Advance Edition

Fiscal Vulnerabilities in Low-Income Countries

Evolution, Drivers, and Policies

WORLD BANK GROUP

Joseph Mawejje

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The text of this advance edition is a work in progress for the forthcoming book *Fiscal Vulnerabilities in Low-Income Countries: Evolution, Drivers, and Policies*. A PDF of the final book, once published, will be available at https://openknowledge.worldbank.org. Please use the final version of the book for citation, reproduction, and adaptation purposes.

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The cutoff date for the data used in the report was September 30, 2024.

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Acknowledgments

This study is a product of the Prospects Group and was produced under the overall guidance of M. Ayhan Kose. Ayhan's constant support, insights, and dedication immeasurably raised the quality of the study. The study also benefited from the outstanding support and advice of Carlos Arteta.

The study benefited from insightful reviews and thoughtful suggestions by Tommy Chrimes, Graham Hacche, Samuel Hill, Jeetendra Khadan, and Joseph Rebello. Franziska Ohnsorge and Shu Yu provided excellent inputs to an earlier version of the study. I am grateful for the superb research assistance provided by Jiayue Fan and Maria Hazel Macadangdang.

I am thankful to my colleagues in the World Bank's Prospects Group who provided early feedback at internal seminars. In addition, staff members from World Bank country teams, the Development Finance Vice Presidency, and other World Bank Vice Presidencies provided extensive comments at different stages of the study, including during the institution-wide review of a chapter on fiscal challenges confronting low-income countries featured in the June 2023 *Global Economic Prospects* report.

I am indebted to many colleagues who worked on the production process, publishing, media relations, and dissemination of the study. I am grateful to Joseph Rebello for his considered suggestions throughout the process, and with him, Nandita Roy, Kristen Milhollin, and Mariana Lozzi Teixeira for managing media relations and social media outreach. I thank Graeme Littler for editorial and web support. I owe a particular debt of gratitude to Adriana Maximiliano for her outstanding contributions in designing and coordinating the print publication.

About the Author

Joseph Mawejje is an Economist in the World Bank Group's Prospects Group. Previously, he worked in the World Bank Group's Macroeconomics, Trade, and Investment Global Practice for the Eastern and Southern Africa region. Before that, he worked in different capacities at the Economic Policy Research Centre and the Private Sector Foundation in Kampala, Uganda.

Abbreviations

AE	advanced economy
DeMPA	debt management performance assessments
DGE	dynamic general equilibrium
DRC	Democratic Republic of Congo
DSSI	debt suspension initiative
EM-DAT	emergency events database
EMDE	emerging market and developing economy
FCS	fragile and conflict-affected situations
FDI	foreign direct investment
GDP	gross domestic product
GNI	gross national income
GRFC	global report on food crises
HIPC	heavily indebted poor countries
IDA	International Development Association
IEG	Independent Evaluation Group
IMF	International Monetary Fund
LIC	low-income country
LMIC	lower-middle-income country
MDB	multilateral development bank
MDRI	multilateral debt relief initiative
MIC	middle-income country
NCBP	non-concessional borrowing policy
ODA	official development assistance
PIMI	public investment management index
PPP	purchasing power parity
SDFP	sustainable development finance policy
SDG	sustainable development goals
SSA	Sub-Saharan Africa
SWF	sovereign wealth fund
UCDP	Uppsala Conflict Data Program
UNCTAD	United Nations Conference on Trade and Development
UNU-WIDER	United Nations University-World Institute for Development Economics Research
VAT	value added tax
WDI	World Development Indicators
WEO	*World Economic Outlook*

Executive Summary

Low-income countries (LICs) need significant resources to meet enormous development challenges.

The 26 LICs—the world's poorest countries—account for just a little more than 0.5 percent of global output and income, but they are home to almost 10 percent of the world's population and nearly 40 percent of the world's poor. Two-thirds of LICs (17 out of 26) are classified as fragile and conflict-affected situations (FCS). The COVID-19 pandemic and subsequent overlapping crises have put into reverse LICs' progress toward convergence with both advanced-economy and other EMDE income levels. In the poorest LICs—those with more than half of the population below the extreme poverty line—average per capita income between 2020 and 2024 took a particular hit, falling by up to 14 percent relative to its pre-pandemic trend. To meet critical development goals, LICs will need additional annual investment, relative to current projections, equivalent to 8 percent of GDP through 2030. In other words, these countries will need to double the average annual investment they have made over the past decade.

Fiscal positions in LICs have weakened significantly in recent years.

The average government debt-to-GDP ratio in LICs increased by 9 percentage points in 2023 alone—the largest annual rise in more than two decades—to 72 percent. The debt build-up (relative to GDP) among LICs since 2020 has been widespread, climbing in 80 percent of these economies. Rising debt and global interest rates have resulted in a sharp increase in debt-service payments. In 2023, interest payments for the average LIC exceeded 10 percent of revenue—the highest in two decades. Government gross financing needs in the average LIC rose by 3 percentage points of GDP between 2019 and 2022, to reach about 11.5 percent of GDP. No LIC was assessed to be at low risk of debt distress as of end-April 2024, with many of them already in or at high risk of it. For LICs assessed at moderate risk of debt distress, safety margins have eroded. The increase in LIC government debt, relative to GDP, has been driven mainly by large and widening fiscal deficits. Average fiscal deficits have expanded markedly, from 1.2 percent of GDP in 2019 to 2.4 percent in 2023.

LICs face long-standing challenges in mobilizing domestic revenues.

Tax effort (the extent to which actual tax collections reach total tax potential) is generally lower in LICs than in other emerging market and developing economies (EMDEs). Over 2011-23, LICs are estimated to have collected, on average, less than two-thirds of their potential tax revenue, mobilizing total revenues equivalent to about 18 percent of GDP—11 percentage points lower than other EMDEs. Several structural factors impede the ability of LICs to raise tax revenues. These factors include underdeveloped financial sectors, limited use of information technology, and high levels of informality. Over the past decade, informal sector activity in LICs accounted for an estimated 37 percent of GDP, compared with 24 percent in other EMDEs. At the same time, tax expenditures (such as exemptions, special deductions, and tax credits) absorb a sizable amount of revenues in LICs, averaging more than 2 percent of GDP.

The efficiency of government spending is lower in LICs than in other EMDEs.

In part, lower government spending efficiency in LICs reflects weaker institutions and a greater incidence of corruption. In addition, subsidies, particularly for food and energy, are pervasive and tend to be poorly targeted and costly. The cost of fuel subsidies in LICs in 2022 averaged about 2 percent of GDP—more than the average domestic expenditure on health. Many LICs also are prone to large-scale, often unproductive spending, including on the military, as well as excessive civil-service employment. As a result, growth-enhancing public spending on human capital and other development needs tends to be crowded out. Government spending on education and health (as a share of GDP) is 2 percentage points lower in LICs than in other EMDEs, even as human capital needs in LICs tend to be greater.

LIC fiscal positions are vulnerable to both global and domestic shocks.

Among myriad shocks that can hit LICs, two are particularly pernicious: global recessions and domestic armed conflicts.

- *Global recessions* are associated with deteriorations in LICs' fiscal balances, averaging 1.7 percentage points of GDP in the recession year, with the impact lasting for two years. Government debt increases, on average, by 2 percentage points of GDP in the recession year. For commodity-exporting LICs, reduced demand for commodities during global recessions tends to lower fiscal revenues. Declines in remittances tend to lower tax revenues in recipient countries through their effects on private consumption and investment. Another common feature of global recessions is a reduction in

official development assistance (ODA), which affects many LIC government revenues directly.

- Around *intense conflict events*, relative to conflict-free years, fiscal balances in LICs, on average, deteriorate by an estimated 1–1.5 percentage points of GDP. Domestic armed conflicts have the potential to affect fiscal positions through various channels. First, conflict directly disrupts economic activity. Second, it is associated with physical and human capital destruction, which reduces productive potential (and therefore hits potential revenues). Third, conflict tends to increase military spending, which erodes fiscal positions. Fourth, conflict is associated with weaker revenue administration capacity and a more general deterioration of institutional quality.

In addition, the increasing incidence and magnitude of weather-related natural disasters also poses an additional fiscal challenge for LICs. The cost of natural disasters is higher as a share of GDP in LICs; their adaptation costs to climate change are higher; and their buffers are lower, relative to other EMDEs.

Because LICs constitute the poorest group among EMDEs, they are confronted by much greater development and fiscal challenges.

Given their scarce fiscal resources and large development needs, LICs require substantial international support. They are in a precarious situation: other developing economies have seen at least some recovery from the pandemic-related recession, but the income gap of LICs relative to other developing economies has only widened (figure 1, box 1). Rising debt and interest rates have resulted in an even sharper increase in interest payments in LICs, reducing the resources currently available to invest in growth-enhancing sectors, including health, education, infrastructure, and climate change adaptation.

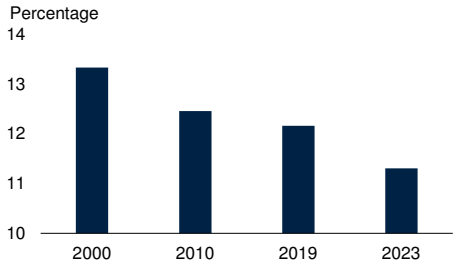
LICs have substantial potential to improve growth and development prospects.

To confront these challenges, LICs have a range of opportunities to accelerate growth and development and thus expand fiscal space, if appropriate reform efforts are pursued and the necessary support from the global community is provided. Several LICs have abundant oil and gas resources, mineral deposits, and significant solar energy and tourism potential. With the right governance, these could generate significant growth and revenues. LICs can also reap large dividends as their working-age populations grow significantly over the next half-century, provided these people can be equipped with the right capabilities and opportunities. If effectively harnessed, these natural resource endowments and demographic dividends could drive economic growth and transformation.

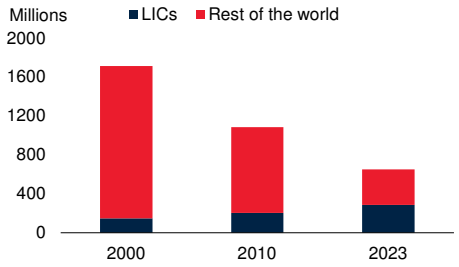
FIGURE 1 Low-income countries: prospects, risks, and policies

Since 2000, the income gap between LICs and other EMDEs has widened—particularly following the 2020 pandemic recession—underscoring LICs' particularly precarious situation. About 40 percent of the world's extreme poor live in LICs. The debt buildup in LICs has been faster and more widespread compared to other EMDEs, with governments' net interest payments increasing significantly between 2019 and 2023. Relative to other EMDEs, a larger share of LICs is in or at high risk of debt distress. Although IDA financing has increased, total grants received by LICs have declined.

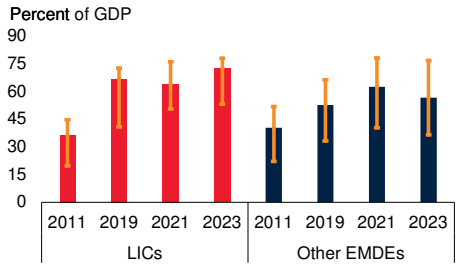
A. Real GDP per capita in LICs relative to other EMDEs



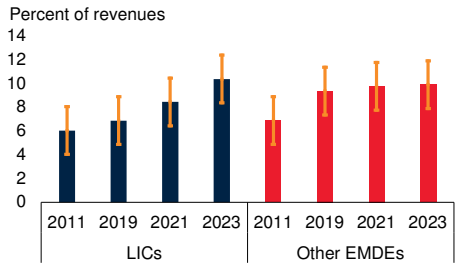
B. Number of extreme poor



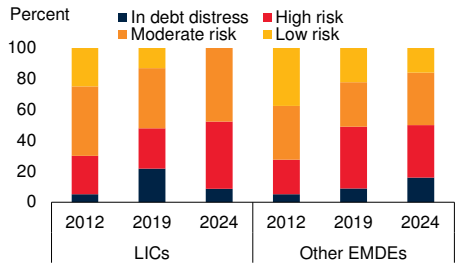
C. Government debt



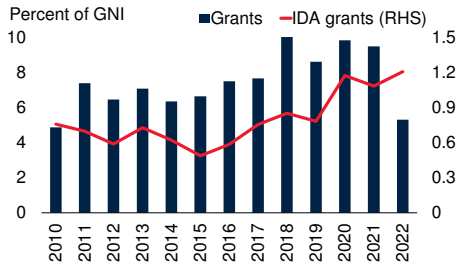
D. Net interest payments



E. Share of LICs in or at high risk of debt distress



F. Grants received by LICs



Sources: International Debt Statistics (database); International Monetary Fund; World Bank.

Note: EMDEs = emerging market and developing economies; IDA = International Development Association; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.

A. Bars show the average real GDP per capita in LICs relative to real GDP per capita of other EMDEs. Based on up to 24 LICs and 127 other EMDEs.

B. Number of poor in the 26 current LICs and the rest of the world.

C. Bars show unweighted averages. Orange whiskers show the interquartile ranges. Based on up to 23 LICs and 128 other EMDEs.

D. Net interest payments are defined as the difference between the primary balance and the overall balance. Unweighted average. Orange whiskers show interquartile ranges.

E. Percent of EMDEs in or at risk of debt distress. Based on 70 EMDEs, of which 24 are LICs.

F. Grants are defined as legally binding commitments allocating specific funds for disbursement without any requirement for repayment. Data are on a disbursement basis. Data exclude debt forgiveness grants. IDA grants are net disbursements of grants from IDA.

Well-designed national policy interventions can improve fiscal positions in LICs.

To strengthen fiscal positions in LICs, national policy makers should aim to strengthen domestic revenue mobilization, improve spending efficiency, enhance debt management practices, and foster stronger economic growth.

- Domestic revenue mobilization can be supported by stronger institutions for tax policy and administration. Improved use of information technology can ease constraints in tax administration and help widen the tax base, including by simplifying taxpayer registration, filing and payment, audit, collection enforcement, and appeals.

- The efficiency of public spending can be improved by increased transparency and accountability, including by reducing waste and improving the returns on public investment. Fiscal transparency and accountability can also improve taxpayer morale and compliance.

- Fiscal sustainability and debt-management practices can be enhanced by credible and well-designed frameworks—including such instruments as fiscal rules, stabilization funds, and medium-term expenditure frameworks. These can also help LICs improve budget management, including the management of revenue windfalls. In addition, they can reduce the procyclicality of fiscal policy, build fiscal space, and strengthen policy outcomes.

- Long-term growth prospects can be enhanced by policies that encourage broad reforms to ease structural constraints on investment growth, reduce informality, address market failures, and strengthen institutions.

The support of the global community is critical to helping LICs to take advantage of their natural resources and demographic dividends, stabilizing their fiscal positions and improving fiscal policy management.

Even though fiscal challenges have become acute in LICs, net ODA—including disbursements of loans made on concessional terms to these economies—has declined to its lowest level as a share of recipients' gross national income (GNI) in two decades. Since 2020, total net ODA to LICs has declined by 5 percentage points of GDP to an average of 7 percent in 2022.

LICs account for one-third of the countries eligible for low-interest loans and grants from the World Bank's International Development Association (IDA)—and, like the broader group, they face severe challenges. IDA is now their single-

largest source of low-cost financing from abroad. It has stepped up its support to LICs, with IDA grants more than doubling (relative to income) since 2015, reaching 1.2 percent of GNI by 2022.

Given their large and growing needs, LICs' domestic efforts must be complemented by additional help from abroad—both in the form of greater international cooperation on trade and investment and in the form of much larger support, via IDA and other entities, which can work with the private sector to mobilize additional resources. These institutions should also provide tailored technical assistance to bolster their institutional frameworks, address reform needs, render them more resilient, and help strengthen LICs' fiscal positions.

I. Introduction

The pandemic and the overlapping global shocks that followed exacerbated LICs' development challenges and delayed progress toward the Sustainable Development Goals (SDGs).[1] In 2024, about 40 percent of people in low-income countries are in extreme poverty, up from 36 percent in 2019. In 2019-20, indicators of human development and access to infrastructure in LICs were substantially worse than they were in 2000 for those LICs that subsequently graduated to the group of middle-income countries (MICs) (figure 2). In the poorest LICs—those with more than half of the population below the extreme poverty line—average per capita income fell between 2020 and 2024 by up to 14 percent compared to its pre-pandemic trend. Food insecurity has also intensified.

The global shocks of the past five years also contributed to a significant worsening of LICs' fiscal positions. Despite the recovery of 2021-23, government debt in the average LIC is estimated to have risen to 72 percent of GDP by the end of that period—a 16-year high. At end-2023, government debt exceeded 50 percent of GDP in 81 percent of LICs, compared with less than one-half of other EMDEs. LICs' average fiscal deficit in 2023 is estimated at 2.4 percent of GDP, about 1.2 percentage points wider than in 2019. Government gross financing needs in the average LIC rose by 3 percentage points of GDP between 2019 and 2022, to reach 11.4 percent of GDP (World Bank 2023a).

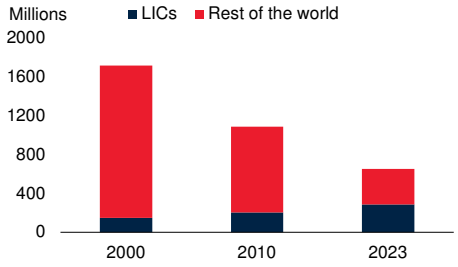
As a result of rising debt and interest rates, government interest payments increased in about one-fifth of LICs between 2019 and 2023, sharply in some cases. Interest payments have absorbed an expanding share of government revenues—exceeding 10 percent on average in 2023, the highest in two decades. The rise in interest payments has increasingly threatened to crowd out critical development spending (UNCTAD 2024; World Bank 2023b). Some LICs have already had to commit more resources to interest payments than to domestically financed health spending. Amid high debt and debt-service costs, debt vulnerabilities are elevated—twelve of the 26 LICs were assessed as being in or at high risk of debt distress at the end of April 2024 (IMF 2024a).

[1] See table 1 for a complete list of low-income countries.

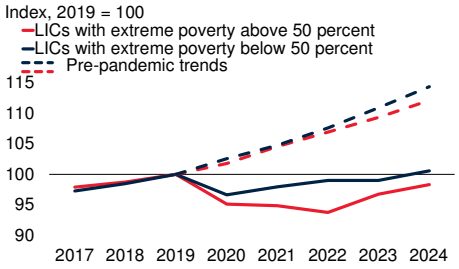
FIGURE 2 Development challenges in LICs

About 40 percent of the world's extreme poor live in LICs. Real GDP per capita in LICs has remained below its pre-pandemic trend. Measures of human capital development and access to infrastructure are lower in today's LICs than in countries that were LICs in 2000 but have since become middle-income countries. Food insecurity has increased, particularly in conflict-affected countries.

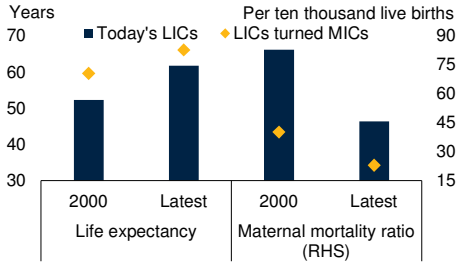
A. Number of extreme poor



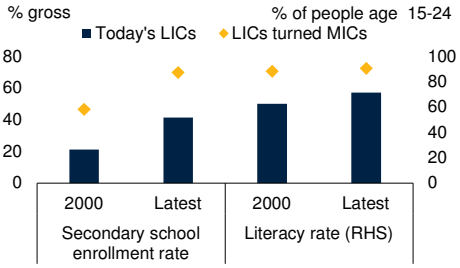
B. Real GDP per capita



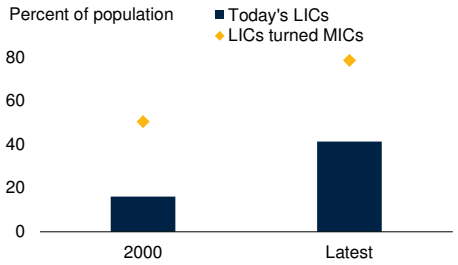
C. Health indicators



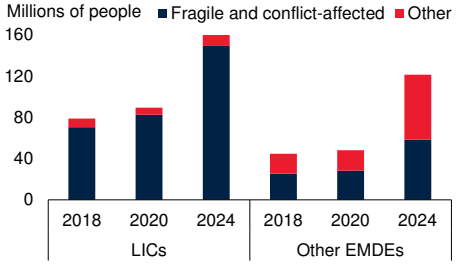
D. Education indicators



E. Electricity access



F. Food insecurity in conflict and conflict-free countries



Sources: GRFC (database); WDI (database); WEO (database).

Note: EMDEs = emerging market and developing economies; LICs = low-income countries; MICs = middle-income countries; Other EMDEs = emerging market and developing economies excluding LICs.

A. Number of poor in the 26 current LICs and the rest of the world.

B. Extreme poverty rate is measured as the share of people living on less than $2.15 per day (2017 PPP). Dashed lines show per capita GDP projections in the October 2019 *World Economic Outlook*. Based on 10 LICs with extreme poverty above 50 percent and 13 LICs with extreme poverty below 50 percent in 2019. The sample excludes Democratic Republic of Congo and Niger—both with over half of the population experiencing extreme poverty.

C.-E. Simple average. "Latest" refers to 2020 or the latest year available. There are 26 "Today's LICs," and 39 "LICs turned MICs" (countries that were classified as LICs in 2000 but are now classified as middle-income countries).

F. Bars show the number of people in food crisis, as classified by the Integrated Food Security Phase Classification Phase 3, that is, in acute food insecurity crisis or worse.

