.3	91.8	90.1	90.6	88.0	84.7	81.3	78.0	74.9	72.0
Cyprus	55.8	65.2	79.2	102.1	108.0	108.0	105.5	95.8	102.5	101.0	94.3	89.5	79.6	73.0	67.3
Czech Republic	37.4	39.8	44.5	44.9	42.2	40.0	36.8	34.7	33.0	31.6	30.7	29.9	28.1	26.4	25.1
Denmark	42.6	46.1	44.9	44.0	44.3	39.8	37.3	34.8	34.3	33.6	32.9	35.2	37.3	38.9	39.5
Estonia	6.6	6.1	9.7	10.2	10.5	9.9	9.2	8.7	8.1	7.6	7.2	6.8	6.4	6.1	5.8
Finland	47.1	48.5	53.9	56.5	60.2	63.5	63.0	61.3	60.5	59.9	59.0	58.5	56.8	55.0	53.3
France	85.3	87.8	90.6	93.4	94.9	95.6	96.6	98.5	98.6	99.2	98.7	98.2	97.6	97.0	96.2
Germany	81.0	78.6	79.9	77.4	74.5	70.8	67.9	63.9	59.8	56.9	53.8	51.1	48.5	46.0	43.7
Greece	146.2	180.6	159.6	177.9	180.2	177.8	181.1	179.3	183.3	174.2	167.3	160.9	153.8	147.2	143.2
Hong Kong SAR ¹	0.6	0.6	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Iceland	85.4	92.0	89.4	81.8	78.8	65.0	51.2	43.1	35.4	33.1	30.1	27.8	25.7	23.3	22.0
Ireland	86.0	110.9	119.9	119.8	104.3	76.9	73.5	68.5	65.2	62.4	58.9	57.1	54.0	51.0	47.8
Israel	70.7	68.7	68.4	67.0	65.8	63.8	62.0	60.4	59.6	59.0	58.1	57.2	56.4	55.6	54.9
Italy	115.4	116.5	123.4	129.0	131.8	131.6	131.3	131.3	132.1	133.4	134.1	135.3	136.4	137.5	138.5
Japan	207.9	222.1	229.0	232.5	236.1	231.6	236.3	235.0	237.1	237.5	237.0	237.4	237.8	238.0	238.3
Korea	30.8	31.5	32.2	35.4	37.3	39.5	39.9	39.8	40.7	40.5	40.7	41.1	41.8	42.2	42.4
Latvia	46.4	42.9	41.5	39.0	40.9	36.8	40.3	40.0	37.6	36.7	35.1	34.7	33.1	31.8	30.5
Lithuania	36.2	37.2	39.8	38.8	40.5	42.6	39.9	39.4	35.9	33.8	31.8	30.0	28.3	26.8	25.4
Luxembourg	19.8	18.7	21.7	23.7	22.7	22.2	20.7	23.0	21.8	21.6	21.3	21.0	20.5	20.0	19.6
Malta	67.5	70.2	67.7	68.4	63.4	57.9	55.4	50.2	45.4	42.5	39.1	35.7	32.1	30.0	28.2
Netherlands	59.3	61.7	66.2	67.7	67.9	64.7	61.9	57.0	54.4	52.0	49.9	47.4	44.9	42.3	39.8
New Zealand	29.7	34.7	35.7	34.6	34.2	34.4	33.5	31.6	29.4	28.1	27.3	26.8	25.9	23.5	21.2
Norway	42.3	28.8	30.0	30.4	28.4	32.9	36.2	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8
Portugal	90.5	111.4	126.2	129.0	130.6	128.8	129.2	124.8	121.4	119.5	117.3	111.3	107.4	106.3	102.7
Singapore	97.0	100.4	104.8	101.2	96.1	99.4	103.7	106.9	108.3	109.4	111.2	111.8	112.6	112.8	117.0
Slovak Republic	41.2	43.7	52.2	54.7	53.5	52.2	51.8	50.9	48.8	46.9	45.1	43.3	41.5	39.8	38.6
Slovenia	38.2	46.4	53.8	70.4	80.4	82.6	78.7	74.1	68.5	65.4	63.4	61.2	59.1	56.9	54.9
Spain	60.1	69.5	85.7	95.5	100.4	99.3	99.0	98.1	97.0	96.0	94.9	94.1	93.3	92.7	92.3
Sweden	38.6	37.8	38.1	40.7	45.5	44.2	42.4	40.8	39.0	37.2	35.5	33.9	32.3	30.9	29.4
Switzerland	42.6	42.9	43.7	42.9	43.0	43.0	41.8	41.8	40.5	39.5	38.2	36.9	35.7	34.6	33.4
United Kingdom	75.2	80.8	84.1	85.2	87.0	87.9	87.9	87.1	86.9	85.7	84.4	83.6	82.6	81.5	80.3
United States ¹	95.4	99.7	103.2	104.8	104.4	104.7	106.9	106.2	105.8	106.7	107.5	108.4	109.4	110.0	110.3
Average	98.2	102.4	106.6	105.1	104.6	104.2	106.7	104.6	103.6	104.0	103.7	103.7	103.6	103.3	103.0
Euro Area	84.6	86.6	89.7	91.6	91.8	89.9	89.1	86.8	85.0	83.6	81.8	80.3	78.6	77.2	75.7
G7	111.6	116.8	120.9	118.6	117.4	116.2	119.4	117.6	116.7	117.3	117.4	117.7	118.0	118.1	118.1
G20 Advanced	105.9	110.3	114.2	112.2	111.3	110.8	113.9	112.0	111.2	111.8	111.8	112.1	112.3	112.3	112.2

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For economy-specific details, see "Data and Conventions" in text, and Table B.

¹ For cross-economy comparability, gross debt levels reported by national statistical agencies for countries that have adopted the 2008 System of National Accounts (Australia, Canada, Hong Kong SAR, United States) are adjusted to exclude unfunded pension liabilities of government employees' defined-benefit pension plans.

Table A8. Advanced Economies: General Government Net Debt, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Australia ¹	4.0	8.1	11.2	13.2	15.5	17.9	18.9	18.4	19.2	20.4	20.2	19.5	18.8	17.7	16.7
Austria	60.5	60.3	60.5	60.4	59.1	58.3	57.1	55.9	51.0	48.8	46.8	45.3	44.2	43.2	42.4
Belgium ²	88.4	90.8	91.6	92.5	94.1	93.3	92.4	90.1	88.5	87.0	85.9	84.6	83.3	82.0	80.3
Canada ¹	27.1	27.6	29.0	29.8	28.6	28.5	28.8	27.6	27.9	26.6	25.8	25.0	24.3	23.6	23.0
Cyprus	48.1	52.5	67.1	78.1	89.5	91.3	86.9	79.5	...	...	...	...	...	...	...
Czech Republic	25.5	26.8	28.3	29.1	29.4	28.1	24.9	21.5	...	...	...	...	...	...	...
Denmark	15.0	15.1	18.5	18.3	18.2	16.5	16.7	15.0	14.8	14.7	14.6	14.4	14.1	13.6	13.0
Estonia	-8.5	-6.8	-4.9	-4.4	-3.9	-2.2	-2.6	-2.1	-0.4	-0.4	-0.4	-0.4	-0.3	-0.3	-0.2
Finland ³	3.2	5.1	9.5	12.9	17.4	18.7	21.5	22.2	22.3	21.8	21.2	20.4	19.9	19.3	18.7
France	73.6	76.4	80.0	83.0	85.5	86.4	87.5	87.5	87.6	88.2	87.7	87.3	86.7	86.0	85.2
Germany	60.9	59.2	58.4	57.5	54.0	51.0	48.2	44.5	41.0	38.6	36.2	34.1	32.1	30.2	28.4
Greece	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hong Kong SAR	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Iceland ⁴	64.3	59.9	62.0	60.5	53.6	47.4	39.7	35.6	29.7	28.9	26.8	24.8	23.1	21.4	19.8
Ireland ⁵	66.9	79.7	87.5	90.4	86.4	66.3	64.4	59.1	55.7	53.6	51.9	49.8	47.0	44.3	41.4
Israel	64.3	63.2	63.1	62.2	62.1	60.2	58.7	57.1	56.4	55.9	55.2	54.5	53.8	53.1	52.5
Italy	104.7	106.8	111.6	116.7	118.8	119.5	118.9	119.0	120.1	121.5	122.5	123.8	125.2	126.6	127.8
Japan	131.1	142.4	146.7	146.4	148.5	147.8	152.6	151.1	153.2	153.6	153.2	153.6	153.9	154.1	154.5
Korea	29.2	29.9	-2.0	1.9	3.5	6.4	11.8	11.6	12.6	12.4	12.6	13.0	13.7	14.1	14.3
Latvia	28.5	31.2	29.4	29.3	29.6	31.1	31.0	32.1	30.4	29.9	28.7	28.6	27.3	26.3	25.3
Lithuania	26.3	33.1	33.4	34.2	32.7	34.6	32.3	32.4	29.3	27.5	25.9	24.3	22.9	21.7	20.5
Luxembourg	-13.5	-11.5	-10.7	-9.0	-10.8	-12.2	-11.8	-11.5	-10.9	-9.6	-8.6	-7.5	-6.8	-6.1	-5.4
Malta	57.2	58.2	57.9	59.0	53.9	49.5	43.0	37.9	...	...	...	...	...	...	...
Netherlands	45.7	48.4	51.9	53.5	54.7	52.9	50.6	46.6	44.5	42.6	40.8	38.8	36.7	34.6	32.5
New Zealand	4.7	8.8	10.8	11.0	10.4	9.9	9.1	8.0	8.8	10.3	10.8	10.5	8.8	6.5	4.2
Norway ⁶	-47.4	-48.3	-50.0	-61.3	-75.9	-87.0	-85.3	-80.8	-79.1	-84.5	-89.3	-93.9	-98.4	-102.9	-107.5
Portugal	82.1	96.1	104.8	108.2	112.8	113.9	112.5	110.1	108.2	107.0	104.0	100.6	97.5	94.5	91.3
Singapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Slovak Republic	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Slovenia	26.6	32.2	36.7	45.5	46.6	50.4	52.4	51.9	...	...	...	...	...	...	...
Spain	45.8	56.3	71.5	80.8	85.2	85.3	86.2	84.8	84.1	83.5	82.9	82.4	82.1	81.9	81.8
Sweden	13.6	11.9	11.5	11.7	11.5	11.2	8.9	6.2	5.9	5.2	4.6	4.2	3.7	3.4	3.0
Switzerland	24.2	24.4	23.9	22.9	23.1	23.3	22.8	22.1	20.8	19.8	18.5	17.3	16.0	14.9	13.7
United Kingdom	68.1	72.5	75.5	76.8	78.8	79.3	78.8	77.5	77.5	76.2	75.0	74.2	73.2	72.1	70.9
United States ¹	70.0	76.5	80.3	80.9	80.5	80.4	81.7	80.7	80.9	83.4	86.2	88.2	91.3	93.0	94.3
Average	69.5	74.0	76.5	75.7	75.5	75.6	77.4	75.4	75.4	76.4	77.2	77.7	78.6	78.9	79.0
Euro Area	66.0	68.6	72.1	74.6	75.0	73.8	72.8	70.9	68.9	67.9	66.7	65.5	64.4	63.4	62.3
G7	79.9	85.4	88.6	87.3	86.7	86.1	88.1	86.2	86.0	87.3	88.5	89.4	90.9	91.6	92.2
G20 Advanced	75.6	80.5	82.5	81.4	81.0	80.9	83.0	81.0	80.9	82.2	83.3	84.1	85.4	86.0	86.4

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For economy-specific details, see "Data and Conventions" in text, and Table B.

¹ For cross-economy comparability, net debt levels reported by national statistical agencies for economies that have adopted the 2008 System of National Accounts (Australia, Canada, Hong Kong SAR, and the United States) are adjusted to exclude unfunded pension liabilities of government employees' defined-benefit pension plans.

² Belgium's net debt series has been revised to ensure consistency between liabilities and assets. Net debt is defined as gross debt (Maastricht definition) minus assets in the form of currency and deposits, loans, and debt securities.

³ Net debt figures were revised to only include categories of assets corresponding to the categories of liabilities covered by the Maastricht definition of gross debt.

⁴ Net debt for Iceland is defined as gross debt less currency and deposits.

⁵ Net debt for Ireland is defined as gross general debt less debt instrument assets, namely, currency and deposits (F2), debt securities (F3), and loans (F4). It was previously defined as general government debt less currency and deposits.

⁶ Norway's net debt series has been revised because of a change in the net debt calculation by excluding the equity and shares from financial assets and including accounts receivable in the financial assets, following *Government Finance Statistics* and the Maastricht definition.

Table A9. Emerging Market and Middle-Income Economies: General Government Overall Balance, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Algeria	0.0	-0.1	-4.4	-0.4	-7.3	-15.3	-13.0	-6.6	-5.2	-6.5	-2.6	-1.6	-0.3	1.7	1.9
Angola	3.4	8.1	4.1	-0.3	-5.7	-2.9	-4.5	-6.3	2.4	-0.1	-0.1	0.0	-0.2	-0.3	-0.3
Argentina	-1.4	-2.7	-3.0	-3.3	-4.3	-6.0	-6.6	-6.7	-5.2	-2.7	-1.5	-1.4	-1.1	-0.9	-0.5
Azerbaijan	13.8	10.9	3.7	1.6	2.7	-4.8	-1.1	-1.4	4.0	4.4	5.9	6.0	4.8	3.9	3.0
Belarus	-4.2	-2.8	0.4	-1.0	0.1	-3.0	-1.7	-0.3	2.3	-2.0	-1.7	-0.3	-0.6	-0.7	-0.7
Brazil	-2.7	-2.5	-2.5	-3.0	-5.4	-10.2	-9.0	-7.9	-6.8	-7.3	-7.0	-6.9	-6.6	-6.2	-5.8
Chile	-0.4	1.4	0.7	-0.5	-1.5	-2.1	-2.7	-2.6	-1.5	-1.8	-1.5	-1.1	-0.9	-0.7	-0.5
China	-0.4	-0.1	-0.3	-0.8	-0.9	-2.8	-3.7	-3.9	-4.8	-6.1	-5.5	-5.4	-5.4	-5.3	-5.3
Colombia	-3.3	-2.0	0.1	-0.9	-1.8	-3.4	-2.4	-2.6	-2.2	-2.6	-1.0	-0.7	-0.9	-0.9	-0.4
Croatia	-6.2	-7.8	-5.3	-5.3	-5.3	-3.3	-0.8	0.9	0.4	0.0	0.1	0.1	0.2	0.3	0.4
Dominican Republic	-2.7	-3.1	-6.6	-3.5	-2.9	-0.2	-2.8	-3.2	-3.0	-3.1	-3.3	-3.4	-3.4	-3.5	-3.4
Ecuador	-1.4	-0.1	-0.9	-4.6	-5.2	-6.1	-8.2	-4.5	-0.9	0.0	3.8	2.9	2.8	2.9	2.1
Egypt ¹	-7.4	-9.6	-10.0	-12.9	-11.3	-10.9	-12.5	-10.4	-9.5	-8.6	-6.5	-5.0	-4.0	-3.7	-3.8
Hungary	-4.5	-5.4	-2.4	-2.6	-2.6	-1.9	-1.6	-2.2	-2.3	-1.9	-1.9	-1.8	-1.8	-1.8	-2.0
India	-8.6	-8.3	-7.5	-7.0	-7.1	-7.2	-7.1	-7.0	-6.7	-6.9	-6.6	-6.4	-6.3	-6.2	-6.1
Indonesia	-1.2	-0.7	-1.6	-2.2	-2.1	-2.6	-2.5	-2.5	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8
Iran	2.6	0.6	-0.3	-0.9	-1.1	-1.8	-2.3	-1.8	-3.9	-4.0	-4.1	-4.5	-4.8	-5.3	-5.6
Kazakhstan	1.5	5.8	4.4	4.9	2.5	-6.3	-5.3	-4.4	0.5	1.4	1.7	1.6	1.4	1.4	1.5
Kuwait	26.0	33.3	32.4	34.1	22.4	5.6	0.3	6.6	11.4	9.5	7.6	7.3	6.2	5.2	4.5
Libya	12.5	-17.2	28.6	-5.1	-73.8	-131.0	-113.3	-43.0	-7.4	-10.9	-14.9	-20.2	-25.5	-26.3	-27.1
Malaysia ²	-4.4	-3.6	-3.1	-3.5	-2.7	-2.6	-2.6	-2.4	-3.6	-3.0	-2.5	-2.5	-2.5	-2.5	-2.5
Mexico	-4.0	-3.3	-3.7	-3.7	-4.5	-4.0	-2.8	-1.1	-2.3	-2.5	-2.4	-2.3	-2.3	-2.3	-2.3
Morocco	-4.3	-6.6	-7.2	-5.1	-4.8	-4.2	-4.5	-3.5	-3.7	-3.7	-3.3	-3.0	-3.0	-3.0	-3.0
Oman	5.6	9.4	4.6	4.7	-1.1	-15.9	-21.2	-12.9	-7.7	-9.9	-7.0	-5.6	-6.6	-7.7	-7.9
Pakistan	-6.0	-6.7	-8.6	-8.4	-4.9	-5.3	-4.4	-5.8	-6.5	-7.2	-8.7	-8.0	-7.8	-7.6	-7.7
Peru	0.1	2.0	2.1	0.7	-0.2	-2.1	-2.3	-2.9	-2.1	-1.9	-1.3	-0.9	-0.9	-0.9	-0.9
Philippines	-2.4	-0.3	-0.3	0.2	0.9	0.6	-0.4	-0.4	-1.0	-1.2	-1.4	-1.5	-1.6	-1.9	-1.9
Poland	-7.3	-4.8	-3.7	-4.1	-3.7	-2.7	-2.2	-1.4	-0.6	-2.2	-3.1	-3.1	-3.1	-3.1	-3.1
Qatar	6.8	7.3	10.5	21.6	14.3	4.5	-5.4	-2.9	5.3	6.1	6.6	6.4	6.7	6.4	6.5
Romania	-6.4	-4.3	-2.5	-2.5	-1.7	-1.4	-2.4	-2.8	-2.9	-3.8	-4.1	-4.2	-4.3	-4.1	-3.9
Russia	-3.2	1.4	0.4	-1.2	-1.1	-3.4	-3.7	-1.5	2.8	1.0	0.8	0.4	0.0	-0.2	-0.4
Saudi Arabia	4.4	11.6	11.9	5.6	-3.5	-15.8	-17.2	-9.2	-4.6	-7.9	-5.7	-7.2	-6.8	-6.5	-6.4
South Africa	-5.0	-4.1	-4.4	-4.3	-4.3	-4.8	-4.1	-4.4	-4.4	-5.1	-5.1	-4.9	-5.0	-5.0	-4.9
Sri Lanka	-7.0	-6.2	-5.6	-5.2	-6.2	-7.0	-5.4	-5.5	-5.3	-4.6	-3.5	-3.5	-3.5	-3.5	-3.5
Thailand	-1.3	0.0	-0.9	0.5	-0.8	0.1	0.6	-0.9	-0.3	-0.1	-0.7	-0.8	-1.0	-1.2	-1.3
Turkey	-3.4	-0.7	-1.8	-1.5	-1.4	-1.3	-2.3	-2.3	-3.6	-3.1	-3.5	-3.7	-3.5	-3.1	-2.6
Ukraine	-5.8	-2.8	-4.3	-4.8	-4.5	-1.2	-2.2	-2.2	-2.3	-2.3	-2.3	-2.2	-2.0	-2.0	-2.0
United Arab Emirates	0.6	5.3	9.0	8.4	1.9	-3.4	-2.0	-1.6	-1.8	-0.8	-1.7	-0.6	-0.2	0.3	0.5
Uruguay ³	-1.1	-0.9	-2.7	-2.3	-3.5	-3.6	-3.8	-3.5	-2.7	-2.7	-2.6	-3.2	-3.4	-3.6	-3.6
Venezuela	-4.7	-8.2	-10.4	-11.3	-15.6	-10.7	-10.8	-23.0	-29.9	-29.8	-30.1	-30.0	-29.6	-29.9	-29.9
Average	-2.1	-0.9	-0.9	-1.4	-2.4	-4.4	-4.8	-4.3	-4.0	-4.8	-4.4	-4.4	-4.4	-4.3	-4.3
Asia	-2.2	-1.6	-1.6	-1.8	-1.9	-3.3	-3.9	-4.1	-4.7	-5.6	-5.2	-5.1	-5.1	-5.0	-5.0
Europe	-3.7	-0.2	-0.7	-1.5	-1.4	-2.7	-2.9	-1.9	0.2	-0.8	-1.2	-1.4	-1.6	-1.6	-1.6
Latin America	-2.8	-2.6	-2.8	-3.1	-4.8	-6.8	-6.2	-5.6	-4.9	-4.8	-4.2	-4.1	-3.8	-3.6	-3.4
MENAP	2.4	4.3	5.6	3.9	-1.5	-8.5	-9.5	-5.7	-3.4	-4.4	-3.7	-3.8	-3.7	-3.6	-3.7
G20 Emerging	-2.3	-1.1	-1.2	-1.8	-2.5	-4.4	-4.9	-4.4	-4.4	-5.4	-4.9	-4.9	-4.9	-4.8	-4.7

