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Navigating Fiscal Challenges in Sub-Saharan Africa

Resilient Strategies and Credible Anchors in Turbulent Waters

Prepared by a team comprised of Fabio Comelli, Peter Kovacs, Jimena Montoya, and Arthur Sode, led by Antonio David and Luc Eyraud

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Acronyms and Abbreviations

AE	Advanced Economy
CAPB	Cyclically Adjusted Primary Balance
DSF	Debt Sustainability Framework
EMDE	Emerging Market and Developing Economy
FCS	Fragile and Conflict-Affected State
GDP	Gross Domestic Product
LIC	Low-Income Country
MTBF	Medium-Term Budget Framework
NPV	Net Present Value
ODA	Overseas Development Assistance
PFM	Public Finance Management
SFA	Stock-Flow Adjustment
SSA	Sub-Saharan Africa
WAEMU	West African Economic and Monetary Union
WEO	<i>World Economic Outlook</i>

Executive Summary

Why is it time to rethink fiscal policy in the region? Sub-Saharan Africa has been hit by a cascading series of shocks, including the COVID-19 pandemic, Russia’s invasion of Ukraine, and increasingly frequent weather events. These shocks have amplified longstanding economic and social challenges and exacerbated fiscal vulnerabilities. Under unchanged fiscal policy, the region’s debt-to-GDP ratio will continue to trend upward, increasing by more than 10 percentage points over the next five years. *Significant fiscal reforms are needed to rebuild buffers and preserve the sustainability of public finances, while also achieving the region’s development goals.*

What could be done differently? Although fiscal rules and medium-term budget frameworks are in place in most sub-Saharan African countries, their ability to steer fiscal policy remains limited. Evidence suggests that policy lacks an effective anchor and is excessively focused on short-term goals. *The paper highlights four areas of concern:*

- Fiscal balances are relatively unresponsive to rising debt.
- Deviations from fiscal plans tend to be significant, especially at longer time horizons.
- Countries in sub-Saharan Africa have difficulty sustaining elevated primary surpluses.
- Compared to other regions, fiscal deficit ceilings are breached more frequently and by a larger margin.

Why is it difficult to develop a new fiscal strategy? *Policymakers in sub-Saharan Africa face a fundamental tension between elevated development needs and low domestic resource mobilization—this creates difficult policy tradeoffs and may lead to excessive indebtedness.* In addition, calibrating fiscal targets is much more challenging in the face of large and unpredictable shocks, such as volatile commodity prices, weather events, or conflicts. Also, political instability and institutional weaknesses often get in the way of fiscal adjustment (when needed) and tend instead to promote destabilizing policy choices. Finally, tight financing conditions and reliance on volatile donor flows limit the extent to which shocks can be accommodated and the scope for a more gradual approach to adjustment.

Is the debt of African countries too high? An explicit debt anchor is a crucial element of any fiscal strategy. But calibrating this anchor—the target that shapes the debt trajectory in the medium term—is a difficult exercise in any country, and even more so in developing economies with data gaps and high volatility. This paper contributes to the debate on fiscal targets by proposing a novel method tailored to the low-income country context, which relies on a single core principle: the preservation of debt-servicing capacity. Results point to a median debt anchor of 55 percent of GDP in the region. *Slightly more than half of sub-Saharan African economies were above their recommended country-specific anchor in 2022.* The proposed method could inform the decision of countries that are in the process of designing or revising their fiscal rules; and more generally, it could provide operational guidance on the direction of fiscal policy.

How much adjustment is needed and is this realistic? Using various methodologies, the paper shows that most (though not all) countries will need to consolidate over the medium term to achieve prudent debt targets. Adjustment needs are in the order of 2 to 3 percent of GDP over the next five years for the median country, and much larger in a few cases. *This adjustment seems feasible given historical experience—in the past, countries in the region have been able to improve their primary balance by 1 percent of GDP a year over two to three years.* Looking ahead, the ability to pursue a gradual adjustment will be largely determined by global financial conditions, the growth outlook, and the availability of donor financing.

Are all countries in the same boat? Although the region has, on average, moderate fiscal adjustment needs, there is significant heterogeneity across countries. *About a quarter of sub-Saharan African economies still have some fiscal space and can use it to continue making vital investments in human and physical capital.* At the opposite end of the spectrum, a few countries display very large adjustment needs, and it is unlikely that fiscal consolidation alone will be enough to ensure fiscal sustainability (nor would it be desirable). In these specific cases, the necessary adjustment should be part of a comprehensive strategy to rebuild fiscal buffers, possibly including debt reprofiling or restructuring.

Should the adjustment be focused on expenditure or revenue measures? Past adjustment episodes in Africa have tended to rely mostly on expenditure cuts—especially public investment—which can have detrimental effects on growth. In this context, there are some key structural differences between sub-Saharan African countries and advanced economies, where empirical studies find that expenditure-based adjustments are preferable. *In sub-Saharan Africa, domestic revenue mobilization can play a greater role in the adjustment process without necessarily undermining growth to the same extent as seen elsewhere.* Careful selection of tax instruments can mitigate the possible negative effects on inequality. In some cases, complementary measures are also needed on the expenditure side, notably by reforming costly and poorly targeted energy subsidies.

Which institutional reforms are most critical? The duration and complexity of fiscal reforms underscore the need to root policy objectives and political commitment within sound institutions. So institutional reforms are generally a prerequisite for effective implementation of a fiscal strategy. *The paper discusses four reform areas that are tailored to developing countries' needs and constraints:*

- Strengthening the medium-term orientation of the budget, starting with the foundations like the macro-fiscal forecasting capacity.
- More systematically identifying and managing fiscal risks, including through a central risk management capacity, broader use of risk management tools, and the accumulation of adequate fiscal buffers.
- Improving expenditure controls by reviewing the integrity of the spending cycle, automating some procedures, and improving cash management.
- Boosting domestic revenue mobilization by strengthening revenue administrations' resources, promoting digitalization, and introducing medium-term revenue strategies.

How to overcome resistance to reform? *The sustainability of a new fiscal strategy depends on the government's ability secure public support* by linking the policy measures to longer-term benefits. Resistance to reform is difficult to overcome, as the costs of the status quo are not always visible, while fiscal reforms often reduce the welfare of a segment of the population, at least temporarily. Public acceptance should be a central consideration in policy design—for instance, by sequencing reforms carefully and introducing compensatory measures. But “smart design” is not always feasible if reforms are needed urgently, or if instruments like targeted transfers are not available. In this context, communication campaigns that transparently and credibly outline the long-term benefits of the reform, its distributional consequences, and the costs of inaction are critical. And, more generally, public acceptance depends on the ability of governments to convince the population that they will use public funds in an efficient, fair, and transparent manner.

How is the paper organized? *The paper has three main chapters.* Chapter 1 defines the concept of fiscal strategy, outlines the difference with existing country practices, highlights the benefits from a more strategic approach to fiscal policy, and discusses how this approach could be tailored to the sub-Saharan African context. Chapter 2 focuses on the design of such a strategy, including the calibration of debt anchors as well as the size, composition, and pace of adjustment needs. Chapter 3 examines some implementation aspects and describes the role of institutions in ensuring success.

1. Fiscal Strategy in the African Context: Why, What, and How?

A recalibration of fiscal policy is needed in many sub-Saharan African countries where debt levels and costs have increased significantly in the past decade—a situation exacerbated by the multitude of external and domestic shocks that have hit the region in recent years. Under unchanged policy, debt is projected to remain on an upward trend in most countries. The sound design and effective implementation of credible medium-term fiscal strategies based on a clear fiscal anchor could play a crucial role in reducing debt vulnerabilities and mitigating fiscal risks. Nevertheless, these strategies cannot be cookie-cutter plans replicating “best practices” adopted by high-income economies. Specific features of African countries need to be squarely taken into account. The large gap between elevated development needs and low domestic revenue mobilization creates fiscal pressures and difficult tradeoffs for policymakers in the region. High macroeconomic volatility and elevated uncertainty make the definition of appropriate fiscal targets more complicated. Tight financing constraints limit the extent to which shocks can be accommodated and reduce the scope for gradualism in fiscal adjustment. Institutional weaknesses and, in some cases, political instability tend to generate fiscal policy reactions that are destabilizing and complicate the implementation of fiscal reforms.