In addition to weaker fiscal positions, several other macroeconomic indicators for LICs have deteriorated in recent years. While inflation began to moderate in 2024, many commodity and consumer prices have remained elevated (World Bank 2024a, 2024b). Current account balances and terms of trade have deteriorated, and external positions more broadly are weaker than in other EMDEs. While the tepid recovery of economic growth is expected to continue, risks to the near-term outlook are tilted to the downside, further threatening fiscal positions. Prospects are particularly feeble for the two-thirds of LICs that are in fragile or conflict situations or susceptible to adverse weather events (World Bank 2024a).

Fiscal resources to address LICs' development challenges were already severely constrained before the pandemic. Government revenues averaged 18 percent of GDP during 2011-19, less than half the advanced-economy average and 11 percentage points below the average of other emerging market and developing economies (EMDEs).[2] Revenues fell short of primary government expenditure, which averaged about 20 percent of GDP, resulting in persistent fiscal deficits and growth of government debt. Thus, government debt in LICs, on average, rose to 67 percent of GDP in 2019 from 36 percent of GDP in 2011.

Against this challenging backdrop, this study examines the following questions.

- How have fiscal positions evolved in LICs?
- What have been the main sources of the recent deterioration in LIC fiscal positions?
- How do adverse shocks affect fiscal positions in these economies?
- Which policies can help improve LICs' fiscal positions?

Contributions

The study contributes to the literature in several ways.

- *Analysis of LIC fiscal vulnerabilities.* The study provides a comprehensive analysis of fiscal vulnerabilities in LICs and the fiscal policy challenges they face in the wake of the pandemic and subsequent global shocks, as well as the challenges faced in the decade before the pandemic.[3] Previous studies have examined the fiscal positions of different groups of EMDEs, including

[2] To ensure broad-based representation of LIC fiscal developments, averages in this study are unweighted unless otherwise specified.

[3] Throughout this study, the period under consideration starts in 2011 to exclude both the global recession of 2009 and the robust economic rebound of 2010. This period corresponds to the fourth global wave of debt, which Kose et al. (2020) identify as starting at the end of 2010.

the larger group of lower-middle-income and low-income countries (Chrimes et al. 2024; IMF 2020a). This study focuses exclusively on LICs because of their particular characteristics: they are heavily reliant on grant financing; lack access to international capital markets; include a large share of recipients of debt relief, including assistance through the Highly Indebted Poor Country (HIPC) initiative and the Multilateral Debt Relief Initiative (MDRI); and are more resource reliant than other EMDEs. Despite external assistance, their debt buildup has been faster and more widespread than that of other EMDEs (figure 3).

- *Drivers of the key fiscal variables.* The study provides the first systematic, detailed assessment of the main drivers of government debt, revenues, and expenditures. While previous studies have examined the evolution of LICs' debt and its composition, there has been more limited analysis of other fiscal outcomes, such as the composition and efficiency of government spending.[4]

- *Implications of adverse shocks for fiscal positions.* It studies the evolution of government debt and the primary balance around three adverse events: global recessions, intense conflict events, and natural disasters. By doing so, the study adds to the literature on the impact of adverse shocks on LICs' fiscal positions.

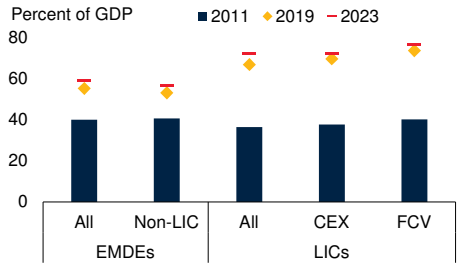
- *Policy priorities.* The study discusses key policy interventions for strengthening fiscal positions in LICs. Domestic revenue mobilization is one important element, for which progress on policy work has already taken place (see Junquera-Valera et al. 2017 for an overview). Measures to improve expenditure efficiency are another well-trodden policy area: many countries have undertaken detailed public expenditure reviews, and several sets of guidelines for best practices are available (see Manghee and van den Berg 2012 for water and sanitation; and World Bank 2017a for education). Policy options to improve debt management have received much attention (Kose et al. 2020). Growth in LICs has been a subject of continuous debate (see, for example, IMF 2024b). This study undertakes a comprehensive analysis of fiscal policy outcomes in LICs and provides a rich menu of the policy priorities that both national and global policy makers can consider. By doing so, the study explores the relationship between fiscal outcomes and the broader supporting environment which has not been analyzed in previous work.

[4] See, for instance, Kose et al. (2020) on the evolution of LIC debt and its composition.

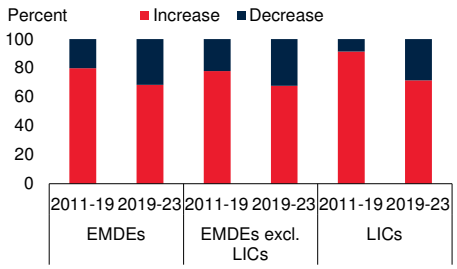
FIGURE 3 Government debt

Government debt rose, relative to GDP, in more than 90 percent of LICs and about 80 percent of other EMDEs between 2011 and 2019, on average by 30 and 15 percentage points of GDP, respectively. Between 2019 and 2023, government debt rose further in 15 out of 21 LICs, on average by 6 percentage points of GDP. The foreign currency and nonresident-held shares of LIC debt have risen since 2011 and the concessional share has fallen, adding to debt vulnerabilities.

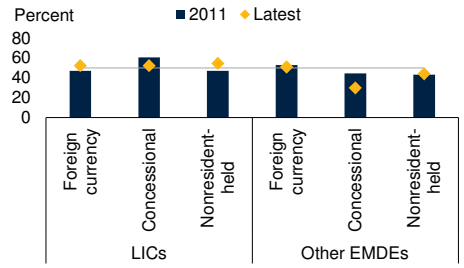
A. Government debt in LICs



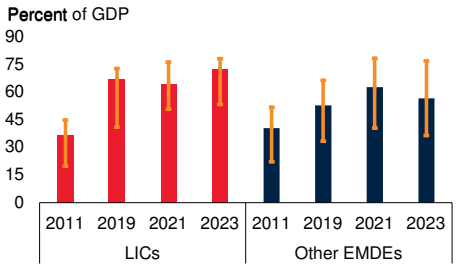
B. Shares of EMDEs with increasing and decreasing debt-to-GDP ratios



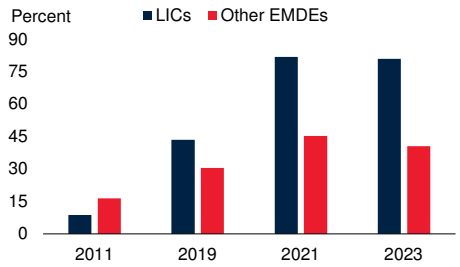
C. Composition of government debt



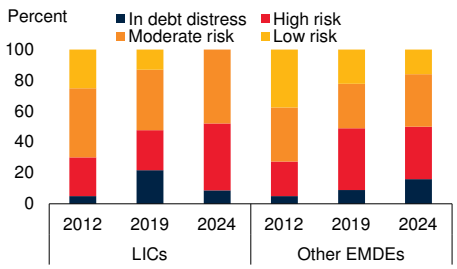
D. Government debt



E. Share of EMDEs with high government debt



F. Share of EMDEs in or at risk of debt distress



Sources: International Monetary Fund; World Bank.
Note: EMDEs = emerging market and developing economies; CEX = commodity exporting countries; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.
A. Government debt in LICs. Unweighted averages.
B. Bars show the share of countries with increases (in red) or decreases (in blue) in government debt as a share of GDP in the time periods shown.
C. Gray line indicates 50 percent. The latest available data are for 2020.
D. Bars show the unweighted averages. Orange whiskers show the interquartile ranges. Based on up to 23 LICs and 128 other EMDEs.
E. Percent of countries with government debt exceeding 50 percent of GDP (for LICs) or 60 percent of GDP (for other EMDEs).
F. Percent of EMDEs in or at risk of debt distress. Based on 70 EMDEs, of which 24 are LICs.

Main findings

The study presents the following findings.

First, government debt has increased sharply since 2019. In 2023 alone, average LIC government debt rose by 9 percentage points of GDP— the largest annual increase in more than two decades—to reach 72 percent of GDP. By contrast, in other EMDEs, public debt fell by 2 percentage points of GDP, on average, in 2023, to 57 percent of GDP. The debt build-up among LICs since 2019 has been widespread: relative to GDP, it rose in 80 percent of LICs. However, the debt build-up started before the pandemic as LICs took advantage of benign global financial conditions to borrow relatively cheaply to expand investments and service delivery. Between 2011 and 2019, the government debt-to-GDP ratio in the average LIC rose by 30 percentage points to 67 percent—a much larger increase than the rise of 12 percentage points of GDP, to 53 percent, in other EMDEs.

Second, **since 2019, significant and widening fiscal deficits—primary deficits and interest payments—in LICs have eclipsed nominal GDP growth**. That has led to a notable raise in debt-to-GDP ratios. The pandemic, which sharply increased spending needs, contributed to a jump in primary deficits from an average of 1.2 percent of GDP in 2019 to 3.4 percent in 2020. Despite the post-pandemic growth rebound, less than one-half of this increase was unwound, so that fiscal deficits were estimated at 2.4 percent of GDP by 2023. In 91 percent of LICs, primary balances deteriorated between 2019 and 2023.

Third, **the sizable primary deficits that have driven the debt buildup in LICs have reflected expenditure pressures amid persistent revenue weakness**. Total revenues in LICs were 11 percentage points of GDP below those in other EMDEs, on average, over 2011-23, mostly reflecting weaker indirect tax revenues. A decrease in foreign grants was only partly offset by rising tax revenues over this period, such that total revenues declined relative to GDP. Meanwhile, in the decade before 2020, the composition of expenditures in LICs shifted away from health and education toward military spending, subsidies, interest payments, and the government wage bill, with the latter rising more as a share of total spending than in other EMDEs.

Fourth, **global recessions and intense domestic armed conflict substantially weaken LICs' fiscal balances and increase public debt**. Thus, an event analysis shows that, on average, global recessions have been associated with a deterioration of the fiscal balance, relative to GDP, of 1.7 percentage points in the recession year. A similar analysis shows that intense domestic armed conflict

events—those involving more than one hundred deaths per one-million population—have been associated on average with a fiscal-balance deterioration of 1 to 1.5 percentage points of GDP. In contrast, natural disasters were not found to be associated with a significant deterioration of fiscal balances or public debt, possibly reflecting their short-lived duration. LICs generally lack the fiscal space to respond to shocks and may have to rely on support from the international community.

Faced with large development needs, deteriorating fiscal positions, and shrinking grant financing, policy priorities for LICs include domestic revenue mobilization, improved spending efficiency, and broad-based policies to generate stronger economic growth. High government debt levels also call for strengthened debt management and, in some cases, may warrant debt relief. These measures need to be embedded in strategies of domestic reform to strengthen institutional frameworks, ease structural constraints, and address informality. These strategies need to be supported by the international community through the provision of policy advice; technical assistance on improving fiscal management, especially in tax policy design and implementation; and concessional financing.

BOX 1 LIC challenges in the context of EMDEs

Among EMDEs, LICs face a particularly challenging environment, with a sharp deterioration of growth and development prospects in recent years. LICs account for about 1.3 percent of total EMDE output and 10 percent of the EMDE population—but they are home to 45 percent of the people in extreme poverty within the EMDE group. The recovery from the pandemic recession has been weaker in LICs compared to other EMDEs. While EMDEs as a group continue to suffer the lingering effects of, and subdued recovery from, the pandemic recession, the fact that, in recent years, the income gap between LICs and other EMDEs has widened underscores LICs' particularly precarious situation. Since 2000, the gap between real per capita GDP in LICs and other EMDEs has increased by 2 percentage points such that by 2023, the average LIC had real per capita GDP of about one-ninth of the level in other EMDEs (figure B.1.1.A).

A particularly stark reversal for LICs. Various development challenges confronting LICs—including high levels of extreme poverty and low human development outcomes—have been compounded by the overlapping crises of the past few years. LICs' progress toward key development goals has stalled. Only about 4 percent of SDG targets are on track in LICs, compared with 10 percent for other EMDEs (Sachs, Lafortune, and Fuller 2024). The gap between real GDP per capita and its pre-pandemic trend is larger in LICs than in other EMDEs (figure B.1.1.B). Amid stunted economic recoveries, one in eight LICs is poorer now than on the eve of the pandemic—a particularly stark reversal. Conflict and climate change-induced natural disasters have intensified in LICs, and they have been associated with a marked increase in food insecurity (World Bank 2024c). Incidences of natural disasters over the past decade have precipitated larger losses (as a percentage of GDP) in LICs than in other EMDEs (figure B1.1.C).

An even greater set of fiscal challenges in LICs. Relative to other EMDEs, fiscal positions are weaker in LICs and have deteriorated more rapidly in recent years. LICs entered the 2020 pandemic recession with inadequate fiscal buffers, which, in the context of limited market access, constrained their ability to undertake countercyclical fiscal policy—and even more so than in other EMDEs (figure B.1.1.D). Since 2019, the debt build-up has been faster and more widespread in LICs than in other EMDEs, and LICs spend a higher share of their revenue on interest

BOX 1 LIC challenges in the context of EMDEs (*continued*)

payments than other EMDEs. Amid high debt and debt-service costs, debt vulnerabilities are elevated, and the share of countries in or at high risk of debt distress is greater in LICs than in other EMDEs (figure B.1.2.A).

Growth opportunities. To confront these challenges, LICs have a range of opportunities to accelerate growth and development and thus expand fiscal space, if appropriate reform efforts are pursued and the necessary support from the global community is provided. If effectively harnessed, natural resource endowments and demographic dividends could drive economic growth and transformation.

- *Natural resources.* Several of today's LICs have abundant oil and gas resources, mineral deposits, and substantial solar energy and tourism potential. Fiscal revenues (as a percentage of GDP) from natural resources are higher in LICs than in other EMDEs (figure B.1.2.B). Natural resource endowments present both opportunities and challenges. Commodity revenues, and the increase in fiscal space, can be transformative if used efficiently for public investment. However, commodity dependence can precipitate macroeconomic management challenges related to Dutch disease and fiscal policy volatility, potentially undercutting sustained growth and poverty reduction.
- *Demographic dividends.* LICs can reap substantial dividends as the share of their working-age population grows significantly over the next half-century (figure B1.2.C). During that period, the share of the working-age population is set to continue to rise in LICs, by even a larger degree than in other EMDEs—and peak later in LICs than elsewhere in the EMDE group. By contrast, the working-age share of the population has been declining in advanced economies for over a decade. The expected growth in LIC working-age populations could have sizable economic impacts (Ahmed and Cruz 2016). As cohorts of children become working age, dependency ratios will decline, and the labor force will swell. By illustration, demographic trends, if combined with effective labor market reforms, could add an estimated 1.2 percentage points a year to potential growth between 2022 and 2030 in SSA—the region that concentrates the vast majority of LICs (Kasyanenko et al. 2023).

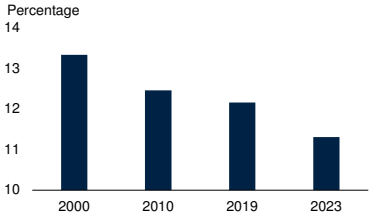
Support from the global community. LICs require substantial international support to make meaningful progress toward development

BOX 1 LIC challenges in the context of EMDEs (*continued*)

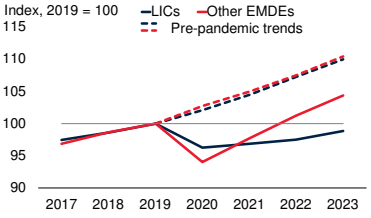
FIGURE B1.1 LIC challenges in the context of EMDEs

The income gap between LICs and other EMDEs has widened over the past two decades. The recovery from the pandemic has been much slower and incomplete in LICs. Climate-change-induced natural disasters precipitate larger economic costs (relative to GDP) in LICs than in other EMDEs.

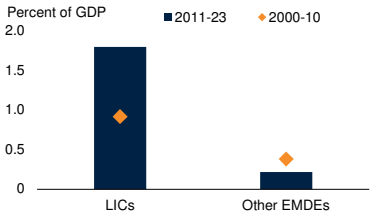
A. Real GDP per capita in LICs relative to other EMDEs



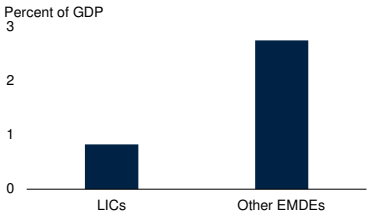
B. GDP per capita relative to 2019



C. Cost of natural disasters



D. COVID-19 fiscal policy support



Sources: EM-DAT (database); International Monetary Fund; World Bank.

Note: EMDEs = emerging market and developing economies; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.

A. Bars show average real GDP per capita in LICs relative to real GDP per capita of other EMDEs. Based on up to 24 LICs and 127 other EMDEs.

B. Dashed lines show per capita GDP projections in the October 2019 *World Economic Outlook* (WEO). Solid lines show per capita GDP estimates in the April 2024 WEO. Based on 23 LICs and 127 other EMDEs.

C. Bars and diamonds show the weighted average of economic damages from natural disasters as a percentage of GDP. Based on up to 17 LICs and 105 other EMDEs.

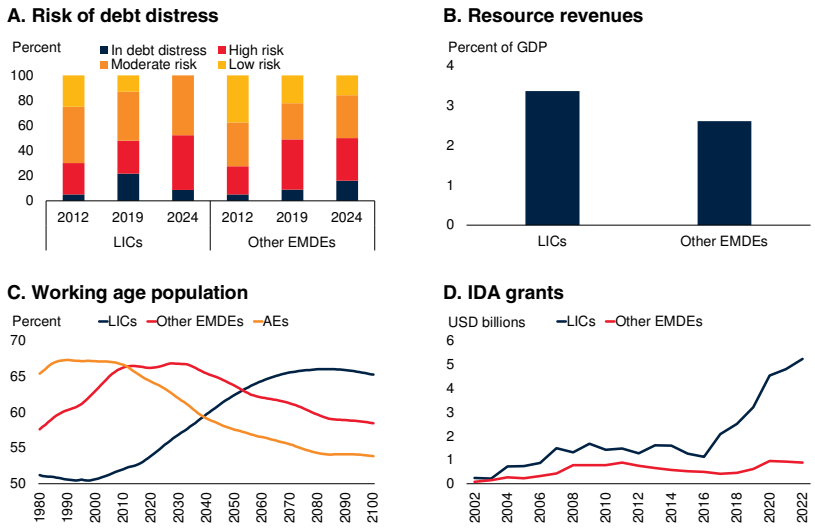
D. Fiscal measures in response to the COVID-19 pandemic as of September 27, 2021. Based on 7 LICs and 69 other EMDEs.

and climate goals. Multilateral creditors provided a record $115 billion in new financing for developing countries in 2022, nearly half of which came from the World Bank (World Bank 2023b). Grants provided by the World Bank's International Development Association (IDA) to LICs have grown significantly over the past decade and have more than doubled (relative to income) since 2015, to 1.2 percent of GNI in 2022. IDA is the largest source of official development assistance (ODA) for LICs and contributed nearly half (47 percent) of new ODA disbursements from multilateral organizations to LICs in 2022 (OECD 2024). IDA net

BOX A1 LIC challenges in the context of EMDEs (*continued*)

FIGURE B1.2 LIC challenges in the context of EMDEs (*continued*)

Fiscal positions are weaker in LICs than in other EMDEs, and a larger share of LICs are in or at high risk of debt distress. LICs can take advantage of their natural and demographic resources to support growth. Support from the International Development Association is critical to address LIC development challenges.



Sources: International Debt Statistics (database); International Monetary Fund; UN World Population Prospects (database); UNU-WIDER Government Revenue Dataset (database); World Bank.

Note: AEs = advanced economies; EMDEs = emerging market and developing economies; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.

A. Percent of EMDEs in or at high risk of debt distress. Based on 70 EMDEs, of which 24 are LICs.

B. Bars show the 2020-2022 GDP weighted average fiscal revenue (as a percentage of GDP) from natural resources. Based on up to 12 LICs and 92 other EMDEs.

C. Population-weighted averages. Working-age population is defined as people aged 15-64. Population projections come from the UN World Population Prospects database. Based on 36 AEs, 25 LICs, and 117 other EMDEs.

D. IDA grants are net disbursements of grants from IDA in billions of U.S. dollars. Based on 24 LICs and 46 other EMDEs.

disbursements to LICs amounted to more than $5 billion in 2022, significantly higher than disbursements to other EMDEs (figure B1.2.D).[a]

With its successful track record of delivery, affordable financing options, and deep knowledge of development, the IDA is a vital partner for LICs. It supports these countries in a wide range of areas, including private

a. Data are from the World Bank's International Debt Statistics database. Accessed: 09/05/2024.

BOX 1 LIC challenges in the context of EMDEs (*continued*)

sector development, human capital development, infrastructure and climate change adaptation, and many others.[b] IDA, working through the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA), incentivizes private sector investment in LICs by partially mitigating risks and potential losses (World Bank 2017b). This risk mitigation makes otherwise unviable investments bankable (Nonay, Motta, and Grigorov 2024). IDA also provides critical support for human capital development in LICs, including in education, health, and nutrition. For example, IDA supported LICs during crises such as the Ebola outbreak, and more recently, the COVID-19 pandemic (IDA 2023; World Bank 2019a).