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table C. MENAP = Middle East, North Africa, and Pakistan.

¹ Based on nominal GDP series prior to the recent revision; therefore, data in the tables are not comparable to the authorities' numbers.

² The General Government overall balance in 2019 includes a one-off refund of tax arrears in 2019 of 2.4 percent of GDP.

³ Data correspond to the consolidated public sector (as presented in the authorities' budget documentation), which includes the nonfinancial public sector, local governments, Banco Central del Uruguay, and Banco de Seguros del Estado. In particular, Uruguay is one of the few countries in the sample for which public debt includes the debt of the central bank which increases the reported number. Starting from October 2018, the public pension system has been receiving transfers in the context of a new law that compensates persons affected by the creation of the mixed pension system (amounting to 1.3 percent of GDP in 2018). These funds are recorded as revenues, consistent with IMF's methodology. Therefore, data and projections for 2018–2022 are affected by these transfers.

Table A10. Emerging Market and Middle-Income Economies: General Government Primary Balance, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Algeria	-0.5	-1.3	-5.3	-0.5	-7.4	-15.8	-13.1	-6.3	-5.6	-6.8	-2.7	-1.7	-0.4	1.8	1.7
Angola	4.6	9.0	5.0	0.4	-4.7	-1.1	-1.7	-3.0	6.9	5.2	5.5	5.4	5.0	4.5	4.2
Argentina	-0.6	-1.6	-1.7	-2.6	-3.5	-4.4	-4.7	-4.2	-2.2	0.0	1.1	1.2	1.3	1.3	1.6
Azerbaijan	13.8	10.9	3.8	1.7	2.9	-4.4	-0.7	-0.8	4.8	5.4	6.8	6.9	5.6	4.6	3.5
Belarus	-3.5	-1.7	1.7	0.0	1.1	-1.3	0.3	1.6	4.3	0.3	0.5	2.0	1.7	1.5	1.6
Brazil	2.3	2.9	1.9	1.7	0.0	-1.9	-2.5	-1.8	-1.7	-1.8	-1.0	-0.5	0.1	0.6	1.0
Chile	-0.3	1.5	0.8	-0.4	-1.3	-1.9	-2.4	-2.3	-1.2	-1.4	-1.0	-0.6	-0.3	-0.1	0.1
China	0.1	0.4	0.2	-0.3	-0.4	-2.2	-2.9	-3.0	-3.8	-4.9	-4.3	-4.1	-4.1	-4.0	-3.8
Colombia	-1.6	-0.1	1.6	1.2	0.3	-0.8	0.7	0.3	0.5	0.1	1.6	1.8	1.4	1.3	1.7
Croatia	-4.1	-5.1	-2.3	-2.2	-2.3	-0.1	2.1	3.5	2.5	1.8	1.8	1.6	1.7	1.8	1.9
Dominican Republic	-0.9	-1.0	-4.2	-1.2	-0.5	2.4	0.1	-0.2	0.4	0.2	0.0	-0.1	0.0	0.0	0.1
Ecuador	-0.8	0.5	-0.2	-3.5	-4.2	-4.7	-6.7	-2.4	1.5	2.7	6.5	5.5	5.1	5.0	4.3
Egypt ¹	-3.2	-4.8	-4.9	-5.9	-4.2	-4.1	-4.3	-2.5	-0.4	1.0	1.7	1.9	2.1	2.0	2.0
Hungary	-0.7	-1.7	1.8	1.6	1.2	1.5	1.5	0.5	0.1	0.1	0.1	0.1	0.0	0.1	0.1
India	-4.4	-4.0	-3.2	-2.4	-2.6	-2.7	-2.5	-2.3	-1.8	-1.9	-1.8	-1.8	-1.7	-1.7	-1.7
Indonesia	0.0	0.5	-0.4	-1.0	-0.9	-1.2	-1.0	-0.9	0.0	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4
Iran	2.6	0.7	-0.2	-0.8	-1.1	-1.7	-2.2	-1.7	-3.5	-3.4	-3.1	-3.1	-3.1	-3.2	-3.2
Kazakhstan	1.8	5.7	3.8	4.4	2.0	-5.9	-4.7	-5.3	0.8	1.6	1.8	1.7	1.5	1.5	1.6
Kuwait	16.9	26.5	25.4	25.8	12.7	-7.5	-14.2	-9.5	-1.5	-3.9	-6.0	-6.7	-7.2	-7.7	-8.0
Libya	12.5	-17.2	28.6	-5.1	-73.8	-131.0	-113.3	-43.0	-7.4	-10.9	-14.9	-20.2	-25.5	-26.3	-27.1
Malaysia	-2.9	-2.0	-2.1	-2.2	-0.9	-0.9	-0.8	-0.6	-2.1	-1.0	-0.7	-0.7	-0.5	-0.5	-0.4
Mexico	-0.9	-0.4	-0.6	-0.7	-1.5	-1.0	0.6	3.0	1.8	1.5	1.4	1.5	1.5	1.3	1.2
Morocco	-2.0	-4.4	-4.7	-2.5	-2.1	-1.4	-1.8	-0.9	-1.3	-1.2	-0.9	-0.8	-0.8	-0.8	-0.8
Oman	4.7	8.9	3.3	2.6	-2.1	-16.1	-21.6	-12.3	-6.7	-8.7	-5.8	-4.1	-4.6	-5.0	-4.9
Pakistan	-1.7	-2.9	-4.2	-3.9	-0.3	-0.5	-0.1	-1.5	-2.1	-1.7	-2.2	-2.1	-2.0	-2.1	-2.0
Peru	1.2	3.0	3.0	1.7	0.7	-1.2	-1.3	-1.9	-1.0	-0.6	0.0	0.6	0.5	0.5	0.5
Philippines	0.7	2.3	2.3	2.7	3.1	2.7	1.5	1.3	1.0	0.8	0.6	0.6	0.5	0.3	0.3
Poland	-4.9	-2.3	-1.1	-1.6	-1.7	-0.9	-0.5	0.2	1.0	-0.6	-1.5	-1.5	-1.5	-1.5	-1.5
Qatar	8.0	8.8	12.0	22.8	15.5	6.0	-3.9	-1.6	6.7	7.6	8.1	7.8	8.0	7.6	7.6
Romania	-5.1	-2.8	-0.7	-0.8	-0.2	-0.1	-1.1	-1.7	-1.5	-2.4	-2.7	-2.7	-2.8	-2.6	-2.3
Russia	-3.1	1.7	0.7	-0.8	-0.7	-3.1	-3.2	-1.0	3.4	1.4	1.3	1.2	0.8	0.6	0.5
Saudi Arabia	4.7	11.6	11.7	5.2	-4.2	-17.9	-20.2	-11.1	-5.1	-8.0	-5.5	-6.8	-6.1	-5.6	-5.3
South Africa	-2.6	-1.5	-1.7	-1.4	-1.3	-1.6	-0.7	-0.9	-0.7	-1.1	-0.9	-0.7	-0.6	-0.4	-0.2
Sri Lanka	-1.5	-1.3	-0.9	-0.6	-2.0	-2.2	-0.2	0.0	0.6	1.5	2.4	2.3	2.3	2.3	2.3
Thailand	-0.7	0.8	-0.1	1.3	-0.1	0.7	1.0	-0.4	0.3	0.5	0.0	-0.1	-0.2	-0.3	-0.4
Turkey	0.1	1.8	0.7	0.8	0.5	0.6	-1.0	-1.0	-2.1	-1.2	-1.1	-1.1	-1.1	-0.8	-0.6
Ukraine	-4.1	-0.8	-2.4	-2.3	-1.2	3.0	1.9	1.6	1.2	1.5	1.1	1.1	1.3	1.1	1.1
United Arab Emirates	0.9	5.5	9.3	8.8	2.2	-3.2	-1.9	-1.5	-1.5	-0.5	-1.4	-0.3	0.1	0.6	0.8
Uruguay ²	1.9	1.9	-0.2	0.4	-0.6	0.0	-0.5	-0.2	0.7	0.8	0.7	0.0	0.0	-0.3	-0.3
Venezuela	-3.2	-6.1	-6.9	-8.1	-11.9	-9.0	-10.1	-22.6	-29.9	-29.8	-30.1	-30.0	-29.6	-29.9	-29.9
Average	-0.4	0.8	0.6	0.1	-0.8	-2.6	-3.0	-2.4	-2.1	-2.8	-2.4	-2.3	-2.2	-2.1	-2.1
Asia	-0.8	-0.3	-0.4	-0.6	-0.6	-2.0	-2.5	-2.5	-3.0	-3.9	-3.4	-3.3	-3.3	-3.2	-3.1
Europe	-2.3	1.0	0.5	-0.3	-0.3	-1.5	-1.7	-0.8	1.3	0.3	0.1	0.1	-0.1	-0.1	-0.1
Latin America	0.5	0.9	0.3	0.0	-1.2	-2.3	-2.3	-1.5	-1.1	-0.9	-0.2	0.2	0.4	0.6	0.9
MENAP	2.9	4.8	6.1	4.5	-0.9	-8.0	-9.1	-5.4	-2.7	-3.3	-2.4	-2.6	-2.4	-2.2	-2.2
G20 Emerging	-0.4	0.8	0.4	-0.2	-0.8	-2.6	-3.1	-2.4	-2.4	-3.3	-2.8	-2.7	-2.6	-2.5	-2.4

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: Primary balance is defined as the overall balance excluding net interest payments. For country-specific details, see "Data and Conventions" in text, and Table C. MENAP = Middle East, North Africa, and Pakistan.

¹ Based on nominal GDP series prior to the recent revision; therefore, data in the tables are not comparable to the authorities' numbers.

² Data correspond to the consolidated public sector (as presented in the authorities' budget documentation), which includes the nonfinancial public sector, local governments, Banco Central del Uruguay, and Banco de Seguros del Estado. In particular, Uruguay is one of the few countries in the sample for which public debt includes the debt of the central bank which increases the reported number. Starting from October 2018, the public pension system has been receiving transfers in the context of a new law that compensates persons affected by the creation of the mixed pension system (amounting to 1.3 percent of GDP in 2018). These funds are recorded as revenues, consistent with IMF's methodology. Therefore, data and projections for 2018 – 2022 are affected by these transfers.

Table A11. Emerging Market and Middle-Income Economies: General Government Cyclically Adjusted Balance, 2010–24
(Percent of potential GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Algeria	-4.6	0.3	-2.8	2.0	-9.3	-18.4	-15.7	-10.8	-8.1	-15.2	-8.0	-5.8	-1.7	3.0	6.0
Angola	4.3	5.1	1.1	-1.4	-5.1	0.5	-1.9	-4.4	1.8	-0.5	-0.8	-0.3	0.0	0.1	0.1
Argentina	-1.4	-3.8	-3.1	-3.8	-3.7	-6.4	-5.9	-6.7	-3.5	-0.1	1.0	0.6	0.4	0.0	-0.1
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Belarus	-4.1	-3.6	-0.2	-1.5	-0.8	-2.5	-0.2	0.3	2.3	-2.0	-1.8	-0.4	-0.6	-0.8	-0.7
Brazil	-3.7	-4.0	-3.8	-4.4	-6.9	-10.1	-7.5	-6.5	-5.6	-6.3	-6.3	-6.6	-6.4	-6.2	-5.8
Chile ¹	-1.9	-1.0	-0.4	-0.5	-0.5	0.5	-1.0	-2.0	-1.5	-1.6	-1.4	-1.2	-1.0	-0.8	-0.6
China	-0.4	-0.1	-0.1	-0.5	-0.5	-2.5	-3.6	-3.9	-4.8	-6.1	-5.5	-5.4	-5.4	-5.3	-5.2
Colombia	-2.7	-2.2	0.0	-1.2	-2.2	-3.7	-2.4	-2.1	-1.5	-2.0	-0.5	-0.4	-0.7	-0.8	-0.4
Croatia	-5.1	-6.8	-3.5	-3.2	-3.2	-2.0	-0.3	0.8	0.2	-0.2	0.0	0.1	0.2	0.3	0.4
Dominican Republic	-3.2	-3.1	-6.3	-3.1	-2.9	-0.3	-3.0	-3.1	-3.2	-3.2	-3.4	-3.4	-3.4	-3.5	-3.4
Ecuador	-1.1	-0.6	-1.7	-5.8	-6.4	-6.9	-7.7	-4.1	-1.3	0.7	4.8	4.2	3.9	3.8	3.0
Egypt ²	-8.6	-9.6	-10.0	-13.0	-11.4	-11.5	-12.1	-10.7	-9.7	-8.6	-6.7	-5.2	-4.2	-3.9	-4.0
Hungary	-3.1	-4.3	0.1	-0.2	-1.3	-1.1	-0.8	-2.0	-2.9	-2.6	-2.7	-2.4	-2.2	-2.0	-2.0
India	-9.0	-8.6	-7.5	-6.8	-6.9	-7.2	-7.3	-6.7	-6.6	-6.9	-6.7	-6.5	-6.3	-6.2	-6.1
Indonesia	-1.5	-1.0	-1.9	-2.5	-2.3	-2.7	-2.5	-2.4	-1.7	-1.8	-1.8	-1.8	-1.9	-1.9	-1.8
Iran	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kuwait	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Libya	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	-4.1	-2.9	-3.1	-3.0	-2.4	-2.8	-2.7	-2.6	-4.5	-2.6	-2.6	-2.6	-2.5	-2.5	-2.5
Mexico	-3.7	-3.3	-3.9	-3.7	-4.6	-4.3	-4.2	-2.7	-2.4	-2.5	-2.3	-2.2	-2.2	-2.3	-2.3
Morocco	-4.3	-6.9	-7.7	-5.9	-6.3	-4.6	-4.8	-4.2	-4.1	-3.9	-3.4	-3.4	-3.7	-4.0	-4.3
Oman	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pakistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peru ¹	-0.1	1.2	1.3	0.1	-0.1	-1.6	-1.9	-2.1	-1.9	-1.7	-1.3	-0.9	-0.9	-1.0	-1.0
Philippines	-2.5	0.0	-0.3	0.1	0.6	0.6	-0.4	-0.4	-1.0	-1.2	-1.4	-1.5	-1.6	-1.9	-1.9
Poland	-7.0	-5.3	-3.5	-3.5	-3.2	-2.4	-2.2	-1.8	-1.6	-2.4	-3.2	-3.1	-3.0	-2.9	-2.9
Qatar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Romania	-5.7	-3.2	-1.3	-1.5	-0.8	-0.7	-2.1	-3.5	-3.8	-4.5	-4.6	-4.4	-4.3	-4.1	-3.7
Russia	-2.9	1.5	0.2	-1.3	0.1	-3.0	-3.4	-1.1	2.8	0.9	0.7	0.3	-0.1	-0.3	-0.4
Saudi Arabia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South Africa	-3.7	-3.7	-4.2	-4.2	-4.1	-4.2	-3.8	-3.7	-3.7	-4.1	-3.9	-3.9	-4.1	-4.1	-4.0
Sri Lanka	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thailand	-1.4	0.0	-0.7	0.3	-0.4	0.5	0.9	-0.7	-0.2	0.0	-0.7	-0.8	-1.0	-1.2	-1.3
Turkey	-2.2	-1.6	-1.9	-2.3	-1.7	-1.6	-2.1	-3.6	-4.5	-1.9	-2.6	-3.2	-3.1	-2.9	-2.4
Ukraine	-2.7	-3.2	-4.5	-4.6	-3.3	1.9	-1.2	-1.5	-2.0	-2.2	-2.2	-2.2	-2.0	-2.0	-2.0
United Arab Emirates	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uruguay ³	-2.1	-2.1	-3.6	-3.3	-4.4	-3.6	-3.6	-3.3	-2.5	-2.5	-2.5	-3.1	-3.3	-3.6	-3.6
Venezuela	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Average	-2.8	-2.0	-1.9	-2.2	-2.4	-3.7	-4.1	-4.0	-4.0	-4.8	-4.4	-4.4	-4.4	-4.3	-4.2
Asia	-2.2	-1.6	-1.4	-1.5	-1.5	-3.0	-3.9	-4.1	-4.7	-5.7	-5.2	-5.1	-5.1	-5.0	-5.0
Europe	-3.5	-0.9	-1.0	-1.9	-1.0	-2.2	-2.5	-1.9	-0.3	-0.9	-1.3	-1.6	-1.8	-1.8	-1.7
Latin America	-3.1	-3.3	-3.1	-3.6	-5.0	-6.5	-5.5	-4.8	-3.6	-3.6	-3.2	-3.3	-3.3	-3.2	-3.1
MENAP	-6.6	-6.4	-7.7	-7.7	-9.9	-11.9	-11.6	-9.3	-7.9	-9.4	-6.3	-5.0	-3.4	-2.3	-1.8
G20 Emerging	-2.6	-1.8	-1.8	-2.2	-2.3	-3.9	-4.3	-4.2	-4.2	-5.1	-4.8	-4.8	-4.8	-4.7	-4.6

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table C. MENAP = Middle East, North Africa, and Pakistan.