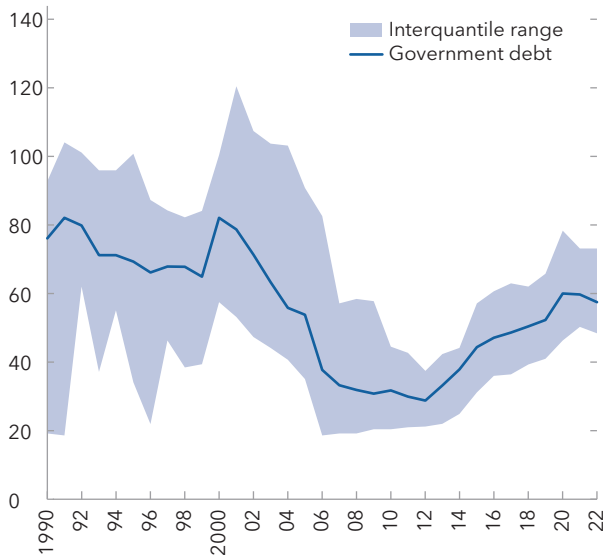
A. Recalibrating Fiscal Policy in Sub-Saharan Africa

Rising Vulnerabilities: Higher and More Expensive Debt

The fiscal position of sub-Saharan African countries has deteriorated significantly over the past decade. The median government debt-ratio peaked at about 80 percent of GDP at the beginning of the 2000s (Figure 1). At the time, there were clear signs of debt overhang in the region, which pushed the international community to launch the Heavily Indebted Poor Countries (HIPC) initiative. The HIPC, which was supplemented by the Multilateral Debt Relief Initiative (MDRI), provided large debt relief to 30 sub-Saharan Africa countries and helped reduce the median debt by more than 40 percentage points of GDP in the first decade of the millennium. Since then, the debt ratio has risen again to reach a median of about 50 percent of GDP just before the start of the COVID-19 pandemic. This increase in debt happened despite the fact that countries enjoyed relatively high economic growth rates and low effective interest rates, which translated into favorable automatic debt dynamics.

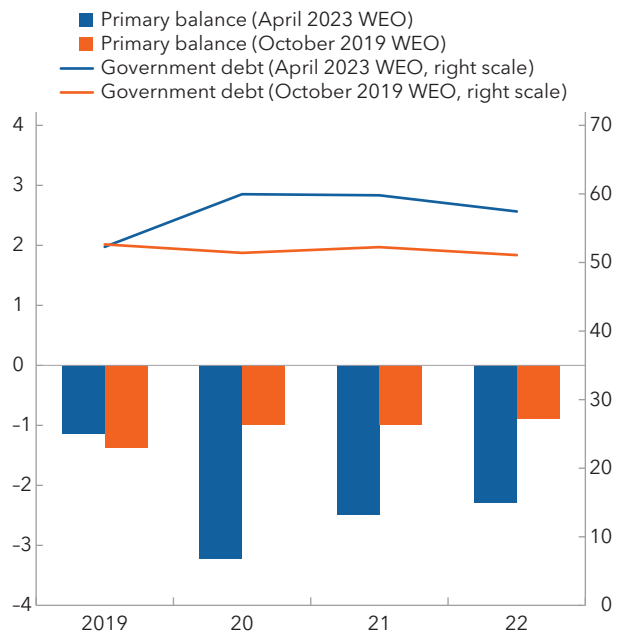
The rise in debt has been accompanied by a significant change in the creditors’ landscape. While historically the largest share of debt consisted of long-term concessional external debt—multilateral or official bilateral loans—the creditor structure has become more diversified over the last two decades. The development of domestic financial markets and greater access to the international capital markets have increased the share of private creditors. External bonds, which were negligible until the mid-2000s, have become an important funding source, accounting for close to 15 percent of the region’s government debt in 2021. While this development has allowed sub-Saharan African countries to tap into a larger pool of savings, it has also shortened debt maturity, increased its average cost, and made countries more exposed to sudden changes in market sentiment. Today, almost three-quarters of the region’s debt is on commercial terms. On the official creditor side, the composition has also shifted toward nontraditional lenders with the rapid rise of China as a major external creditor.

Figure 1. Sub-Saharan Africa General Government Gross Debt 1990-2022
(Share of GDP, median)



Source: IMF, World Economic Outlook database.

Figure 2. Impact of Pandemic on Sub-Saharan Africa Fiscal Path
(Share of GDP, median)



Source: IMF, World Economic Outlook (WEO) database.

More recently, the combined shocks of the COVID-19 pandemic and the fallout from the war in Ukraine have further aggravated debt vulnerabilities in sub-Saharan Africa. Most countries relaxed their fiscal position during the pandemic, with an overall increase in the aggregate deficit of the region of about 2½ percent of GDP in 2020. At the time of drafting this paper, the median and aggregate fiscal deficit ratios of the region are not expected to return to their 2019 levels within the next five years (by 2027). The median debt ratio increased by almost 10 percent of GDP in 2020 alone. These fiscal trajectories—both in terms of deficits and debt—are much less favorable than anticipated before the pandemic (Figure 2). Going forward, the normalization of monetary policies and tightening of global liquidity conditions following the inflation surge of 2022 are also adding risks to the fiscal outlook. Slower global growth, more difficult access to international capital markets, and higher interest rates are likely to weaken further the already-fragile budgetary situation.

In light of these developments, fiscal sustainability indicators have deteriorated in many sub-Saharan African countries. The region’s median ratio of interest to revenue excluding grants, a key metric to assess debt servicing capacity (Chapter 2) has more than doubled since the early 2010s from 5 to 11 percent as of 2022—but still well below the level of the early 2000s which was close to 15 percent. The Low-Income Countries Debt Sustainability Framework (DSF) of the IMF and the World Bank—a tool used to assess debt vulnerabilities in developing countries—signals a sharp rise in the risk of debt distress in the region (Figure 3). In 2022, more than half of the 35 sub-Saharan Africa countries with DSF ratings were assessed to be at high risk of or already in debt distress. This represents a doubling compared to 2015 when only eight countries fell into one of these two categories.

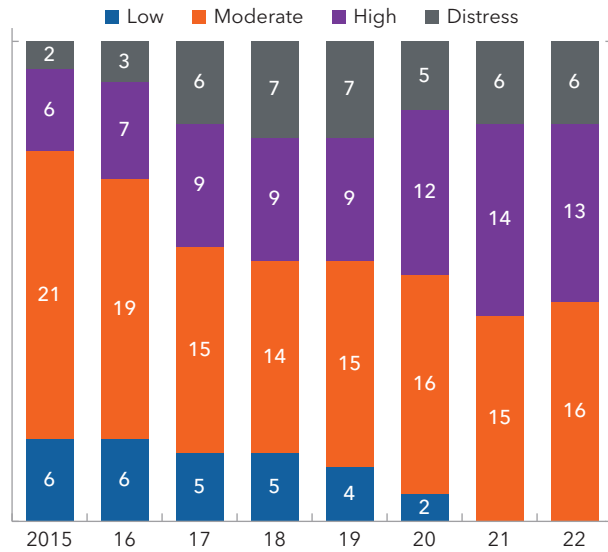
While the aggregate fiscal situation of sub-Saharan Africa has been weakened by recent shocks, not all countries are facing similar difficulties, and a number of countries continue to enjoy some fiscal space. About one-quarter of sub-Saharan Africa countries had a government debt level below 50 percent of GDP at end-2020, including countries with strong macroeconomic fundamentals such as Botswana. In fact, 10 countries have seen their debt-to-GDP ratio decrease, rather than increase, between end-2019 and end-2022. Many countries in the region also continue to have a large share of their government debt on concessional

terms with long maturities and low interest rates, which protects them, to some extent, from sudden reversals of market sentiment or tighter global financial conditions.

Fiscal Projections under Unchanged Policy

If fiscal policy is not adjusted, debt vulnerabilities could rise further and push many countries to the edge of the cliff. Assuming that all economies of the region keep their primary balance ratio at their 2022 level and that the effective interest rate paid on debt remains constant after 2022, a standard debt accumulation equation shows that the median debt-to-GDP ratio would follow an upward path under this unchanged policy scenario (Figure 4). By 2027, the median debt ratio would be 10 percent point higher than under the baseline scenario, while the median interest payment-to-revenue excluding grants would be 1 percentage point higher.

Figure 3. Sub-Saharan Africa Debt Risk Status for PRGT Countries, 2015-22

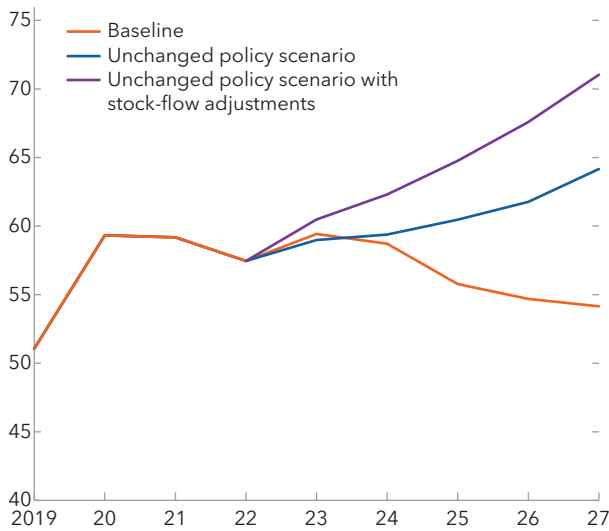


Source: IMF, Debt Sustainability Analysis Low-Income Developing Countries database.
 Note: PRGT = IMF Poverty Reduction and Growth Trust.