IDA's support has enabled LICs to invest in critical infrastructure, including in the energy, transport, and urban infrastructure sectors (IDA 2024). At the same time, IDA helps countries cope with the impacts of climate change and other shocks while reducing their carbon emissions through green investments in key sectors, including food and land use, transport, and urban systems. IDA invests in strengthening government capacity to implement strategies aligned with climate goals and supports countries to design and implement climate information systems for crisis preparedness, including early warning systems for extreme weather events (World Bank 2021).

In the five years to 2022 (the latest available data), more than 84 percent of IDA resources were disbursed to LICs, compared to 74 percent in the five years prior. However, given LICs' large and growing needs, greater global support is essential to help the world's poorest countries restore sustainable fiscal positions that are capable of supporting their long-term development aspirations.

b. For detailed information on IDA's work in developing economies, see IDA (2023). For examples of IDA funded projects in LICs, see: https://ida.worldbank.org/en/replenishments/road-to-IDA21.

II. Evolution of Fiscal Positions in LICs

Even before the onset of the pandemic and ensuing global recession of 2020, LICs' average debt-to-GDP ratios had risen sharply during 2011-19, with persistent fiscal deficits outweighing the effects of nominal GDP growth. Before and since the pandemic, the larger fiscal deficits in LICs relative to other EMDEs have mainly reflected weakness in revenues, especially income tax revenues. Spending pressures before and during the pandemic, as well as the effects on spending of subsequent shocks, have further widened LICs' fiscal deficits. Domestic armed conflicts and fragility have added to these fiscal challenges, including by tilting revenue collection from income taxes to trade taxes and by increasing military spending.

Conceptual framework

An accounting decomposition offers a framework for identifying the sources of changes in a country's debt burden, or ratio of government debt to GDP (World Bank 2024a). Setting aside, for simplicity, some complications to be considered below, the change in the debt-to-GDP ratio between one period and the next depends on the primary fiscal balance (the difference between revenues and non-interest expenditures), the interest rate on government debt, the initial level of government debt, and the growth rate of nominal GDP, which is the sum of the growth rate of real GDP and the rate of inflation. The complications include the fact that some government debt is owed to foreign creditors and denominated in foreign currency, so that the average interest rate on government debt depends on foreign as well as domestic interest rates, and changes in the value of debt in terms of the domestic currency will depend partly on exchange rate movements. Other complications include privatization proceeds, the materialization of contingent liabilities, and other ad hoc changes to debt stocks such as the emergence of hidden debt (annex 1).

The decomposition is applied to the whole period 2011-23, to 2011-19 to capture changes in the decade leading up to the pandemic, and to 2019-23 to capture changes during and following the pandemic. The exercise is conducted for up to 151 EMDEs, including 22 LICs for which sufficient data are available (table 1.B). In addition, the exercise is conducted for a counterfactual scenario

using five-year-ahead forecasts for real GDP growth, inflation, revenues, and non-interest expenditures from the IMF's October 2018 *World Economic Outlook*. By comparing the debt-to-GDP ratios in 2023 implied by these projections with actual outturns, the exercise can estimate the reasons for higher-than-projected debt in 2023.

Evolution of debt

Government debt in the average LIC has risen rapidly since 2011, with most of the buildup occurring well before the 2020 recession as LICs took advantage of a low-interest-rate global environment to expand public investment (Chuku et al. 2023). Government debt in LICs, relative to GDP, increased faster than in other EMDEs over the past decade. In the average LIC, the ratio of government debt to GDP increased by 6 percentage points between end-2019 and end-2023, to 72 percent—compared to an increase of 4 percentage points in other EMDEs. In 2023 alone, the average debt-to-GDP ratio in LICs increased by 9 percentage points.

The rise in debt, relative to GDP, reflects persistent and widening fiscal deficits, which outweighed the effect of nominal GDP growth. At the same time, LICs' average government debt-to-export earnings ratio increased by 59 percentage points between 2011 and 2022, to 210 percent, with 80 percent of countries having ratios rising to even higher levels. Over the same period, the number of LICs with an external debt-to-export earnings ratio exceeding 300 percent rose from two to eight countries (World Bank 2023b).[5]

Widespread rise in government debt

Between 2011 and 2023, the ratio of government debt to GDP in the average LIC rose by 36 percentage points—almost twice as much as in other EMDEs—to 72 percent at end-2023, well above the level in other EMDEs (figure 3). Increases were widespread, occurring in 80 percent of LICs. The overall rise was unexpectedly large: in 2018, when the IMF's 5-year-ahead forecasts first became available for 2023, the government debt-to-GDP ratio in the average LIC was projected to rise to only 60 percent of GDP, although increases were projected for almost three-quarters of the LICs in which they ultimately occurred.

More than four-fifths of the government debt buildup between 2011 and 2023 occurred before the pandemic (figure 3). Countries with the fastest rise in debt were often fragile and affected by combinations of conflict, weak governance, and commodity dependence (World Bank 2019b). Only in two LICs

[5] The external debt-to-export earnings ratio exceeded 300 percent in Burundi, The Gambia, Guinea-Bissau, Mozambique, Niger, Rwanda, Sudan, and Uganda.

(Afghanistan, the Democratic Republic of Congo) did government debt decline relative to GDP over this period, largely because of debt relief. Debt decreased in six LICs between 2019 and 2023 (Chad, DRC, Ethiopia, Gambia, Mozambique, Yemen). In the 90 percent of LICs where government debt increased between 2011 and 2019, it rose much more than in other EMDEs with rising government debt.

In 2020, the government debt-to-GDP ratio in the average LIC rose by 0.4 percentage points, and then increased further during 2021-23, by 8 percentage points to 72 percent. By contrast, the ratio declined by 2 percentage points in other EMDEs, on average, to 57 percent. The average debt-to-GDP ratio in LICs is projected to fall to 67 percent in 2025, helped by a pick-up in GDP growth. However, past forecasts have typically proven too optimistic (Ho and Mauro 2016).

Deficit-driven government debt buildup

The rise of 36 percentage points in the average government debt-to-GDP ratio in LICs between 2011 and 2023 reflected persistent and widening primary fiscal deficits, which more than offset the effect of nominal GDP growth (figure 4). In contrast, in the average non-LIC EMDE, primary deficits only partly offset the effects of growth—at least until the pandemic. The government debt buildup in LICs during 2011-23 was larger than projected in 2018 for many reasons: growth disappointed, primary deficits were larger than expected, interest costs were higher than expected, and other factors raised debt more than twice as much as expected.

Government debt rose in 92 percent of LICs between 2011 and 2023—by 36 points on average. Three-fourths of the increase was due to sizable primary deficits, which outweighed the effects of real growth and inflation (figure 5).[6] The drivers of debt varied significantly across countries, but only in the Central African Republic, Sudan, and Yemen did real output contractions contribute to increases in the debt-to-GDP ratio. In all other LICs, real GDP growth helped lower the ratio. Interest costs accounted for almost one-third of the debt buildup in LICs with rising debt—less than in other EMDEs, reflecting the fact that almost one-third of LIC external debt was on concessional terms.

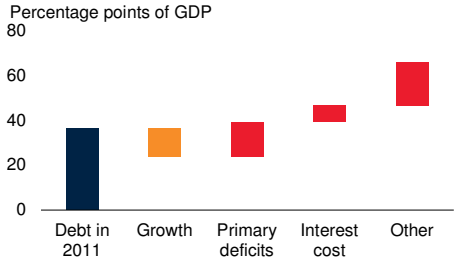
In some countries, other factors played a sizeable role. These include the recognition or realization of contingent liabilities net of privatization proceeds, debt restructuring, and measurement error (figure 5; World Bank 2024a). In

[6] Two LICs saw a decline in debt during 2011-23 (Afghanistan and the Democratic Republic of Congo), largely due to debt relief accompanied by near-balanced primary deficits.

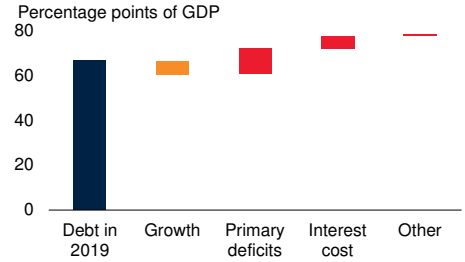
FIGURE 4 Decomposition of changes in government debt

The rise in LICs' government debt-to-GDP ratios between 2011 and 2023 resulted from fiscal deficits that outweighed the effects of nominal GDP growth, even before the pandemic. The debt buildup over 2011-23 was larger than projected in 2018, mainly because of disappointing growth outcomes and higher-than-expected interest costs; primary deficits were broadly as expected.

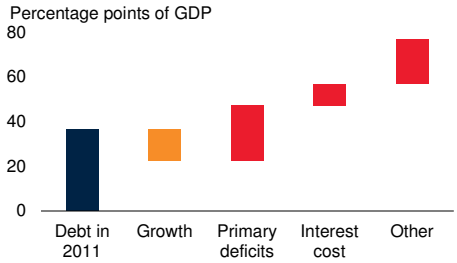
A. Contributions to average increase in LICs' government debt, 2011-19



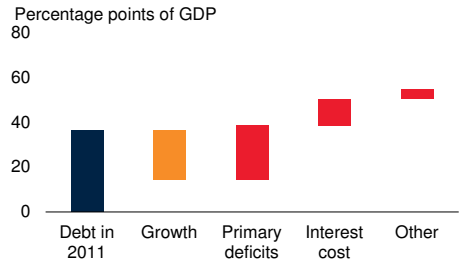
B. Contributions to average increase in LICs' government debt, 2019-23



C. Contribution to average increase in LICs' government debt, 2011-23



D. 2018 projections of contributions to average increase in government debt, 2011-23



Sources: International Monetary Fund; World Bank.
Note: LICs = low-income countries. Debt in 2011 (2019 in B) is in percent of GDP. Red bars indicate debt-increasing contribution and orange bars indicate debt-decreasing contribution. Please note that the group of LICs with rising government debt differs by sample periods (i.e., 2011-19 in A; 2019-23 in B; and 2011-23 in C-D). "Other" factors include exchange rate depreciation, privatization proceeds, the materialization of contingent liabilities, or other ad-hoc changes to debt stocks.
D. The decomposition is based on the forecasts for 2023 from the IMF's October 2018 *World Economic Outlook*.

Mozambique and Sudan, where state-owned enterprises created large contingent (or explicit) government liabilities, other factors accounted for 4 and 18 percentage points, respectively, of the average annual change in the debt-to-GDP ratio (IMF 2018a). In The Gambia, it accounted for more than 1 percentage point of GDP per year, as a result of government bailouts of state-owned enterprises and widespread mismanagement of debt (World Bank 2018a).

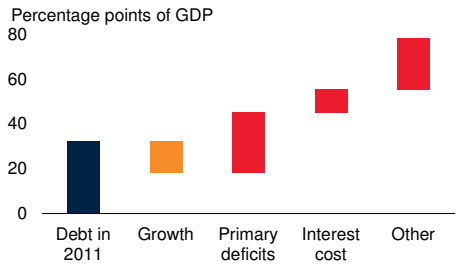
Riskier sources of government financing

In addition to the buildup of debt, the composition of government debt in LICs has shifted toward riskier sources of financing. At end-2022, external government debt in the average LIC was equivalent to 55 percent of GDP—

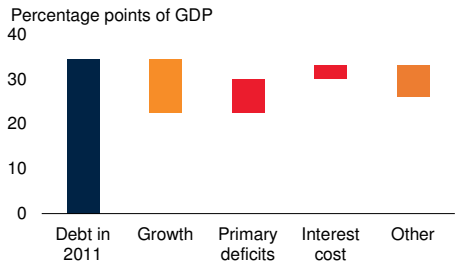
FIGURE 5 Decomposition of changes in government debt (*continued*)

In LICs with rising debt-to-GDP ratios during 2011-23, primary deficits outweighed the benefits of nominal GDP growth, whereas in LICs with falling debt-to-GDP ratios, the reverse was true. However, there was wide variation.

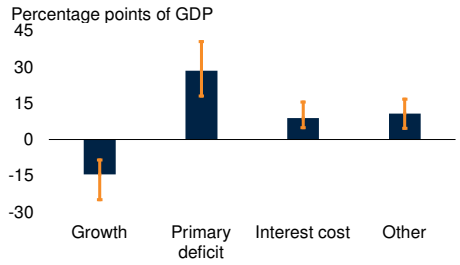
A. Contributions to average increase in government debt in LICs with rising debt, 2011-23



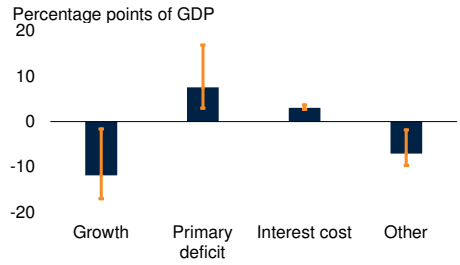
B. Contributions to average decline in government debt in LICs with falling debt, 2011-23



C. Range of contributions to changes in government debt in LICs with rising debt, 2011-23



D. Range of contributions to changes in government debt in LICs with falling debt, 2011-23



Sources: International Monetary Fund; World Bank.

Note: LICs = low-income countries. "Other" factors include exchange rate depreciation, privatization proceeds, the materialization of contingent liabilities, or other ad-hoc changes to debt stocks. The sample covers LICs with rising (A, C) or falling (B, D) government debt-to-GDP ratios between 2011 and 2022.

A.B. Red bars indicate debt-increasing contribution and orange bars indicate debt-reducing contribution.

C.D. Blue bars indicate median contributions to the average changes in government debt-to-GDP ratios during 2011-23, and orange whiskers indicate interquartile ranges.

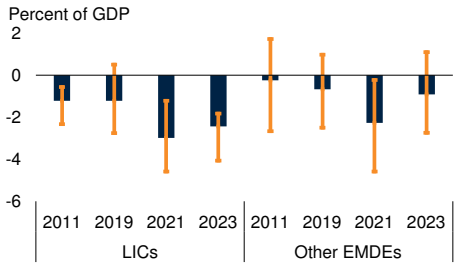
almost three-quarters of total government debt. Almost all of this external debt was denominated in foreign currencies. Also, between 2011 and 2022, the concessional share of government debt in the average LIC declined by 8 percentage points, to 52 percent (figure 3).

In the decade before the pandemic, non-Paris Club official creditors, notably China, became a more important source of financing, especially in SSA (Essl et al. 2019). In 2022, the most recent year for which data are available, non-Paris Club debt accounted for more than one-fifth (23 percent) of the average LIC's external government debt, and about 13 percent of its government debt. Lending arrangements for non-Paris Club official debt, like commercial debt, are often opaque, and they can be complex and varied (Horn, Reinhart, and Trebesch 2019).

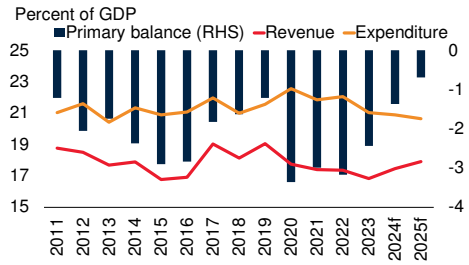
FIGURE 6 Primary fiscal balances

Primary fiscal deficits, relative to GDP, have been consistently wider, on average, in LICs than in other EMDEs. In the average LIC, the deterioration in primary balances in 2020-22, owing mainly to the pandemic, resulted from both increased primary expenditures and reduced revenues.

A. Primary fiscal balance



B. LIC government revenues and primary expenditures, 2010-24



Sources: International Monetary Fund; World Bank.
Note: LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.
A. Bars show unweighted averages, with whiskers showing interquartile ranges. Data for 2023 are estimated.
B. Projections (marked f) are shown for 2024-25.

Non-Paris Club official creditors did agree to temporary debt-service relief in the past few years, notably under the debt service suspension initiative (DSSI) and the G20 Common Framework. Nevertheless, the increased exposure of LICs to non-Paris Club official creditors and commercial creditors poses coordination challenges for debt resolutions (World Bank and IMF 2018). Higher levels of public debt and increased reliance on riskier sources of financing make many LICs more vulnerable to currency, interest rate, and refinancing risks (Essl et al. 2019).

Evolution of primary deficits

Persistent primary deficits

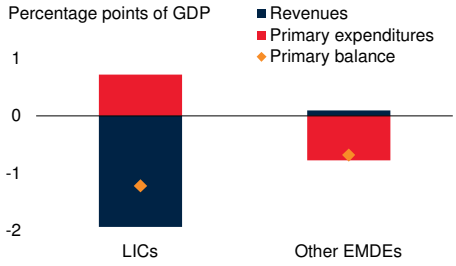
Persistent and sizable primary deficits have been the main source of government debt accumulation in LICs since 2011. On average during 2011-23, LICs' primary deficits amounted to 2.3 percent of GDP, about 1 percentage point above the average for other EMDEs. About 60 percent of LICs ran primary deficits every year during that period. The pandemic, which sharply increased spending needs, led to a jump in LICs' primary deficits in 2020, to 3.4 percent of GDP on average, from 1.2 percent in 2019. Despite the post-pandemic growth rebound, only about one-fourth of this increase was unwound during 2021-23 (figure 6).

Between 2011 and 2023, the average primary deficit widened by 1.2 percentage points of GDP, to 2.4 percent of GDP—higher than projected in 2018. Primary

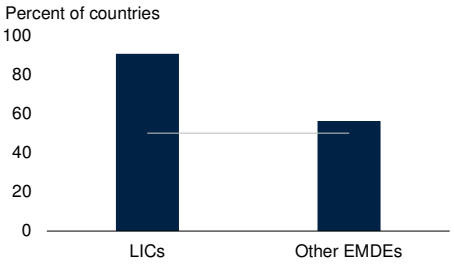
FIGURE 7 Decomposition of changes in primary fiscal balances

Increases in government spending outpaced revenue growth in LICs between 2011 and 2023, resulting in widening primary deficits—though with significant variation across countries. Primary balances deteriorated in a larger share of LICs than other EMDEs. In LICs with improvements in fiscal balances, revenues increased by more and expenditures rose by less than in LICs with deteriorating balances.

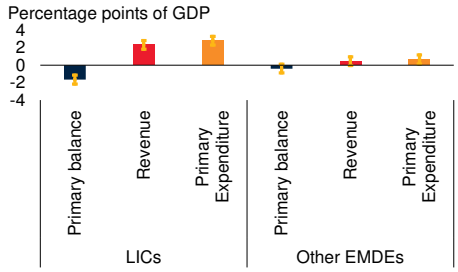
A. Contributions to changes in primary balance, 2011-23



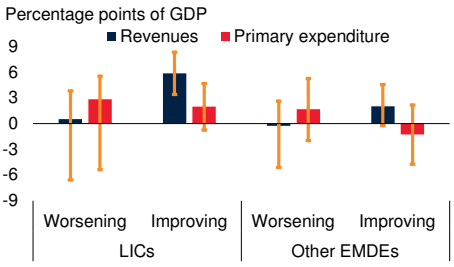
B. Share of economies with deterioration in primary balances between 2011 and 2023



C. Range of changes in primary balances, revenues, and expenditures, 2011-23



D. Range of contributions to changes in LICs' primary balances, 2011-23



Sources: International Monetary Fund; World Bank.
Note: EMDEs = emerging market and developing economies; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.
A. Bars show unweighted average changes between 2011 and 2023 in the primary fiscal balance-to-GDP ratio, the revenue-to-GDP ratio, and the negative of primary expenditure-to-GDP ratio.
B. Gray line denotes 50 percent.
C. Bars indicate median contributions to change in primary balance (in blue), revenues (in red), and primary expenditures (in orange; all in percent of GDP) during 2011-22, with whiskers indicating the interquartile range.
D. "Worsening" ("Improving") primary balance refers to the 19 (6) LICs and 69 (59) other EMDEs where the primary balance in 2023 was below (above) the primary balance in 2011. Bars indicate median contributions to change in revenues (in blue), and primary expenditures (in red; all in percent of GDP) during 2011-23, with whiskers indicating the interquartile range.

balances deteriorated in more than 90 percent of LICs between 2011 and 2023, considerably more than the 56 percent of non-LIC EMDEs (figure 7).

Sources of widening primary deficits

LICs have had considerably lower revenue and expenditure-to-GDP ratios than other EMDEs for a prolonged period (Akitoby et al. 2018). Although revenue losses during 2011-19 were followed by a post-pandemic improvement, between

2011 and 2023 revenues declined by 1.9 percentage points of GDP. Primary expenditures also declined in this period, but by only half as much, such that the average primary deficit widened.

There was wide heterogeneity among countries in the evolution of spending and revenues between 2011 and 2023. None of the LICs with improving primary balances suffered the magnitude of revenue losses of the one-fourth of LICs with deteriorating primary balances. In LICs with improving primary balances, spending increases were much smaller than in the majority of LICs with worsening primary balances.

Evolution of revenues

Revenue weakness

LICs' weak revenue collection mainly reflects challenges in collecting tax revenues. This may partly reflect tax expenditures (Mullins, Gupta, and Liu 2020). In the average LIC, tax expenditures—such as tax credits and exemptions—reduced revenues by 2.3 percent of GDP in 2022 or the latest year with available data (figure 8). Although average ratios of tax revenues to GDP in LICs were broadly stable over the past decade, there was some variation, with somewhat greater volatility in LICs that are in fragile and conflict-affected situations (FCS).