¹ Data for these countries include adjustments beyond the output cycle.

² Based on nominal GDP series prior to the recent revision; therefore, data in the tables are not comparable to the authorities' numbers.

³ Data correspond to the consolidated public sector (as presented in the authorities' budget documentation), which includes the nonfinancial public sector, local governments, Banco Central del Uruguay, and Banco de Seguros del Estado. In particular, Uruguay is one of the few countries in the sample for which public debt includes the debt of the central bank which increases the reported number. Starting from October 2018, the public pension system has been receiving transfers in the context of a new law that compensates persons affected by the creation of the mixed pension system (amounting to 1.3 percent of GDP in 2018). These funds are recorded as revenues, consistent with IMF's methodology. Therefore, data and projections for 2018–22 are affected by these transfers.

Table A12. Emerging Market and Middle-Income Economies: General Government Cyclically Adjusted Primary Balance, 2010–24
(Percent of potential GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Algeria	-5.2	-1.7	-4.2	2.0	-9.5	-19.2	-15.7	-10.4	-8.6	-15.5	-8.2	-5.9	-1.8	3.1	5.8
Angola	5.4	6.1	2.0	-0.6	-4.1	2.0	0.5	-1.4	6.6	4.9	5.1	5.3	5.1	4.7	4.4
Argentina	-0.6	-2.6	-1.8	-3.2	-2.9	-4.8	-4.1	-4.2	-0.6	2.5	3.4	3.0	2.7	2.2	2.0
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Belarus	-3.5	-2.5	1.2	-0.5	0.2	-0.8	1.7	2.2	4.3	0.2	0.4	1.8	1.6	1.5	1.5
Brazil	1.5	1.7	0.8	0.5	-1.2	-1.8	-1.2	-0.6	-0.6	-0.9	-0.5	-0.2	0.2	0.6	1.0
Chile ¹	-1.9	-0.9	-0.3	-0.4	-0.4	0.7	-0.7	-1.6	-1.1	-1.2	-0.9	-0.6	-0.4	-0.2	0.0
China	0.0	0.4	0.4	0.0	0.1	-1.9	-2.8	-3.0	-3.8	-5.0	-4.3	-4.2	-4.1	-3.9	-3.8
Colombia	-1.0	-0.3	1.5	1.0	-0.2	-1.1	0.7	0.7	1.2	0.7	2.0	2.0	1.6	1.4	1.7
Croatia	-3.0	-4.1	-0.6	-0.3	-0.4	1.0	2.5	3.4	2.3	1.6	1.6	1.6	1.7	1.8	1.9
Dominican Republic	-1.4	-1.1	-3.9	-0.9	-0.5	2.3	-0.1	-0.1	0.2	0.1	0.0	-0.1	0.0	0.0	0.1
Ecuador	-0.5	0.1	-1.0	-4.8	-5.3	-5.4	-6.1	-2.0	1.2	3.3	7.4	6.6	6.1	5.8	5.0
Egypt ²	-4.1	-4.7	-4.9	-6.1	-4.4	-4.7	-4.0	-2.9	-0.7	0.9	1.5	1.7	1.8	1.8	1.8
Hungary	0.6	-0.6	4.1	3.8	2.4	2.2	2.2	0.7	-0.5	-0.7	-0.6	-0.5	-0.3	-0.1	0.0
India	-4.7	-4.2	-3.1	-2.3	-2.4	-2.7	-2.7	-2.0	-1.8	-1.9	-1.9	-1.8	-1.7	-1.7	-1.7
Indonesia	-0.1	0.2	-0.7	-1.3	-1.1	-1.3	-1.0	-0.8	0.0	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4
Iran	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kuwait	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Libya	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	-2.7	-1.3	-2.1	-1.7	-0.7	-1.1	-0.8	-0.7	-2.9	-0.6	-0.7	-0.7	-0.5	-0.5	-0.4
Mexico	-0.6	-0.4	-0.8	-0.6	-1.5	-1.3	-0.9	1.4	1.7	1.5	1.5	1.6	1.5	1.4	1.2
Morocco	-2.0	-4.7	-5.2	-3.3	-3.6	-1.9	-2.2	-1.7	-1.6	-1.5	-1.0	-1.2	-1.5	-1.7	-2.1
Oman	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pakistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peru ¹	1.0	2.2	2.3	1.1	0.8	-0.6	-0.9	-1.1	-0.8	-0.4	0.1	0.6	0.5	0.4	0.4
Philippines	0.5	2.6	2.3	2.6	2.9	2.7	1.4	1.3	0.9	0.8	0.6	0.5	0.5	0.3	0.3
Poland	-4.6	-2.7	-0.9	-1.0	-1.2	-0.7	-0.5	-0.2	-0.1	-0.9	-1.6	-1.5	-1.3	-1.3	-1.2
Qatar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Romania	-4.4	-1.8	0.4	0.1	0.6	0.5	-0.9	-2.4	-2.4	-3.0	-3.1	-2.9	-2.8	-2.5	-2.1
Russia	-2.7	1.7	0.5	-1.0	0.5	-2.7	-3.0	-0.6	3.4	1.3	1.2	1.0	0.7	0.5	0.5
Saudi Arabia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South Africa	-1.3	-1.2	-1.5	-1.3	-1.1	-1.0	-0.5	-0.3	0.0	-0.1	0.2	0.4	0.3	0.4	0.6
Sri Lanka	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thailand	-0.8	0.9	0.2	1.1	0.3	1.1	1.3	-0.1	0.4	0.5	0.0	-0.1	-0.2	-0.3	-0.4
Turkey	1.1	0.9	0.6	0.0	0.3	0.3	-0.8	-2.2	-2.9	0.0	-0.3	-0.6	-0.7	-0.6	-0.4
Ukraine	-1.2	-1.2	-2.6	-2.2	0.0	5.9	2.9	2.2	1.5	1.7	1.2	1.2	1.3	1.1	1.1
United Arab Emirates	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uruguay ³	0.9	0.8	-1.0	-0.5	-1.4	-0.1	-0.3	0.0	0.9	1.0	0.8	0.1	0.0	-0.2	-0.3
Venezuela	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Average	-0.9	-0.1	-0.2	-0.5	-0.6	-1.8	-2.2	-1.9	-1.9	-2.6	-2.2	-2.1	-2.1	-2.0	-1.9
Asia	-0.9	-0.3	-0.2	-0.4	-0.3	-1.8	-2.5	-2.5	-3.1	-3.9	-3.4	-3.3	-3.3	-3.2	-3.1
Europe	-2.0	0.5	0.3	-0.6	0.2	-0.9	-1.3	-0.8	0.9	0.3	0.0	-0.1	-0.2	-0.2	-0.2
Latin America	0.4	0.5	0.1	-0.3	-1.4	-1.9	-1.4	-0.6	0.1	0.3	0.8	0.9	1.0	1.1	1.2
MENAP	-4.0	-3.9	-4.8	-3.4	-5.6	-7.6	-6.4	-4.7	-3.1	-4.0	-1.5	-0.8	0.2	1.3	1.8
G20 Emerging	-0.6	0.1	-0.1	-0.5	-0.5	-1.9	-2.4	-2.1	-2.2	-3.0	-2.6	-2.5	-2.5	-2.4	-2.3

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: Cyclically adjusted primary balance is defined as the cyclically adjusted balance plus net interest payable/paid (interest expense minus interest revenue) following the *World Economic Outlook* convention. For country-specific details, see "Data and Conventions" in text, and Table C. MENAP = Middle East, North Africa, and Pakistan.

¹ Data for these countries include adjustments beyond the output cycle. For country-specific details, see "Data and Conventions" in text, and Table C.

² Based on nominal GDP series prior to the recent revision; therefore, data in the tables are not comparable to the authorities' numbers.

³ Data correspond to the consolidated public sector (as presented in the authorities' budget documentation), which includes the nonfinancial public sector, local governments, Banco Central del Uruguay, and Banco de Seguros del Estado. In particular, Uruguay is one of the few countries in the sample for which public debt includes the debt of the central bank, which increases recorded public sector gross debt. Starting from October 2018, the public pension system has been receiving transfers in the context of a new law that compensates persons affected by the creation of the mixed pension system (amounting to 1.3 percent of GDP in 2018). These funds are recorded as revenues, consistent with IMF's methodology. Therefore, data and projections for 2018–22 are affected by these transfers.

Table A13. Emerging Market and Middle-Income Economies: General Government Revenue, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Algeria	37.2	40.0	39.1	35.8	33.3	30.5	28.6	32.5	33.3	29.9	29.4	28.1	27.4	27.0	28.8
Angola	42.8	45.5	41.3	36.7	30.7	24.1	17.5	17.5	22.1	19.0	19.8	19.8	19.5	19.1	18.8
Argentina	31.9	32.2	33.8	34.3	34.6	35.4	34.9	34.5	33.8	34.8	35.3	34.9	34.8	34.4	34.4
Azerbaijan	45.8	44.6	40.3	39.4	39.1	33.9	34.3	34.3	38.2	38.9	37.8	37.3	36.0	34.0	32.7
Belarus	40.1	37.5	39.3	39.8	38.9	38.8	39.0	38.7	39.9	37.6	36.9	36.7	36.7	36.7	36.7
Brazil	36.1	35.1	34.7	34.5	32.7	28.4	30.9	30.8	31.3	31.0	30.9	30.8	30.9	30.9	30.8
Chile	23.0	24.2	23.8	22.6	22.3	22.8	22.6	22.8	23.7	23.6	23.6	23.5	23.4	23.3	23.2
China	24.6	26.9	27.8	27.7	28.1	28.5	28.2	28.3	29.2	28.7	29.0	28.7	28.4	28.1	27.9
Colombia	26.2	26.8	28.3	28.0	27.6	26.3	25.2	25.4	25.2	26.1	26.2	26.0	25.6	25.4	25.5
Croatia	41.1	40.9	41.7	42.7	42.6	44.4	46.1	46.7	47.6	46.9	46.6	46.7	46.5	46.5	46.2
Dominican Republic	13.1	12.9	13.6	14.2	14.6	17.4	14.6	14.9	15.1	15.2	15.2	15.1	15.2	15.1	15.1
Ecuador	33.3	39.3	39.3	39.2	38.4	33.6	30.3	32.0	36.3	35.2	38.3	35.5	34.8	34.7	34.8
Egypt ¹	23.9	20.9	20.8	21.7	24.4	22.0	20.3	21.8	20.6	20.2	19.7	19.8	19.9	19.8	19.8
Hungary	44.8	44.0	46.1	46.7	46.8	48.1	45.1	44.7	45.1	44.7	44.1	43.0	42.6	42.3	42.1
India	18.8	19.3	19.8	19.6	19.1	19.9	20.2	19.8	20.6	20.4	20.4	20.4	20.5	20.5	20.5
Indonesia	15.6	17.0	17.2	16.9	16.5	14.9	14.3	14.1	14.9	14.9	15.0	15.0	15.1	15.1	15.0
Iran	21.0	18.9	13.9	13.5	14.3	16.1	17.3	17.5	14.2	13.4	13.6	13.6	13.5	13.4	13.4
Kazakhstan	23.9	27.0	26.3	24.8	23.7	16.6	16.1	20.3	20.4	21.2	21.7	21.5	21.4	21.6	21.7
Kuwait	70.7	72.3	71.2	72.3	66.6	60.0	54.1	58.4	58.4	59.9	58.2	58.5	57.6	56.2	55.0
Libya	70.4	42.4	74.2	83.0	69.3	51.2	31.7	51.8	70.3	81.4	75.3	67.9	62.3	56.8	50.2
Malaysia	22.6	23.9	25.8	24.6	23.7	22.5	20.4	19.4	19.3	20.0	17.8	17.6	17.6	17.5	17.5
Mexico	23.7	24.4	24.5	24.1	23.4	23.5	24.6	24.7	23.4	21.9	21.7	21.6	21.7	21.7	21.7
Morocco	26.8	27.2	28.0	27.8	28.0	26.5	26.0	26.6	26.1	26.0	26.1	26.3	26.6	26.7	26.9
Oman	40.5	48.7	48.7	49.5	46.3	34.9	29.7	31.7	35.2	33.4	34.6	35.9	35.0	34.1	33.6
Pakistan	14.3	12.6	13.0	13.5	15.2	14.5	15.5	15.5	15.3	14.9	14.6	14.6	14.7	14.7	14.7
Peru	21.1	21.8	22.4	22.3	22.4	20.3	18.8	18.3	19.5	19.6	19.9	20.1	20.2	20.2	20.2
Philippines	16.8	17.6	18.6	18.8	19.0	19.4	19.1	19.6	20.0	20.2	20.2	20.3	20.3	20.4	20.6
Poland	38.5	39.1	39.1	38.5	38.7	39.0	38.9	39.7	41.0	40.8	40.2	39.9	39.7	39.6	39.5
Qatar	37.4	35.8	41.5	49.9	47.7	46.8	34.8	30.5	34.7	35.9	34.9	34.1	33.2	32.5	31.8
Romania	31.9	32.5	32.5	31.5	32.1	32.8	28.9	28.0	29.3	30.0	30.2	30.4	30.5	30.4	30.0
Russia	32.3	34.7	34.5	33.5	33.9	31.9	32.8	33.3	35.9	34.0	33.7	33.4	33.3	33.2	33.2
Saudi Arabia	37.4	44.4	45.2	41.2	36.7	25.0	21.5	24.1	30.5	31.3	32.5	30.6	30.1	29.5	29.0
South Africa	26.4	26.8	26.9	27.3	27.6	28.2	28.6	28.3	29.1	29.5	29.7	29.7	29.7	29.7	29.7
Sri Lanka	13.0	13.6	12.2	12.0	11.6	13.3	14.2	13.8	13.5	15.2	16.1	16.1	16.1	16.1	16.1
Thailand	20.7	21.1	21.3	22.2	21.4	22.3	21.9	21.0	21.4	21.5	21.5	21.5	21.5	21.5	21.5
Turkey	32.8	32.7	32.6	32.8	31.9	32.2	32.8	31.5	31.2	30.9	30.6	30.4	30.7	30.9	31.1
Ukraine	43.4	42.9	44.7	43.3	40.3	41.9	38.3	39.3	41.6	40.6	39.6	39.3	39.3	39.0	38.3
United Arab Emirates	32.8	36.5	38.1	38.7	35.0	29.0	28.9	28.8	28.4	30.5	28.9	28.6	28.4	28.0	27.4
Uruguay ²	29.4	28.3	27.8	29.5	28.8	28.8	29.3	29.8	31.0	30.9	30.6	29.9	29.8	29.6	29.5
Venezuela	26.4	31.1	29.8	28.4	34.6	19.7	14.3	14.7	7.7	5.9	5.6	5.7	5.8	5.8	6.2
Average	27.7	28.9	29.4	29.1	28.5	27.2	26.8	27.0	27.9	27.5	27.5	27.2	27.1	26.9	26.7
Asia	22.4	24.3	25.3	25.3	25.5	26.0	25.6	25.5	26.5	26.1	26.3	26.0	25.9	25.7	25.5
Europe	34.2	35.3	35.2	34.5	34.4	33.3	33.7	33.8	35.5	34.7	34.3	34.0	34.0	34.0	33.9
Latin America	30.4	30.7	30.5	30.2	29.4	26.8	27.3	27.9	27.5	27.1	27.2	27.1	27.1	27.1	27.1
MENAP	32.6	33.8	36.2	35.4	32.6	26.5	24.1	25.6	27.6	27.8	27.6	26.9	26.6	26.1	25.8
G20 Emerging	27.0	28.6	29.0	28.6	28.2	27.3	27.2	27.2	28.2	27.6	27.7	27.4	27.2	27.0	26.9

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table C. MENAP = Middle East, North Africa, and Pakistan.

¹ Based on nominal GDP series prior to the recent revision; therefore, data in the tables are not comparable to the authorities' numbers.

² Data correspond to the consolidated public sector (as presented in the authorities' budget documentation), which includes the nonfinancial public sector, local governments, Banco Central del Uruguay, and Banco de Seguros del Estado. In particular, Uruguay is one of the few countries in the sample for which public debt includes the debt of the central bank which increases the reported number. Starting from October 2018, the public pension system has been receiving transfers in the context of a new law that compensates persons affected by the creation of the mixed pension system (amounting to 1.3 percent of GDP in 2018). These funds are recorded as revenues, consistent with IMF's methodology. Therefore, data and projections for 2018 – 2022 are affected by these transfers.