Figure 4. Government Debt Burden in Sub-Saharan Africa under Different Scenarios

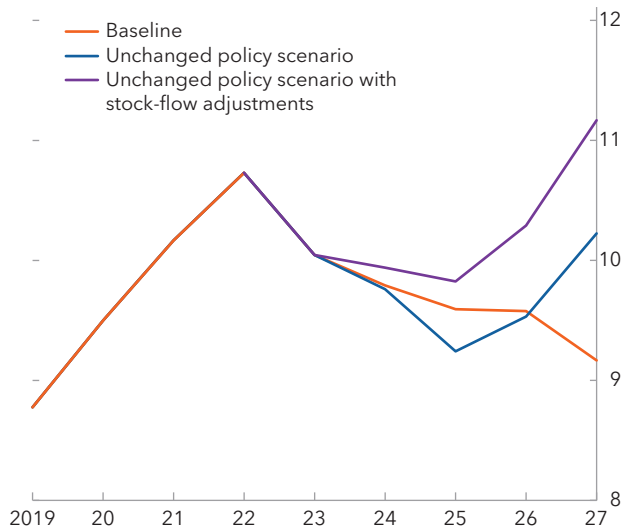
1. Debt-to-GDP Ratio

(Percent of GDP, median)



2. Interest Payments

(Percent of government revenue excluding grants, median)



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

Note: Baseline projections are extracted from the April 2023 *World Economic Outlook* (WEO) vintage. The "unchanged policy" path assumes that the primary deficit-to-GDP ratio remains constant going forward at its 2022 levels, while nominal GDP growth, the effective interest rate paid on public debt, the nominal bilateral exchange rate against the US dollar and the share of debt in foreign currency in total debt are identical to baseline projections. The "unchanged policy" scenario assumes no stock-flow adjustment beyond 2022. By contrast, the "unchanged policy with stock-flow adjustments" adds to the projected debt dynamic path the regional median annual stock-flow adjustment observed over the 2013-22 period, which is 1.5 percent of GDP per year. Zambia is excluded from the sample as there are no debt projections available in the WEO beyond 2022.

A second exercise is conducted by also incorporating in the debt trajectory so-called “stock-flow adjustments” (SFAs), which are discrepancies observed in past data between the annual change in public debt and the budget deficit. These discrepancies can be explained by various factors, including off-budget operations, support to weak state-owned enterprises (SOEs), recapitalization of public banks, and arrears clearance. As a result of these SFAs, debt tends often to increase at a faster pace than dictated by the fiscal deficit. Therefore, a more realistic exercise should also include such debt-increasing flows which are not captured by the fiscal deficit. On average, across all sub-Saharan African countries, median SFAs have represented about 1½ percent of GDP per year over 2013–22. Adding this to the debt path, the situation would be even more concerning, with the regional median debt-to-GDP being close to 20 percentage point higher than in the baseline scenario by 2027 (which is almost 15 percentage points higher than the end-2022 value) and the median interest payments-to-revenue being 2 percent higher by 2027. Under this second scenario, median public debt would reach about 70 percent of GDP and interest payments would be above 11 percent of government revenue at the end of the forecast horizon. These debt ratios would be very close to the levels prevailing at the turn of the millennium when most countries in the region received debt relief from the international community.

Under the unchanged policy scenario, the deterioration of fiscal positions may pose a significant challenge for the long-term prosperity and development of the region. Higher interest rate burdens would divert scarce fiscal resources from productive use such as spending on health, education, or public infrastructure. In addition, high debt levels could also crowd out private investment and impede private sector-led growth, especially in countries with underdeveloped domestic financing markets where firms compete with the government to access limited financial resources. Higher debt may also elevate the risk of sovereign default, which is particularly detrimental to growth and poverty reduction. Finally, higher public debt would also limit the ability of countries to respond to future shocks.

Fiscal Adjustment under the Baseline

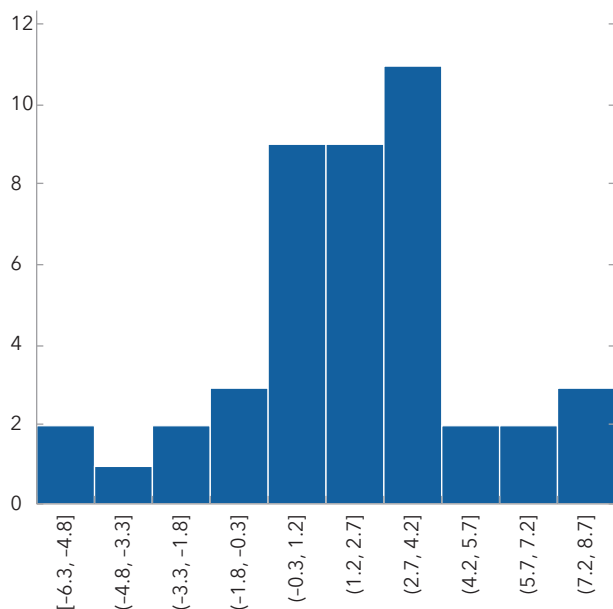
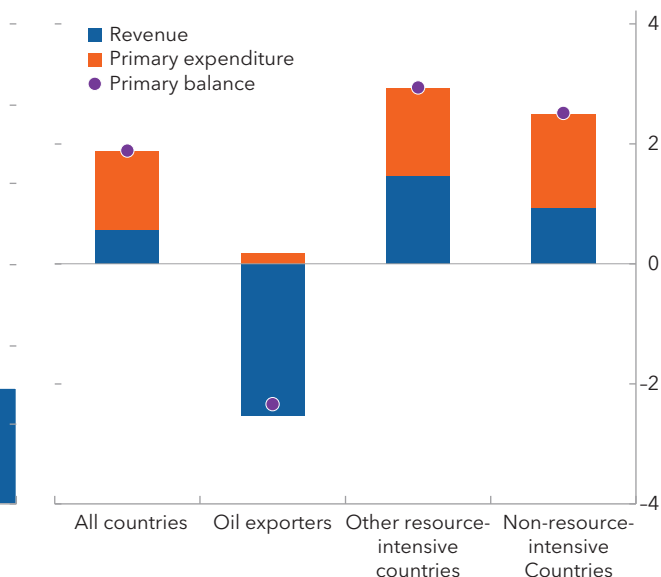
Following the fiscal relaxation during the pandemic, most sub-Saharan countries have already announced and, in some cases, started implementing, sizeable fiscal consolidation plans. The median fiscal deficit-to-GDP ratio has been broadly stable in 2020–22 but is expected to improve by about 2 percentage points between 2022 and 2027 (Figure 5, panel 1). The vast majority of countries are projected to reduce their primary deficit ratio over the period, whereas only six countries, mostly oil exporters which have benefited from high oil revenue in 2022, are projected to record lower primary balances as a share of GDP in 2027 compared to 2022 (Figure 5, panel 2). The composition of the projected fiscal adjustment varies across countries, but primary expenditure ratios are expected to decrease in most countries, reflecting in part the phasing out of crisis-related spending. Except in oil exporters, public revenue ratios are forecast to increase but the bulk of the adjustment is planned to be expenditure-based.

B. Fiscal Strategy: A Different Approach to Fiscal Policy

Definition of a Fiscal Strategy

This paper uses the term “fiscal strategy” to refer to a policy statement that sets the strategic orientation of fiscal policy over the medium term. In our terminology, a fiscal strategy is a way of conducting fiscal policy, not simply an institutional or legal framework. A strategy can (but does not need to) be supported by fiscal rules or formal medium-term budget frameworks.

More specifically, the term “fiscal strategy” characterizes a medium-term policy framework that includes the following elements: (1) a trajectory for future fiscal deficits that is grounded in sound economic principles—including the principle of “anchoring” (Box 1); (2) a targeted composition for revenue and expenditure that

Figure 5. Planned Cumulative Fiscal Adjustment in Sub-Saharan Africa between 2022 and 2027**1. Number of Countries per Size of Fiscal Adjustment 2022-27***(x-axis: Change in primary balance-to-GDP ratio between 2022 and 2027)***2. Change in Primary Balance Ratio and Components, 2022-27***(Percentage points of GDP, simple average)*

Sources: IMF, World Economic Outlook database; and authors' calculations.

Note: In panel 2, a positive orange bar for expenditure means that the expenditure ratio decreased between 2022 and 2027. A positive blue bar for revenue means that the revenue ratio increased between 2022 and 2027. South Sudan is excluded from the analysis.

reflects equity and efficiency considerations; and (3) supporting institutions that facilitate the implementation of fiscal plans. This paper provides analysis and advice on how to design all these components in the context of sub-Saharan Africa.