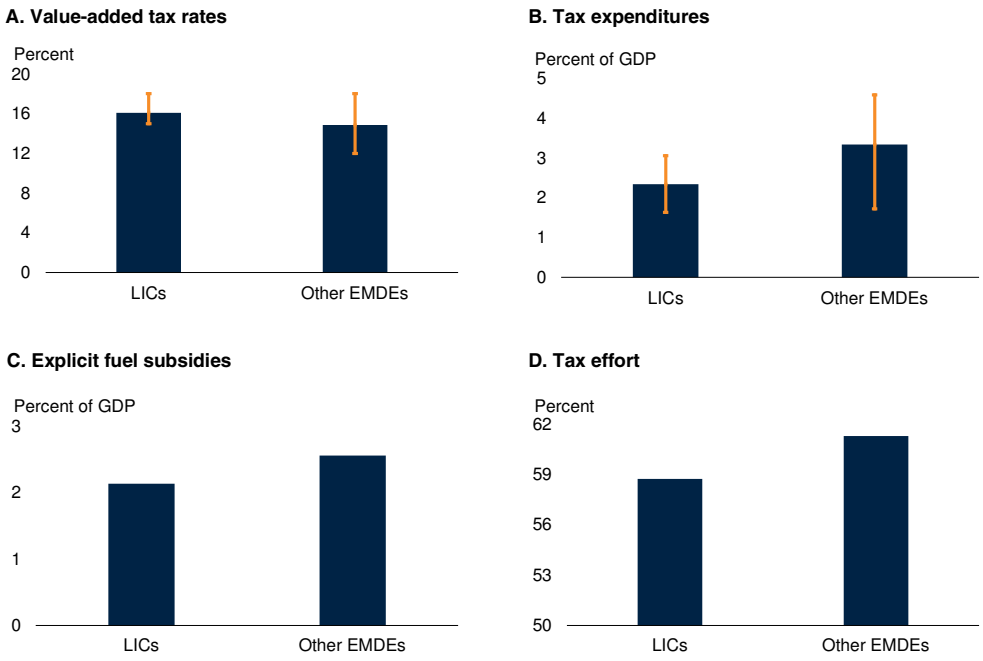
Revenue composition

In the average LIC, government revenues were equivalent to 18 percent of GDP during 2011-23—11 percentage points lower than in non-LIC EMDEs (figure 9). Tax revenues accounted for 6 percentage points of this gap. Both direct and indirect tax revenues were weaker in LICs than in other EMDEs, by up to 3 percentage points of GDP, the largest differences being in goods and services taxes (3 percentage points of GDP), personal income taxes (2 percentage points), and corporate income taxes (1 percentage point). Trade tax revenues, relative to GDP, were broadly similar in LICs and other EMDEs. On average, value-added tax (VAT) rates were higher in LICs than in other EMDEs in 2022, but VAT revenues were 2 percentage points of GDP (and significantly) lower in LICs (figure 8).

Aid has always played an important role in LICs. During 2011-15, grants amounted to an average of 7 percent of GDP in LICs—nearly three times the average of 2.4 percent of GDP in other EMDEs. They also constituted more than one-third of total government revenue. Since then, however, grants to LICs declined steeply—to 2.5 percent of GDP and less than one-fifth of revenue by 2022 (figure 9). The decline may reflect rising financing costs and other funding

FIGURE 8 VAT rates, tax expenditures, fuel subsidies, and tax effort

On average, VAT rates are higher in LICs than in other EMDEs. Tax expenditures absorb sizeable amounts of revenue in LICs and other EMDEs, averaging more than 2 and 3 percent of GDP, respectively. Fuel subsidies cost an estimated 2 percent of GDP in LICs in 2022. Tax effort is lower in LICs than in other EMDEs: on average, LICs have been able to collect less than two-thirds of their potential tax revenue over the past decade.



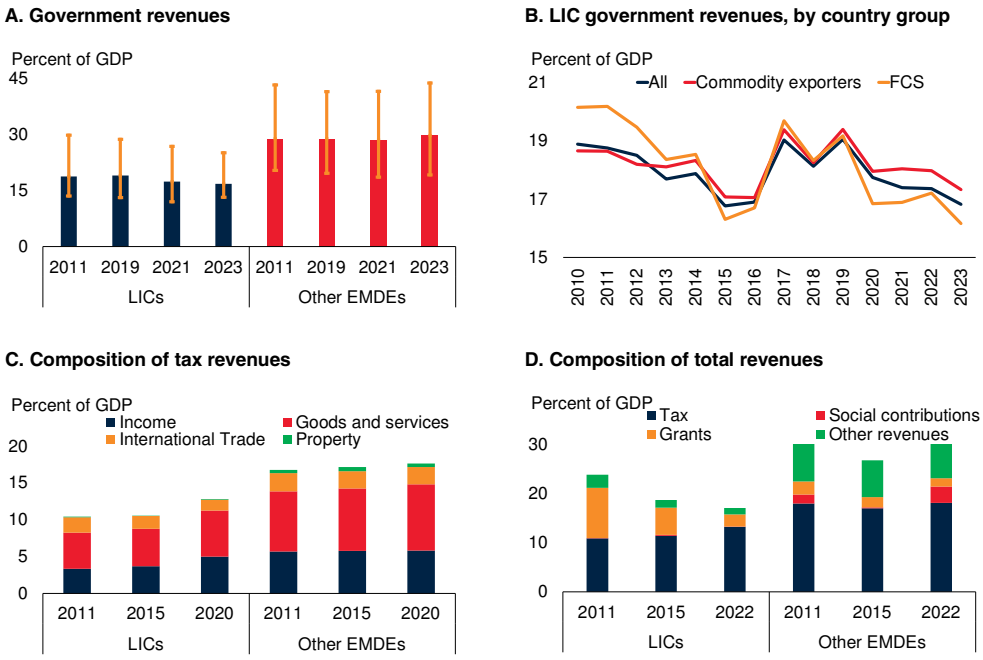
Sources: International Monetary Fund; Global Tax Expenditures (database); McNabb, Danquah, and Tagem (2021); World Bank.
Note: EMDEs = emerging market and developing economies; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.
A. Bars show simple average. Whiskers show interquartile range. Based on 133 EMDEs, of which 21 are LICs.
B. Bars show simple average. Whiskers show interquartile range. Based on 71 EMDEs, of which 12 are LICs.
C. Weighted averages. Fuel subsidy data are from Black et al. (2023). Based on a sample of 133 EMDEs, of which 21 are LICs.
D. Tax effort measures the extent to which tax collections reach potential, expressed as a percentage. Tax potential estimates are the latest available data points for each country, based on the pooled estimates reported in McNabb, Danquah, and Tagem (2021). Based on 126 EMDEs, of which 19 are LICs.

constraints in donor countries, but also limited absorptive capacity in LICs that may have constrained the effectiveness of aid (Feeny and McGillivray 2009). At the same time, aid coordination has been hindered by increased donor fragmentation (World Bank 2022a). There is a well-established association between higher grant funding and lower tax revenues, although it has been found that stronger institutions and a more equal income distribution may mitigate the association (Thornton 2014).

Since 2011, the composition of tax revenues in LICs has been broadly stable, at least for the nine LICs for which a revenue breakdown is available. In these LICs,

FIGURE 9 Government revenues

Government revenues in LICs have consistently lagged behind other EMDEs, primarily due to gaps in tax revenues, particularly from goods and services taxes, as well as income taxes. Commodity-exporting LICs have somewhat higher goods and services tax collections. Over the past decade, the composition of tax revenues has shifted somewhat toward goods and services. Grants have declined steeply among LICs.



Sources: International Monetary Fund; World Bank.

Note: EMDEs = emerging market and developing economies; FCS = fragile and conflict-affected situations; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.

A. Bars show unweighted averages, with whiskers showing interquartile ranges.

B. Lines show the unweighted averages.

C. Unweighted average.

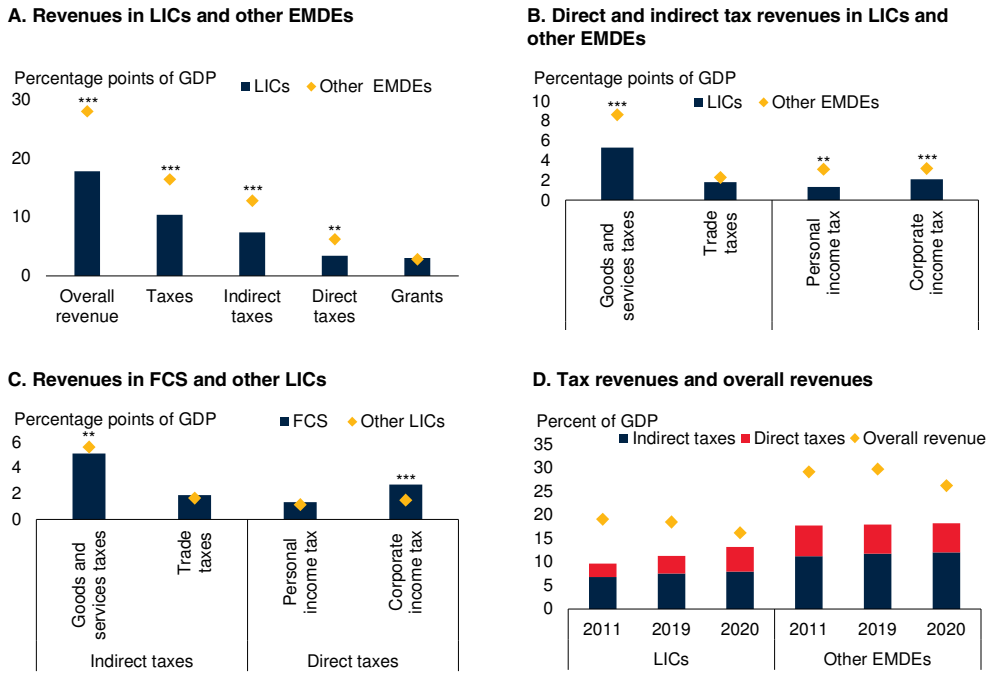
D. Unweighted averages. Based on up to 134 EMDEs, of which 20 are LICs.

both indirect and direct tax revenues rose by almost 2 percentage points of GDP between 2011 and 2019, before declining by 2 percentage points between 2019 and 2020 (figure 10). The increase in indirect tax revenues between 2011 and 2019, to just over 8 percent of GDP, was largely on account of an increase in goods and service taxes. Within the increase in direct tax revenues, personal income tax revenues increased by 0.7 percentage points of GDP—only about one-third as much as indirect tax revenues.

More than four-fifths of LICs are commodity exporters. Stronger dependence on commodities can make fiscal capacity in LICs highly cyclical and weaken fiscal

FIGURE 10 Decomposition of government revenues, 2011-22

During 2011-22, overall revenues in LICs were below those in other EMDEs, mainly because of differences in tax revenue collection, especially of goods and services taxes but also income taxes. The composition of tax revenues in LICs has shifted somewhat toward indirect taxes.



Sources: International Monetary Fund; World Bank.

Note: EMDEs = emerging market and developing economies; FCS = fragile and conflict-affected situations; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs. *** shows the significance level at 10 percent.

A.B. Unweighted average revenues (in percent of GDP) during 2011-22 in LICs and other EMDEs.

C. Unweighted average revenues (in percent of GDP) during 2011-22 in FCS and other LICs.

D. Unweighted averages for 9 LICs and 85 other EMDEs.

capacity in the longer term (Benitez et al. 2023; Mawejje 2019), worsen governance (Sinnott, Nash, and de la Torre 2010), or both (Cassidy 2019). Among commodity-exporting LICs, three-fifths are predominantly agricultural commodity exporters. The remainder rely on energy or industrial metal exports.

Revenue mobilization can be seriously hindered by fragility and conflict (Fang et al. 2020). The two-thirds of LICs that are in fragile and conflict-affected situations (FCS) have struggled more than other LICs to collect tax revenues. In many other LICs, including ones with poor provision of public services, and large informal sectors, measures to expand the tax base and reduce tax evasion have shown the potential to generate sizable revenue gains (Mascagni, Mengistu, and Woldeyes 2021; Okunogbe and Tourek 2024).

Evolution of expenditures

Spending constrained by revenues

Revenue weakness constrains government spending in LICs (World Bank 2019c). During 2011-23, primary expenditures in the average LIC were about 9 percentage points of GDP lower than in the average non-LIC EMDE—broadly in line with the revenue gap between the two groups of countries (figure 10). In more than two-thirds of LICs, primary spending relative to GDP increased between 2011 and 2023.

Spending composition

In the average LIC, between 2011 and 2023, primary expenditures declined by 1 percentage point of GDP, while interest payments, as a ratio to total revenues, increased by more than 4 percentage points to reach 10 percent (figure 11). But there was wide heterogeneity, with interest payments exceeding 20 percent of government revenues in some LICs (Malawi, Sierra Leone, Uganda).

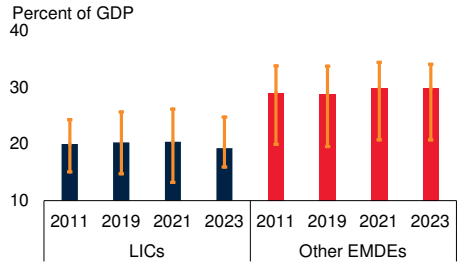
Primary expenditures decreased during 2019-23, despite increased outlays on health and social protection. Between 2011 and 2019, primary spending had risen only marginally (less than 0.5 percentage points of GDP), the largest increases being in the government wage bill and defense spending, with modest increases in health and education spending in LICs. In South Sudan—a fragile and conflict-affected LIC—the fastest and most significant expansion in public employment occurred in the armed forces (Mawejje 2020).

Between 2019 and 2021, LICs' government wage bills and interest payments together averaged 39 percent of government spending and were 11 percentage points of GDP higher than in other EMDEs (figure 11). In contrast, combined government spending on education and health is about 2 percentage points of GDP lower in LICs than in other EMDEs. With high contractual, non-discretionary expenditures, the ability of LICs to reallocate spending toward growth-enhancing investments and social programs tends to be limited, at least in the short run, the main flexibility in spending being provided by revenue windfalls. As a result, infrastructure spending, for example, in LICs has been highly procyclical (Foster, Rana, and Gorgulu 2022). At the same time, the high prevalence of conflict and natural disasters among LICs and the fact that 80 percent of LICs are heavily commodity-reliant result in macroeconomic volatility since countries with greater variability in their tax bases tend to exhibit more procyclical fiscal policy (figure 12; Talvi and Vegh 2005). In addition, the prevalence of conflict and violence increases pressures for defense spending at the

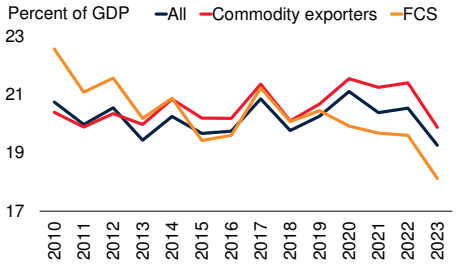
FIGURE 11 Government expenditures

Primary spending, relative to GDP, has been consistently lower in LICs than in other EMDEs. In LICs, on average, governments' net interest payments increased substantially between 2019 and 2023. With the outbreak of the pandemic, primary spending in LICs rose steeply in 2020.

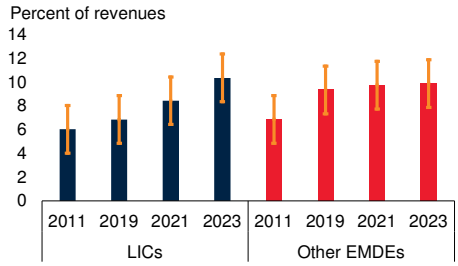
A. Primary expenditures



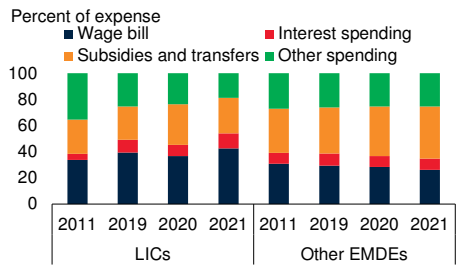
B. Primary expenditures in LICs, by country groups



C. Net interest payments



D. Composition of government spending



Sources: International Monetary Fund; World Bank.

Note: EMDEs = emerging market and developing economies; FCS = fragile and conflict-affected situations; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.

A. Bars show unweighted averages, and whiskers show interquartile ranges.

B. Lines show unweighted averages.

C. Net interest payments are defined as the difference between the primary balance and the overall balance. Unweighted average. The orange whiskers show interquartile ranges. Countries with negative net interest payments and those with incomplete data are not included in the sample.

D. Expense excludes net investment in government nonfinancial assets.

expense of more productive spending, including on education, health, and infrastructure.

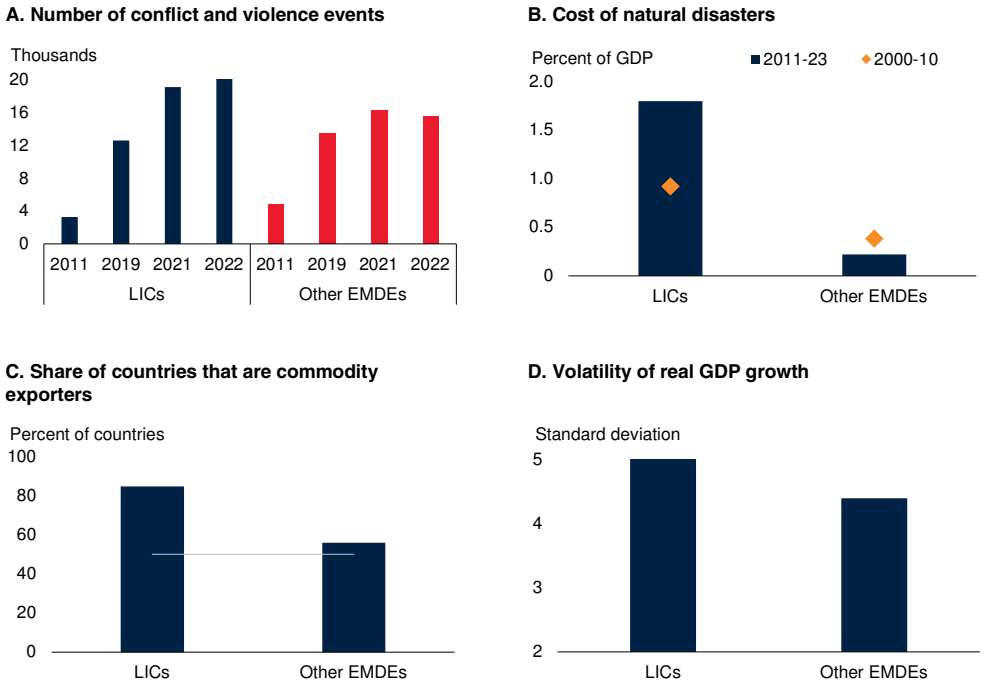
Spending efficiency

The efficiency of government spending was found to be statistically significantly weaker in LICs than in other EMDEs in almost all major spending categories (figure 13).[7] explanation is that processes for project appraisal and evaluation were less rigorous, due to lack of capacity or corruption. The inefficiency of

[7] The technical details on measuring spending efficiency are provided in annex 2.

FIGURE 12 Country characteristics and macroeconomic volatility

The incidence of conflict and violence events has recently been higher in LICs than in other EMDEs. Relative to other EMDEs, the average cost of natural disasters in LICs is higher and has increased more rapidly in recent years. LICs are more commonly dependent on commodity exports than other EMDEs. These factors contribute to higher volatility of GDP growth in LICs than in other EMDEs.



Sources: Armed Conflict Location and Event Data (database); EM-DAT (database); International Monetary Fund; World Bank.
Note: EMDEs = emerging market and developing economies; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.
A. Bars show the number of reported conflict and violence events between 2011 and 2022, both for LICs and non-LIC EMDEs.
B. Bars and diamonds show the weighted average of economic damages from natural disasters as a percentage of GDP. Based on up to 17 LICs and 105 non-LIC EMDEs.
C. Share of commodity exporters among LICs and EMDEs.
D. Bars show the standard deviation of real GDP growth. Based on a sample of 146 EMDEs, of which 22 are LICs. The sample period is 2011-23.

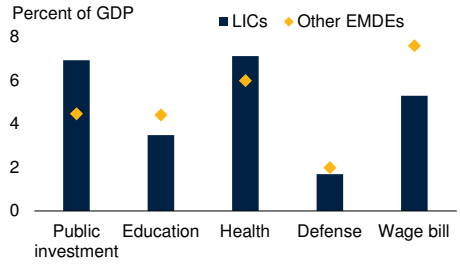
spending on health and education, combined with limited reallocation of spending to these categories over the past decade, may intensify the challenges facing LICs in these areas.

In part, weak spending efficiency in LICs reflects broader underdevelopment, weak institutions, and associated capacity constraints. As an example, in 2014, the Guinean government planned to build a $20 billion infrastructure project, consisting of heavy-duty railways and a new port, to help export some of the world's highest-grade iron ore from Simandou. But the project stalled in 2017 amid corruption allegations and ownership changes (World Bank 2018b).

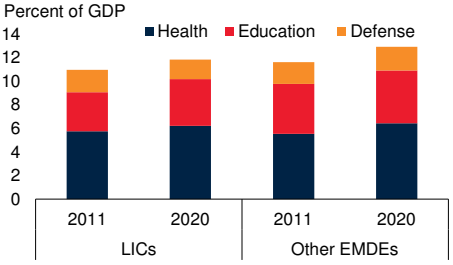
FIGURE 13 Decomposition and efficiency of government expenditures

Government spending on education and the wage bill, as a share of GDP, has been significantly lower in LICs compared to EMDEs, but spending on health care has been higher. Spending efficiency is weaker in LICs, including in infrastructure and health.