Table A14. Emerging Market and Middle-Income Economies: General Government Expenditure, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Algeria	37.3	40.1	43.5	36.2	40.6	45.8	41.6	39.2	38.5	36.4	32.0	29.7	27.6	25.3	26.9
Angola	39.4	37.4	37.2	37.0	36.5	27.1	22.0	23.8	19.7	18.9	20.0	19.9	19.7	19.4	19.1
Argentina	33.4	34.9	36.8	37.6	38.9	41.4	41.5	41.2	39.0	37.5	36.8	36.3	35.9	35.3	35.0
Azerbaijan	32.0	33.7	36.6	37.8	36.4	38.7	35.4	35.7	34.2	34.4	31.9	31.3	31.2	30.1	29.7
Belarus	44.3	40.3	38.9	40.8	38.8	41.8	40.7	39.0	37.6	39.5	38.6	37.0	37.2	37.4	37.4
Brazil	38.8	37.6	37.2	37.4	38.0	38.6	39.9	38.7	38.1	38.3	37.8	37.8	37.4	37.1	36.7
Chile	23.3	22.8	23.1	23.1	23.8	24.9	25.3	25.4	25.2	25.5	25.1	24.6	24.3	24.1	23.7
China	25.0	27.0	28.1	28.5	29.0	31.3	31.9	32.2	34.0	34.8	34.5	34.1	33.8	33.5	33.1
Colombia	29.5	28.8	28.2	28.9	29.4	29.7	27.6	28.0	27.4	28.7	27.2	26.8	26.5	26.3	25.9
Croatia	47.3	48.7	47.0	48.0	48.0	47.8	46.9	45.8	47.2	46.9	46.5	46.6	46.3	46.2	45.8
Dominican Republic	15.8	15.9	20.1	17.7	17.5	17.6	17.4	18.1	18.0	18.3	18.5	18.5	18.5	18.6	18.5
Ecuador	34.7	39.5	40.3	43.7	43.6	39.7	38.6	36.6	37.2	35.2	34.6	32.6	32.0	31.8	32.6
Egypt ¹	31.4	30.5	30.8	34.6	35.7	33.0	32.7	32.2	30.1	28.8	26.2	24.8	23.8	23.5	23.6
Hungary	49.2	49.4	48.5	49.3	49.4	50.0	46.8	46.9	47.4	46.7	46.0	44.8	44.4	44.1	44.1
India	27.4	27.6	27.4	26.6	26.2	27.1	27.3	26.8	27.3	27.2	27.0	26.9	26.7	26.7	26.6
Indonesia	16.9	17.7	18.8	19.1	18.6	17.5	16.8	16.6	16.6	16.7	16.8	16.9	16.9	16.9	16.9
Iran	18.4	18.3	14.3	14.4	15.4	17.9	19.5	19.3	18.0	17.4	17.7	18.0	18.4	18.7	19.0
Kazakhstan	22.5	21.2	21.9	19.8	21.3	22.9	21.5	24.7	19.8	19.8	20.0	19.9	20.0	20.1	20.2
Kuwait	44.7	39.1	38.8	38.1	44.3	54.4	53.8	51.8	47.0	50.4	50.6	51.2	51.4	51.0	50.5
Libya	57.9	59.7	45.7	88.1	143.1	182.2	145.1	94.8	77.7	92.3	90.2	88.1	87.8	83.1	77.4
Malaysia	27.0	27.5	28.9	28.2	26.3	25.1	23.0	21.9	23.0	23.0	20.3	20.2	20.1	20.0	20.0
Mexico	27.7	27.7	28.2	27.8	28.0	27.5	27.4	25.7	25.8	24.4	24.1	23.9	24.0	24.0	24.0
Morocco	31.1	33.8	35.2	32.9	32.9	30.7	30.5	30.0	29.8	29.7	29.4	29.3	29.5	29.7	29.9
Oman	34.8	39.3	44.1	44.9	47.4	50.9	50.8	44.6	42.9	43.3	41.6	41.5	41.6	41.7	41.5
Pakistan	20.3	19.3	21.7	21.8	20.1	19.8	19.9	21.3	21.8	22.2	23.3	22.6	22.5	22.3	22.4
Peru	21.0	19.8	20.3	21.6	22.6	22.4	21.1	21.2	21.6	21.5	21.3	21.0	21.1	21.1	21.1
Philippines	19.2	17.9	18.9	18.7	18.1	18.8	19.5	19.9	21.0	21.4	21.6	21.8	22.0	22.3	22.5
Poland	45.8	43.9	42.9	42.6	42.4	41.7	41.1	41.1	41.6	43.0	43.2	43.0	42.9	42.8	42.6
Qatar	30.6	28.5	31.0	28.3	33.4	42.3	40.1	33.5	29.4	29.8	28.3	27.7	26.5	26.1	25.3
Romania	38.3	36.7	35.0	34.0	33.8	34.2	31.2	30.8	32.2	33.8	34.3	34.5	34.7	34.6	33.9
Russia	35.5	33.3	34.1	34.7	35.0	35.3	36.4	34.7	33.1	33.1	33.0	33.0	33.3	33.5	33.5
Saudi Arabia	33.0	32.8	33.2	35.5	40.2	40.8	38.7	33.3	35.1	39.2	38.1	37.8	36.9	36.0	35.4
South Africa	31.4	30.9	31.4	31.6	31.9	32.9	32.7	32.6	33.6	34.6	34.7	34.6	34.6	34.6	34.6
Sri Lanka	20.0	19.9	17.8	17.2	17.9	20.4	19.6	19.3	18.8	19.8	19.7	19.7	19.7	19.6	19.6
Thailand	22.0	21.1	22.2	21.6	22.2	22.2	21.4	22.0	21.6	21.6	22.2	22.3	22.5	22.7	22.8
Turkey	36.2	33.4	34.4	34.2	33.3	33.4	35.1	33.8	34.8	34.0	34.1	34.1	34.2	34.0	33.7
Ukraine	49.2	45.7	49.0	48.1	44.8	43.0	40.6	41.5	43.8	42.9	41.9	41.5	41.3	41.0	40.3
United Arab Emirates	32.2	31.2	29.1	30.3	33.1	32.4	30.9	30.4	30.2	31.4	30.6	29.2	28.5	27.7	26.9
Uruguay ²	30.5	29.2	30.5	31.8	32.3	32.3	33.2	33.3	33.7	33.6	33.2	33.1	33.2	33.2	33.1
Venezuela	31.1	39.4	40.3	39.7	50.1	30.3	25.2	37.7	37.7	35.7	35.7	35.7	35.4	35.7	36.0
Average	29.8	29.9	30.4	30.5	30.9	31.5	31.5	31.3	31.9	32.3	32.0	31.6	31.5	31.2	31.0
Asia	24.6	26.0	26.9	27.1	27.4	29.3	29.6	29.6	31.2	31.7	31.5	31.1	31.0	30.7	30.5
Europe	37.9	35.6	35.9	35.9	35.8	36.0	36.5	35.7	35.3	35.6	35.5	35.4	35.6	35.6	35.4
Latin America	33.2	33.3	33.4	33.4	34.2	33.6	33.5	33.4	32.3	31.9	31.4	31.2	31.0	30.7	30.5
MENAP	30.2	29.5	30.6	31.5	34.1	35.0	33.6	31.3	31.0	32.2	31.3	30.8	30.2	29.7	29.5
G20 Emerging	29.3	29.7	30.2	30.4	30.7	31.7	32.1	31.7	32.5	32.9	32.7	32.3	32.1	31.9	31.6

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table C. MENAP = Middle East, North Africa, and Pakistan.

¹ Based on nominal GDP series prior to the recent revision; therefore, data in the tables are not comparable to the authorities' numbers.

² Data correspond to the consolidated public sector (as presented in the authorities' budget documentation), which includes the nonfinancial public sector, local governments, Banco Central del Uruguay, and Banco de Seguros del Estado.

Table A15. Emerging Market and Middle-Income Economies: General Government Gross Debt, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Algeria	10.5	9.3	9.3	7.6	7.7	8.7	20.4	27.5	36.9	46.9	48.9	49.4	47.4	43.0	43.3
Angola	37.2	29.6	26.7	33.1	39.8	57.1	75.7	68.5	88.1	90.5	82.8	79.7	75.4	70.9	66.1
Argentina	43.5	38.9	40.4	43.5	44.7	52.6	53.1	57.1	86.3	75.9	69.0	65.1	62.8	60.7	59.5
Azerbaijan	5.0	5.0	5.8	6.2	8.5	18.0	20.6	22.6	19.4	17.6	15.0	12.7	11.1	9.6	8.3
Belarus	36.8	58.2	36.9	36.9	38.8	53.0	53.5	53.2	47.8	51.1	51.9	50.4	50.4	50.7	51.2
Brazil ¹	63.1	61.2	62.2	60.2	62.3	72.6	78.3	84.1	87.9	90.4	92.4	94.1	95.6	96.5	97.6
Chile	8.6	11.1	11.9	12.7	15.0	17.3	21.0	23.5	25.6	27.2	28.1	28.7	28.8	28.7	28.3
China	33.7	33.6	34.3	37.0	39.9	41.1	44.2	46.8	50.5	55.4	59.5	63.2	66.7	69.7	72.4
Colombia	36.6	35.8	34.0	37.6	43.3	50.4	49.8	49.8	50.5	49.2	47.3	45.1	43.2	41.4	39.2
Croatia	58.1	65.0	70.6	81.6	85.7	85.3	82.3	77.7	73.9	70.7	67.8	65.0	62.3	59.6	57.4
Dominican Republic	27.9	29.6	33.5	38.9	37.8	37.0	38.6	40.8	41.6	41.9	42.0	42.3	42.5	42.9	43.2
Ecuador ²	17.7	16.8	17.5	20.0	27.1	33.8	43.2	44.6	46.1	49.2	46.8	45.2	40.8	36.6	33.4
Egypt ³	69.6	72.8	73.8	84.0	85.1	88.5	96.8	103.2	92.6	86.9	84.6	81.3	79.3	75.5	72.8
Hungary	80.2	80.5	78.4	77.1	76.6	76.6	75.9	73.3	69.4	66.6	65.0	63.5	62.2	61.0	59.9
India	67.5	69.6	69.1	68.5	67.8	69.9	69.0	69.8	69.8	69.0	67.8	66.5	65.3	64.2	63.1
Indonesia	24.5	23.1	23.0	24.8	24.7	27.5	28.3	28.9	29.2	29.3	29.0	29.0	29.0	28.8	28.5
Iran	11.7	8.9	12.1	10.7	11.8	38.4	47.5	39.5	33.2	30.0	27.3	25.7	25.1	25.4	24.5
Kazakhstan	10.7	10.2	12.1	12.6	14.5	21.9	19.7	20.3	21.9	20.9	20.0	19.2	18.5	17.7	16.8
Kuwait	6.2	4.6	3.6	3.1	3.4	4.7	10.0	20.7	14.8	17.8	21.0	26.2	31.1	34.7	38.4
Libya	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	51.9	52.6	54.6	56.4	56.2	57.9	56.6	55.2	56.2	56.3	55.8	55.2	54.6	53.9	53.2
Mexico	42.0	42.9	42.7	45.9	48.9	52.8	56.8	54.0	53.6	54.1	54.5	54.5	54.5	54.4	54.3
Morocco	49.0	52.5	56.5	61.7	63.3	63.7	64.9	65.1	65.2	65.1	64.3	63.1	62.0	60.9	60.0
Oman	5.8	5.2	4.9	5.0	4.9	15.5	32.5	46.9	50.9	61.3	63.1	64.5	66.9	70.5	73.3
Pakistan	60.6	58.9	63.2	63.9	63.5	63.3	67.6	67.0	72.1	77.0	79.1	81.0	82.6	84.1	85.6
Peru	25.4	23.0	21.2	20.0	20.7	24.0	24.5	25.4	26.8	27.2	27.0	26.4	25.9	25.5	25.0
Philippines	49.7	47.5	47.9	45.7	42.1	41.5	39.0	39.9	39.6	39.1	38.5	37.9	37.3	36.9	36.4
Poland	53.1	54.1	53.7	55.7	50.4	51.3	54.2	50.6	48.4	47.5	48.2	49.1	49.9	50.5	51.2
Qatar	29.1	33.5	32.1	30.9	24.9	35.5	46.7	49.8	48.4	52.7	45.9	40.6	37.1	33.3	29.4
Romania	30.9	34.2	37.8	39.0	40.5	39.4	38.9	36.9	36.6	38.0	39.7	41.5	43.3	45.0	46.2
Russia	10.9	11.2	11.9	13.1	16.1	16.4	16.1	15.5	14.0	13.8	13.9	14.1	14.7	15.9	16.9
Saudi Arabia	8.4	5.4	3.0	2.1	1.6	5.8	13.1	17.2	19.1	23.7	25.4	27.6	28.1	32.4	37.5
South Africa	34.7	38.2	41.0	44.1	47.0	49.3	51.5	53.0	56.7	57.8	59.8	61.8	63.5	65.1	66.5
Sri Lanka	71.6	71.1	69.6	71.8	72.2	78.5	79.6	79.1	84.1	83.0	80.6	78.3	75.9	73.8	71.6
Thailand	39.8	39.1	41.9	42.2	43.3	42.6	41.8	41.9	42.1	41.5	41.8	42.3	42.8	43.1	43.5
Turkey	40.1	36.5	32.7	31.4	28.8	27.6	28.3	28.3	29.1	29.9	28.3	28.1	28.1	27.6	26.7
Ukraine	40.6	36.9	37.5	40.5	70.3	79.5	81.2	71.9	63.9	62.0	57.9	53.8	49.8	46.2	43.7
United Arab Emirates	21.9	17.4	17.0	15.8	15.5	18.7	20.2	19.7	18.7	19.2	19.0	18.7	18.4	18.1	17.8
Uruguay ⁴	59.4	58.1	58.0	60.2	61.4	64.6	61.6	65.7	70.0	71.3	71.0	71.2	71.5	71.6	71.3
Venezuela	36.5	50.6	58.1	72.2	63.5	31.7	30.3	33.1	175.6	214.4	228.2	247.5	261.6	274.8	272.8
Average	38.3	37.5	37.5	38.7	40.8	43.9	46.8	48.5	50.8	53.4	55.1	56.8	58.4	59.8	61.2
Asia	40.4	39.8	39.8	41.5	43.6	44.8	47.2	49.4	52.0	55.5	58.2	60.7	63.1	65.0	66.8
Europe	28.3	27.0	25.7	26.6	28.7	31.0	31.9	30.2	29.4	29.6	29.4	29.6	30.0	30.5	30.5
Latin America	48.7	48.7	48.8	49.5	51.5	55.1	58.8	62.6	69.5	70.0	70.0	70.0	70.0	69.7	69.5
MENAP	24.0	21.6	22.8	23.5	23.6	33.3	40.7	40.0	38.6	41.2	41.4	41.6	41.5	42.2	43.2
G20 Emerging	39.1	38.0	37.6	38.7	41.1	44.0	46.8	49.0	51.5	54.6	56.9	59.0	61.1	63.0	64.8

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table C. MENAP = Middle East, North Africa, and Pakistan.

¹ Gross debt refers to the nonfinancial public sector, excluding Eletrobras and Petrobras, and includes sovereign debt held on the balance sheet of the central bank.

² In late 2016, the authorities changed the definition of debt to a consolidated basis, which in 2016 was 11.5 percent of GDP lower than the previous aggregate definition. Both the historic and projected numbers are now presented on a consolidated basis.

³ Based on nominal GDP series prior to the recent revision; therefore, data in the tables are not comparable to the authorities' numbers.

⁴ Data correspond to the consolidated public sector (as presented in the authorities' budget documentation), which includes the nonfinancial public sector, local governments, Banco Central del Uruguay, and Banco de Seguros del Estado. In particular, Uruguay is one of the few countries in the sample for which public debt includes the debt of the central bank, which increases recorded public sector gross debt.

Table A16. Emerging Market and Middle-Income Economies: General Government Net Debt, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Algeria	-33.7	-31.1	-29.0	-29.5	-21.8	-7.6	13.3	21.8	31.7	41.5	43.7	44.1	42.0	37.7	37.7
Angola	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Argentina	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Belarus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brazil	38.0	34.5	32.2	30.5	32.6	35.6	46.2	51.6	54.1	56.2	58.7	60.9	62.8	64.2	65.7
Chile	-7.0	-8.6	-6.8	-5.6	-4.4	-3.4	0.9	4.4	6.1	8.3	10.0	11.2	12.0	12.6	12.8
China	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Colombia	28.5	27.2	24.8	26.9	32.9	42.1	38.6	39.0	40.6	40.8	39.6	38.1	36.8	35.6	33.9
Croatia	45.8	54.1	59.1	66.5	70.9	72.3	70.5	65.9	...	...	...	...	...	...	...
Dominican Republic	20.8	22.5	27.5	31.2	30.4	29.2	30.1	31.8	32.1	32.2	32.1	32.5	32.8	33.3	33.8
Ecuador	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Egypt ¹	57.1	61.3	63.5	73.7	77.1	78.8	88.2	93.9	81.3	77.6	76.7	74.4	73.2	73.0	70.6
Hungary	72.5	72.4	70.7	70.9	70.4	71.3	68.8	66.2	62.3	59.5	57.9	56.4	55.1	53.9	52.8
India	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Indonesia	19.7	17.8	18.6	20.6	20.4	22.5	23.8	24.8	25.4	25.8	25.8	26.1	26.3	26.3	26.2
Iran	1.9	-2.5	1.3	-5.6	-5.6	21.7	34.5	28.8	27.2	27.6	26.7	25.3	24.8	25.1	24.3
Kazakhstan	-10.2	-12.7	-15.9	-17.6	-19.2	-30.9	-23.8	-16.2	-17.3	-17.6	-17.9	-18.2	-18.3	-18.1	-18.0
Kuwait	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Libya	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mexico	36.0	37.2	37.2	40.0	42.6	46.5	48.7	45.8	45.0	45.6	45.9	46.0	46.0	45.9	45.8
Morocco	48.5	52.1	56.0	61.2	62.8	63.1	64.4	64.7	64.9	64.9	64.0	62.8	61.7	60.6	59.8
Oman	-30.1	-29.7	-29.1	-43.9	-44.1	-43.1	-28.5	-10.8	0.9	10.8	17.0	21.7	27.5	34.1	40.6
Pakistan	56.5	55.8	59.2	60.1	58.0	58.2	61.3	61.4	67.2	72.7	75.3	77.7	79.6	81.4	83.2
Peru	10.2	6.1	2.8	1.5	2.7	5.3	6.9	8.7	10.4	11.6	12.3	12.4	12.6	12.8	13.0
Philippines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poland	47.3	48.3	47.9	50.9	44.7	46.6	48.0	44.5	43.6	42.8	43.5	44.4	45.1	45.8	46.5
Qatar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Romania	22.9	27.4	29.0	29.6	29.7	29.7	27.7	28.3	28.3	29.8	31.6	33.5	35.5	37.2	38.5
Russia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saudi Arabia	-37.7	-37.7	-47.7	-50.9	-47.1	-35.9	-17.1	-7.7	-0.1	8.8	14.2	21.0	27.0	32.4	37.5
South Africa	28.5	31.3	34.8	38.2	40.8	44.1	45.2	46.8	50.3	53.3	55.9	58.1	60.0	61.7	63.3
Sri Lanka	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thailand	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Turkey	34.9	31.1	27.5	25.9	23.8	23.0	23.4	22.3	24.9	25.8	24.1	23.9	24.0	23.6	22.8
Ukraine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
United Arab Emirates	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uruguay ²	31.1	28.8	25.9	24.2	23.0	25.8	29.9	32.3	36.2	38.1	38.4	38.8	39.3	39.7	39.6
Venezuela	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Average	25.9	23.9	22.4	22.6	23.9	28.3	34.2	35.6	36.4	38.6	39.6	40.5	41.4	42.1	42.6
Asia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Europe	36.5	34.8	32.0	31.6	29.7	28.8	31.1	30.1	30.3	30.9	30.4	30.5	30.9	31.0	30.9
Latin America	33.0	31.1	29.3	29.3	31.9	35.2	40.7	43.0	43.7	45.3	46.6	47.6	48.4	48.9	49.4
MENAP	0.9	-1.2	-3.2	-4.0	-0.7	14.6	28.2	28.9	30.8	36.2	38.9	41.2	43.5	45.6	47.5
G20 Emerging	27.1	24.7	21.8	21.7	23.2	26.2	32.1	35.0	36.4	39.0	40.3	41.7	43.0	44.0	44.9

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table C. MENAP = Middle East, North Africa, and Pakistan.