Objectives

The role of a fiscal strategy is to fulfil the main functions of fiscal policy in a sustainable and lasting manner. Following Musgrave (1959), these functions are usually described as stabilization (smoothing the cycle and responding to shocks), allocation (fostering long-term growth), and redistribution (promoting inclusiveness). In sub-Saharan African countries, the allocation function tends to be more prominent given the large development needs, although low-income countries (LICs) have increasingly been using fiscal policy as a counter-cyclical tool and to develop social safety nets.

Given acute resource constraints, a fiscal strategy constitutes a difficult balancing act between competing and possibly conflicting objectives. As discussed in Selassie and Tiffin (2021), policymakers in sub-Saharan Africa are confronted with several fiscal challenges: tackling the region's pressing development spending needs, containing public debt, and mobilizing tax revenues in circumstances in which these measures are often unpopular. Striking a balance between these objectives is difficult, since efforts to address one element may come at the expense of the others. For instance, higher development spending would require that the authorities take on more debt or increase taxes.

In the rest of the paper, we consider that a fiscal strategy is "successful" if it meets three main conditions: (1) it achieves its stated objective (for instance, in the case of fiscal adjustment, the debt trajectory is corrected to preserve fiscal sustainability); (2) it is sustained in the sense that the reform is not reversed in the immediate years following its adoption; and (3) reform implementation does not entail excessive costs (for instance,

Table 1. Features of the Strategic Approach

	Country practices	Strategic approach
Time horizon	Focuses mostly on short-term actions	Clear medium-term orientation, which is critical for investment management, domestic revenue mobilization efforts, and to guide investors and financial partners' expectations.
Anchoring	Emphasis on fiscal deficit path with less focus on debt trajectory	Deficit path is anchored in a clear target for debt or the debt trajectory
Balance between objectives	Tends to focus on certain objectives at the expense of others, because of political economy considerations that prompt governments to cater to narrow constituency and priorities	Finds the right balance between multiple objectives (also in an intertemporal way; for example, by preserving intergenerational wealth); does not systematically sacrifice some objectives
Economic principles	Excessive role of political factors (for example, reelection) and institutional constraints (for example, compliance with ad hoc fiscal rule)	Reflects sound, simple, and transparent economic principles, not just political acceptability and institutional convenience
Implementation risks	Overly optimistic or ambitious fiscal plans, leading to frequent slippages ex post	Actively identifies, anticipates, and manages implementation risks; develops prudent and credible (sometimes second-best) plans
Pace of adjustment	Tends to backload reforms too systematically	Pace of adjustment reflects cost-benefit analysis between gradualism vs immediate action

fiscal adjustment that hurts growth and raises poverty significantly would not be considered “successful” even if it meets the previous two conditions). These criteria are commonly used in the empirical literature assessing the impact of fiscal reforms.

Success is measured in terms of not only design but also ease of implementation. Most fiscal reforms change the distribution of benefits in the society. Hence, their implementation often faces significant political economy hurdles. Failure to anticipate these political and institutional challenges could put the fiscal strategy at risk. Successful reforms do not simply rely on designing good policies “on paper,” but on managing their implementation, addressing their impact, and responding to public concerns. Technical solutions should be accompanied and supported by processes of consensus building, communication, compromise, and adaptation. This requires developing pragmatic second-best policies that stakeholders can agree upon and reflect political realities, rather than perfect “best practice” solutions (Frieden 2020).

Comparison with Country Practices

Unsurprisingly, large differences exist between country practices and the strategic approach to fiscal policy (Table 1). Even when countries have elaborated strategic policy statements, these are often too optimistic and do not take sufficiently into account implementation risks.

The lack of strategic orientation is certainly not specific to African economies. Developing medium-term fiscal strategies is beneficial to all countries in the world, but the sub-Saharan African region presents some characteristics that make the design and implementation of the strategy much more complicated than elsewhere, as discussed in the next section.

The rest of the paper will further emphasize the importance of (1) thinking of fiscal policy as a medium-term strategy, (2) broadening the discussion from a narrow focus on deficit targets toward a more comprehensive approach that takes into account other dimensions of fiscal policy (such as debt targets and development objectives), and (3) basing the strategy on sound, simple, and transparent economic principles.

Box 1. The Principle of Anchoring Fiscal Policy

Ideally, a fiscal strategy should be anchored by a debt objective. This box relies on a conceptual framework that is discussed in greater details in Eyraud and others (2018).

The *fiscal anchor* is a variable that is used to inform medium-term expectations about fiscal policy and, when properly calibrated, ensures fiscal sustainability. In general, the anchor is a stock variable, with the debt-to-GDP variable being the most commonly used. In resource-rich countries, the anchor can be extended to net debt (gross debt minus financial assets of the government) or even net wealth (which also incorporates resource wealth, defined as the net present value of future resource revenues) as under the Permanent Income Hypothesis approach.

Because fiscal anchors are not meant to provide short-term guidance to policymakers, fiscal frameworks generally include also *operational rules or targets* that apply to flow variables like the fiscal balance, expenditure, or revenue (in level, growth rate, or GDP ratio). The variables, which the operational rules are based on, should be under the direct control of the government and have close and predictable link to the dynamics of the fiscal anchor.

Another complementarity between fiscal anchors and operational rules arises from the fact that flows cumulate into stocks. As a stock variable, the fiscal anchor creates an upper limit for repeated fiscal slippages on the flow variable. For instance, if a country repeatedly breaches its fiscal deficit ceiling, the slippages will accumulate into debt and be eventually sanctioned by the debt ceiling. In simple theoretical models, the mark of a sustainable fiscal reaction function is that the debt anchor plays the role of correction mechanism and has a positive effect on the fiscal balance (Bohn 1995, 1998).¹

At the technical level, the fiscal anchor is typically used to calibrate the operational rules in a sequential and comprehensive manner (Eyraud and others 2018). For instance, when the European Stability and Growth Pact was created in the 1990s, a relationship existed between the 60 percent of GDP debt anchor and the 3 percent of GDP deficit ceiling: if the deficit was kept at 3 percent forever, the debt ratio would converge toward 60 percent under the assumption of 5 percent nominal GDP growth, which was the estimate of potential growth at the time.

Because the anchor is a medium-term target (or ceiling), it is not intended to be complied with at all points in time. For instance, the fact that a country's debt ratio lies above a well-calibrated debt anchor should not be seen as a fundamental problem if a credible fiscal framework ensures a return toward the anchor in the medium term. It is, in fact, the very function of a fiscal anchor to guide fiscal policy in the medium term. Therefore, deviations from the anchor could be expected, especially when the anchor is initially introduced or when large negative shocks occur and deteriorate the fiscal position.

¹ The Bohn's sustainability test estimates a fiscal reaction function to determine whether the accumulation of public debt elicits an increase in the primary balance, controlling for other determinants (for example, business cycle).

The Role of the Fiscal Strategy in the Broader Policy Toolkit

A fiscal strategy is not the only game in town. Its main objectives can be supported by other (non-fiscal) measures. For instance, the stabilization function is not the sole responsibility of fiscal policy, with monetary policy also playing a central role (and perhaps a more important one in some countries). Another example is the mitigation of debt vulnerabilities: beyond fiscal adjustment, significant debt reductions can be achieved through the sale of government assets, financial repression, inflation spikes, and especially structural reforms (Abbas, Pienkowski, and Rogoff 2020).

Strong growth is perhaps the most essential remedy available for eliminating fiscal imbalances, as an expanding economy means an expanding tax base and more policy space—for an average African country, an additional 1 percentage point of annual GDP growth over a decade could reduce the debt ratio by close to 15 percentage points (IMF 2022a). Aligishiev and others (forthcoming) show that market-oriented reforms, including trade, financial, labor, and product market reforms, are associated with large and long-lasting reductions in the debt-to-GDP ratio mainly through higher fiscal revenues and lower borrowing costs. For this reason, IMF (2023b) concludes that a comprehensive approach relying on both fiscal consolidation and growth-enhancing structural reforms can have a significant and durable impact on the debt trajectory.

It is also important to note that this paper focuses primarily on fiscal policy in countries with sustainable debt trajectories. When a country's debt is unsustainable, a fiscal strategy would need to combine fiscal adjustment with debt restructuring.¹ According to IMF (2014), sustainability is defined as the ability of government to service debt *without unrealistic fiscal adjustment*. This means that debt restructuring is warranted when the only way to restore fiscal sustainability would be to embark on an excessively large, damaging, and unrealistic fiscal consolidation.