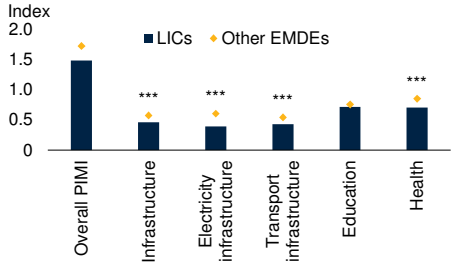
A. Government expenditure: major categories, 2011-22



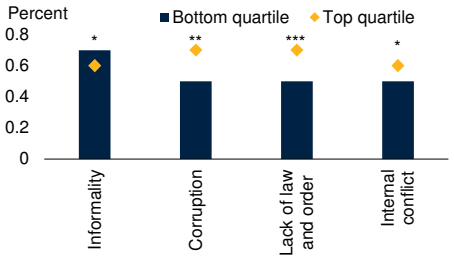
B. Government expenditure: major spending categories, 2011 and 2020



C. Spending efficiency, 2008-18



D. Difference in efficiency of infrastructure spending between top and bottom quartiles of EMDEs, 2006-16



Sources: Dabla-Norris et al. (2012); International Monetary Fund; World Bank; World Economic Forum.

Note: EMDEs = emerging market and developing economies; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs. *** shows the significance level at 1 percent, ** at 5 percent, and * at 10 percent. Unweighted averages for LICs and other EMDEs for each spending category in percent of GDP.

A. Data for up to 26 LICs.

B. Data for up to 20 LICs.

C. Data for up to 120 EMDEs, including up to 21 LICs. PIMI refers to the IMF's Public Investment Management Index.

D. Data for up to 95 EMDEs.

III. Fiscal Vulnerability to Shocks

LICs' fiscal positions are vulnerable to various types of shocks. Their high dependence on official development assistance and commodity exports, and their narrow export bases, make LICs' fiscal positions vulnerable to global economic shocks, particularly recessions and large commodity price movements (IMF 2024b). Political instability and armed conflict are relatively common in LICs, and they can substantially disrupt economic activity and lead to increased defense spending, exacerbating existing challenges. Many LICs are also highly vulnerable to extreme weather events, due to their geographic locations, dependence on agriculture, capacity constraints, and limited buffers. Climate change exacerbates this vulnerability, by causing more frequent and intense natural disasters impacting larger populations and resulting in significant economic losses (Donatti et al. 2024). This study estimates the effects of these types of shock on LICs' fiscal balances and debt positions using event studies (see annex 3 for methodological details).

Global recessions. LICs' fiscal positions can weaken substantially during global recessions, with primary balances and debt-to-GDP ratios deteriorating for up to five years from the start of a recession (Kose et al. 2021). Reduced demand for commodity exports can lower both prices and export volumes, leading to lower fiscal revenues for commodity-exporting countries. Receipts of remittances also tend to weaken, depressing consumer spending and consumption-based tax revenues. Increased needs for social spending to support vulnerable groups and lower development assistance can further strain fiscal positions. Limited access to international financial markets can reduce the ability of LICs to conduct countercyclical fiscal policies. Coupled with more prolonged weakness in economic activity, fiscal deficits may take longer to unwind in the aftermath of global recessions, resulting in more accumulation of debt than in other EMDEs (World Bank 2023b).

Domestic armed conflicts. Armed conflicts disrupt economic activity, cause the destruction of physical and human capital, reduce investment, and weaken institutions, resulting in contractions in actual and potential output in the affected countries (Fang et al. 2020). Estimates indicate that in Sub-Saharan Africa (SSA), for example, conflicts are associated with lower real GDP per

capita, by 15–20 percent over five years (IMF 2019). Without conflict, GDP per capita in South Sudan might be as much as three times higher (Mawejje and McSharry 2021). Armed conflicts are associated with increases in defense expenditure and reductions in revenue capacity, which can significantly weaken fiscal positions (Ezeoha et al. 2023). Recent estimates show that three years after the onset of the average armed conflict in developing economies, public debt, relative to GDP, was up to 13 percentage points higher because of the conflict and continued to rise over time (Fan et al. 2024).

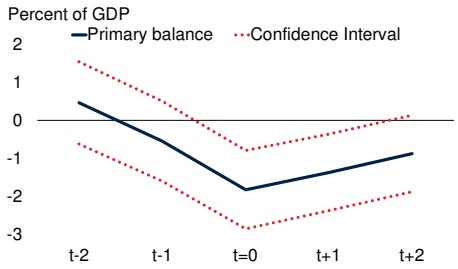
Natural disasters. Natural disasters can adversely affect fiscal balances and debt-to-GDP ratios by reducing output and government revenues and increasing government spending to meet relief and reconstruction needs (Kose et al. 2022; Lis and Nickel 2010). For example, recent estimates show that, on average, droughts are associated with a 4.5 percentage points reduction in fiscal revenues in EMDEs (Fuje et al. 2023). It has also been estimated that in SSA, primary balances, relative to GDP, tend to be lower by about 0.2 percentage points, on average, in the aftermath of disruptive natural disasters (IMF 2020b).

New evidence on the effects of global recessions, armed conflicts, and natural disasters on LICs' fiscal positions. An event analysis of global recessions, conflict events, and natural disasters since 2000 indicates that fiscal positions in LICs have tended to weaken significantly during global recessions and conflicts, with deteriorating primary balances and increasing debt relative to GDP (figure 14). On average, global recessions have been associated with a 1.7 percentage point deterioration in the fiscal balance relative to GDP in the recession year, which diminished only slowly in the subsequent two years. In the case of armed conflict events, fiscal balances are estimated to have deteriorated by up to 1.5 percentage points of GDP in the year of the event, relative to non-conflict years, with a sharp subsequent recovery. No significant effect on the debt-to-GDP ratio was found for either global recessions or conflict events. Natural disasters in LICs were found not to have significantly affected primary fiscal balances, but public debt-to-GDP ratios have tended to rise after the onset of a disaster and remain elevated afterward.

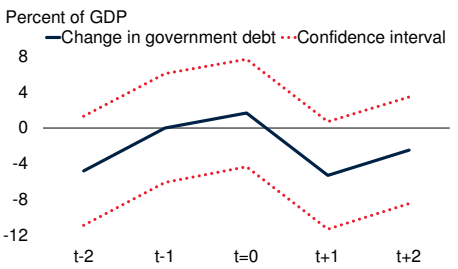
FIGURE 14 Fiscal outcomes around major adverse events

Estimates for this study indicate that during 2000-23, fiscal balances and government debt in LICs weakened significantly following global recessions and domestic conflict events. On average, global recessions were associated with deteriorations in fiscal balances averaging 1.7 percentage points of GDP in the recession year, while intense conflict events were associated with deteriorations in fiscal balances averaging 1.5 percentage points of GDP in the following year.

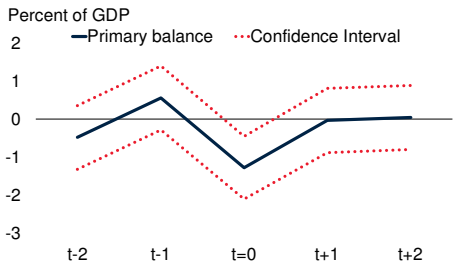
A. Primary balances around global recessions



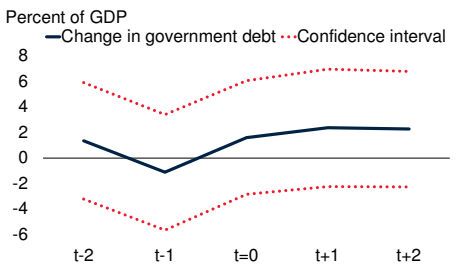
B. Debt around global recessions



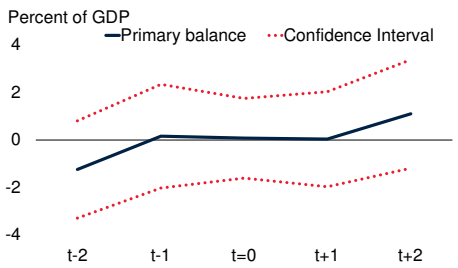
C. Primary balances around conflict events



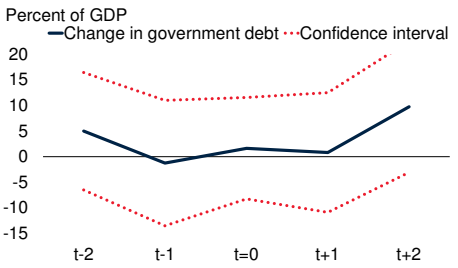
D. Debt around conflict events



E. Primary balances around natural disasters



F. Debt around natural disasters



Sources: EM-DAT (database); UCDP Battle-Related Deaths Dataset (database); WEO (database); World Bank.

Note: LICs = Low-income countries; WEO = *World Economic Outlook*. Solid blue lines are the coefficients of estimations in which each fiscal indicator is regressed on a series of dummy variables for each adverse event in year t, based on data for LICs. Dotted red lines are 90 percent confidence intervals. The events include global recessions, intense conflict events, and natural disasters. The database for the estimations was for the period 2000-23.

A.B. Changes in fiscal balances and debt-to-GDP around global recessions. Based on 25 LICs in panel A and 24 LICs in panel B. Years of global recessions (2009 and 2020) are identified in Kose, Sugawara, and Terrones (2020).

C.D. Changes in fiscal balances and debt-to-GDP around conflict events. Based on 25 LICs in panel C and 24 LICs in panel D. The identification of conflict episodes is based on battle-related deaths in the UCDP Battle-Related Deaths Dataset, Version 24.1 (Shawn et al. 2024).

E.F. Changes in fiscal balances and debt-to-GDP around natural disasters. Based on 25 LICs in panel E and 24 LICs in panel F.

IV. Fiscal Policy Options in LICs

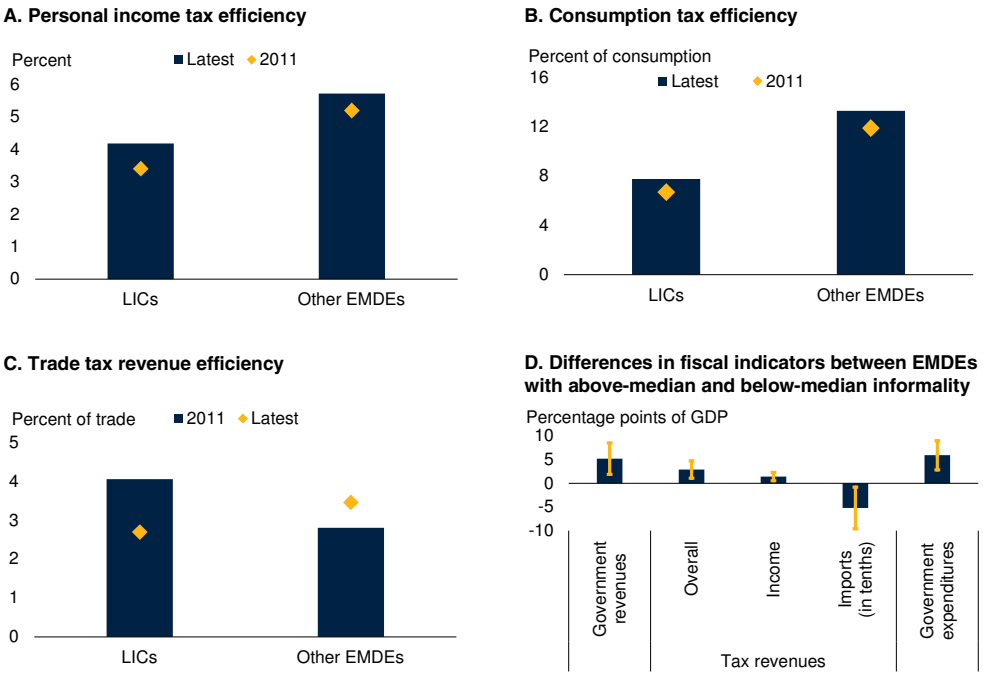
Revenue weakness constrains LIC governments' ability to provide public goods and services, invest in infrastructure, conduct countercyclical policies, service debt, and effectively implement redistributive measures. The constraints are particularly challenging for LICs now, with a rise in conflicts, more frequent natural disasters, and other adverse events threatening to keep food insecurity and poverty at elevated levels (World Bank 2024a). The weakness in government revenues in LICs and the resulting spending constraints and accumulation of debt highlight three policy priorities: more effective domestic resource mobilization, greater spending efficiency, and sounder debt management. These priorities should help guide broad reform efforts to ease structural constraints, reduce informality, address market failures, strengthen institutions, and generate stronger and more broad-based economic growth (Newbery and Stern 1987; Stiglitz and Rosengard 2015). Meanwhile, aid in the form of grants or concessional lending can be geared particularly toward addressing critical emerging challenges, including the effects of climate change, fragility, and pandemics (Fardoust et al. 2023).

Domestic resource mobilization

There is wide scope to improve revenue mobilization among LICs, despite their low levels of development. Recent estimates show that LICs have been able to collect less than two-thirds of their potential tax revenue over the past decade (Mawejje and Sebudde 2019; McNabb, Danquah, and Tagem 2021). Thus, there are substantial revenues to be gained, by measures such as broadening tax bases, strengthening tax administration, and making tax systems more equitable and efficient. If implemented progressively, tax reforms can also help achieve redistribution goals. Income and consumption tax efficiencies are lower in LICs than in other EMDEs—possibly reflecting widespread informality and, in some cases, corruption—but trade tax efficiency is higher (figure 15). Past successful efforts to increase tax revenue mobilization in LICs and other EMDEs were usually accompanied by comprehensive reforms of tax policy and revenue administration, including, for example, the introduction of arrangements to set

FIGURE 15 Domestic resource mobilization

Income and consumption tax efficiencies are lower in LICs than in other EMDEs—possibly reflecting widespread informality—while trade tax efficiency is higher.



Sources: Dabla-Norris et al. (2012); International Monetary Fund; Ohnsorge and Yu (2022); Penn World Table 9.1; World Bank; World Economic Forum.

Note: EMDEs = emerging market and developing economies; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs. Unweighted averages in A-C.

A. Ratio of personal income tax revenue to total labor compensation. Share of labor compensation in GDP and real GDP (2011 USD) are from Penn World Table. Based on 66 EMDEs (excl. LICs) and 12 LICs.

B. The ratio of consumption tax revenue to consumption. Consumption tax revenue is the sum of revenues from goods and services tax, value-added tax, and excise tax. Data are from Penn World Table 9.1. Based on 81 EMDEs (excl. LICs), and 18 LICs.

C. The ratio of trade tax revenue to total trade, defined as the sum of imports and exports of goods and services (local currency, International Financial Statistics). Based on 103 EMDEs (excl. LICs) and 24 LICs.

D. Difference (in percentage points of GDP) between the average fiscal indicators among the third of EMDEs with above-median and below-median informality by the share of informal output in percent of official GDP (DGE-based estimates from Ohnsorge and Yu 2022). Vertical bars indicate 90 percent confidence intervals of the differences. Fiscal indicators and informality measures are 2000-18 averages. The sample includes 70 non-energy exporting EMDEs with populations above 3 million people. Blue bars show the unweighted averages, whiskers interquartile range. unless otherwise specified. Based on 117 EMDEs, including 24 LICs.

aside windfalls from improvements in a country's terms of trade (Akitoby et al. 2018). Such reforms need to be supported by global mechanisms to coordinate tax policy design and implementation, and to limit illicit financial flows.

Tax policy. Past tax policy reforms in LICs have generally involved measures to increase indirect tax rates and broaden the tax base for both direct and indirect taxation (Akitoby et al. 2018). Tax bases can be broadened by removing exemptions, especially for higher-income entities, in a way that minimizes economic distortions and strikes the right balance between efficiency and equity

(Akitoby et al. 2019). Excise taxes, typically on petroleum, cigarettes, alcohol, and motor vehicles, are less frequently used in LICs than in advanced economies but can be administratively simple if designed in a way that reduces evasion (IMF 2011). For example, The Gambia found that a switch from weight-based to pack-based taxation of cigarettes, with weight-based taxation of non-cigarette tobacco products, reduced smokers' incentive to switch to less-taxed products (Akitoby et al. 2019).

Tax administration. Strengthening tax collection capacity is a crucial component of state-building and institutional development. Capacity-enhancing measures included risk-based audits, especially with a greater focus on large taxpayers; strengthened legislation to empower tax collectors; a shift in human resource management toward training and monitoring; and upgrades in information technology to facilitate registration, filing and payment enforcement (Akitoby et al. 2018). The adoption of e-filing has been associated with higher tax revenue collections in LICs (Nose and Mengistu 2023). In Ethiopia, the introduction of sales registration machines increased VAT and profit tax collections by 48 percent and 12 percent respectively, even as firms responded by reporting higher costs to reduce their tax liability (Mascagni, Mengistu and Woldeyes 2021).

Technology. Recent technological advances could empower tax policymakers to deepen the tax base and improve tax administration (Gupta et al. 2017). For instance, wider adoption of mobile payment systems can help simplify tax payment processes, allowing efficiency gains in revenue collection, particularly for direct taxes (Dom et al. 2022). Digital technologies have helped some LICs to reduce compliance costs and simplify taxpayer registration, filing and payment, audit, collection enforcement, and appeals. For example, digital platforms have been used to facilitate the filing of tax returns and increase revenue collection in Ethiopia, Rwanda, and Uganda (Arewa and Davenport 2022).

Structural policies. Widespread economic informality in LICs hinders government revenue collection (Ohnsorge and Yu 2022; World Bank 2019c). Informality is symptomatic of broader institutional weaknesses in LICs, and reducing it requires a multi-pronged approach, more efficient tax administration being only one element of this. Another element, for example, could be financial sector development: underdeveloped financial sectors in LICs have encouraged cash transactions that facilitate tax evasion or avoidance (World Bank 2015). Other priorities include well-designed, effective, and well-enforced, but streamlined, regulatory frameworks; better access to finance, markets and inputs;

stronger social safety nets; leveling the playing field between formal and informal firms; better public service delivery; better education; and less corruption (Ohnsorge and Yu 2022). Successful strategies have usually featured strong political commitment, with expedited reform measures helping to build momentum (Akitoby et al. 2019).

Expenditure efficiency

LICs have many high-priority public spending needs (Clements, Gupta, and Jalles 2022). Higher expenditure efficiency and reductions in unproductive spending can help meet these. In the average LIC, the public sector wage bill rose significantly between 2011 and 2019, to reach about one-third of government primary spending in 2019. Expenditure on defense in fragile and conflict affected LICs averaged around 19 percent of government primary spending between 2011 and 2021.

Expenditure reallocation. There is generally ample room in LICs to cut less productive spending. Subsidies on food and energy, pervasive in LICs, tend to be poorly targeted and costly (Coady, Falamini, and Sears 2015). The costs of fuel subsidies in LICs in 2022 are estimated to have averaged 2 percent of GDP (figure 8). And in some LICs, such as Afghanistan, Ethiopia, and The Gambia, it exceeded 3 percent of GDP.

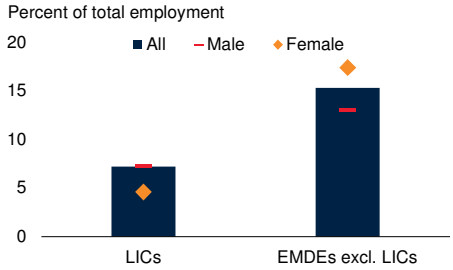
Another major category of public spending is the public sector wage bill. During 2011-20, it accounted, on average, for almost 40 percent of government expenditure in LICs, with public sector employment absorbing almost half of formal employment, though only 7 percent of total employment. The public sector also employed more educated and older workers than the private sector (figure 16). Higher wages in the public sector may attract better-qualified civil servants but have often not resulted in improved government effectiveness or control of corruption (Van Rijckeghem and Weder 2001). On the other hand, changes in public wage bills move hand-in-hand with changes in revenues, suggesting that increased revenue collection could be allocated to more growth-enhancing expenditure items, including to the education, health, and infrastructure. Governments should evaluate whether public sector labor costs are squeezing out productive spending—whether there is excessive employment or too high a wage premium for public sector workers. Finally, one of the benefits of an end to the various conflicts in which LICs are engaged could be reductions in military spending, which would allow reallocations to growth-enhancing expenditures.

The categories of spending to which governments should seek to shift resources include human capital development (education and health care), infrastructure

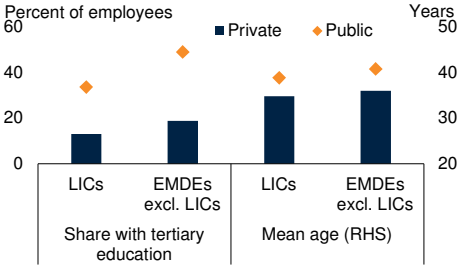
FIGURE 16 Expenditure efficiency

The efficiency of government expenditure can be improved partly by reallocating spending to more growth-enhancing categories, including education. Within spending on education, resources could be redirected or augmented to boost learning.

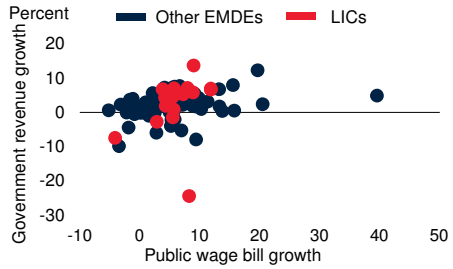
A. Share of public sector in employment



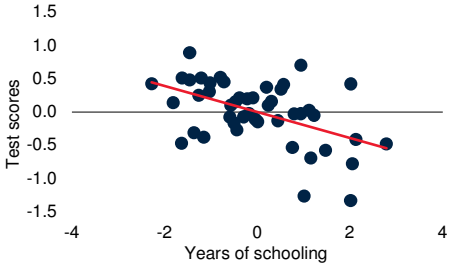
B. Characteristics of public sector employees



C. Changes in public sector wage bill and government revenues



D. Learning outcomes and years of schooling



Sources: Dabla-Norris et al. (2012); International Monetary Fund; UNESCO Institute for Statistics; World Bank; World Economic Forum.