¹ Based on nominal GDP series prior to the recent revision; therefore, data in the tables are not comparable to the authorities' numbers.² Data correspond to the consolidated public sector (as presented in the authorities' budget documentation), which includes the nonfinancial public sector, local governments, Banco Central del Uruguay, and Banco de Seguros del Estado. In particular, Uruguay is one of the few countries in the sample for which public debt includes the debt of the central bank, which increases recorded public sector gross debt.

Table A17. Low-Income Developing Countries: General Government Overall Balance, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bangladesh	-2.7	-3.6	-3.0	-3.4	-3.1	-4.0	-3.4	-3.3	-4.1	-4.2	-3.7	-3.5	-3.5	-3.4	-3.3
Benin	-0.4	-1.3	-0.3	-1.9	-2.3	-7.6	-5.9	-5.8	-4.7	-2.7	-1.8	-1.4	-1.1	-0.8	-0.7
Burkina Faso	-4.6	-2.3	-3.1	-4.0	-2.0	-2.4	-3.6	-7.9	-4.7	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Cambodia	-3.8	-4.7	-4.5	-2.6	-1.6	-1.3	-1.4	-1.1	-2.0	-2.0	-2.6	-2.9	-3.2	-3.9	-3.7
Cameroon	-1.0	-2.4	-1.4	-3.7	-4.2	-4.4	-6.1	-4.9	-2.7	-2.2	-1.7	-1.5	-1.6	-1.5	-1.5
Chad	-4.2	2.4	0.5	-2.1	-4.2	-4.4	-2.0	-0.1	1.4	-0.2	1.5	1.4	2.2	2.9	3.0
Congo, Democratic Republic of the	-0.9	-0.9	2.0	2.0	0.1	-0.2	-1.0	-1.5	-0.5	-0.5	-0.5	-0.5	-0.7	-0.8	-0.5
Congo, Republic of	16.6	17.0	9.4	-3.6	-13.6	-24.8	-20.4	-7.5	5.4	7.2	9.6	6.7	7.0	6.3	5.9
Côte d'Ivoire	-1.8	-4.0	-3.1	-2.2	-2.2	-2.8	-4.0	-4.5	-4.0	-3.0	-3.0	-2.9	-2.9	-2.9	-2.9
Ethiopia	-1.3	-1.6	-1.2	-1.9	-2.6	-1.9	-2.3	-3.3	-3.0	-3.0	-3.0	-2.9	-2.8	-2.7	-2.5
Ghana	-7.5	-5.5	-8.4	-9.1	-8.0	-4.1	-6.9	-4.1	-7.0	-5.6	-4.4	-4.1	-4.0	-3.2	-2.8
Guinea	-9.6	-0.9	-2.5	-3.9	-3.2	-6.9	-0.1	-2.0	-2.0	-2.3	-1.7	-0.9	-1.0	-1.0	-1.0
Haiti	-2.7	-2.5	-4.8	-7.2	-6.4	-2.6	-0.1	-0.5	-2.3	-2.4	-1.8	-1.7	-1.7	-1.7	-1.7
Honduras	-3.4	-2.9	-3.5	-5.7	-2.9	-0.8	-0.4	-0.4	0.3	0.6	-0.1	0.1	0.1	0.0	0.0
Kenya	-4.4	-4.1	-5.0	-5.7	-7.4	-8.1	-8.3	-7.8	-7.3	-5.2	-4.0	-3.2	-3.0	-3.0	-3.0
Kyrgyz Republic	-5.9	-4.7	-5.9	-3.7	-3.4	-2.7	-6.4	-4.6	-1.3	-3.3	-3.0	-3.0	-3.0	-3.0	-3.0
Lao P.D.R.	-2.8	-1.5	-0.4	-4.8	-3.9	-2.3	-4.6	-5.6	-4.6	-4.8	-5.0	-4.9	-4.9	-4.9	-4.9
Madagascar	-0.9	-2.4	-2.6	-4.0	-2.3	-3.3	-1.3	-2.4	-2.2	-2.5	-4.1	-5.0	-4.9	-4.5	-3.9
Mali	-2.6	-3.4	-1.0	-2.4	-2.9	-1.8	-3.9	-2.9	-4.7	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Moldova	-2.2	-2.0	-1.9	-1.6	-1.6	-1.9	-1.8	-0.8	-1.0	-3.8	-3.5	-2.9	-2.6	-2.5	-2.5
Mozambique	-3.8	-4.8	-3.9	-2.7	-10.7	-7.2	-6.3	-3.4	-5.3	-5.4	-6.0	-5.6	-5.7	-3.6	-2.2
Myanmar	-5.5	-3.5	1.7	-1.6	-1.1	-4.3	-2.5	-2.7	-2.5	-3.5	-3.8	-4.0	-4.0	-3.8	-3.7
Nepal	-0.8	-0.8	-1.3	1.8	1.5	0.7	1.4	-3.1	-6.5	-5.0	-5.0	-1.9	-1.6	-1.2	-1.1
Nicaragua	0.1	0.2	-0.1	-0.7	-1.2	-1.4	-1.6	-1.6	-4.3	-3.4	-4.5	-4.6	-5.0	-5.5	-5.9
Niger	-2.4	-1.5	-1.1	-2.6	-8.0	-9.0	-6.1	-5.7	-4.9	-4.5	-3.0	-2.8	-2.0	-1.9	-2.0
Nigeria	-4.2	0.4	0.2	-2.3	-2.1	-3.5	-4.0	-5.4	-4.5	-5.1	-4.6	-4.5	-4.5	-4.5	-4.4
Papua New Guinea	3.1	2.2	-1.2	-6.9	-6.3	-4.8	-5.2	-2.7	-2.9	-2.5	-1.9	-1.3	-1.0	-1.0	-0.9
Rwanda	-0.7	-0.9	-2.5	-1.3	-4.0	-2.8	-2.3	-2.5	-2.6	-3.2	-3.4	-3.4	-3.5	-3.6	-3.7
Senegal	-3.9	-4.9	-4.1	-4.3	-3.9	-3.7	-3.3	-2.9	-3.4	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Somalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sudan	0.1	-2.3	-7.4	-5.8	-4.7	-3.8	-4.4	-6.6	-8.5	-8.8	-10.4	-11.8	-13.9	-14.4	-15.0
Tajikistan	-3.0	-2.1	0.6	-0.9	-0.1	-2.0	-9.0	-6.0	-4.8	-4.7	-3.5	-3.7	-3.9	-4.5	-4.8
Tanzania	-4.8	-3.6	-4.1	-3.8	-2.9	-3.2	-2.1	-1.2	-1.8	-2.6	-3.1	-3.4	-3.5	-3.6	-3.6
Timor-Leste	-4.4	-4.7	-6.7	-3.5	-13.4	-17.0	-35.1	-18.7	-17.3	-22.7	-28.8	-22.9	-24.8	-20.2	-19.8
Uganda	-5.7	-2.7	-3.0	-4.0	-4.7	-4.7	-4.8	-3.8	-4.8	-6.7	-8.4	-4.8	-4.7	-1.3	-2.5
Uzbekistan	3.2	7.3	7.9	3.5	3.2	1.4	1.9	2.1	3.1	0.9	0.1	0.0	-0.2	-0.5	-0.6
Vietnam	-2.8	-1.1	-6.9	-7.4	-6.3	-5.5	-4.7	-4.8	-4.6	-4.5	-4.3	-4.3	-4.3	-4.3	-4.5
Yemen	-4.1	-4.5	-6.3	-6.9	-4.1	-8.7	-8.4	-4.9	-4.4	-5.1	-5.5	-3.2	-2.4	-1.2	-0.1
Zambia	-2.4	-1.8	-2.8	-6.2	-5.7	-9.3	-5.8	-7.7	-6.5	-5.0	-5.9	-5.3	-4.3	-2.8	-2.1
Zimbabwe	0.2	-2.5	0.0	-1.3	-1.1	-1.8	-6.5	-8.4	-3.8	-2.0	-2.5	-0.3	-0.4	-0.8	-1.0
Average	-2.9	-1.3	-2.0	-3.5	-3.3	-3.9	-3.9	-4.2	-4.0	-4.0	-3.8	-3.6	-3.5	-3.4	-3.4
Oil Producers	-3.2	0.2	-0.3	-2.9	-2.8	-4.3	-4.8	-5.3	-4.1	-4.5	-4.2	-4.0	-3.9	-3.9	-3.8
Asia	-2.8	-2.3	-3.6	-4.6	-4.0	-4.3	-3.7	-3.8	-4.2	-4.3	-4.0	-3.8	-3.8	-3.7	-3.7
Latin America	-2.3	-2.0	-2.8	-4.6	-3.2	-1.3	-0.7	-0.8	-1.5	-1.1	-1.6	-1.5	-1.5	-1.7	-1.7
Sub-Saharan Africa	-3.5	-1.0	-1.3	-3.1	-3.3	-4.0	-4.4	-4.8	-4.2	-4.1	-3.7	-3.5	-3.5	-3.3	-3.2
Others	-0.3	-0.2	-1.4	-2.4	-1.6	-2.9	-2.8	-2.8	-2.6	-3.6	-4.0	-3.6	-3.8	-3.6	-3.4

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table D.

Table A18. Low-Income Developing Countries: General Government Primary Balance, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bangladesh	-0.8	-1.9	-1.1	-1.4	-1.0	-1.9	-1.5	-1.6	-1.7	-2.4	-1.8	-1.7	-1.6	-1.6	-1.4
Benin	0.1	-0.9	0.3	-1.4	-1.9	-6.9	-4.7	-3.8	-2.5	-0.3	0.3	0.5	0.6	0.7	0.6
Burkina Faso	-4.1	-1.7	-2.4	-3.4	-1.2	-1.7	-2.6	-6.9	-3.5	-1.7	-1.7	-1.6	-1.6	-1.5	-1.5
Cambodia	-3.6	-4.4	-4.2	-2.3	-1.3	-1.0	-1.0	-0.7	-1.6	-1.6	-2.2	-2.5	-2.8	-3.5	-3.3
Cameroon	-0.7	-2.0	-1.1	-3.3	-3.8	-4.0	-5.3	-4.0	-1.8	-1.3	-0.7	-0.6	-0.6	-0.7	-0.7
Chad	-3.6	3.0	0.9	-1.5	-3.6	-2.7	0.1	1.5	2.8	0.9	2.7	2.4	3.1	3.6	3.7
Congo, Democratic Republic of the	-0.7	-0.3	2.5	2.4	0.4	0.0	-0.7	-1.1	-0.1	-0.1	0.0	0.0	0.0	-0.2	0.2
Congo, Republic of	17.5	17.1	9.4	-3.4	-13.4	-23.9	-17.8	-5.4	7.5	8.8	10.9	8.0	8.1	7.2	6.7
Côte d'Ivoire	-0.3	-2.2	-1.4	-0.9	-0.9	-1.3	-2.3	-2.8	-2.1	-1.1	-0.7	-0.7	-0.7	-0.8	-0.7
Ethiopia	-0.9	-1.2	-0.9	-1.6	-2.2	-1.5	-1.9	-2.8	-2.5	-2.5	-2.5	-2.2	-2.1	-1.9	-1.6
Ghana	-5.2	-3.5	-5.8	-5.5	-3.4	1.0	-1.5	1.2	-1.4	0.0	1.7	1.6	1.2	1.3	1.4
Guinea	-8.3	0.5	-1.2	-3.0	-2.2	-6.1	0.9	-1.1	-1.0	-1.5	-0.9	0.0	0.0	0.0	0.0
Haiti	-2.2	-2.1	-4.4	-6.7	-5.9	-2.3	0.3	-0.2	-2.0	-2.1	-1.4	-1.4	-1.3	-1.4	-1.3
Honduras	-4.1	-3.2	-3.6	-5.6	-2.6	0.0	0.2	0.2	1.0	1.6	0.8	0.9	1.1	0.9	0.9
Kenya	-2.5	-2.2	-2.9	-3.3	-4.8	-5.3	-5.2	-4.5	-3.7	-1.5	-0.3	0.4	0.4	0.1	0.0
Kyrgyz Republic	-5.1	-3.7	-4.9	-2.9	-2.6	-1.8	-5.3	-3.5	0.0	-1.8	-1.6	-1.5	-1.5	-1.4	-1.4
Lao P.D.R.	-2.4	-1.0	0.2	-3.8	-3.2	-1.4	-3.5	-4.3	-3.1	-2.9	-3.0	-2.9	-2.9	-3.0	-3.0
Madagascar	-0.1	-1.5	-1.9	-3.3	-1.7	-2.5	-0.4	-1.6	-1.3	-1.6	-3.2	-4.1	-4.0	-3.6	-3.0
Mali	-2.2	-2.8	-0.4	-1.9	-2.3	-1.2	-3.3	-2.0	-3.9	-2.1	-2.1	-2.1	-2.1	-2.0	-2.0
Moldova	-1.5	-1.4	-1.3	-1.1	-1.1	-1.2	-0.6	0.3	-0.3	-3.0	-2.6	-1.9	-1.6	-1.5	-1.5
Mozambique	-3.1	-3.9	-2.9	-1.9	-9.6	-5.9	-3.3	0.0	-1.5	-1.5	-2.0	-2.0	-2.5	-0.8	-0.1
Myanmar	-4.2	-2.2	3.0	-0.3	0.2	-3.2	-1.2	-1.3	-0.8	-2.0	-2.2	-2.3	-2.1	-1.9	-1.8
Nepal	0.0	0.0	-0.5	2.6	2.1	1.1	1.7	-2.8	-6.0	-4.3	-4.4	-1.3	-1.1	-0.7	-0.7
Nicaragua	0.4	0.6	0.5	-0.4	-0.9	-0.9	-0.9	-0.7	-3.1	-2.1	-2.9	-3.0	-3.2	-3.7	-4.1
Niger	-2.2	-1.1	-0.8	-2.3	-7.7	-8.4	-5.1	-4.7	-3.6	-3.1	-1.3	-1.4	-0.7	-0.7	-0.8
Nigeria	-3.6	1.2	1.2	-1.3	-1.2	-2.4	-2.7	-4.1	-2.8	-3.5	-3.3	-3.0	-2.8	-2.5	-2.3
Papua New Guinea	4.0	3.2	-0.2	-5.8	-4.7	-3.0	-3.1	-0.4	-0.5	-0.2	0.3	0.7	0.9	0.8	0.9
Rwanda	-0.2	-0.5	-2.1	-0.4	-3.2	-1.9	-1.3	-1.5	-1.4	-2.1	-2.1	-2.2	-2.2	-2.5	-2.4
Senegal	-3.2	-3.7	-3.0	-3.1	-2.6	-2.2	-1.6	-1.0	-1.4	-1.0	-1.1	-1.2	-1.2	-1.2	-1.4
Somalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sudan	1.1	-1.3	-6.2	-5.3	-3.9	-3.1	-3.9	-6.1	-8.1	-8.3	-10.0	-11.4	-12.7	-13.8	-14.8
Tajikistan	-2.5	-1.6	1.1	0.1	0.4	-1.5	-8.3	-5.5	-3.5	-3.5	-2.0	-1.8	-1.8	-2.1	-2.0
Tanzania	-4.1	-2.8	-3.1	-2.6	-1.6	-1.7	-0.6	0.4	-0.2	-0.9	-1.2	-1.4	-1.5	-1.4	-1.3
Timor-Leste	-4.4	-4.7	-6.7	-3.5	-13.4	-17.0	-35.1	-18.7	-17.2	-22.5	-28.4	-22.4	-24.1	-19.6	-19.1
Uganda	-4.8	-1.7	-1.7	-2.7	-3.2	-2.9	-2.4	-1.4	-2.6	-4.3	-5.8	-2.1	-2.0	1.5	0.8
Uzbekistan	3.3	7.3	7.8	3.4	3.1	1.2	1.7	1.9	2.9	0.6	0.0	-0.2	-0.4	-0.6	-0.9
Vietnam	-1.6	-0.1	-5.6	-5.9	-4.6	-3.5	-2.7	-2.9	-2.6	-2.5	-2.3	-2.3	-2.2	-2.2	-2.3
Yemen	-1.7	-0.2	-0.9	-1.5	1.5	-2.6	-3.1	-4.7	-4.2	-4.9	-2.9	-2.0	-1.3	-0.3	0.9
Zambia	-1.0	-0.8	-1.5	-4.7	-3.5	-6.5	-2.4	-3.7	-1.6	-0.5	-0.7	-0.3	0.4	2.0	2.4
Zimbabwe	1.1	-2.2	0.3	-0.7	-0.4	-0.9	-5.9	-7.5	-3.1	-1.1	-1.3	0.6	0.3	-0.2	-0.4
Average	-2.0	-0.2	-0.8	-2.2	-2.0	-2.4	-2.3	-2.6	-2.2	-2.3	-2.0	-1.8	-1.7	-1.6	-1.5
Oil Producers	-2.4	1.2	0.9	-1.6	-1.5	-2.8	-3.2	-3.9	-2.6	-3.0	-2.7	-2.4	-2.3	-2.1	-1.9
Asia	-1.5	-1.1	-2.3	-3.1	-2.4	-2.6	-2.0	-2.2	-2.2	-2.5	-2.2	-2.0	-1.9	-1.9	-1.9
Latin America	-2.4	-1.9	-2.6	-4.3	-2.8	-0.7	-0.1	-0.1	-0.8	-0.2	-0.6	-0.6	-0.5	-0.7	-0.7
Sub-Saharan Africa	-2.7	0.0	-0.2	-2.0	-2.1	-2.6	-2.7	-3.0	-2.2	-2.1	-1.8	-1.5	-1.5	-1.3	-1.2
Others	0.7	1.2	0.2	-1.0	0.0	-1.3	-1.7	-2.6	-2.3	-3.3	-3.2	-3.1	-3.1	-3.0	-2.9

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: Primary balance is defined as the overall balance excluding net interest payments. For country-specific details, see "Data and Conventions" in text, and Table D.