C. How Characteristics of Sub-Saharan African Economies Impact Their Fiscal Strategies

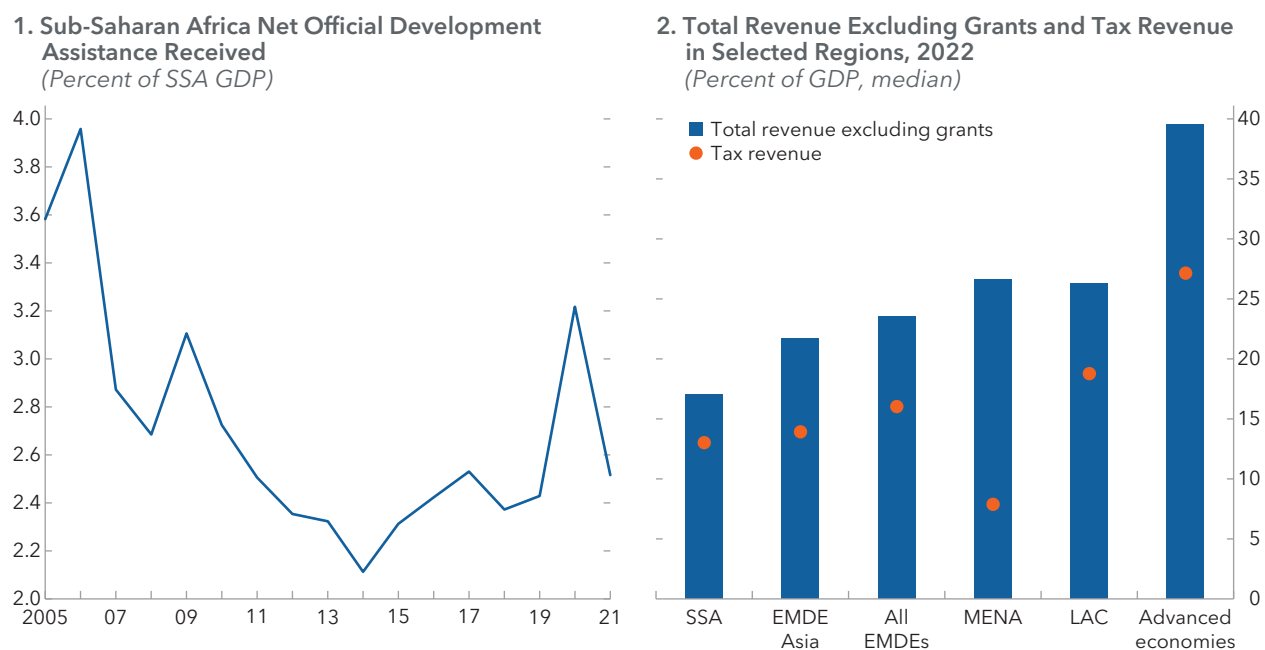
The fiscal strategy needs, of course, to be tailored to country circumstances and characteristics. This section highlights four main characteristics of African economies that impact and sometimes complicate significantly the formulation of a fiscal strategy.

Limited Resources Despite High and Growing Development Needs

Spending needs to meet development goals were already high in sub-Saharan Africa before the COVID-19 pandemic, and the crisis has exacerbated them further. The most recent estimates produced by the IMF indicate that, the median sub-Saharan African country would have to spend about 20 percent of GDP more than current spending levels to meet the sustainable development goals on health, education, and infrastructure by 2030 (according to the third edition of the IMF Sustainable Development Goals (SDGs) costing tool based on the work of Gaspar and others (2019). In addition, climate change adaptation alone could cost up to \$50 billion every year by 2050 for the whole African continent, equivalent to about 1.7 percent of 2023 regional GDP (IMF 2023a).

Despite high expenditure needs, most countries in the region face significant constraints on financing—both external and domestic (Selassie 2023a, 2023b). On the external front, official development assistance in percent of recipient GDP has been on a declining trend, dropping from 4 percent of sub-Saharan Africa GDP in the mid-2000s to about 2½ percent of GDP more recently, which is particularly problematic for low-income

¹ When unsustainability reflects solvency problems, a deep debt restructuring is needed with a reduction in the net present value (NPV) of debt sufficient to restore sustainability. Generally, the NPV haircut would take the form of an NPV-reducing maturity extension or grace period—less frequently a nominal haircut of principal or interest. When there are severe liquidity problems, debt relief should be provided through an NPV-neutral deferral of a portion of debt service payments for a number of years to ease financing pressures. This second type of treatment is often referred to as a rescheduling or reprofiling.

Figure 6. Overseas Development Assistance and Domestic Revenue Mobilization in Sub-Saharan Africa and Selected Regions

Sources: IMF, World Economic Outlook database; World Bank, World Development Indicators; and authors' calculations.

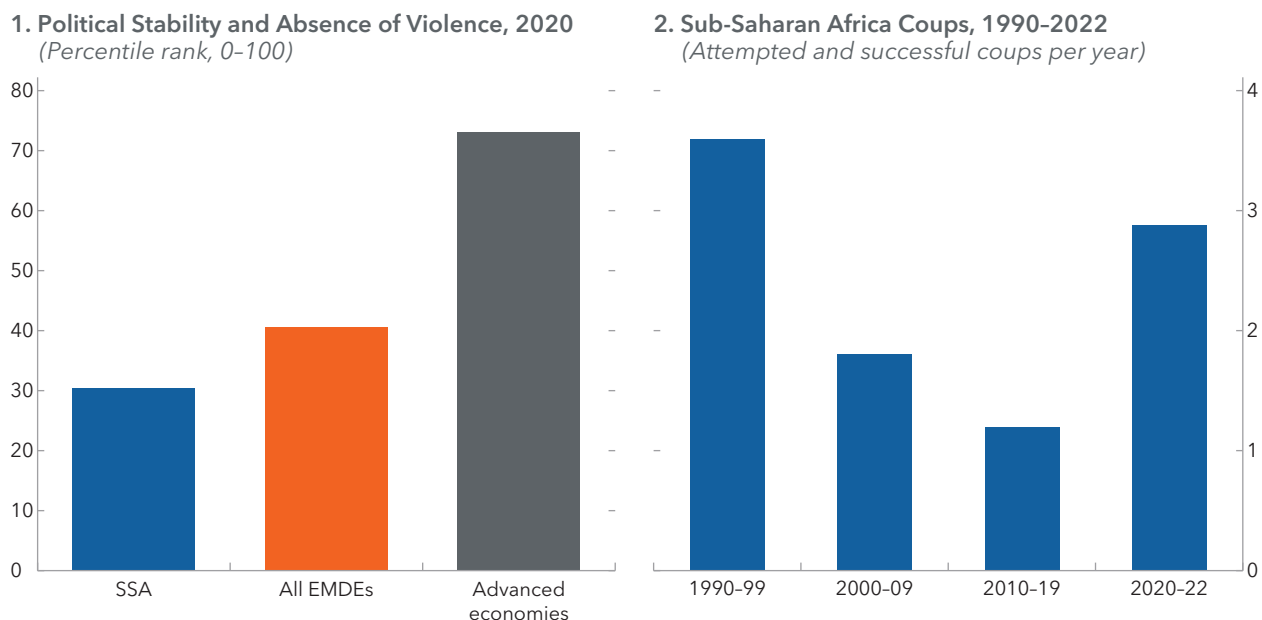
Note: EMDEs = emerging market and developing economies; LAC = Latin America and the Caribbean; MENA = Middle East and North Africa; SSA = sub-Saharan Africa.

countries that do not have access to international capital markets (Figure 6, panel 1). Inflows from China, for a while a significant source of financing, have declined markedly more recently. The near-term outlook for aid remains uncertain, with some donors facing political pressures to concentrate resources on domestic priorities after the COVID-19 pandemic and the war in Ukraine. Concerns about debt sustainability may also limit the support provided by donors and development institutions. In addition, the ongoing tightening of global monetary policies in response to high inflation imposes additional financial strains.

On the domestic front, despite some progress in the past decade, financial markets remain narrow and illiquid in most countries, limiting the scope for large domestic sovereign bond issuances with long maturity, unless central banks step in by lending directly or indirectly to governments, with attendant risks to inflation, exchange rate stability, and foreign exchange reserves. Low revenue mobilization, in part because of pervasive informality, is another severe constraint faced by countries in the region. In 2022, the median government revenue (excluding grants) represented 17 percent of GDP in Sub-Saharan Africa compared to 26 percent of GDP in other EMDEs and 40 percent of GDP in advanced economies (Figure 6, panel 2). Therefore, a key characteristic of countries in the region is that, while spending pressures are high, the ability to mobilize resources (both domestically and externally) remains relatively low. These limited resources constrain the ability of policymakers to support critical development sectors like education or infrastructure, and, where needed, smooth fiscal adjustment.

Political Instability, Fragility, and Weaker Institutions

Another important challenge faced by policymakers in sub-Saharan Africa stems from relatively less robust political and economic institutions, and greater political instability, which has important implications for fiscal policy (Figure 7). In 2022, the World Bank identified 17 states as fragile or conflict affected in sub-Saharan Africa, representing over a third of the countries and about 40 percent of the region's GDP.

Figure 7. Political Instability in Sub-Saharan Africa and Other Regions

Sources: Powell and Thyne (2011); and World Bank, Worldwide Governance Indicators.

Note: EMDEs = emerging market and developing economies; SSA = sub-Saharan Africa.