Note: EMDEs = emerging market and developing economies; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.

A.B. Unweighted averages over the period 2011-20 (i.e., latest year available). Based on 18 LICs and 73 Other EMDEs.

C. Based on 15 LICs and 95 Other EMDEs. Based on 95 EMDEs (excl. LICs) and 15 LICs. Public wage bill is calculated using share of public sector employee compensation in percent of GDP from the IMF's *Government Finance Statistics* and the World Bank's Worldwide Bureaucracy Indicators. Government revenue is obtained from the IMF's *World Economic Outlook*. Growth is calculated as the average growth over the period 2011-21 (i.e., latest year available).

D. Test scores are conditional on initial GDP per capita and years of schooling, while years of schooling are conditional on the initial GDP per capita and test scores. See *World Development Report* (2018) for details. Based on 46 countries.

investment, climate change adaptation, and effective social protection programs. Spending that improves education and health outcomes has been associated with enhanced economic growth (World Bank 2018c). Scaling up infrastructure investment can enhance fiscal sustainability, by reducing the debt-to-GDP ratio, when public investment quality is high and helps to boost GDP growth (Adarov and Panizza 2024).

Investments to strengthen resilience to climate change may be costly, but the costs of inaction may be far greater (World Bank 2022b). Each dollar invested in early warning systems for extreme weather events has been estimated to avoid

more than $4 in losses (Hallegatte, Rentschler, and Rozenberg 2019). Well-targeted social benefit systems can reduce the damage done by adverse shocks. The coverage of social protection programs in LICs remains limited and significantly lower than in other EMDEs. On average, only 1 percent of the population in LICs is covered by unemployment benefits, compared with more than 4 percent in other EMDEs, and only 15 percent have access to social safety net programs (Ohnsorge and Yu 2022).To strengthen them, the administrative capacity to target and distribute benefits effectively would need to be developed. Conditional cash transfers have been found to be effective means of delivering social benefits in some circumstances (García and Saavedra 2017; Rawlings and Rubio 2005).

Sectoral spending efficiency. There is room to improve outcomes relative to policy goals within existing sectoral spending envelopes, by raising sectoral efficiency. For example, education systems in many EMDEs, including LICs, provide wide access to education but deliver poor learning outcomes (World Bank 2018d). Measures to improve outcomes may include improvements in the measurement and monitoring of learning outcomes; incentives for teacher performance; community involvement in monitoring school performance; and better health care and nutrition in early childhood.

More effective public spending on agriculture would help to raise agricultural productivity, particularly in SSA (Goyal and Nash 2017). Government investment in local agricultural research and development and in improvements in rural infrastructure, as well as efforts to facilitate access to financial services, could promote gains in agricultural productivity. In infrastructure spending, there is scope to improve institutions and procedures governing project appraisal, procurement, and the monitoring of spending, while more systematic investment in maintenance can pay significant dividends by reducing or eliminating the larger costs of repairs or reconstruction (Hallegatte, Rentschler, and Rozenberg 2019; World Bank 2019c).[8]

Overall expenditure efficiency. Increased fiscal transparency and accountability have been found to be associated with improvements in the efficiency of public spending. In one cross-country study, it was found that a country moving from the bottom quintile to the top quintile of scores for fiscal transparency could expect to see an improvement in government spending efficiency of one standard deviation (Montes, Bastos, and de Oliveira 2019). The association between

[8] By one estimate, a country moving from the lowest quartile to the highest quartile in public investment efficiency could double the impact of that investment on output growth (IMF 2015). Especially among LICs, better project selection and implementation have been statistically significantly associated with higher growth (Gupta et al. 2014).

transparency and efficiency has been attributed to the effects of transparency not only in reducing information asymmetry on public resource allocation between politicians and the general public, but also in incentivizing the adoption of better policies and facilitating the accurate assessment of prospective input costs and outputs. In particular, increased transparency in state contracting has been found to lead to more efficient utilization of public resources in government procurement (Evenett and Hoekman 2004). More broadly, improving the quality of public investment management has been associated with better development outcomes (Dabla-Norris et al. 2012).

Supporting structural policies. Most public spending initiatives require ancillary reforms to be effective. Thus typically, for more efficient infrastructure spending, land acquisition restrictions have to be addressed, and licensing and permitting requirements have to be streamlined. For more efficient education spending, teacher absenteeism is an issue that often has to be addressed (Muralidharan et al. 2016).

Robust fiscal frameworks

Government spending in LICs tends to be procyclical, rising and falling in tandem with revenues. Fiscal policy has been both more procyclical and more volatile in LICs than in other EMDEs (figure 17). It has thus tended to amplify economic volatility. Credible, well-designed, and politically supported institutional arrangements—such as fiscal rules, stabilization funds, and medium-term expenditure frameworks—can help build fiscal space, improve the management of revenue windfalls, and strengthen policy outcomes (Huidrom, Kose, and Ohnsorge 2016).

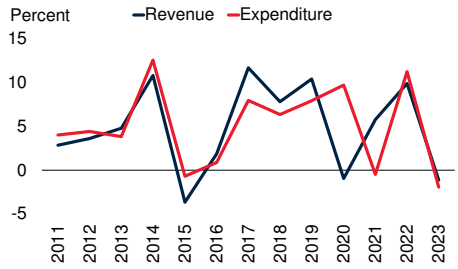
Rules-based fiscal frameworks. Until the early 1990s, there were fiscal rules in only a few EMDEs and virtually no LICs. LICs started adopting fiscal rules in the early 2000s, and by 2021 12 LICs were using them. Eleven of these have budget balance rules, five have revenue rules, none have expenditure rules, all 12 have debt rules and one (Uganda) has a fiscal council.

Fiscal rules, if supported by political will, can help establish and maintain sustainable fiscal positions, and the use of fiscal rules has been associated with improved fiscal performance and more successful fiscal consolidations (IMF 2009). Fiscal rules can protect productive government investment and reduce the procyclicality of government spending in LICs (Dessus, Diaz-Sanchez, and Varoudakis 2016; Mawejje and Odhiambo 2024). However, the success of fiscal rules depends on the role played in their application by effective institutions and governance, underpinned by the rule of law and strong accountability

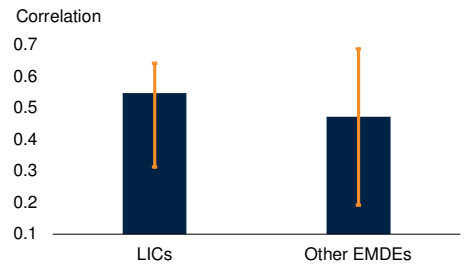
FIGURE 17 Fiscal policy procyclicality and volatility, and fiscal frameworks

Spending growth in LICs moves in tandem with revenue growth. Fiscal policy is both more procyclical and more volatile in LICs than in other EMDEs. LICs rank significantly lower than other EMDEs on budget transparency. A growing number of LICs have implemented fiscal rules and sovereign wealth funds (SWFs), in part to stabilize spending growth.

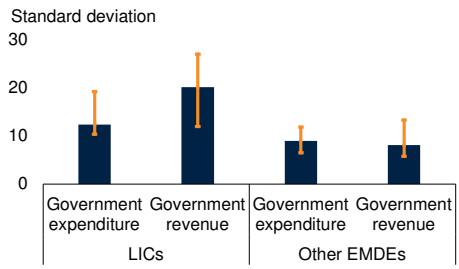
A. Revenue and expenditure growth



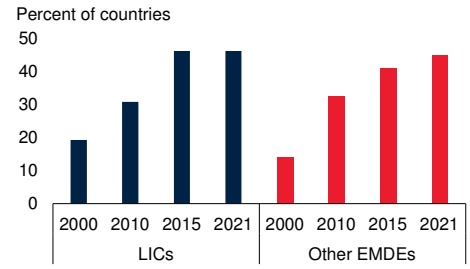
B. Procyclicality of government spending, 1980-2020



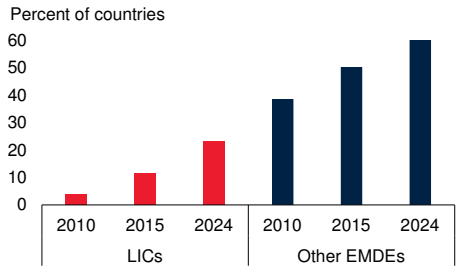
C. Fiscal policy volatility, 1990-2021



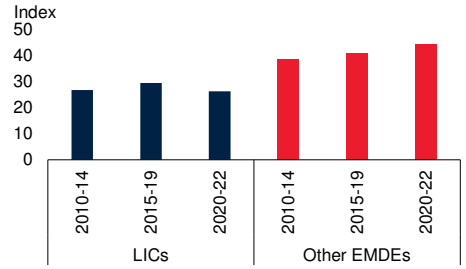
D. Fiscal rules in LICs and other EMDEs



E. SWFs in LICs and other EMDEs



F. Open budget index: LICs and other EMDEs



Sources: Arroyo Marioli, Fatas, and Vasishtha (2023); Arroyo Marioli and Vegh (2023); Global SWF (database); International Budget Partnership (database); International Monetary Fund; World Bank.

Note: EMDEs = Emerging market and developing economies; LICs = low-income countries; Other EMDEs = emerging market and developing economies excluding LICs.

A. Computed as the annual percentage growth of real revenue and expenditure (constant 2015 dollars). Based on 25 LICs.

B. Bars show the median correlation between the cyclical components of real GDP and real government spending. Orange whiskers show the interquartile range. The sample period is 1980-2020. The sample includes 25 LICs and 127 other EMDEs.

C. Bars show the medians of the standard deviation of the residuals obtained from regressing two dependent variables—real primary expenditure growth and real revenue growth—on real GDP growth. Orange whiskers show the interquartile range. The sample period is 1990-2021. The sample includes 22 LICs and 124 other EMDEs.

D. Bars show the share of LICs and other EMDEs with fiscal rules. Based on up to 71 EMDEs, including 12 LICs.

E. Share of LICs and other EMDEs with at least one sovereign wealth fund (SWF). Based on up to 84 EMDEs, including 6 LICs.

F. Bars show the unweighted period averages. Based on up to 120 EMDEs, including 21 LICs. The Open Budget Index ranges from 0 to 100 and is based on various dimensions of the availability, timeliness, and quality of central government budget documents.

mechanisms (Bergman and Hutchison 2015). Wider adoption of fiscal councils in LICs could support the effectiveness of fiscal rules (Beetsma et al. 2019). Fiscal frameworks not involving formal rules but involving transparent and credible strategies backed by strong fiscal institutions could also support fiscal discipline (Gui-Diby 2022).

Sovereign wealth funds (SWFs) and other fiscal stabilization funds. SWFs are special-purpose public savings and investment funds owned by the government and designed to conserve and expand national wealth and sometimes to stabilize fiscal policy and business cycles.

There are three main types of SWFs. *Savings funds* aim to conserve and build wealth for future generations and ensure intergenerational equity, particularly in countries that rely on exhaustible natural resources. Although such SWFs have traditionally invested in external assets, they have increasingly been tapped to finance domestic investment in human and physical capital (Addison and Lebdioui 2022; Gelb et al. 2014). In this way, SWFs can directly help countries—especially capital-scarce LICs—meet long-term development needs (Addison and Lebdioui 2022). *Stabilization funds* are established to help insulate the economy from budget volatility that may arise, for example, from changes in the country's terms of trade. Revenues flow into the funds when government receipts are above a benchmark, and money can be withdrawn from the fund when government revenue is below another benchmark. *Financing funds* combine the characteristics of a stabilization fund and a savings fund and may be fully integrated into the government budget process.

Countries with higher-quality governance and democratic systems of government are more likely to have SWFs than countries with weaker institutions (Aizenman and Glick 2009; Carpantier and Vermeulen 2018). Only six LICs have SWFs, up from one in 2010 (figure 17).[9] They are all commodity exporters, which are more likely to establish SWFs because they can help them cope with export price volatility and reduce the economy's vulnerability to external shocks (Amar, Lecourt, and Kinon 2018; Carpantier and Vermeulen 2018). SWFs can do this by enabling governments, through precautionary saving, to smooth spending and reduce the volatility and pro-cyclicality of fiscal policy (Al-Sadiq and Gutiérrez 2023; Coutinho et al. 2022; Elbadawi, Soto, and Youssef 2017). However, the ability of SWFs to dampen the impact of commodity price volatility depends on the strength of institutions that act to shield these funds from political influence. The effectiveness of SWFs in reducing

[9] The six countries, as of the end of June 2024, are Chad, Ethiopia, Mozambique, Rwanda, South Sudan, and Uganda.

fiscal volatility is also helped when they are integrated into the budget and subject to adequate controls (Sugawara 2014; Tsani 2015).

In some commodity-exporting LICs, SWFs were set up to improve the management of resource revenues and reduce fiscal volatility and Dutch Disease effects. For example, Uganda's Petroleum Investment Fund was set up in 2015 as part of the framework to guide fiscal policy in the context of the expected flow of oil revenues (Kayizzi-Mugerwa 2020). In Rwanda, an agricultural commodity exporter, the Agaciro Development Fund, a Sovereign Development Fund, was launched in 2012 to mobilize public savings and to support macroeconomic stabilization and the country's broader development goals (Amar and Lecourt 2023).

SWFs can play an important role not only in short-term stabilization but also in transforming a temporary boom into permanent wealth over the longer term (James et al. 2022). Countries where SWFs do not currently exist should consider establishing them, to help enhance fiscal sustainability as well as reduce fiscal and economic volatility.

Debt challenges

While LICs have scope to raise government revenues and increase the efficiency of public expenditure, they will continue to rely partly on external financing, including government borrowing, to address their development needs. Hence, prudent debt management will remain a priority. The pandemic and subsequent overlapping shocks have exacerbated the trade-offs between the benefits and costs of government debt accumulation (Kose, Ohnsorge, and Sugawara 2022). If used well debt can support economic activity and improve long-term growth prospects. However, excessive debt can also lead to economic distress as it may impose constraints on policy space and effectiveness as well as the possible crowding out of private investment (Kose, Ohnsorge, and Sugawara 2020).

Effective debt management will help to meet the government's financing needs in a timely fashion, minimize debt servicing costs at an acceptable degree of risk, and support the development of domestic securities markets (World Bank 2019c). In addition, effective debt management can help minimize fiscal risks stemming from contingent liabilities, such as guarantees or on-lending to state-owned enterprises or through public-private partnerships, through effective monitoring and reporting.

Debt and fiscal transparency. Lack of transparency in public sector debt and broader fiscal policy issues, notably in the availability, timeliness, and quality of

budget documents, is pervasive in LICs (figure 17F). Better compilation and monitoring of data on public debt and guarantees can help ensure that risks are detected before they materialize (World Bank 2007). Recent examples of hidden debt and discrepancies in debt statistics point to continued low debt-recording capacity, weak legal frameworks, and governance challenges.[10] They are a reminder of the need to monitor and mitigate contingent liabilities. In a recent survey, most public debt managers reported monitoring of risks of contingent liabilities but only a minority reported using risk mitigation tools, such as reserve accounts (40 percent of respondents) or risk exposure limits on contingent liabilities (30 percent of respondents) (Lee and Bachmair 2019).

Greater fiscal transparency, more broadly, has been associated with lower borrowing costs, improvements in government effectiveness, and lower government debt (Montes, Bastos, and de Oliveira 2019). Improvements in data collection practices for LIC debt have been associated with lower borrowing costs (Cady and Pellechio 2006). And the returns from greater transparency (in terms of lower borrowing costs) have been found to be greater in countries with better institutional quality and lower external debts (Kubota and Zeufack 2020).

Debt management. Debt Management Performance Assessments (DeMPA)—diagnostic tools used to evaluate a country's debt management processes and institutions—suggest that of the 17 LICs with available data in 2018, minimum requirements in debt recording were met by only eight, and monitoring guarantees were met by only four (World Bank 2019c). Because of shortcomings in the accuracy, timeliness, coverage, and completeness of debt records, only four of the 17 countries met the minimum requirements for debt reporting and evaluation (figure 18). In the broader group of countries eligible for IDA borrowing, only one-third reported private sector external debt statistics in 2018 (World Bank and IMF 2018).

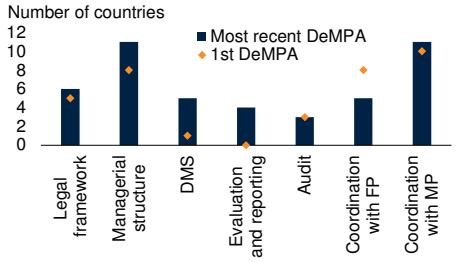
A growing number of countries have been producing medium-term debt management strategies, but their quality varies significantly, and implementation often lags (World Bank 2019c). Few of the countries align their strategies with their budget processes. Weak capacity, inadequate legal frameworks, lack of coordination between fiscal and monetary policy, inefficient management of cash and fiscal risks, and poor audit and risk control procedures often weaken debt management.

[10] The examples include the discovery of unreported borrowing by major SOEs in Mozambique in 2016 (Horn et al. 2024), and the rise in contingent liabilities in The Gambia in 2016 owing to distressed major SOEs (IMF 2018b).

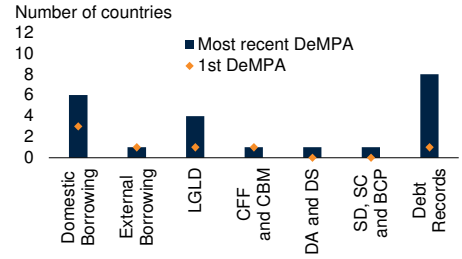
FIGURE 18 Debt management and institutional quality

Weaknesses in debt transparency, notably in monitoring and reporting, remain pervasive in LICs. Few countries meet the minimum requirements set by the Debt Management Performance Assessment (DeMPA) on selected categories.

A. Countries meeting DeMPA minimum requirements, select categories



B. Countries meeting DeMPA minimum requirements, select categories



Sources: Debt Management Performance Assessments (DeMPA); World Bank (2019b).
Note: BCP = business continuity planning; CBM = cash balance management; CFF = cash flow forecasting; DA = debt administration; DMS = debt management strategy; DS = data security; FP = fiscal policy; GLD = loan guarantees, on lending derivatives; MP = monetary policy; SC = staff capacity; SD = segregation of duties. Sample covers 17 low-income countries.

International support

The international community needs to be more proactive in helping LICs address the recent deterioration in their fiscal positions. Given their unique vulnerabilities—including weak institutional capacities, narrow tax bases, fragility and conflict, increasing exposure to climate change-related natural disasters, and limited access to private finance—LICs will need continued access to well-coordinated and tailored financial and technical assistance to strengthen their fiscal positions, bolster their institutional frameworks, and address their reform needs.

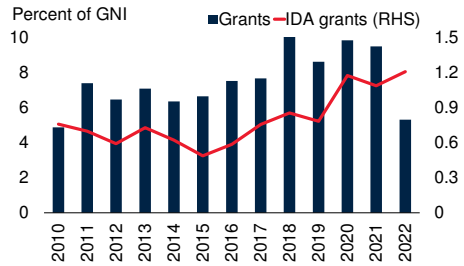
Concessional financing. For many LICs, restoring fiscal sustainability will require reduced reliance on commercial sources of financing. However, this will necessitate the global community to step up concessional financing, which has declined precipitously (relative to income) since 2020 despite a substantial increase in IDA resources allocated to LICs (figure 19). Grants and concessional financing are imperative for LICs to access steady, predictable, and low-cost financial flows. Since 2020, total grants to LICs have declined by 5 percentage points of GDP, to 7 percent in 2022—the lowest level since 2010.

IDA grants have grown significantly over the past decade and have more than doubled (relative to income) since 2015 to 1.2 percent of GNI in 2022. IDA gives 100 percent grants to the poorest countries, and to countries in or at high risk of debt distress, thereby providing an implicit ex-ante debt relief (World

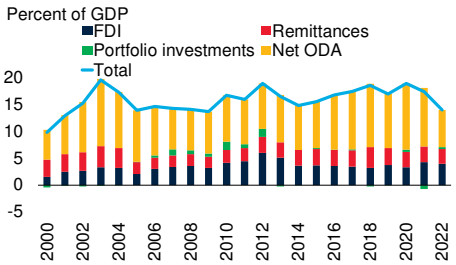
FIGURE 19 Global support

Grants have decreased in LICs, even though IDA financing has increased. Capital flows have been falling in LICs, with sharper declines since 2020. LICs have large investment needs to achieve a resilient and green growth path and meet the costs of adaptation to climate change. All these factors heighten the urgency for increased global support.

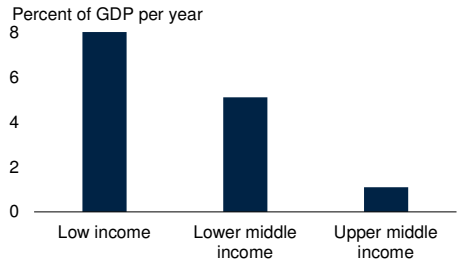
A. Grants received by LICs



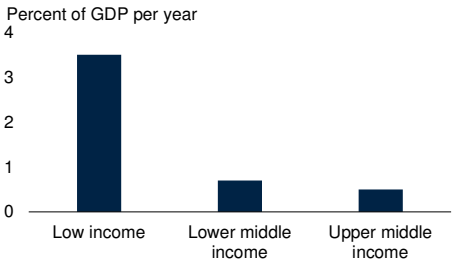
B. Net financial flows in LICs



C. Investment needs for a resilient and low carbon growth path



D. Climate adaptation costs



Sources: International Debt Statistics (database); Rozenberg and Fay (2019); United Nations Environment Programme (2023); World Development Indicators (database); World Bank.