Table A19. Low-Income Developing Countries: General Government Revenue, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bangladesh	10.0	10.4	11.2	11.2	10.9	9.8	10.1	10.2	10.1	10.2	10.2	10.1	10.2	10.2	10.1
Benin	18.9	18.8	19.2	18.5	17.2	17.3	15.3	18.6	18.6	19.2	19.4	19.5	19.5	19.4	19.4
Burkina Faso	19.8	20.7	22.4	24.4	21.6	20.7	21.8	22.1	22.8	22.8	23.0	23.3	23.6	23.7	23.7
Cambodia	17.1	15.9	17.2	18.7	20.1	19.6	20.8	22.1	22.2	22.1	21.7	21.4	21.2	21.0	21.1
Cameroon	15.0	16.3	16.3	16.3	16.6	16.5	14.8	15.0	15.8	15.8	15.9	15.8	15.9	15.9	15.9
Chad	20.2	24.8	24.4	20.7	17.8	14.0	12.6	15.1	16.0	14.7	15.8	15.5	15.7	16.4	16.6
Congo, Democratic Republic of the	15.6	13.7	16.5	14.6	18.6	16.8	11.8	10.4	12.2	12.9	13.6	14.1	14.7	15.0	15.1
Congo, Republic of	41.2	46.4	49.1	50.6	48.1	32.6	34.1	27.7	30.4	32.8	34.0	31.8	33.3	33.8	34.2
Côte d'Ivoire	18.1	14.2	19.2	19.7	18.9	20.0	20.0	20.4	19.7	20.0	20.2	20.3	20.3	20.5	20.5
Ethiopia	17.2	16.6	15.5	15.8	14.9	15.4	15.9	15.0	13.1	13.7	13.1	13.0	13.1	13.3	13.7
Ghana	12.5	14.1	13.7	12.6	13.4	14.9	13.4	13.9	14.6	16.1	15.3	15.9	15.9	16.0	15.9
Guinea	10.8	15.1	17.5	14.8	17.0	14.8	15.8	15.2	15.4	15.6	16.4	16.9	17.2	17.2	16.9
Haiti	19.9	22.0	23.8	21.0	18.9	19.3	18.6	17.7	17.2	16.8	16.8	16.6	16.2	15.8	15.5
Honduras	23.1	23.0	22.9	23.8	24.7	25.2	27.0	26.5	26.9	26.3	26.2	26.1	26.0	26.0	25.9
Kenya	19.8	19.5	19.1	19.7	19.8	19.1	18.7	17.9	18.3	18.7	19.7	19.9	19.7	19.6	19.6
Kyrgyz Republic	31.2	32.7	34.7	34.4	35.4	35.6	33.1	33.4	32.8	34.1	32.4	32.6	32.4	32.1	31.6
Lao P.D.R.	19.5	19.3	20.8	20.4	20.2	20.7	15.8	16.4	16.3	16.2	16.1	16.1	16.1	16.1	16.1
Madagascar	13.2	11.7	10.8	10.9	12.4	11.9	14.8	14.8	14.9	15.9	15.0	14.8	14.8	15.0	15.2
Mali	17.7	17.1	14.6	17.4	17.1	19.1	18.3	20.0	15.4	20.5	21.0	21.1	21.4	21.7	22.0
Moldova	31.9	30.5	31.7	30.9	31.8	30.0	28.6	29.8	30.3	30.0	29.7	29.5	29.4	29.3	29.1
Mozambique	26.1	27.3	27.0	31.4	31.8	28.1	26.2	28.3	26.0	26.1	26.1	26.3	26.5	26.6	25.3
Myanmar	9.1	9.8	20.6	21.2	23.8	19.5	18.8	17.1	17.7	17.3	17.4	17.4	17.7	18.1	18.4
Nepal	18.0	17.8	18.0	19.6	20.4	20.8	23.3	24.4	25.5	29.2	29.4	29.9	30.2	30.6	30.8
Nicaragua	22.5	23.5	23.9	23.5	23.3	24.2	25.3	25.3	24.1	25.7	26.8	24.8	25.4	25.8	26.0
Niger	18.2	17.9	21.4	24.6	23.0	23.3	20.3	21.2	21.4	24.1	25.1	24.6	25.0	25.0	24.7
Nigeria	12.4	17.7	14.3	11.0	10.5	7.6	5.5	6.2	8.0	7.0	7.3	7.2	7.3	7.4	7.5
Papua New Guinea	21.5	21.9	21.2	20.7	20.9	19.3	17.6	17.6	17.9	17.0	17.3	17.6	17.9	17.9	17.9
Rwanda	24.6	25.3	23.2	25.5	24.2	24.6	23.5	22.9	24.1	23.5	23.3	23.6	23.7	23.7	23.7
Senegal	17.6	18.2	18.6	17.7	19.2	19.3	20.7	19.4	18.7	19.1	19.5	19.6	20.1	20.3	20.6
Somalia	...	...	...	1.7	2.3	2.1	2.5	3.5	3.7	4.3	4.4	4.6	4.8	5.0	5.2
Sudan	17.5	15.9	9.1	9.6	8.8	8.4	7.1	7.2	6.9	6.4	5.9	5.5	5.3	5.1	5.0
Tajikistan	23.2	24.9	25.1	26.9	28.4	29.9	29.9	29.7	27.0	27.7	28.1	28.1	28.0	27.7	27.7
Tanzania	15.5	15.6	15.4	15.0	14.4	14.0	14.8	15.4	15.1	15.5	15.6	15.8	16.0	16.1	16.3
Timor-Leste	22.4	19.8	15.8	20.2	26.3	33.2	36.8	30.7	30.0	27.1	23.7	24.1	25.2	23.2	21.9
Uganda	13.2	14.5	13.5	12.7	13.4	15.2	14.8	15.1	15.6	16.1	16.2	17.3	17.5	19.2	19.3
Uzbekistan	36.7	37.7	38.8	34.8	34.3	31.3	30.7	29.4	34.0	30.4	30.7	31.0	31.1	31.2	31.3
Vietnam	27.3	25.9	22.6	23.1	22.2	23.8	23.7	23.5	23.6	23.6	23.5	23.4	23.4	23.3	23.1
Yemen	26.1	25.3	29.9	23.9	23.6	10.6	7.5	3.5	3.8	3.3	5.7	7.5	8.4	9.1	10.9
Zambia	15.6	17.7	18.7	17.6	18.9	18.8	18.2	17.5	18.4	18.1	17.4	17.4	17.4	17.4	17.4
Zimbabwe	18.3	20.7	20.4	19.6	19.3	18.7	16.8	14.1	10.3	8.8	11.7	14.4	15.7	15.7	15.7
Average	17.0	18.8	18.0	16.7	16.5	15.1	14.7	14.9	15.4	15.2	15.3	15.4	15.4	15.5	15.5
Oil Producers	14.8	18.9	16.6	13.7	13.2	9.7	8.2	8.7	10.3	9.3	9.6	9.5	9.6	9.7	9.7
Asia	17.3	17.2	18.1	18.4	18.3	17.6	17.4	17.2	17.3	17.3	17.3	17.2	17.3	17.3	17.2
Latin America	22.2	22.9	23.4	23.1	23.1	23.7	24.9	24.5	24.1	24.2	24.4	23.8	23.9	23.8	23.8
Sub-Saharan Africa	15.0	17.9	16.3	14.6	14.3	12.7	12.0	12.5	13.2	13.1	13.2	13.3	13.4	13.5	13.5
Others	25.4	25.5	26.5	23.3	22.9	18.7	18.5	17.3	18.9	18.4	19.2	19.9	20.5	20.9	21.7

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table D.

Table A20. Low-Income Developing Countries: General Government Expenditure, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bangladesh	12.7	14.0	14.2	14.6	14.0	13.8	13.4	13.6	14.2	14.5	13.9	13.7	13.7	13.6	13.4
Benin	19.2	20.1	19.5	20.4	19.4	24.9	21.3	24.4	23.3	22.0	21.2	20.9	20.6	20.2	20.1
Burkina Faso	24.4	23.0	25.5	28.4	23.5	23.1	25.5	30.0	27.5	25.8	26.0	26.3	26.7	26.7	26.7
Cambodia	20.9	20.6	21.7	21.4	21.7	20.9	22.2	23.2	24.2	24.1	24.3	24.3	24.4	25.0	24.8
Cameroon	16.0	18.6	17.8	20.0	20.8	20.9	20.9	19.8	18.5	18.0	17.5	17.4	17.4	17.4	17.4
Chad	24.4	22.4	23.9	22.8	22.0	18.3	14.5	15.2	14.6	14.9	14.3	14.1	13.5	13.5	13.7
Congo, Democratic Republic of the	16.5	14.6	14.5	12.7	18.5	17.0	12.7	11.9	12.7	13.4	14.1	14.6	15.4	15.8	15.6
Congo, Republic of	24.6	29.5	39.7	54.3	61.7	57.4	54.5	35.1	25.0	25.5	24.4	25.0	26.3	27.5	28.3
Côte d'Ivoire	20.0	18.2	22.3	21.9	21.0	22.8	24.0	24.9	23.7	23.1	23.2	23.2	23.2	23.4	23.4
Ethiopia	18.5	18.2	16.6	17.8	17.5	17.3	18.2	18.2	16.1	16.8	16.1	15.9	15.9	16.0	16.2
Ghana	20.0	19.6	22.1	21.7	21.4	18.9	20.3	18.0	21.6	21.7	19.8	20.0	19.9	19.3	18.7
Guinea	20.5	16.0	20.0	18.6	20.2	21.7	16.0	17.2	17.5	17.9	18.1	17.8	18.1	18.2	17.9
Haiti	22.7	24.5	28.6	28.1	25.3	21.9	18.7	18.2	19.6	19.2	18.6	18.4	17.9	17.6	17.1
Honduras	26.5	25.9	26.4	29.6	27.6	26.0	27.4	26.9	26.5	25.7	26.3	26.0	25.9	26.0	25.9
Kenya	24.2	23.6	24.2	25.4	27.2	27.2	27.0	25.7	25.6	23.9	23.7	23.1	22.7	22.6	22.6
Kyrgyz Republic	37.1	37.4	40.6	38.1	38.9	38.3	39.5	37.9	34.1	37.5	35.4	35.6	35.4	35.2	34.6
Lao P.D.R.	22.3	20.8	21.2	25.2	24.1	23.0	20.5	22.0	20.9	21.0	21.0	21.0	21.0	21.0	21.0
Madagascar	14.0	14.1	13.4	14.9	14.7	15.2	16.1	17.2	17.1	18.4	19.1	19.7	19.7	19.6	19.1
Mali	20.3	20.6	15.5	19.8	20.0	20.9	22.3	22.9	20.2	23.5	23.9	24.2	24.4	24.7	25.0
Moldova	34.1	32.6	33.7	32.4	33.4	31.9	30.3	30.6	31.3	33.9	33.3	32.4	32.0	31.8	31.6
Mozambique	29.9	32.2	30.8	34.1	42.5	35.2	32.5	31.6	31.3	31.5	32.1	31.9	32.2	30.2	27.5
Myanmar	14.6	13.4	18.9	22.8	24.8	23.9	21.3	19.7	20.2	20.7	21.2	21.4	21.7	21.9	22.1
Nepal	18.8	18.6	19.3	17.8	18.8	20.1	21.9	27.5	32.0	34.2	34.4	31.8	31.9	31.8	32.0
Nicaragua	22.4	23.3	24.0	24.2	24.5	25.6	26.9	27.0	28.4	29.1	31.3	29.5	30.3	31.3	31.8
Niger	20.6	19.4	22.5	27.2	31.1	32.4	26.3	26.8	26.3	28.6	28.1	27.5	27.0	26.9	26.7
Nigeria	16.6	17.4	14.1	13.4	12.6	11.1	9.5	11.6	12.5	12.1	11.9	11.7	11.8	11.9	11.9
Papua New Guinea	18.4	19.7	22.4	27.6	27.2	24.1	22.8	20.3	20.8	19.5	19.2	18.9	18.9	18.9	18.9
Rwanda	25.3	26.2	25.7	26.8	28.3	27.4	25.8	25.4	26.7	26.7	26.7	27.0	27.2	27.4	27.4
Senegal	21.6	23.1	22.8	22.0	23.1	23.0	24.0	22.3	22.1	22.0	22.4	22.6	23.0	23.3	23.5
Somalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sudan	17.4	18.2	16.5	15.3	13.5	12.2	11.5	13.8	15.4	15.2	16.3	17.3	19.2	19.6	20.0
Tajikistan	26.1	27.0	24.5	27.8	28.5	31.9	38.9	35.6	31.7	32.4	31.6	31.8	31.9	32.2	32.5
Tanzania	20.2	19.1	19.5	18.8	17.3	17.2	16.9	16.6	16.9	18.1	18.7	19.2	19.5	19.7	19.9
Timor-Leste	26.7	24.5	22.5	23.7	39.7	50.2	71.8	49.4	47.3	49.8	52.6	47.0	49.9	43.4	41.7
Uganda	18.8	17.2	16.5	16.7	18.1	19.8	19.7	18.9	20.4	22.8	24.6	22.2	22.1	20.5	21.8
Uzbekistan	33.4	30.4	30.9	31.2	31.1	29.9	28.8	27.3	30.9	29.5	30.5	31.0	31.4	31.7	32.0
Vietnam	30.0	27.0	29.5	30.5	28.5	29.2	28.4	28.4	28.2	28.1	27.8	27.7	27.6	27.6	27.6
Yemen	30.2	29.8	36.2	30.8	27.8	19.3	15.9	8.3	8.2	8.4	11.2	10.7	10.8	10.3	11.0
Zambia	18.1	19.5	21.5	23.8	24.6	28.1	24.0	25.2	24.9	23.1	23.4	22.7	21.7	20.2	19.5
Zimbabwe	18.1	23.2	20.4	20.9	20.4	20.5	23.4	22.5	14.1	10.9	14.2	14.7	16.1	16.6	16.7
Average	20.0	20.0	20.0	20.3	19.9	19.1	18.7	19.1	19.4	19.3	19.2	19.0	19.0	18.9	18.9
Oil Producers	18.0	18.7	16.9	16.6	15.9	14.0	12.9	13.9	14.4	13.8	13.8	13.5	13.5	13.5	13.5
Asia	20.1	19.5	21.7	23.0	22.3	22.0	21.1	21.0	21.5	21.6	21.3	21.0	21.0	21.0	20.9
Latin America	24.5	24.9	26.2	27.7	26.2	25.0	25.6	25.3	25.6	25.3	26.0	25.3	25.4	25.5	25.5
Sub-Saharan Africa	18.5	18.9	17.6	17.7	17.6	16.7	16.3	17.3	17.4	17.1	17.0	16.8	16.8	16.7	16.7
Others	25.8	25.7	27.9	26.5	25.1	22.2	21.9	20.8	22.4	22.8	24.0	24.4	25.1	25.4	25.9

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table D.