Fragility has a direct impact on fiscal policy priorities and options through several channels (IMF 2022b). An increased incidence of conflict or violence by non-state actors typically requires additional security spending to restore stability and likely crowd out other priority spending on already under-provisioned essential public services (such as health and education) unless development partners provide additional support. Countries in the Sahel have, for example, faced this challenge in very concrete terms over the past decade. Fragility and conflict also disrupt tax revenue collection, most notably as trade routes and overall economic activity deteriorate in conflict-affected areas, thereby directly reducing fiscal space. Moreover, fragility affects the general ability of governments to provide basic public services, including social protection, adequate infrastructure, and the delivery of security and the rule of law, which contributes to social tensions and other disruptions, possibly generating a negative feedback loop.

In addition, weaker governance and higher levels of corruption tend to reduce incentives for stabilizing fiscal policies, with governments more likely to raise spending or cut taxes to appease vocal special interest groups (Tornell and Lane 1999). Political cycles in fiscal policy could also be reinforced—for instance, through suboptimal fiscal trajectory of high deficits today followed by promises of future austerity tomorrow.

Finally, situations of fragility reduce the authorities' capacity to credibly implement annual and medium-term budgets. The successful implementation of a comprehensive fiscal strategy requires some political stability and strong institutions, such as transparent and realistic budget forecasts, efficient procurement processes and public investment management to limit the waste of public resources, as well as effective financial controls and reporting mechanisms.

Fiscal Behavior That Is Not Stabilizing

Partly because of the constraints discussed above, fiscal policy in sub-Saharan African economies displays some destabilizing features. Estimated fiscal reaction functions for countries in the region suggest that, on average, fiscal policy tends to be acyclical relative to GDP in upturns (that is, it does not smooth economic fluctuations, for example by spending revenue windfalls) and mildly counter-cyclical in downturns. These characteristics (relaxation in bad times, absence of tightening in good times) tend to create a "debt drift."

Moreover, fiscal policy does not seem to react to debt levels in a robust systematic manner and therefore fails to ensure fiscal sustainability (Box 2). These results are in line with those obtained by Small, Brown, and Canavire-Bacarreza (2020) and Baum and others (2017) for a broader sample of low-income countries and contrast with findings for advanced economies and emerging market economies (David, Goncalves, and Perrelli 2022).

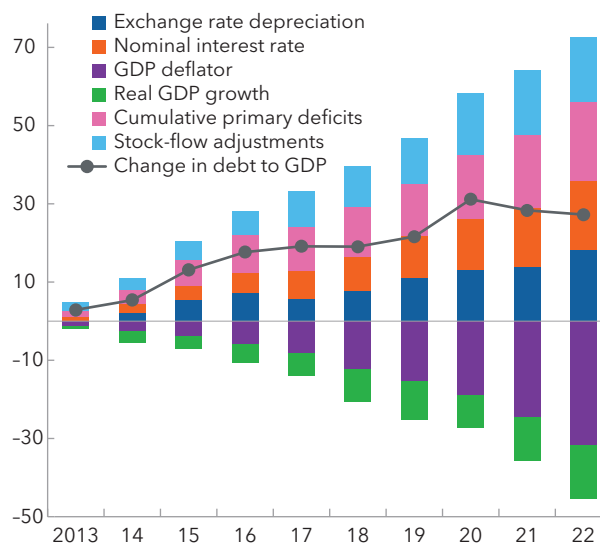
Another feature that hampers the conduct of stabilizing policies in the region is that automatic stabilizers—such as progressive income taxes and social safety net programs (including unemployment benefits)—tend to be small in sub-Saharan African countries. Automatic stabilizers in the form of lower tax takes and higher transfer payments during recessions are generally viewed as a more sustainable approach to countercyclical fiscal policy, since by definition they are “automatically” phased out when economic conditions improve. This contrasts with discretionary spending programs, which are often politically and logistically difficult to withdraw.

Finally, fiscal deficits are a key, but not the only, driver of debt dynamics. Many African countries see their debt levels increase significantly faster than deficits because of “stock-flow adjustments,” (SFAs), which, as previously discussed, result often from poor public financial management practices (for example, off-budget spending, realization of contingent liabilities, government arrears). Figure 8 shows that, at the regional level, SFAs have contributed 16 percentage points of GDP to the debt increase of the past decade. At the country level, SFAs in sub-Saharan African countries have averaged about 1½ percent of GDP per year over the period 2013 to 2022. Therefore, in many African countries, “effective” fiscal deficits far exceed “official” ones with important implications for the evolution of debt and the design of fiscal strategies.

Elevated Exposure to Shocks

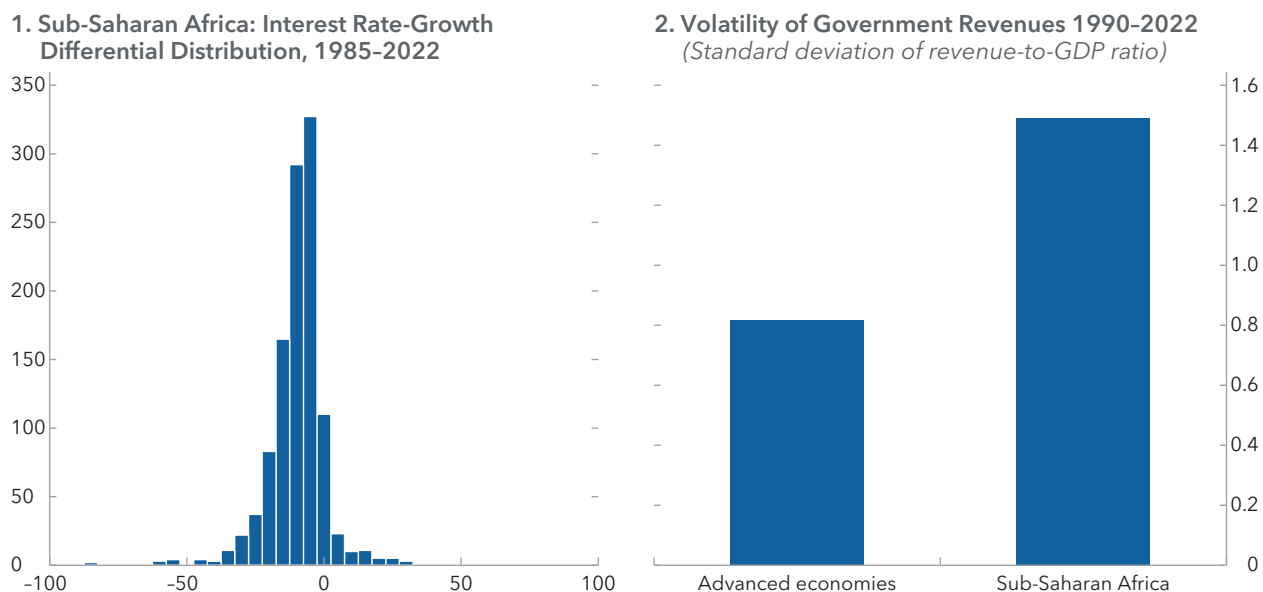
Historically, sub-Saharan African countries have enjoyed negative interest-growth differentials, meaning that their debt-to-GDP ratio tends to decline automatically, all else being equal (Figure 9, panel 1). But sudden and sharp increases in these differentials are not uncommon and tend to be mostly related to GDP growth collapses, given the region’s high exposure to shocks such as volatile commodity prices, conflict, and extreme weather events. Sub-Saharan Africa is the most vulnerable region to climate change in the world, with natural disasters being increasingly frequent and large (IMF 2020a). The absolute deviation of countries’ GDP growth from their historical mean is 2½ percentage points in advanced economies, on average, compared to close to 4 percentage points in sub-Saharan African countries—a much wider amplitude.²

Figure 8. Sub-Saharan Africa: Contributions to Debt Accumulation, 2013–22
(Percentage points of GDP, cumulative change)



Sources: IMF, World Economic Outlook database; and authors' calculations.

² This statistic is computed in two steps. For each country, we calculate the average absolute deviation of GDP growth from its historical mean over 1990–2022. Then, we compute the average across sub-Saharan African countries and compare to the average across advanced economies. Note that using the median (instead of simple average) in the second step gives an absolute growth deviation of about 2 percentage points for advanced economies versus close to 3 percentage points for sub-Saharan Africa.

Figure 9. Interest Rate-Growth Differential and Volatility of Fiscal Revenues in Sub-Saharan Africa

Sources: IMF, World Economic Outlook database; and authors' calculations.

Government revenues volatility is also significantly higher in sub-Saharan Africa (Figure 9, panel 2). African countries rely, to a large extent, on commodity revenues, taxes on international trade and development aid, which are much more volatile revenue sources than income or property taxes (more common in advanced economies). The exchange rate is another source of surges in the debt-to-GDP ratio, as large currency depreciations raise the burden of external debt, which represents today 40 percent of total debt at the regional level.