Note: FDI = foreign direct investment; GNI = gross national income; IDA = International Development Association; LICs = low-income countries; ODA = official development assistance.

A. Grants are defined as legally binding commitments allocating specific funds for disbursement without any requirement for repayment. Data are on a disbursement basis. Data exclude debt forgiveness grants. IDA grants are net disbursements of grants from IDA.

B. Net official development assistance (ODA) consists of disbursements with a grant element of at least 25 percent (calculated at a rate of discount of 10 percent).

C. Estimates of the annual investment needs to build resilience to climate change and put countries on track to reduce emissions by 70 percent by 2050. Depending on data availability, estimates include investment needs on energy, industry, landscape, transport, urban adaptations, and water.

D. Undiscounted annual costs of adaptation for the period up to 2030. Estimates are based on modeled estimates for agriculture; coastal zones; early warning and social protection; fisheries, aquaculture, and marine ecosystems; health; infrastructure; river floods; and terrestrial biodiversity and ecosystem services. Qualitative assessment for cooling demand and labor productivity. Business and industry, capacity-building, and socially contingent effects are also considered.

Bank 2023c, 2024d). However, given the large and growing needs, IDA grants are not enough despite the recent significant increase. Greater global support is essential to help the world's poorest countries restore sustainable fiscal positions to promote their long-term development aspirations. The international community and multilateral development banks should continue to seek to catalyze more financing for LICs, working with the private sector, to mobilize

additional resources to close the scale needed for priority investments in LICs in a manner that balances fiscal risks (Chrimes et al. 2024; IEG 2023).

Capital flows. Capital flows have been declining in LICs since the global financial crisis amid tightening financial conditions. The increase in global uncertainty since 2020 induced a new wave of "flight to safety" that saw an accelerated rate of capital flow reversals (figure 19). Since 2012, foreign direct investment (FDI) to LICs has declined by 2 percentage points of GDP, to 4 percent in 2022. Other capital flows have also weakened. Net ODA, which includes disbursements of loans made on concessional terms, has declined since 2020 by 5 percentage points of GDP to 7 percent in 2022—its lowest level in two decades. However, remittances have held steady, and averaged about 3 percentage points of GDP between 2019 and 2022. Net portfolio investment inflows to LICs are negligible and averaged less than 0.05 percent of GDP between 2019 and 2022, but there was a net outflow of 0.7 percent of GDP in 2021. Yet, LICs need larger, sustained, and predictable capital inflows to meet their growing gross public financing needs. Capital flows to LICs, including non-FDI flows, can be supported by policies that enhance macroeconomic stability, trade, and financial openness, improve the business environment, and reduce political and regulatory risks (Araujo et al. 2017).

Debt relief. In the coming years, lack of market access when debt payments come due presents a significant financial risk for LICs. For debt that is owed to foreigners, denominated in foreign currency, and adjudicated by foreign courts, default and debt restructuring can become a country's only option—but usually imposing high long-term costs (Kose et al. 2022). In late 2023, Ethiopia became the first LIC to default on its debt. For LICs in or at high risk of debt distress, providing debt relief should be a high priority. There have been several initiatives to further these goals. In November 2020, following their Debt Service Suspension Initiative (DSSI), the G-20 countries announced the Common Framework to provide debt treatment for DSSI-eligible countries with unsustainable debts (IMF 2021).[11] While the Common Framework initially struggled with creditor coordination challenges that led to implementation delays, recent developments suggest that it has started to be effective. For example, Ghana's agreement this year took about half the time (five months) it took for Chad in 2021 and Zambia in 2022 (Pazarbasioglu 2024).

[11] The Debt Service Suspension Initiative (DSSI) offered the suspension of debt payment obligations on official sector debts for the poorest countries to create fiscal space to respond to the COVID-19 pandemic.

To speed up this process, the World Bank and International Monetary Fund created the Global Sovereign Debt Roundtable. Co-chaired by the Group of Twenty (G-20), the IMF, and the World Bank, this group includes official creditors, large private creditors, and debtors. It aims to build consensus on debt issues, focusing on technical matters like restructuring timelines, information sharing, domestic debt treatment (including holdings by nonresidents), assessing comparability of treatment, engaging with credit rating agencies, and suspending debt service (World Bank 2024e).

In an effort to prevent the emergence of new fiscal risks, in July 2020, IDA established the Sustainable Development Finance Policy (SDFP) to replace its Non-Concessional Borrowing Policy (NCBP). The SDFP aims to incentivize IDA countries to move toward transparent and sustainable financing. The policy also aims to further enhance coordination between IDA and other creditors in support of the countries' reform efforts toward sustainable development finance (World Bank 2020). While it is too early to assess the effectiveness of the SDFP, the increased debt vulnerabilities arising from the pandemic encouraged most countries to look for ways to strengthen debt management, enhance debt transparency, and improve fiscal sustainability with the support of the SDFP (World Bank 2022c).

Technical assistance. Finally, the international community needs to continue to support LICs through tailored technical assistance for capacity building. LICs need to make progress on key reform priorities, including strengthening domestic revenue mobilization, improving public investment efficiency, and implementing sound fiscal policy frameworks. Institutional capacities are especially limited in LICs, and they often lack the technical know-how required to implement adequate fiscal reforms in a timely manner. While some LICs have made progress in many areas, including in the use of information technology to improve fiscal policy management, progress has been uneven. Limited availability of economic data—including reliable macroeconomic statistics and household and business surveys—often hinder evidence-based policymaking. And weak civil service skills and complex bureaucratic processes often erode government efficiency and hinder the timely design and implementation of policy reforms.

V. Conclusion

LICs face formidable development challenges, which have been exacerbated by the pandemic, subsequent global shocks, and more frequent climate change-related natural disasters. Meanwhile, their fiscal resources are increasingly constrained. Between 2011 and 2023, government debt-to-GDP ratios in LICs rose, on average, by 36 percentage points, to 72 percent—much more than the 16 percentage points rise, to 57 percent, in other EMDEs. Against this backdrop, 12 out of the 26 LICs were assessed as being in or at high risk of debt distress at the end of April 2024. Vulnerability to global shocks, domestic armed conflicts, and natural disasters worsen LICs' fiscal policy challenges.

The increase in LIC government debt, relative to GDP, has been driven by significant and widening fiscal deficits, which have outweighed nominal GDP growth. The pandemic, which sharply increased spending needs, resulted in a jump in primary deficits in 2020 to 3.4 percent of GDP from 1.2 percent of GDP in 2019. Despite a post-pandemic growth rebound, LICs have not been able to unwind their fiscal deficits since 2020 because of subsequent shocks, including the rise in global interest rates and ensuing currency depreciations, amid declining official development assistance. The increase in primary expenditures of 1.7 percentage points of GDP between 2011 and 2023 was double the increase in revenues over the same period. On average, government revenues in LICs were equivalent to about 18 percent of GDP during 2011-23—11 percentage points lower than in other EMDEs. Some LICs have recently spent more on interest payments than on such priority sectors as health services.

The deterioration in LICs' fiscal positions and their substantial public financing needs call for a renewed effort to mobilize domestic revenues, increase the efficiency of public spending, improve debt management, and reforms to improve long-term growth prospects. Robust fiscal frameworks need to be established and maintained to reduce and manage fiscal risks over the longer term. These policy actions need to be supported by financial assistance from the international community—including through debt relief, grants, and concessional lending—to address debt challenges and to support investment in

climate change resilience. At the same time, LICs will continue to need well-coordinated and tailored technical assistance for capacity building to improve fiscal management, especially in tax policy design and implementation; to make faster progress in the implementation of reforms; and to help curb illicit financial flows.

ANNEX 1 Decomposition of debt

Changes in public debt-to-GDP ratios (denoted by d below) can be decomposed into a number of explanatory factors (World Bank 2024b). Specifically, changes in debt over time can be decomposed into contributions from primary fiscal balances (the difference between revenues and non-interest expenditures), output growth, interest rates, inflation, and other factors.[12] In a highly stylized version, this accounting decomposition is the following:

$$d_t - d_{t-1} = \frac{i_t - \pi_t - g_t(1+\pi_t)}{(1+g_t)(1+\pi_t)} d_{t-1} - pb_t + other\ factors \quad (1)$$

In equation 1, government debt d_t and the primary balance pb_t are scaled by GDP. Real output growth is g_t, inflation (defined as GDP deflator growth) is π_t, and the weighted average of foreign and domestic nominal interest rates is i_t. The term "*other factors*" includes factors such as exchange rate depreciation, privatization proceeds, the materialization of contingent liabilities or other ad hoc changes to debt stocks. Equation 1 can be reorganized to identify the contributions to changes in the debt-to-GDP ratio from key components in additive form as follows:

$$d_t - d_{t-1} = \frac{i_t}{1+\gamma_t} d_{t-1} - \frac{\pi_t}{1+\gamma_t} d_{t-1} - \frac{g_t}{1+g_t} d_{t-1} - pb_t + other\ factors, \quad (2)$$

where $\gamma_t = (1+g_t)(1+\pi_t)$

Equation 2 is used as the basis for decomposing the change in the debt-to-GDP ratio into the attributable components of: (1) the primary fiscal balance; (2) interest costs; (3) inflation; and (4) real GDP growth. Due to data limitations for the countries of interest, notably on ad-hoc debt stock adjustments and the currency composition of debt, the contributions from other factors are calculated as the difference between changes in the debt-to-GDP ratio and the sum of components (1) to (4). The decomposition includes all LICs states with data available for all terms in equation 3 for the period 2011 to 2023, as detailed in table 1.B.

[12] The detailed decomposition requires data on the foreign currency-denominated share of government debt. This is only available for 2018 and unavailable for all but two LICs (Democratic Republic of Congo, Uganda) and for 89 EMDEs. The foreign currency-denominated share of government debt in 2019 is assumed to be constant at 2018 values and, for LICs and non-LIC EMDEs with missing data, is assumed to be the same as the average for LICs or non-LIC EMDEs, respectively.

ANNEX 2 Measurement of spending efficiency

Indicators of public spending efficiency include two aggregate spending efficiency measures and five specific spending efficiency measures.

The first aggregate spending efficiency measure is the efficiency of government spending indicator provided by the World Economic Forum. It is based on a survey question "In your country, how efficient is the government in spending public revenue? (1=extremely inefficient; 7 = extremely efficient)" and is available for 149 countries (114 EMDEs and 35 advanced economies) for 2008-2018. The second aggregate spending efficiency measure is the Public Investment Management Index (PIMI) provided by Dabla-Norris et al. (2012). The overall index consists of four sub-indices, which measure the efficiency of four stages of the public investment management cycle: strategic guidance and project appraisal; project selection; project implementation; and project evaluation and audit. The four sub-indices are scored based on 17 indicators on a scale from 0-4. A higher score suggests better public investment management performance. The overall index is the average of four sub-indices. The index is available for 71 EMDEs (including 28 LICs) for 2011.

Specific spending efficiency measures relate to human development outcomes and access to infrastructure and are sourced from Herrera and Ouedraogo (2018).[13] The human-development related measures cover primary school enrollment and life expectancy at birth. The infrastructure-related measures include quality of overall infrastructure, quality of electric supply and quality of transport infrastructure. All these indicators are cross-sectional estimates using data from 2006-16 and available for 175 economies (139 EMDEs and 36 advanced economies). Although magnitudes differ across indicators, for all indicators higher values indicate higher spending efficiency.

ANNEX 3 Event studies

The event study analysis considered in this study follows earlier work by Kose et al. (2022) who examined the evolution of fiscal space around a set of defined adverse events. The following regression model is estimated:

$$v_{i.t} = \alpha_i + \sum_{j=-p}^{p} \beta_j event_{i,t+j} + \gamma_t + \varepsilon_{i,t}, \quad (3)$$

where $v_{i,t}$ is a measure of each of the fiscal policy outcomes (primary balance and debt) in country i and year t, and α_i is the country fixed effect. The variable,

[13] Output efficiency measures, estimated using Data Envelopment Analysis (DEA) approach, are used here.

events, refers to each of the three adverse events (global recessions, intense conflict, and natural disasters) and is defined as a dummy taking the value of one if an event occurs in country i and year $t + j$, γ_t are time effects included to control for global factors, and $\varepsilon_{i,t}$ is the error term.

A series of coefficients, β, show the effects of adverse events over $(2p + 1)$ years, relative to other non-event (normal) years, where p is the number of pre-event and post-event years included in equation 3. In line with Kose et al. (2022), we use $p = 2$. This econometric exercise is not intended to uncover any causal relationships. Instead, the objective is to describe how fiscal policy variables evolved during specific events.

Identification of events

Global recessions. Years of global recessions since 2000 (2009 and 2020) are identified in Kose, Sugawara, and Terrones (2020). Global recessions are associated with a contraction in annual real per capita global GDP and broad-based weakness in other key indicators of global economic activity.

Intense conflict events. Intense conflict episodes are identified based on battle-related deaths in the UCDP Battle-Related Deaths Dataset, Version 24.1 (Shawn et al. 2024). The analysis is restricted to episodes with more than one hundred deaths (as best estimates) per one million population. If several conflict events are identified within five years, the one associated with the largest number of deaths per million population is selected as an event. In total, 141 intense conflict events were identified in 25 LICs during 2000-2023.

Natural disasters. Natural disasters are identified with data from EM-DAT managed by the Centre for Research on the Epidemiology of Disasters. Natural disasters include droughts, earthquakes, extreme temperatures, floods, storms, volcanic activity, and wildfires. The analysis is restricted to events that are associated with estimated losses of at least one-half of a percentage point of GDP. If multiple natural disasters are identified within five years, the one with the largest estimated damages (in percent of GDP) is chosen. In total, 186 natural disasters were identified in 25 LICs during 2000-2023.

TABLE 1 List of low-income countries (LICs)

A. List of all LICs (26)					
1	AFG	Afghanistan	14	MWI	Malawi
2	BDI	Burundi	15	NER	Niger
3	BFA	Burkina Faso	16	PRK	Korea, Dem. People's Rep.
4	CAF	Central African Republic	17	RWA	Rwanda
5	COD	Congo, Dem. Rep.	18	SDN	Sudan
6	ERI	Eritrea	19	SLE	Sierra Leone
7	ETH	Ethiopia	20	SOM	Somalia
8	GMB	Gambia, The	21	SSD	South Sudan
9	GNB	Guinea-Bissau	22	SYR	Syrian Arab Republic
10	LBR	Liberia	23	TCD	Chad
11	MDG	Madagascar	24	TGO	Togo
12	MLI	Mali	25	UGA	Uganda
13	MOZ	Mozambique	26	YEM	Yemen, Rep.

B. List of LICs included in the debt decomposition analysis (22)					
1	AFG	Afghanistan	12	MLI	Mali
2	BDI	Burundi	13	MOZ	Mozambique
3	BFA	Burkina Faso	14	MWI	Malawi
4	CAF	Central African Republic	15	NER	Niger
5	COD	Congo, Dem. Rep.	16	RWA	Rwanda
6	ERI	Eritrea	17	SDN	Sudan
7	ETH	Ethiopia	18	SLE	Sierra Leone
8	GMB	Gambia, The	19	TCD	Chad
9	GNB	Guinea-Bissau	20	TGO	Togo
10	LBR	Liberia	21	UGA	Uganda
11	MDG	Madagascar	22	YEM	Yemen, Rep.

Source: World Bank.

References

Adarov, A., and U. Panizza. 2024. "Public Investment Quality and Its Implications for Sovereign Risk and Debt Sustainability." Policy Research Working Paper 10877, World Bank, Washington, DC.

Addison, T., and A. Lebdioui. 2022. "Public Savings in Africa: Do Sovereign Wealth Funds Serve Development?" WIDER Working Paper 2022/159, United Nations University World Institute for Development Economics Research, Helsinki.

Ahmed, S., and M. Cruz. 2016. "On the Impact of Demographic Change on Growth, Savings, and Poverty." Policy Research Working Paper 7805, World Bank, Washington, DC.

Aizenman, J., and R. Glick. 2009. "Sovereign Wealth Funds: Stylized Facts about their Determinants and Governance." *International Finance* 12 (3): 351-86.

Akitoby, B., A. Baum, C. Hackney, O. Harrison, K. Primus, and V. Salins. 2018. "Tax Revenue Mobilization Episodes in Emerging Markets and Low-Income Countries: Lessons from a New Dataset." IMF Working Paper 18/234, International Monetary Fund, Washington, DC.

Akitoby, B., J. Honda, H. Miyamoto, K. Primus, and M. Sy. 2019. "Case Studies in Tax Revenue Mobilization in Low-Income Countries." IMF Working Paper 19/104, International Monetary Fund, Washington, DC.

Al-Sadiq, A. J., and D. A. Gutiérrez. 2023. "Do Sovereign Wealth Funds Reduce Fiscal Policy Pro-cyclicality? New Evidence Using a Non-Parametric Approach." IMF Working Paper 23/133, International Monetary Fund, Washington, DC.

Amar, J., and C. Lecourt. 2023. "Sovereign Wealth Fund Governance: A Trade-off Between Internal and External Legitimacy." *International Business Review* 32 (6): 102193.

Amar, J., C. Lecourt, and V. Kinon. 2018. "Is the Emergence of New Sovereign Wealth Funds a Fashion Phenomenon?" *Review of World Economics* 154 (4): 835-73.

Araujo, J. D., A. C. David, C. van Hombeeck, and C. Papageorgiou. 2017. "Non-FDI Capital Inflows in Low-Income Countries: Catching the Wave?" *IMF Economic Review* 65 (2): 426-65.

Arewa, M., and S. Davenport. 2022. "The Tax and Technology Challenge." In *Innovations in Tax Compliance: Building Trust, Navigating Politics, and Tailoring Reform,* edited by R. Dom, A. Custers, S. Davenport, and W. Prichard, 171-204. Washington, DC: World Bank.

Arroyo Marioli, F., A. Fatas, and G. Vasishtha. 2023. "Fiscal Policy Volatility and Growth in Emerging Markets and Developing Economies." Policy Research Working Paper 10409, World Bank, Washington, DC.

Arroyo Marioli, F., and C. A. Vegh. 2023. "Fiscal Procyclicality in Commodity Exporting Countries: How Much Does It Pour and Why?" Policy Research Working Paper 10428, World Bank, Washington, DC.

Beetsma, R., X. Debrun, X. Fang, Y. Kim, V. Lledó, S. Mbaye, and X. Zhang. 2019. "Independent Fiscal Councils: Recent Trends and Performance." *European Journal of Political Economy* 57 (March): 53-69.

Benitez, J. C., M. Mansour, M. Pecho, and C. Vellutini. 2023. "Building Tax Capacity in Developing Countries." Staff Discussion Note 2023/006, International Monetary Fund, Washington, DC.

Bergman, U. M., and M. Hutchison. 2015. "Economic Stabilization in The Post-Crisis World: Are Fiscal Rules The Answer?" *Journal of International Money and Finance* 52 (April): 82-101.

Black, S., A. A. Liu, I. Parry, and N. Vernon. 2023. "IMF Fossil Fuel Subsidies Data: 2023 Update." IMF Working Paper 23/169, International Monetary Fund, Washington, DC.

Cady, J., and A. Pellechio. 2006. "Sovereign Borrowing Cost and the IMF's Data Standards Initiatives." IMF Working Paper WP/06/78, International Monetary Fund, Washington, DC.

Carpantier, J. F., and W. N. Vermeulen. 2018. "Emergence of Sovereign Wealth Funds." *Journal of Commodity Markets* 11 (September): 1-21.

Cassidy, T. 2019. "The Long-Run Effects of Oil Wealth on Development: Evidence from Petroleum Geology." *The Economic Journal* 129 (623): 2745-78.

Chrimes, T., B. Gootjes, M. A. Kose, and C. Wheeler. 2024. *The Great Reversal: Prospects, Risks, and Policies in International Development Association (IDA) Countries*. Washington, DC: World Bank.

Chuku, C., P. Samal, J. Saito, D. Hakura, M. Chamon, M. Cerisola, G. Chabert, and J. Zettelmeyer. 2023. "Are We Heading for Another Debt Crisis in Low-Income Countries? Debt Vulnerabilities: Today vs the Pre-HIPC Era." IMF Working Paper 23/79, International Monetary Fund, Washington, DC.

Clements, B., S. Gupta, and J. T. Jalles. 2022. "Fiscal Policy for Inclusive Growth in Asia." Working Paper 611, Center for Global Development, Washington, DC.

Coady, D., V. Flamini, and L. Sears. 2015. "The Unequal Benefits of Fuel Subsidies Revisited: Evidence for Developing Countries." IMF Working Paper No. 15/250, International Monetary Fund, Washington, DC.

Coutinho, L., D. Georgiou, M. Heracleous, A. Michaelides, and S. Tsani. 2022. "Limiting Fiscal Procyclicality: Evidence from Resource-Dependent Countries." *Economic Modelling* 106 (January): 105700.

Dabla-Norris, E., J. Brumby, A. Kyobe, Z. Mills, and C. Papageorgiou. 2012. "Investing in Public Investment: An Index of Public Investment Efficiency." *Journal of Economic Growth* 17: 235-66.