Table A21. Low-Income Developing Countries: General Government Gross Debt, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bangladesh	35.5	36.6	36.2	35.8	35.3	33.7	33.3	32.5	34.8	34.8	34.5	34.1	33.7	33.3	32.8
Benin	28.7	29.9	26.7	25.3	30.5	42.4	49.7	54.4	54.6	54.0	51.5	48.5	45.4	42.2	38.7
Burkina Faso	31.2	27.6	28.4	29.1	29.9	35.6	39.2	38.4	43.0	42.5	42.1	41.9	41.7	41.5	41.3
Cambodia	28.7	29.7	31.5	31.7	31.9	31.2	29.1	30.0	29.4	29.6	29.6	30.7	32.3	34.3	35.9
Cameroon	14.7	15.7	15.4	18.2	21.5	32.0	32.5	36.9	37.7	38.1	37.4	36.5	35.6	34.5	33.4
Chad	30.1	30.6	28.8	30.5	41.5	43.3	51.8	52.4	46.6	42.9	38.4	34.7	31.1	28.0	24.7
Congo, Democratic Republic of the	31.9	26.3	23.2	19.1	16.8	16.8	19.3	18.1	15.7	14.0	13.2	10.8	9.9	8.0	5.2
Congo, Republic of	53.4	42.3	45.1	49.5	59.8	111.4	127.8	125.4	98.5	90.2	83.7	79.4	76.8	70.9	60.5
Côte d'Ivoire	63.0	69.2	45.0	43.4	44.8	47.3	48.4	49.8	52.2	50.9	49.1	48.4	47.4	46.8	47.2
Ethiopia	40.5	45.3	42.2	47.5	47.9	54.5	56.1	59.0	61.1	57.4	56.3	55.3	54.9	54.0	53.5
Ghana	34.6	31.4	35.6	43.2	51.2	54.8	57.1	57.3	59.6	62.0	60.0	58.2	56.3	52.7	50.2
Guinea	68.8	58.1	27.2	34.0	35.1	41.9	42.0	40.4	38.7	46.0	45.3	42.9	41.0	39.4	37.6
Haiti	17.3	11.8	16.3	21.5	26.3	30.3	33.7	31.0	33.0	36.2	36.7	37.0	37.3	37.4	37.4
Honduras	23.6	25.2	29.8	37.7	37.5	37.4	38.4	39.1	40.3	40.8	41.0	40.7	39.8	39.4	37.6
Kenya	44.4	43.0	43.9	44.0	48.6	51.4	53.2	54.8	57.2	55.5	52.8	49.5	48.9	49.4	49.6
Kyrgyz Republic	59.7	50.1	50.5	47.1	53.6	67.1	59.1	58.8	56.0	56.1	55.5	55.3	54.5	54.4	54.4
Lao P.D.R.	53.5	49.0	53.6	54.3	56.5	56.0	56.4	60.3	63.0	64.1	65.3	66.0	66.9	67.5	67.8
Madagascar	34.7	35.0	35.5	36.1	34.7	35.7	41.9	40.3	39.7	41.0	42.1	43.5	45.1	46.1	46.6
Mali	25.3	24.0	25.4	26.4	27.4	30.7	35.9	35.4	36.6	36.9	37.6	38.2	38.9	39.1	39.6
Moldova	22.3	20.0	20.5	20.0	25.6	33.1	31.9	29.3	27.1	28.8	30.7	31.0	32.0	32.5	33.0
Mozambique	43.3	38.0	40.1	53.1	62.4	88.1	121.6	103.2	100.4	124.5	119.9	115.3	111.5	100.9	89.5
Myanmar	49.6	46.1	43.4	37.1	37.4	41.6	41.8	47.3	49.4	49.1	47.8	46.5	44.9	43.7	42.5
Nepal	34.0	31.7	34.3	32.2	28.2	25.6	27.9	26.4	30.4	33.1	34.1	33.8	33.5	32.6	31.9
Nicaragua	30.3	28.8	27.9	28.8	28.7	29.2	31.2	34.0	37.2	40.9	43.9	46.5	48.8	50.9	52.2
Niger	20.7	25.9	24.9	24.7	30.6	39.7	43.7	49.0	55.1	55.6	54.1	52.5	48.3	45.8	44.2
Nigeria	9.6	17.6	17.7	18.6	17.5	20.3	23.4	25.3	28.4	30.1	31.4	32.7	33.8	34.9	35.9
Papua New Guinea	17.3	16.3	19.1	24.9	27.1	32.3	37.8	37.5	36.9	37.7	37.0	36.6	35.8	35.0	34.3
Rwanda	19.3	16.7	18.9	20.8	26.6	29.7	32.9	36.5	40.7	50.0	51.3	52.5	54.2	55.6	56.4
Senegal	28.3	32.7	34.2	36.8	42.4	44.5	47.7	60.6	64.4	62.0	60.4	59.4	55.2	52.4	51.6
Somalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sudan	67.4	69.5	97.0	93.1	83.2	83.1	99.9	122.0	163.2	177.9	182.4	186.2	182.5	181.6	182.3
Tajikistan	36.6	35.3	32.3	29.1	27.7	34.7	42.0	50.4	47.9	49.5	50.7	52.1	53.5	55.8	58.4
Tanzania	27.3	27.8	28.7	30.0	32.6	35.9	36.4	36.6	36.0	36.6	37.2	38.1	39.1	40.4	41.8
Timor-Leste	0.0	0.0	0.0	0.1	0.5	1.5	3.1	3.8	5.4	...	...	...	...	...	...
Uganda	22.4	23.4	24.5	27.8	30.7	34.3	37.1	39.7	42.2	44.8	48.1	49.6	49.5	48.4	46.4
Uzbekistan	8.4	8.4	8.8	7.9	7.8	8.7	10.5	24.1	23.5	23.2	23.3	23.8	24.1	24.3	24.0
Vietnam	48.1	45.6	48.1	51.7	54.7	57.1	59.7	58.2	57.5	57.4	57.1	57.3	57.4	57.4	57.6
Yemen	42.4	45.7	47.3	48.2	48.7	54.9	68.0	76.4	63.3	54.7	42.8	36.6	31.1	26.0	22.4
Zambia	18.9	20.8	25.4	27.1	36.1	62.3	60.7	62.7	72.4	80.5	83.5	84.1	82.8	80.0	76.8
Zimbabwe	49.6	41.4	37.2	38.6	40.3	41.8	54.2	52.9	29.8	21.0	20.5	20.1	19.6	18.6	17.7
Average	29.9	31.5	31.8	32.9	33.7	37.7	41.3	43.7	45.0	45.1	44.5	44.1	43.6	43.2	42.8
Oil Producers	16.0	22.1	21.1	22.3	22.0	26.2	30.1	32.8	34.4	34.8	34.8	35.2	35.5	35.9	36.3
Asia	40.8	39.6	40.4	41.2	42.3	43.1	44.0	43.7	44.7	44.9	44.6	44.4	44.2	43.9	43.7
Latin America	24.1	23.3	26.4	31.5	32.5	33.5	35.3	36.0	37.9	39.9	40.9	41.4	41.5	41.8	41.0
Sub-Saharan Africa	22.4	25.8	25.3	27.0	28.0	33.1	37.7	40.4	42.0	42.5	42.2	41.8	41.7	41.4	41.1
Others	43.8	43.3	48.0	46.0	44.2	47.4	53.1	67.8	72.3	69.1	65.0	62.4	58.8	56.0	53.8

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table D.

Table A22. Low-Income Developing Countries: General Government Net Debt, 2010–24
(Percent of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bangladesh
Benin
Burkina Faso
Cambodia
Cameroon	10.5	12.6	13.1	15.9	19.9	27.8	30.9	33.6	34.7	35.8	34.9	34.3	33.8	33.3	32.4
Chad
Congo, Democratic Republic of the
Congo, Republic of
Côte d'Ivoire
Ethiopia	32.4	40.0	37.0	41.9	43.3	49.7	52.0	55.0	57.5	54.4	53.8	53.1	53.1	52.3	52.1
Ghana	32.2	28.6	34.0	40.2	46.3	50.7	52.0	52.0	55.0	57.0	55.6	54.3	52.8	49.6	47.5
Guinea
Haiti
Honduras
Kenya	40.2	39.1	40.1	40.1	44.4	46.3	47.9	49.1	51.8	52.2	50.9	47.7	47.1	47.6	47.9
Kyrgyz Republic
Lao P.D.R.
Madagascar
Mali	16.9	17.1	21.2	20.5	20.0	24.7	29.7	29.9	31.9	32.2	32.6	32.9	33.4	34.0	33.1
Moldova
Mozambique
Myanmar
Nepal
Nicaragua
Niger	16.6	22.2	19.9	19.1	24.2	34.4	39.2	43.3	51.1	51.9	50.7	49.3	45.3	43.0	41.4
Nigeria	6.3	12.6	10.8	11.7	13.8	15.9	19.0	20.9	24.2	26.3	28.0	29.6	31.1	32.5	33.7
Papua New Guinea
Rwanda
Senegal
Somalia
Sudan
Tajikistan
Tanzania
Timor-Leste
Uganda
Uzbekistan
Vietnam
Yemen	38.3	42.3	45.3	46.7	47.8	54.1	67.1	75.5	62.7	54.2	42.4	36.3	30.8	25.7	22.1
Zambia	15.9	16.4	20.1	25.2	31.8	56.1	51.3	55.9	65.0	72.3	75.8	76.7	76.3	74.2	71.7
Zimbabwe
Average
Oil Producers
Asia
Latin America
Sub-Saharan Africa
Others

Source: IMF staff estimates and projections. Projections are based on staff assessment of current policies (see "Fiscal Policy Assumptions" in text).

Note: For country-specific details, see "Data and Conventions" in text, and Table D.

Table A23. Advanced Economies: Structural Fiscal Indicators
(Percent of GDP, except where otherwise indicated)

	Pension Spending Change, 2015–30 ¹	Net Present Value of Pension Spending Change, 2015–50 ^{1,2}	Healthcare Spending Change, 2015–30	Net Present Value of Healthcare Spending Change, 2015–50 ²	Gross Financing Need, 2019 ³	Average Term to Maturity (years) ⁴	Debt-to-Average Maturity, 2019	Projected Interest Rate-Growth Differential, 2019–24 (percent)	Pre-crisis Overall Balance, 2000–07	Projected Overall Balance, 2019–24	Nonresident Holding of General Government Debt, 2018 (percent of total) ⁵
Australia	0.8	25.3	1.6	59.6	3.0	7.7	5.3	-1.2	1.1	-0.3	41.8
Austria	0.6	17.1	1.5	59.0	7.7	9.9	7.2	-1.6	-2.2	-0.4	74.2
Belgium	0.5	17.9	2.0	76.8	17.0	9.7	10.2	-1.1	-0.5	-1.4	60.7
Canada	1.1	29.0	1.2	46.8	9.6	5.5	16.0	0.6	1.1	-0.6	22.5
Cyprus	0.7	21.0	...	...	8.7	6.6	15.3	-2.6	-2.3	2.1	74.6
Czech Republic	0.1	20.1	0.7	25.1	3.3	5.4	5.8	-1.3	-3.8	0.7	41.9
Denmark	-1.2	-44.4	1.3	46.0	4.4	8.1	4.2	0.2	2.5	-0.2	32.1
Estonia	-0.8	-21.9	0.4	21.1	...	...	...	-4.9	1.4	0.1	74.3
Finland	1.3	25.5	1.6	50.8	6.0	6.5	9.3	-1.6	4.0	-0.1	65.5
France	0.4	-2.0	0.8	30.6	13.5	7.5	13.2	-1.3	-2.7	-2.6	53.8
Germany	1.4	39.7	1.0	47.8	3.5	5.9	9.7	-2.0	-2.4	0.9	52.2
Hong Kong SAR	1.8	55.1	...	...	...	...	...	0.1	0.0	1.0	...
Iceland	0.3	7.5	2.6	94.0	1.5	14.1	2.3	2.1	1.1	0.5	23.7
Ireland	1.0	43.3	1.0	38.3	7.2	10.0	6.3	-2.8	1.5	0.4	65.8
Israel	0.6	26.1	0.4	15.4	...	6.1	9.7	-0.9	-3.8	-2.5	13.5
Italy ⁶	1.7	47.2	1.0	40.8	23.7	6.7	19.9	1.1	-3.1	-3.5	30.5
Japan	-1.2	-31.7	2.2	72.0	39.5	8.0	29.7	-0.7	-6.0	-2.1	10.6
Korea	2.0	75.4	2.1	84.3	-0.1	7.4	5.5	-1.0	2.0	1.1	13.4
Latvia	-1.0	-35.9	0.9	32.8	...	8.4	4.4	-2.8	-1.3	-0.5	76.1
Lithuania	0.2	1.0	0.7	27.5	2.8	6.5	5.2	-1.9	-1.8	0.3	79.9
Luxembourg	1.3	53.5	1.7	74.1	...	5.5	3.9	-3.5	2.4	1.4	44.4
Malta	-1.0	-13.2	...	...	...	8.6	5.0	-2.4	-4.9	0.6	13.0
Netherlands	0.3	14.2	2.8	94.6	5.1	7.2	7.2	-1.7	-0.8	0.8	42.1
New Zealand	1.6	53.8	2.0	66.4	4.4	6.9	4.1	0.1	3.1	0.9	60.8
Norway	0.7	22.3	1.9	78.2	...	4.6	8.0	-1.9	13.2	7.4	47.1
Portugal	0.9	24.6	2.0	74.3	14.4	6.2	19.2	-0.3	-4.5	0.1	56.1
Singapore ⁷	0.8	27.8	...	...	0.9	3.9	27.7	...	5.6	3.1	...
Slovak Republic	-0.8	-16.1	0.6	26.5	2.9	8.6	5.4	-2.8	-5.0	0.3	63.9
Slovenia	1.1	51.5	1.0	42.9	5.7	8.9	7.3	-1.5	-1.0	0.5	65.7
Spain	0.4	27.4	1.7	60.0	16.7	7.4	13.0	-0.9	0.4	-2.5	49.7
Sweden	-0.9	-33.5	0.6	25.0	3.7	4.6	8.1	-2.8	1.2	0.3	30.7
Switzerland	0.4	15.8	3.1	116.1	1.4	10.9	3.6	-1.1	-0.3	0.3	11.0
United Kingdom	0.2	8.3	1.9	65.0	9.5	15.0	5.7	-0.8	-1.9	-0.9	32.5
United States	1.5	31.4	3.6	122.3	25.1	5.7	18.7	-1.3	-2.6	-4.3	30.3
Average	0.9	21.4	2.4	85.1	19.1	7.0	15.9	-1.1	-2.1	-2.2	33.8
G7	1.0	20.6	2.6	90.4	22.3	6.9	17.9	-1.0	-2.9	-2.9	31.7
G20 Advanced	1.0	22.9	2.5	89.1	20.8	6.9	17.1	-1.0	-2.6	-2.7	31.4

Sources: Bloomberg Finance L.P.; Joint External Debt Hub; Quarterly External Debt Statistics; national authorities; and IMF staff estimates and projections.

Note: All economy averages are weighted by nominal GDP converted to US dollars at average market exchange rates in the years indicated and based on data availability.

¹ Pension projections rely on authorities' estimates when these are available. For the European Union countries, pension projections are based on *The 2016 Ageing Report of the European Commission*. When authorities' estimates are not available, staff projections use the methodology described in Clements, Eich, and Gupta, *Equitable and Sustainable Pensions: Challenges and Experience* (IMF 2014). Staff projections for healthcare spending are driven by demographic and other factors. The difference between the growth of healthcare spending and real GDP growth that is not explained by demographics ("excess cost growth") is assumed to start at the economy-specific historic average and converge to the advanced-economy historic average by 2050 (0.8 percent).

² For net present value calculations, a discount rate of 1 percent a year in excess of GDP growth is used for each economy.

³ Gross financing need is defined as the projected overall deficit and maturing government securities in 2019. For most economies, data on maturing debt refer to central government securities. Data are from Bloomberg Finance L.P. and IMF staff projections.

⁴ For most economies, average term to maturity data refer to central government securities; the source is Bloomberg Finance L.P.

⁵ Nonresident holding of general government debt data are for the fourth quarter of 2018 or latest available from the Joint External Debt Hub (JEDH), Quarterly External Debt Statistics, which include marketable and nonmarketable debt. For some economies, tradable instruments in the JEDH are reported at market value. External debt in US dollars is converted to local currency, then taken as a percentage of 2018 gross general government debt.

⁶ Italy's pension projections do not reflect the new demographic assumptions. Taking more prudent assumptions for the employment rate, productivity growth, and demographics, staff calculations show that the change in pension spending over 2015–30 would be about 3 percent of GDP, see the Italy 2017 Article IV Staff Report, Box 4.

⁷ Singapore's general government debt is covered by financial assets and issued to develop the bond market.

Table A24. Emerging Market and Middle-Income Economies: Structural Fiscal Indicators
(Percent of GDP, except where otherwise indicated)

	Pension Spending Change, 2015–30 ¹	Net Present Value of Pension Spending Change, 2015–50 ^{1,2}	Healthcare Spending Change, 2015–30	Net Present Value of Healthcare Spending Change, 2015–50 ²	Gross Financing Need, 2019 ³	Average Term to Maturity, 2019 (years) ⁴	Debt-to-Average Maturity, 2019	Projected Rate-Growth Differential, 2019–24 (percent)	Precisus Overall Balance, 2000–07	Projected Overall Balance, 2019–24	Nonresident Holding of General Government Debt, 2018 (percent of total) ⁵
Algeria	3.0	122.4	1.0	44.4	...	...	...	-5.1	7.4	-1.2	2.4
Angola	0.4	16.2	0.2	7.7	...	...	...	-3.6	2.5	-0.1	...
Argentina	0.8	40.7	0.9	37.1	15.3	10.5	7.2	-13.2	-0.2	-1.4	35.4
Azerbaijan	5.1	148.9	0.3	11.7	...	...	...	2.3	6.3	4.7	...
Belarus	3.8	114.7	0.7	27.6	...	5.0	10.3	-2.0	-0.2	-1.0	59.8
Brazil ⁶	5.1	203.8	1.1	44.2	15.0	6.2	14.5	1.8	-3.6	-6.6	10.3
Chile	-0.8	-22.8	1.3	53.3	2.4	10.5	2.6	-1.8	2.4	-1.1	28.9
China	2.0	70.7	0.8	31.9	...	...	...	-5.4	-1.8	-5.5	...
Colombia	-0.6	-37.8	1.2	48.4	...	8.5	5.8	-1.1	-1.9	-1.1	29.1
Croatia	-0.6	-38.9	1.2	45.5	8.7	4.4	16.1	-1.0	-4.3	0.2	35.3
Dominican Republic	0.3	15.1	0.7	26.9	6.7	8.6	4.9	-0.3	-2.0	-3.3	60.0
Ecuador	0.8	33.4	1.0	39.9	5.6	5.7	8.6	3.4	1.2	2.4	66.2
Egypt	2.3	51.1	0.2	8.7	36.6	3.0	29.1	-5.0	-4.6	-5.2	20.4
Hungary	-1.1	-21.8	1.0	40.1	15.5	3.4	19.4	-2.2	-6.4	-1.9	37.6
India	0.0	-5.7	0.2	9.0	10.7	9.3	7.4	-3.6	-8.6	-6.4	5.4
Indonesia	0.2	9.2	0.3	10.3	3.8	8.4	3.5	-2.7	-0.7	-1.8	59.0
Iran	2.0	109.9	1.0	43.0	...	...	...	-16.3	3.1	-4.7	...
Kazakhstan	1.7	47.5	0.4	14.9	...	6.9	3.0	-3.3	4.7	1.5	28.7
Kuwait	7.4	330.1	0.7	31.2	...	3.6	5.0	-0.5	29.0	6.7	...
Malaysia	2.1	82.4	0.5	19.5	10.0	7.1	7.9	-2.6	-3.8	-2.6	22.3
Mexico	0.6	18.6	0.7	31.1	10.1	8.4	6.5	1.7	-2.0	-2.4	30.9
Morocco	1.8	61.4	0.5	22.6	9.1	5.9	11.1	-1.9	-3.3	-3.1	19.8
Oman	0.6	27.8	0.8	36.6	...	9.5	6.4	2.1	10.0	-7.4	...
Pakistan	0.1	5.3	0.1	4.9	42.3	1.1	72.4	-0.3	-2.9	-7.9	29.0
Peru	0.3	15.3	0.7	30.8	4.4	12.4	2.2	-0.2	-2.4	-1.1	28.0
Philippines	0.2	7.8	0.2	8.8	4.3	8.1	4.8	-3.7	-2.4	-1.6	25.4
Poland	-0.2	-7.5	1.0	40.0	7.9	4.8	9.9	-1.5	-4.1	-3.0	46.7
Qatar	0.9	38.7	0.6	27.5	...	8.1	6.5	-1.1	9.0	6.5	...
Romania	-1.2	-16.2	0.9	33.6	8.0	5.8	6.5	-2.3	-2.5	-4.1	43.9
Russia	3.4	96.6	0.6	24.2	0.4	7.0	2.0	0.9	4.2	0.3	21.9
Saudi Arabia	2.4	92.9	1.0	38.9	...	8.2	2.9	1.3	6.9	-6.7	...
South Africa	0.3	13.2	0.7	26.8	14.0	13.1	4.4	0.5	-0.6	-5.0	32.6
Sri Lanka	1.2	43.2	0.4	14.8	18.1	5.3	17.0	-0.8	-6.9	-3.7	43.5
Thailand	3.8	125.7	0.7	28.7	5.4	6.8	6.1	-2.1	-0.4	-0.8	12.3
Turkey ⁷	-0.1	15.5	0.8	33.6	7.1	6.3	4.8	-1.7	-5.8	-3.3	41.4
Ukraine	1.0	99.8	0.5	21.0	8.1	9.0	6.9	-4.5	-2.4	-2.1	48.1
United Arab Emirates	0.6	29.6	0.7	28.2	...	...	...	-2.2	9.1	-0.4	...
Uruguay ⁸	-0.4	-3.9	1.2	47.7	17.9	11.2	6.4	-4.6	-2.1	-3.2	39.0
Venezuela	...	...	...	...	...	...	...	...	0.1	-29.9	...
Average	1.7	61.6	0.7	29.0	10.3	6.9	9.1	-3.7	-1.1	-4.4	16.3
G20 Emerging	1.9	65.7	0.7	28.9	9.4	7.0	8.1	-1.9	-1.9	-4.9	13.3

Sources: Joint External Debt Hub, Quarterly External Debt Statistics; national authorities; and IMF staff estimates and projections.