The prevalence and size of these macroeconomic shocks call for fiscal prudence and building fiscal buffers—which should be complemented by strong regional and global safety nets that provide financial support to countries experiencing large shocks. The high level of uncertainty also creates practical difficulties in formulating fiscal strategies in the region. It is especially difficult to elaborate accurate macroeconomic projections in this environment and large forecast errors tend to have significant implications for the calibration of medium-term fiscal targets (as illustrated, for example, by the effects of revisions to the expected trajectory of commodity prices on assessments of fiscal sustainability in resource-rich countries). In the absence of sufficiently large buffers, this fundamental uncertainty would also put a premium on measures that reduce exposures to risks *ex ante*.

Implications for the Design and Implementation of Fiscal Strategies

The characteristics and constraints highlighted in this section complicate the formulation of fiscal strategies in African countries. Higher exposure to shocks, uncertainty, and macroeconomic volatility make the calibration of appropriate fiscal targets more difficult and highlight the need for larger fiscal buffers. Financing constraints limit the extent to which these shocks can be accommodated and impose obstacles to gradualism in case of fiscal adjustment. The gap between elevated needs and low resources also entails stark trade-offs between development objectives and fiscal sustainability considerations. Political instability and institutional weaknesses pose obstacles to feasible fiscal adjustments (when needed) and tend to promote fiscal policy reactions that are destabilizing. The remaining chapters of the paper will provide elements to help countries design resilient and credible fiscal strategies under these constraints.

Box 2. Estimating Fiscal Reaction Functions for Sub-Saharan African Countries

This box estimates fiscal reaction functions for an unbalanced panel of 40 sub-Saharan African economies during 1990–2021 using annual data from the World Economic Outlook database following standard specifications in the literature (David, Goncalves, and Perrelli 2022), as outlined in the following equation:

$$pb_{it} = \alpha_i + \gamma_t + \rho pb_{it-1} + \phi ygap_{it} + \theta d_{t-1} + \vartheta X_{it} + \varepsilon_{it} \dots$$

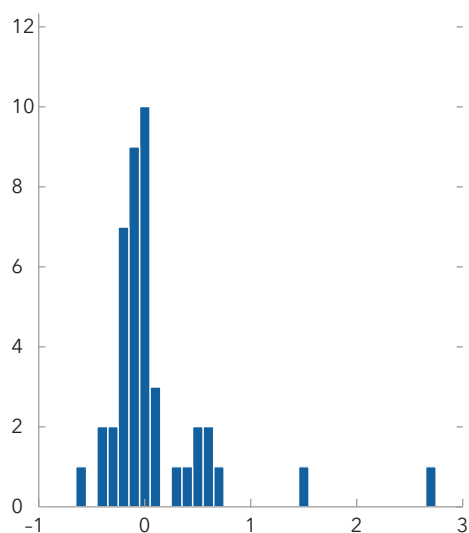
Where pb is the primary balance to GDP ratio, $ygap_{it}$ is the output gap—estimated using the filter proposed by Hamilton (2017)— d_{t-1} is the debt-to-GDP ratio in the preceding year and X_{it} is a vector of control variables (including the terms of trade gap based on the commodity terms of trade series constructed by Gruss and Kebhaj 2019). α_i are country-fixed effects and γ_t are time fixed effects. In the baseline specifications, we use Driscoll-Kraay corrected standard errors to account for cross-section dependency.

The results show that, in the baseline specifications using country and time fixed-effects, the primary balance does not respond to the output gap in a statistically significant way, but it tends to react strongly to the commodity terms of trade cycle. Importantly, the reaction of the primary balance to debt levels is not statistically significant in most specifications and this holds even for regressions that include quadratic and cubic terms following the fiscal fatigue literature (Ghosh and others 2013). This means that African countries do not tend to tighten their fiscal balance when debt becomes too high, which creates risks to fiscal sustainability.

But fiscal policy reaction functions exhibit some heterogeneity across countries within the region. Regressions estimated for each country individually (rather than the panel) point to significant variation in the coefficients obtained for the output gap and the debt-to-GDP ratio (Box Figure 2.1).

Therefore, we turn to specifications that account for asymmetric effects of the cycle and cross-country heterogeneity using the mean group estimator (Eberhardt and Presbitero 2015). These regressions show that sub-Saharan African countries generally react counter-cyclically to a negative output gap (including both short-run and long-run dynamics), while there is no statistically significant reaction to a positive output gap (acyclicity). This asymmetric behavior suggests that the decrease in primary balance in bad times is not matched by a corresponding increase in good times. The same exercise for the commodity terms-of-trade gap shows that high commodity prices (positive commodity terms-of-trade gap) prompt countries in the region to spend more than the windfall gain generated, making them procyclical during commodity booms (not just acyclical as in the case of the output gap). In addition, countries in the region also tend to adjust procyclically (tighten fiscal policy), when commodity prices are low (negative gap).

Box Figure 2.1. Distribution of Debt Ratio Coefficient in Fiscal Reaction Function
(Frequency)



Source: Authors' estimates.

Box 2. (continued)

To sum up, although sub-Saharan African countries display a propensity to implement counter-cyclical fiscal policy in bad times, they have been frequently unable to generate fiscal buffers during economic expansions, leading to a non-stabilizing fiscal behavior. Fiscal policy in the region still struggles to smooth the impact of commodity cycles, often leading to procyclical behavior.

Box Table 2.1. Panel Regressions of Fiscal Reaction Functions in Sub-Saharan Africa Countries

	1 Symmetric FE Primary balance	2 Symmetric FE Primary balance	3 Symmetric FE Primary balance	4 Asymmetric MG Primary balance	5 Asymmetric MG Primary balance
(Primary balance/GDP) _{t-1}	0.231*** (0.006)	0.230*** (0.007)	0.235*** (0.004)	0.169*** (0.000)	0.178*** (0.001)
Output gap	0.030 (0.412)	0.026 (0.481)	0.017 (0.543)		
Terms of trade gap	0.169*** (0.000)	0.165*** (0.000)	0.167*** (0.000)		
(Debt/GDP) _{t-1}	0.016 (0.224)	0.037 (0.133)	0.014 (0.508)	0.025*** (0.000)	0.024*** (0.006)
(Debt/GDP) ² _{t-1}		-0.000 (0.103)	0.000 (0.626)		
(Debt/GDP) ³ _{t-1}			-0.000 (0.510)		
Short-run response to positive output gap				0.048 (0.407)	
Short-run response to negative output gap				0.215*** (0.000)	
Long-run response to positive output gap				-0.006 (0.909)	
Long-run response to negative output gap				0.177*** (0.002)	
Short-run response to positive terms of trade gap					-0.292*** (0.002)
Short-run response to negative terms of trade gap					0.169*** (0.004)
Long-run response to positive terms of trade gap					-0.189* (0.057)
Long-run response to negative terms of trade gap					0.085 (0.340)
Constant	-2.342 (0.231)	-4.170 (0.139)	-7.082** (0.013)	56.022** (0.022)	88.066*** (0.001)
Observations	945	945	945	886	886
Number of groups	40	40	40	40	40
Country FE	YES	YES	YES
Year FE	YES	YES	YES
R ²	0.224	0.229	0.232

Source: Authors' estimates.

Note: P-val in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. FE refers to fixed-effects panel regressions with Driskoll-Kraay standard-errors. MG are regressions using Pesaran & Smith (1995) Mean Group estimator.

2. Key Considerations to Set Fiscal Targets and Determine the Pace of Adjustment

Chapter 2 discusses the design of a fiscal strategy, including the choice and calibration of medium-term fiscal targets, as well as the size and pace of the adjustment path toward these targets. Taking into consideration the characteristics and data gaps of developing economies, the chapter develops a simple approach to set debt anchors based on the principle of preserving countries' debt servicing capacity. We find that, at end-2022, slightly more than half of sub-Saharan African economies had a debt ratio above their recommended country-specific anchor in the region, the median anchor stands at about 55 percent of GDP. Typical adjustment needs are not out of reach: for the median country, they represent about 2–3 percent of GDP cumulatively over the next five years. Nonetheless, there are significant differences across countries, with a quarter of them still having fiscal space, according to our estimates. Regarding the annual pace of adjustment (frontloaded, backloaded, or steady), the choice is much more constrained in sub-Saharan Africa than in other regions of the world, and the benefits of frontloaded adjustments tend to outweigh their costs, due to relatively low fiscal multipliers, less credible policy frameworks, and tighter financing constraints.