Dessus, S., J. L. Diaz-Sanchez, and A. Varoudakis. 2016. "Fiscal Rules and The Pro-Cyclicality of Public Investment in The West African Economic and Monetary Union." *Journal of International Development* 28 (6): 887-901.

Dom, R., A. Custers, S. Davenport, and W. Prichard. 2022. *Innovations in Tax Compliance: Building Trust, Navigating Politics, and Tailoring Reform*. Washington, DC: World Bank.

Donatti, C. I., K. Nicholas, G. Fedele, D. Delforge, N. Speybroeck, P. Moraga, J. Blatter, R. Below, and A. Zvoleff. 2024. "Global Hotspots of Climate-Related Disasters." *International Journal of Disaster Risk Reduction* 108: 104488.

Elbadawi, I., R. Soto, and H. Youssef. 2017. "Sovereign Wealth Funds and Macroeconomic Stabilization in the Home Economy." Economic Research Forum Working Paper 1175, Cairo, Egypt.

Essl, S. M., S. K. Celik, P. Kirby, and A. Proite. 2019. "Debt in Low-Income Countries: Evolution, Implications, and Remedies." Policy Research Working Paper 8794, World Bank, Washington, DC.

Evenett, S., and B. Hoekman. 2004. "Government Procurement: Market Access, Transparency, and Multilateral Trade Rules." Policy Research Working Paper 3195, World Bank, Washington, DC.

Ezeoha, A., A. Igwe, C. Okoyeuzu, and C. Uche. 2023. "The Fiscal Effects of Armed Conflicts in Africa." *African Development Review* 35 (4): 444-56.

Fan, R. Y., D. Lederman, H.Nguyen, and C. J. Rojas. 2024. "Calamities, Debt, and Growth in Developing Countries." *IMF Economic Review* 72: 487-507.

Fang, X., S. Kothari, C. McLoughlin, and M. Yenice. 2020. "The Economic Consequences of Conflict in Sub-Saharan Africa." IMF Working Paper 20/221, International Monetary Fund, Washington, DC.

Fardoust, S., S. G. Koeberle, M. Piatti-Fünfkirchen, L. Smets, and M. Sundberg. 2023. *Retooling Development Aid in the 21st Century: The Importance of Budget Support*. Oxford: Oxford University Press.

Feeny, S., and M. McGillivray. 2009. "Aid Allocation to Fragile States: Absorptive Capacity Constraints." *Journal of International Development* 21 (5): 618-32.

Foster, V., A. Rana, and N. Gorgulu. 2022. "Understanding Public Spending Trends for Infrastructure in Developing Countries." Policy Research Working Paper 9903, World Bank, Washington, DC.

Fuje, H., J. Yao, S.M. Choi, and H. Mighri. 2023. "Fiscal Impacts of Climate Disasters in Emerging Markets and Developing Economies." IMF Working Paper 23/261, International Monetary Fund, Washington, DC.

García, S., and J. E. Saavedra. 2017. "Educational Impacts and Cost-Effectiveness of Conditional Cash Transfer Programs in Developing Countries: A Meta-Analysis." *Review of Educational Research* 87 (5): 921-65.

Gelb, A., S. Tordo, H. Halland, N. Afraa, and G. Smith. 2014. "Sovereign Wealth Funds and Long-Term Development Finance: Risks and Opportunities." CGD Policy Paper 041, Center for Global Development, Washington, DC.

Goyal, A., and J. Nash. 2017. *Reaping Richer Returns: Public Spending Priorities for African Agriculture Productivity Growth*. Washington, DC: World Bank.

Gui-Diby, S. L. 2022. "Public Financial Management And Fiscal Performance: Evidence From Panel Data Analyses." *Applied Economics Letters* 29 (19): 1784-90.

Gupta, S., A. Kangur, C. Papageorgiou, and A. Wane. 2014. "Efficiency-Adjusted Public Capital and Growth." *World Development* 57: 164-178.

Gupta, S., M. Keen, A. Shah, and G. Verdier, eds. 2017. *Digital Revolutions in Public Finance*. Washington, DC: International Monetary Fund.

Hallegatte, S., J. Rentschler, and J. Rozenberg. 2019. *Lifelines—The Resilient Infrastructure Opportunity*. Washington, DC: World Bank.

Ho, G., and P. Mauro. 2016. "Growth—Now and Forever?" *IMF Economic Review* 64: 526-47.

Horn, S., C. Reinhart, and C. Trebesch, 2019. "China's Overseas Lending," NBER Working Paper 26050, National Bureau of Economic Research, Cambridge, MA.

Horn, S., D. Mihalyi, P. Nickol, and C. Sosa-Padilla. 2024. "Hidden Debt Revelations." Policy Research Working Paper 10907, World Bank, Washington, DC.

Huidrom, R., M. A. Kose, and F. Ohnsorge. 2016. "Challenges of Fiscal Policy in Emerging and Developing Economies." Policy Research Working Paper 7725, World Bank, Washington, DC.

IDA (International Development Association). 2023. "IDA in Action: Results Highlights." International Development Association, World Bank, Washington, DC.

IDA (International Development Association). 2024. "IDA21 Policy Package: The Focus Areas Paper." International Development Association, World Bank, Washington, DC.

IEG (Independent Expert Group). 2023. *Strengthening Multilateral Development Banks: The Triple Agenda: A Roadmap for Better, Bolder, and Bigger MDBs*. Report of the Independent Expert Group, G20.

IMF (International Monetary Fund). 2009. "Fiscal Rules—Anchoring Expectations for Sustainable Public Finances." International Monetary Fund, Washington, DC.

IMF (International Monetary Fund). 2011. "Revenue Mobilization in Developing Countries." International Monetary Fund, Washington, DC.

IMF (International Monetary Fund). 2015. *Making Public Investment More Efficient*. Washington, DC: International Monetary Fund.

IMF (International Monetary Fund). 2018a. *IMF Fiscal Monitor: Capitalizing on Good Times.* April. Washington, DC: International Monetary Fund.

IMF (International Monetary Fund). 2018b. "The Gambia 2017 Article IV Consultation—Staff Report." International Monetary Fund, Washington, DC.

IMF (International Monetary Fund). 2019. *Sub-Saharan Africa: Recovery Amid Elevated Uncertainty*." Regional Economic Outlook. April. Washington, DC: International Monetary Fund.

IMF (International Monetary Fund). 2020a. "The Evolution of Public Debt Vulnerabilities in Lower Income Economies." IMF Policy Paper 20/003, International Monetary Fund, Washington, DC.

IMF (International Monetary Fund). 2020b. *Sub-Saharan Africa: COVID-19: An Unprecedented Threat*. Regional Economic Outlook. April. International Monetary Fund, Washington DC.

IMF (International Monetary Fund). 2021. "Questions and Answers on Sovereign Debt Issues." International Monetary Fund, Washington, DC. https://www.imf.org/en/About/FAQ/sovereign-debt.

IMF (International Monetary Fund). 2024a. "List of LIC DSAs for PRGT-Eligible Countries (as of April 30, 2024)." International Monetary Fund, Washington, DC.

IMF (International Monetary Fund). 2024b. "Macroeconomic Developments and Prospects For Low-Income Countries." IMF Policy Paper 2024/011. International Monetary Fund, Washington, DC.

James, A., T. Retting, J. F. Shogren, B. Watson, and S. Wills. 2022. "Sovereign Wealth Funds in Theory and Practice." *Annual Review of Resource Economics* 14: (1): 621-46.

Junquera-Varela, R. F., M. Verhoeven, G. P. Shukla, B. Haven, R. Awasthi, and B. Moreno-Dodson. 2017. *Domestic Resource Mobilization: Opportunities and Challenges.* Washington, DC: World Bank.

Kasyanenko, S., P. Kenworthy, S. K. Celik, F. U. Ruch, E. Vashakmadze, and C. Wheeler. 2023. "The Past and Future of Regional Potential Growth: Hopes, Fears, and Realities." Policy Research Working Paper 10368, World Bank, Washington, DC.

Kayizzi-Mugerwa, S. 2020. "Uganda's Nascent Oil Sector: Revenue Generation, Investor-Stakeholder Alignment, and Public Policy." WIDER Working Paper 2020/175, United Nations University World Institute for Development Economics Research, Helsinki.

Kose, M. A., S. Kurlat, F. Ohnsorge, and N. Sugawara. 2022. "A Cross-Country Database of Fiscal Space." *Journal of International Money and Finance* 128 (November): 102682.

Kose, M. A., P. Nagle, F. Ohnsorge, and N. Sugawara. 2020. "Can This Time Be Different? Policy Options in Times of Rising Debt." Policy Research Working Paper 9178, World Bank, Washington, DC.

Kose, M. A., P. Nagle, F. Ohnsorge, N. Sugawara. 2020. *Global Waves of Debt: Causes and Consequences*. Washington, DC: World Bank.

Kose, M. A., P. Nagle, F. Ohnsorge, and N. Sugawara. 2021. "What Has Been the Impact of COVID-19 on Debt? Turning a Wave into a Tsunami." Policy Research Working Paper 9871, World Bank, Washington, DC.

Kose, M. A., F. Ohnsorge, C. M. Reinhart, and K. S. Rogoff. 2022. "The Aftermath of Debt Surges." *Annual Review of Economics* 14 (1): 637-63.

Kose, M. A., F. Ohnsorge, and N. Sugawara. 2022. "A Mountain of Debt: Navigating the Legacy of the Pandemic." Policy Research Working Paper 9800, World Bank, Washington, DC.

Kose, M. A., F. Ohnsorge, and N. Sugawara. 2020. "Benefits and Costs of Debt: The Dose Makes the Poison." Policy Research Working Paper 9166, World Bank, Washington, DC.

Kose, M. A., N. Sugawara, and M. E. Terrones. 2020. "Global Recessions." Policy Research Working Paper 9172, World Bank, Washington, DC.

Kubota, M., and A. Zeufack. 2020. "Assessing the Returns on Investment in Data Openness and Transparency." Policy Research Working Paper 9139, World Bank, Washington, DC.

Lee, A., and F. Bachmair. 2019. "A Look Inside the Mind of Debt Managers. A Survey on Contingent Liabilities Risk Management." World Bank Treasury Public Debt Management, World Bank, Washington, DC.

Lis, E. M., and C. Nickel. 2010. "The Impact of Extreme Weather Events on Budget Balances." *International Tax and Public Finance* 17: 378-99.

Manghee, S., and C. van den Berg. 2012. "Public Expenditure Review from the Perspective of the Water and Sanitation Sector: Guidance Note." Water Papers, World Bank, Washington DC.

Mascagni, G., A. T. Mengistu, and F. B. Woldeyes. 2021. "Can ICTs Increase Tax Compliance? Evidence on Taxpayer Responses to Technological Innovation in Ethiopia." *Journal of Economic Behavior & Organization* 189 (September): 172-93.

Mawejje, J. 2019. "Natural Resources Governance and Tax Revenue Mobilization in Sub Saharan Africa: The Role of EITI." *Resources Policy* 62 (August): 176-83.

Mawejje, J. 2020. "The Macroeconomic Environment for Jobs in South Sudan: Jobs, Recovery, and Peacebuilding in Urban South Sudan—Technical Report II." Jobs Working Paper 51, World Bank, Washington, DC.

Mawejje, J., and P. McSharry. 2021. "The Economic Cost of Conflict: Evidence from South Sudan." *Review of Development Economics* 25 (4): 1969-90.

Mawejje, J., and N. M. Odhiambo. 2024. "Fiscal Rules and the Cyclicality of Fiscal Policy in The East African Community." *Applied Economics Letters* 31 (15): 1429-32.

Mawejje, J., and R. K. Sebudde. 2019. "Tax Revenue Potential and Effort: Worldwide Estimates Using a New Dataset." *Economic Analysis and Policy* 63 (September): 119-29.

McNabb, K., M. Danquah, and A. Tagem. 2021. "Tax Effort Revisited: New Estimates from The Government Revenue Dataset." WIDER Working Paper 170, United Nations University World Institute for Development Economics Research, Helsinki.

Montes, G., J. Bastos, and A. de Oliveira. 2019. "Fiscal Transparency, Government Effectiveness and Government Spending Efficiency: Some International Evidence Based on Panel Data Approach." *Economic Modelling* 79 (June): 211-25.

Mullins, P., S. Gupta, and J. Liu. 2020. "Domestic Revenue Mobilization in Low-Income Countries: Where To From Here?" Policy Paper 195, Center for Global Development, Washington, DC.

Muralidharan, K., J. Das, A. Holla, and A. Mohpal. 2016. "The Fiscal Cost of Weak Governance: Evidence from Teacher Absenteeism in India." Policy Research Working Paper 7579, World Bank, Washington, DC.

Newbery, D., and N. Stern, eds. 1987. *The Theory of Taxation for Developing Countries.* Oxford: Oxford University Press.

Nonay, C., M. Motta, and M. Grigorov. 2024. "The IDA Private Sector Window: Unlocking Private Investment in The Poorest and Most Fragile Countries." *IEG Blog*. January 17, 2024. https://ieg.worldbankgroup.org/blog/private-sector-window-unlocking-private-investment-poorest-and-most-fragile-countries.

Nose, M., and A. Mengistu. 2023. "Exploring the Adoption of Selected Digital Technologies in Tax Administration: A Cross-Country Perspective." IMF Note 008, International Monetary Fund, Washington, DC.

OECD (Organization for Economic Cooperation and Development). 2024. "Creditor Reporting System: Aid Activities." OECD International Development Statistics (database). Accessed on October 3, 2024. https://doi.org/10.1787/data-00061-en.

Ohnsorge, F., and S. Yu, eds. 2022. *The Long Shadow of Informality: Challenges and Policies*. Washington, DC: World Bank.

Okunogbe, O. and G. Tourek. 2024. "How Can Lower-Income Countries Collect More Taxes? The Role of Technology, Tax Agents, and Politics." *Journal of Economic Perspectives* 38 (1): 81-106.

Pazarbasioglu, C. 2024. "Sovereign Debt Restructuring Process Is Improving Amid Cooperation and Reform." *IMF Blog*. June 26, 2024. https://www.imf.org/en/Blogs/Articles/2024/06/26/sovereign-debt-restructuring-process-is-improving-amid-cooperation-and-reform.

Rawlings, L. B., and G. M. Rubio. 2005. "Evaluating the Impact of Conditional Cash Transfer Programs." *World Bank Research Observer* 20 (1): 29-55.

Rozenberg, J., and M. Fay, eds. 2019. *Beyond the Gap: How Countries Can Afford the Infrastructure They Need While Protecting the Planet.* Washington, DC: World Bank.

Sachs, J. D., G. Lafortune, and G. Fuller. 2024. *The SDGs and the UN Summit of the Future. Sustainable Development Report 2024*. Dublin: Dublin University Press.

Shawn, D., G. Engström, T. Pettersson, and M. Öberg. 2024. "Organized Violence 1989-2023, and the Prevalence of Organized Crime Groups." *Journal of Peace Research* 61(4): 673-93.

Sinnott, E., J. Nash, and A. de la Torre. 2010. "*Natural Resources in Latin America and the Caribbean Beyond Booms and Busts?*" World Bank Latin America and Caribbean Studies 55550. Washington, DC: World Bank.

Stiglitz, J. E., and J. K. Rosengard. 2015. *Economics of the Public Sector* (4th edition). London: W. W. Norton and Company.

Sugawara, N. 2014. "From Volatility to Stability in Expenditure: Stabilization Funds in Resource-Rich Countries." IMF Working Paper 14/43, International Monetary Fund, Washington, DC.

Talvi, E., and C. A. Vegh. 2005. "Tax Base Variability and Procyclical Fiscal Policy in Developing Countries." *Journal of Development Economics* 78 (1): 156-90.

Thornton, J. 2014. "Does Foreign Aid Reduce Tax Revenue? Further Evidence." *Applied Economics* 46 (4): 359-73.

Tsani, S. 2015. "On The Relationship Between Resource Funds, Governance and Institutions: Evidence from Quantile Regression Analysis." *Resources Policy* 44 (June): 94-111.

UNCTAD (United Nations Conference on Trade and Development). 2024. *A World of Debt: A Growing Burden to Global Prosperity*. New York: United Nations.

UNEP (United Nations Environment Programme). 2023. "Adaptation Gap Report 2023: Underfinanced. Underprepared. Inadequate Investment and Planning on Climate Adaptation Leaves World Exposed." United Nations Environment Programme, Nairobi, Kenya.

United Nations. 2021. *The Sustainable Development Goals Report 2021*. New York: United Nations.

Van Rijckeghem, C., and B. Weder. 2001. "Bureaucratic Corruption and the Rate of Temptation: Do Wages in the Civil Service Affect Corruption, and by How Much?" *Journal of Development Economics* 65 (2): 307-31.

World Bank. 2007. *Managing Public Debt: From Diagnostics to Reform Implementation.* Washington, DC: World Bank.

World Bank. 2015. *Global Economic Prospects: Having Fiscal Space and Using It.* January. Washington, DC: World Bank.

World Bank. 2017a. *Education Public Expenditure Review Guidelines.* Washington, DC: World Bank.

World Bank. 2017b. "Operationalizing the IDA18 IFC-MIGA Private Sector Window." World Bank, Washington, DC.

World Bank. 2018a. "The Gambia—Joint Bank-Fund Debt Sustainability Analysis: 2018 Update." World Bank, Washington, DC.

World Bank. 2018b. *Systematic Country Diagnostic: Overcoming Growth Stagnation to Reduce Poverty.* Washington, DC: World Bank.

World Bank. 2018c.*World Development Report 2018: Learning to Realize Education's Promise.* Washington, DC: World Bank.

World Bank. 2019a. *IDA's Crisis Response Window: Lessons from IEG Evaluations.* Independent Evaluation Group. Washington, DC: World Bank.

World Bank. 2019b. *Global Economic Prospects: Heightened Tensions, Subdued Investment*. June. Washington, DC: World Bank.

World Bank. 2019c. *Global Economic Prospects: Darkening Skies*. January. Washington, DC: World Bank.

World Bank. 2020. "Sustainable Development Finance Policy of the International Development Association: FY21 Board Update." World Bank, Washington, DC.

World Bank. 2021. *Climate Change Action Plan 2021- 2025: Supporting Green, Resilient, and Inclusive Development*. World Bank, Washington, DC.

World Bank. 2022a. *Understanding Trends in Proliferation and Fragmentation for Aid Effectiveness during Crises.* Washington, DC: World Bank.

World Bank. 2022b. *Country Climate and Development Report: G5 Sahel Region.* Washington, DC: World Bank.

World Bank. 2022c. "Sustainable Development Finance Policy of the International Development Association: FY22 Implementation Update." World Bank, Washington, DC.

World Bank. 2023a. *Global Economic Prospects.* June. Washington, DC: World Bank.

World Bank. 2023b. *International Debt Report 2023*. Washington, DC: World Bank.

World Bank. 2023c. *The World Bank's Role in and Use of the Low-Income Country Debt Sustainability Framework*. Independent Evaluation Group. Washington, DC: World Bank.

World Bank. 2024a. *Global Economic Prospects.* June. Washington, DC: World Bank.

World Bank. 2024b. *Commodity Markets Outlook.* April. Washington, DC: World Bank.

World Bank. 2024c. *Poverty, Prosperity and Planet Report 2024: Pathways Out of the Polycrisis*. Washington, DC: World Bank.

World Bank. 2024d. *Financing The Future: IDA's Role in the Evolving Global Aid Architecture.* Development Finance, International Development Association. Washington, DC: World Bank.

World Bank. 2024e. *International Debt Report 2024*. Washington, DC: World Bank.

World Bank and IMF (World Bank and International Monetary Fund). 2018. *Debt Vulnerabilities in Emerging and Low-Income Economies.* October 2018 Meeting of the Development Committee. Washington DC: World Bank and International Monetary Fund.

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The world's 26 poorest economies—home to about 40 percent of all people who live on less than $2.15 a day—are deeper in debt than at any time since 2006 and increasingly vulnerable to natural disasters and other shocks. Yet international aid as a share of their GDP has dwindled to a two-decade low, starving many of much-needed affordable financing.

This study constitutes the first systematic assessment of the causes of chronic fiscal weakness in the very poorest economies—those with annual per capita incomes of less than $1,145 a year. These economies are poorer today on average than they were on the eve of COVID-19, even though the rest of the world has largely recovered. Government debt, on average, now stands at 72 percent of GDP, an 18-year high. Nearly half of these low-income countries (LICs)—twice the number in 2015—are either in debt distress or at high risk of it. Not one of them is at low risk.

LICs' ability to attract low-cost financing, meanwhile, has largely dried up: net financial flows—including foreign direct investment and official aid—fell to a 14-year low in 2022, the latest year for which data are available. That has left the World Bank's International Development Association (IDA) as their single-largest source of low-cost financing from abroad. IDA provides grants and near-zero-interest-rate loans to 77 of the world's most vulnerable economies, and it is crucial to the 26 poorest among them.

These countries have significant potential to boost growth at home and contribute to broader prosperity and peace as well: their natural resources are ample, and their working-age populations are rapidly growing. If this potential can be harnessed effectively, they can contribute to sustainable growth and healthier fiscal positions.

Well-designed national policy interventions can improve fiscal positions in LICs. To strengthen fiscal positions, national policy makers in LICs should aim to strengthen domestic revenue mobilization, improve spending efficiency, enhance debt management practices, and foster stronger economic growth. Long-term growth prospects can be enhanced by policies that encourage broad reforms to ease structural constraints on investment growth, reduce informality, address market failures, and strengthen institutions. The support of the global community is also critical to helping LICs to take advantage of their natural resources and demographic dividends, stabilizing their fiscal positions and improving fiscal policy management.

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