Note: All country averages are weighted by nominal GDP converted to US dollars at average market exchange rates in the years indicated and based on data availability.

¹ Pension projections rely on authorities' estimates when these are available. For the European Union countries, pension projections are based on *The 2016 Ageing Report of the European Commission*. When authorities' estimates are not available, staff projections use the methodology described in Clements, Eich, and Gupta, *Equitable and Sustainable Pensions: Challenges and Experience* (IMF 2014). Staff projections for healthcare spending are driven by demographic and other factors. The difference between the growth of healthcare spending and real GDP growth that is not explained by demographics ("excess cost growth") is assumed at the advanced economy historic average by 2050 (0.8 percent).² For net present value calculations, a discount rate of 1 percent a year in excess of GDP growth is used for each country.³ Gross financing need is defined as the projected overall balance and maturing government debt in 2019. Data are from IMF staff projections.⁴ Average term to maturity data refer to central government securities; the source is Bloomberg Finance L.P.⁵ Nonresident holding of general government debt data are the fourth quarter of 2018 or latest available from the Joint External Debt Hub (JEDH). Quarterly External Debt Statistics, which include marketable and nonmarketable debt. For some countries, tradable instruments in the JEDH are reported at market value. External debt in US dollars is converted to local currency, then taken as a percentage of 2018 gross general government debt.⁶ IMF staff projects an increase in pension spending in Brazil equivalent to 5.9 percent of GDP by 2030. For more detail, refer to *Fiscal Challenges of an Aging Population in Brazil* (IMF 2016).⁷ Average Term to Maturity indicator for Turkey is in accordance with the published data for Central Government debt securities as of January 2019.⁸ Data correspond to the consolidated public sector (as presented in the authorities' budget documentation), which includes the nonfinancial public sector (as presented in the authorities' budget documentation), local governments, Banco Central del Uruguay, and Banco de Seguros del Estado. In particular, Uruguay is one of the few countries in the sample for which public debt includes the debt of the central bank, which increases recorded public sector gross debt.

Table A25. Low-Income Developing Countries: Structural Fiscal Indicators
(Percent of GDP, except where otherwise indicated)

	Pension Spending Change, 2015–30 ¹	Net Present Value of Pension Spending Change, 2015–50 ^{1,2}	Healthcare Spending Change, 2015–30	Net Present Value of Healthcare Spending Change, 2015–50 ²	Average Term to Maturity, 2019 (years) ³	Debt-to-Average Maturity, 2019	Projected Rate-Growth Differential, 2019–24 (percent)	Pre-crisis Overall Balance, 2000–07	Projected Overall Balance, 2019–24	Nonresident Holding of General Government Debt, 2018 (percent of total) ⁴
Bangladesh	0.3	13.1	0.1	3.5	5.4	6.4	-6.0	-2.8	-3.6	37.6
Benin	0.1	3.4	0.2	9.7	2.6	20.6	-4.1	-2.3	-1.4	...
Burkina Faso	0.0	3.2	0.4	17.6	1.6	26.2	-4.1	-1.8	-3.0	53.5
Cambodia	0.1	3.0	0.3	10.8	...	...	-7.5	-3.2	-3.0	93.4
Cameroon	0.0	0.6	0.1	6.0	6.0	6.3	-3.6	5.3	-1.7	62.4
Chad	0.0	-0.1	0.2	7.9	...	...	-4.6	-2.4	1.8	...
Congo, Democratic Republic of the	0.0	0.2	0.3	11.2	...	...	-4.5	-0.7	-0.6	...
Congo, Republic of	0.1	6.0	0.3	10.8	...	...	0.7	4.8	7.1	...
Côte d'Ivoire	0.0	2.4	...	...	...	...	-3.5	-1.0	-2.9	...
Ethiopia	0.0	0.9	0.2	9.3	...	...	-13.2	-4.8	-2.8	...
Ghana	0.1	3.5	0.5	19.0	5.5	11.3	-3.6	-3.3	-4.0	...
Guinea	0.0	0.3	0.3	10.7	...	...	-10.1	-2.5	-1.3	...
Haiti	...	...	0.2	6.5	...	...	-11.1	-2.5	-1.8	...
Honduras	0.3	8.8	0.7	26.5	3.5	11.6	-0.3	-2.0	0.1	...
Kenya	0.2	9.6	0.3	11.7	5.9	9.4	-3.5	-1.4	-3.6	47.3
Kyrgyz Republic	5.2	148.3	0.6	23.6	...	...	-4.9	-4.8	-3.1	83.9
Lao P.D.R.	0.1	2.6	0.3	10.2	...	...	-6.1	-3.5	-4.9	...
Madagascar	0.3	12.3	0.4	17.3	...	...	-7.7	-3.4	-4.2	...
Mali	-0.2	-2.6	0.2	9.0	2.2	16.9	-4.1	1.3	-3.0	...
Moldova	3.7	115.3	0.9	34.4	6.0	4.8	-5.0	-0.3	-3.0	55.1
Mozambique	-0.1	0.1	0.4	17.3	2.2	56.5	-7.7	-3.3	-4.7	...
Myanmar	0.3	11.7	...	...	...	...	-8.1	-4.1	-3.8	...
Nepal	0.1	4.9	0.3	10.9	...	...	-8.3	-1.0	-2.6	...
Nicaragua	1.0	47.6	0.9	36.3	1.5	28.2	-0.8	-1.3	-4.8	81.1
Niger	0.0	-0.4	0.3	13.2	...	...	-5.6	2.6	-2.7	...
Nigeria	0.0	0.2	0.1	4.3	5.1	5.9	-4.8	2.3	-4.6	...
Papua New Guinea	0.0	0.7	0.5	18.1	...	...	0.2	1.8	-1.4	31.9
Rwanda	0.1	2.7	0.8	32.0	...	...	-9.2	-0.5	-3.5	77.1
Senegal	0.0	4.6	0.3	10.2	12.3	5.1	-6.1	-0.9	-3.0	...
Somalia	...	...	...	...	...	...	...	...	...	...
Sudan	0.0	1.2	0.3	12.6	...	...	-38.2	-0.9	-12.4	...
Tajikistan	0.5	17.1	0.3	13.6	...	...	-5.3	-2.8	-4.2	75.7
Tanzania	0.0	4.0	0.4	16.9	4.6	7.9	-3.3	-1.8	-3.3	...
Timor-Leste	...	...	...	...	...	...	2.7	-2.3	-23.2	...
Uganda	0.0	1.0	0.3	12.6	3.5	12.8	-4.4	-1.0	-4.8	64.2
Uzbekistan	4.0	132.9	0.6	23.0	...	...	-14.4	-3.0	-0.1	...
Vietnam	2.5	93.6	0.5	18.5	6.9	8.3	-5.5	-1.7	-4.4	...
Yemen	0.0	1.3	0.1	6.0	...	...	-9.9	-0.7	-2.9	...
Zambia	1.8	58.6	0.4	15.4	4.8	16.9	-5.5	-0.4	-4.2	...
Zimbabwe	...	...	...	...	...	...	-8.6	...	-1.2	...
Average	0.6	22.4	0.3	10.7	1.2	2.6	-6.1	-0.2	-3.7	19.4

Sources: Joint External Debt Hub, Quarterly External Debt Statistics; national authorities; and IMF staff estimates and projections.

Note: All country averages are weighted by nominal GDP converted to US dollars at average market exchange rates in the years indicated and based on data availability.

¹ Pension projections rely on authorities' estimates when these are available. For the European Union countries, pension projections are based on *The 2016 Ageing Report of the European Commission*. When authorities' estimates are not available, staff projections use the methodology described in Clements, Eich, and Gupta, *Equitable and Sustainable Pensions: Challenges and Experience* (IMF 2014). Staff projections for healthcare spending are driven by demographic and other factors. The difference between the growth of healthcare spending and real GDP growth that is not explained by demographics ("excess cost growth") is assumed at the advanced-economy historic average by 2050 (0.8 percent).

² For net present value calculations, a discount rate of 1 percent a year in excess of GDP growth is used for each country.

³ Average term to maturity data refer to central government securities; the source is Bloomberg Finance L.P.

⁴ Nonresident holding of general government debt data are the fourth quarter of 2018 or latest available from the Joint External Debt Hub (JEDH). Quarterly External Debt Statistics, which include marketable and nonmarketable debt. For some countries, tradable instruments in the JEDH are reported at market value. External debt in US dollars is converted to local currency, then taken as a percentage of 2018 gross general government debt.

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IMF EXECUTIVE BOARD DISCUSSION OF THE OUTLOOK, APRIL 2019

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 March 21, 2019.

Executive Directors broadly shared the assessment of global economic prospects and risks. They observed that global economic activity had recently lost momentum, reflecting a confluence of factors in a number of large economies. Global trade had slowed sharply, and concerns over trade tensions weakened business confidence. Directors noted that while growth is expected to level off in the first half of this year and firm up thereafter, this short-term outlook is subject to considerable uncertainty.

Directors noted that, over the medium term, growth is expected to moderate further in advanced economies, as population aging constrains the expansion of the labor force and labor productivity growth remains tepid. In emerging market and developing economies, growth is expected to increase modestly. Convergence toward advanced economy income levels, however, remains slow for many of these economies, due to structural bottlenecks and, in some cases, high debt, subdued commodity prices, and civil strife.

Directors agreed that risks to the global outlook remain skewed to the downside amid high policy uncertainty. These include a reescalation of trade tensions and disruptions from a no-deal Brexit. Given still-accommodative financial conditions, the global economy also remains susceptible to a sudden shift in market sentiment and associated tightening in financial conditions. Downside risks in systemic economies, if they were to materialize, also weigh on the outlook. On the upside, if recent tariff increases are rolled back and trade tensions resolved, rising business confidence could lift growth. Over the medium term, many Directors noted risks from rising inequality, climate change, cyber risks, political uncertainty, and declining trust in institutions.

Directors noted that the current conjuncture highlights the urgent need for strong global cooperation and coordination to tackle shared challenges. Many Directors attached priority to resolving trade

disagreements cooperatively without raising further distortionary barriers and reiterated the importance of strengthening the open, rules-based multilateral trading system. Directors stressed that broadening the gains from global economic integration would also require closer cooperation in the areas of financial regulatory reforms, the global financial safety net, international corporate taxation, and climate change. Progress on external rebalancing relies on macroeconomic and structural policies, mindful of countries' domestic conditions and objectives, to increase demand and growth potential in surplus countries, and initiatives to boost supply and potential output in deficit countries.

Against the backdrop of waning global growth momentum and limited policy space in many countries, Directors underscored the need to avoid policy missteps, contain risks, and enhance resilience while raising inclusive growth prospects. Macroeconomic policies should be carefully calibrated, aiming to support growth where output may fall below potential and policy space exists, and ensuring a soft landing where policy support needs to be withdrawn. In the event of a deeper or protracted downturn, policies should become more accommodative where feasible.

Directors stressed that fiscal policy should strike the right balance between growth and debt sustainability objectives as appropriate in individual countries. In countries with high debt, gradual fiscal adjustment is needed, particularly if financing risks are large. In countries with fiscal space, fiscal policy should boost aggregate demand where there is slack and raise potential growth where the economy is operating above potential. In this regard, a few Directors noted the role of automatic stabilizers during cyclical downturns. In the event of a more protracted slowdown in growth, care should be taken to avoid a procyclical fiscal stance. Directors concurred that fiscal policy should also adapt to shifting demographics, advancing technology, and deepening global integration. Where there is limited

budgetary room, such a response will have to occur through budget recomposition and reprioritization.

Amid signs of weakening growth and muted inflation in most advanced economies, Directors welcomed the more gradual approach to monetary policy normalization by major central banks since the beginning of this year, which has helped boost positive market sentiment. They urged policymakers to clearly communicate any reassessment of the pace of monetary policy normalization that reflects either changes in the economic outlook or risks surrounding the outlook, to avoid excessive market swings or unduly compressed market volatility.

With financial conditions still accommodative as the credit cycle matures, Directors noted that financial vulnerabilities would likely continue to build in different parts of the global economy. These include rising corporate debt, sovereign–financial sector nexus, maturity and liquidity mismatches, house price misalignment, and sensitivity of portfolio flows and asset prices in emerging markets to changes in global financial conditions. The tightening in financial conditions late last year was too short-lived to meaningfully slow the buildup of vulnerabilities, leaving medium-term risks to global financial stability broadly unchanged. Where needed, policymakers should deploy prudential tools proactively, expand macroprudential toolkits, and continue to repair public and private balance sheets.

Across all economies, growth-enhancing structural reforms remain key to improving potential output, inclusiveness, and resilience. Directors emphasized that high debt levels in many countries require a multi-pronged approach, including to enhance debt transparency and management. Broader structural reforms should aim to lift productivity, encourage labor force participation, and upgrade skills. Further deregulation in product markets and services, sup-

ported by stronger competition law and policy, could help deter the rise in corporate market power in advanced economies.

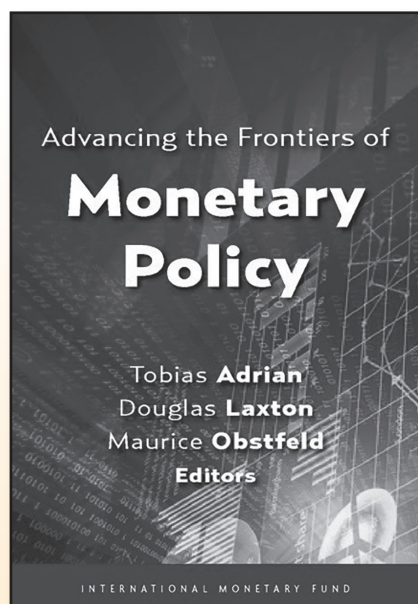
Noting that corruption could undermine inclusive growth, public finances, and poverty reduction efforts, Directors highlighted the need to improve fiscal institutions, transparency, and governance in the public sector. Greater cooperation is also essential at the global level, including combating foreign bribery and money laundering of proceeds from corrupt activities, as well as improving the sharing of information to fight tax evasion and prosecute corrupt acts.

Directors stressed that, with external conditions remaining uncertain, emerging market and developing economies should focus monetary policy on anchoring inflation expectations where inflation remains high, and support domestic activity as needed where expectations are well anchored. Depending on country circumstances, efforts should continue to raise revenue, reduce debt-related vulnerabilities, and make steady progress on economic and financial rebalancing.

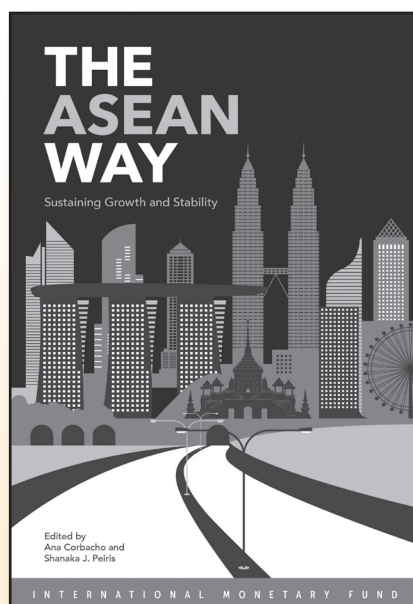
Directors underscored the need for low-income developing economies to adopt policies that focus on drivers of growth, raise resilience to volatile external conditions, durably reduce debt vulnerabilities, and advance toward the 2030 Sustainable Development Goals, with continued support from the international community. Priorities include improving macroeconomic and macroprudential policy frameworks, strengthening domestic resource mobilization, and gearing fiscal policy toward supporting growth and development objectives, including protection for social spending and carefully selected capital projects. Commodity exporters need to continue diversifying their economies through policies that improve education quality, narrow infrastructure gaps, enhance financial inclusion, and boost private investment.

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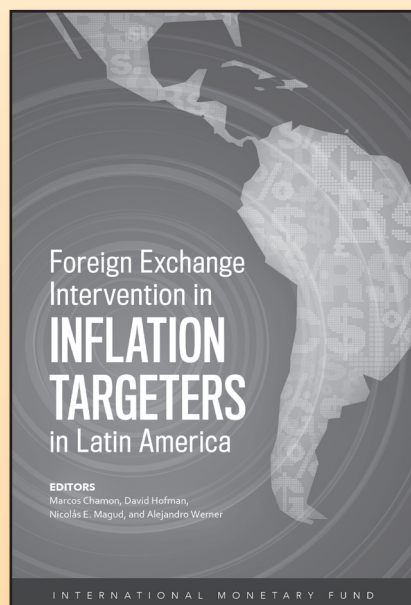
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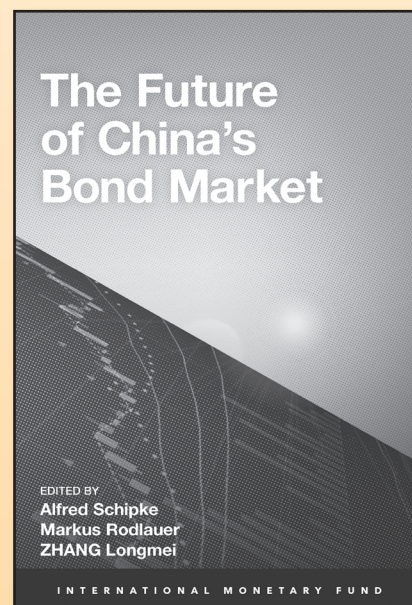
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