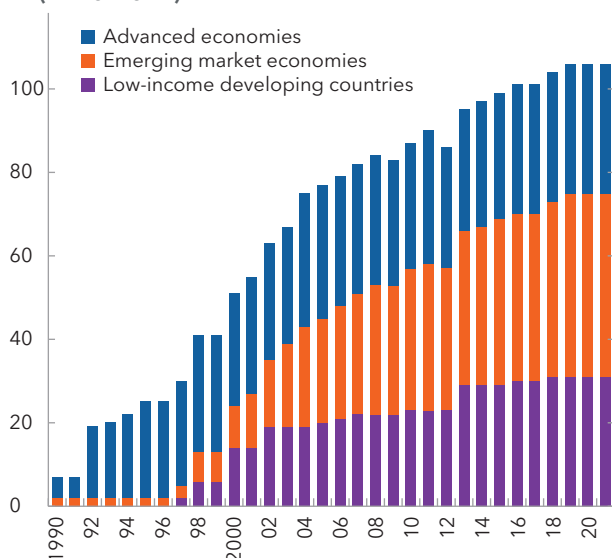
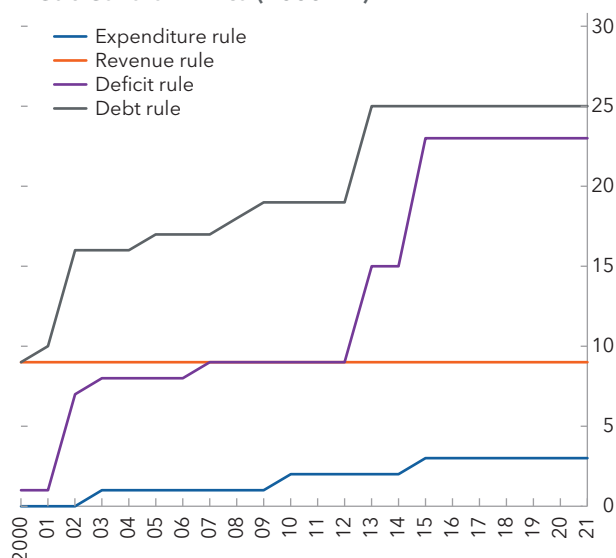
A. The Lack of Anchoring of Fiscal Policy in Sub-Saharan Africa

Low Compliance with Fiscal Rules

Fiscal rules have become more and more prevalent in emerging market economies and low-income countries over the past two decades, with the total number of rules now in this group exceeding that of advanced economies (Figure 10, panel 1). Many sub-Saharan African countries have explicit fiscal anchors in their legislation—either in the form of a debt ceiling or a deficit ceiling (Figure, 10, panel 2). As of 2021, about 60 percent of countries in the region had at least one fiscal rule in place—most often a debt or deficit rule. The most common ceiling for a deficit rule in the region is 3 percent of GDP, while a typical threshold for the debt rule is 70 percent of GDP.

However, efforts to introduce fiscal anchors in legal frameworks have not been systematically followed by sustained improvements in policymaking, as indicated by an analysis of fiscal rule breaches since 2010. Focusing on the decade preceding the COVID-19 pandemic, it appears that sub-Saharan African countries with fiscal deficit ceilings have breached this type of rule, on average, half of the time (Table 2)—a much higher frequency than in other country groups (advanced economies have a noncompliance rate of about 20 percent) and deviations have typically been much larger (2.2 percent of GDP for sub-Saharan African countries versus 1.4 percent of GDP in other developing economies as well as in advanced economies). By comparison, deviations from debt rules have been less frequent, which is not surprising since most sub-Saharan countries benefited from the HIPC-MDRI debt relief at the turn of the millennium and entered the 2010s decade with relatively low debt.

Low compliance with fiscal deficit rules can be attributed to a series of factors, including the large exposure of African economies to external shocks (for example, commodity price volatility and exchange rate movements), severe budgetary pressures from development needs, and the fact that fiscal rules' ceilings seem to have mimicked the rules adopted by advanced economies rather than being properly calibrated by taking into account the specificities and needs of lower-income countries.

Figure 10. Growing Use of Fiscal Rules in Developing Countries**1. Number of Fiscal Rules by Income Groups (1990-2021)****2. Number of Countries with Fiscal Rules in Sub-Saharan Africa (2000-21)**

Sources: Davoodi and others (2022); and authors' calculations.

Table 2. Frequency of Fiscal Rule Breaches during 2010-19

Deficit rule	Total cases	Of which, cases with breach	Breach frequency (%)	Average breach (Percent of GDP)	Median breach (Percent of GDP)
SSA	172	79	45.9	3.4	2.2
Other EMDEs	183	51	27.9	2.0	1.4
Advanced economies	212	47	22.2	2.5	1.4
Total	567	177	31.2	2.8	1.6

Debt rule	Total cases	Of which, cases with breach	Breach frequency (%)	Average breach (Percent of GDP)	Median breach (Percent of GDP)
SSA	232	35	15.1	22.5	13.8
Other EMDEs	236	123	52.1	18.5	13.9
Advanced economies	47	21	44.7	23.1	10.7
Total	515	179	34.8	19.8	13.8

Sources: Davoodi and others (2022); and authors' calculations.

Note: EMDEs = emerging market and developing economies; SSA = sub-Saharan Africa.

During the most recent period (2020-21), deviations from the deficit ceilings have become smaller than in advanced economies (Table 3). This development is not surprising given that financing constraints limited the amount of fiscal stimulus that developing countries could provide during the pandemic, compared to advanced economies. Access to international markets became, for instance, much more difficult for Eurobond issuers.

Table 3. Frequency of Fiscal Rule Breaches during 2020-21

Deficit rule	Total cases	Of which, cases with breach	Breach frequency (%)	Average breach (Percent of GDP)	Median breach (Percent of GDP)
SSA	46	30	65.2	2.0	1.3
Other EMDEs	50	32	64.0	4.3	3.7
Advanced economies	53	42	79.2	3.3	3.4
Total	149	104	69.8	3.2	2.5

Debt rule	Total cases	Of which, cases with breach	Breach frequency (%)	Average breach (Percent of GDP)	Median breach (Percent of GDP)
SSA	50	20	40.0	26.5	17.2
Other EMDEs	62	42	67.7	25.6	25.3
Advanced economies	16	10	62.5	35.9	44.1
Total	128	72	56.3	27.3	25.3

Sources: Davoodi and others (2022); and authors' calculations.

Note: "Cases" refer to the number of country-year datapoints with a country having a fiscal rule of a certain type (either deficit or debt, depending on the table). A breach is defined as a country-year point when the fiscal variable exceeds the rule's ceiling. A positive sign for the breach variable means noncompliance (deficit or debt above the ceiling). EMDEs.= emerging marketing and developing economies; SSA = sub-Saharan Africa.

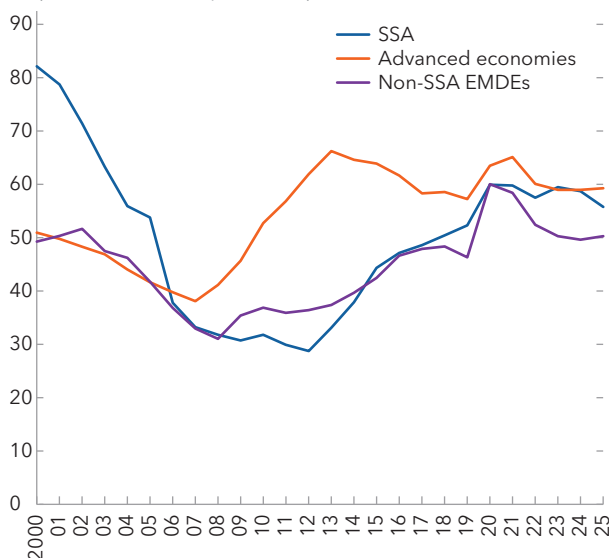
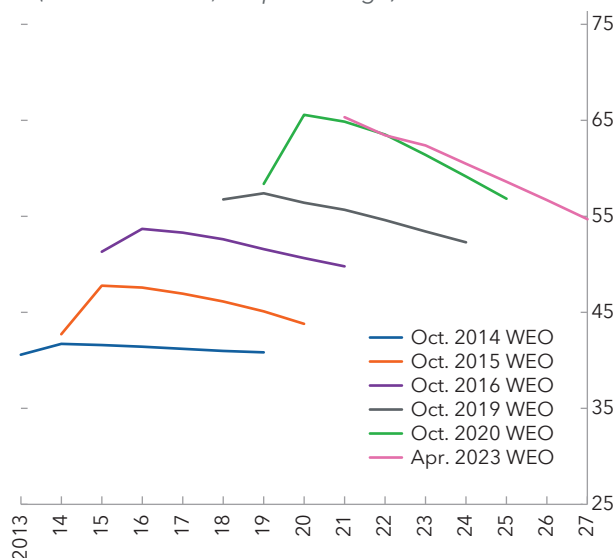
In addition to fiscal rules, many countries in Africa have established medium-term budget frameworks (MTBFs) over the past two decades, which are fiscal arrangements that allow the government to extend the horizon for fiscal policymaking beyond the annual budgetary calendar. MTBFs can be a useful instrument to set fiscal targets, including anchors, in the legislation. Nonetheless, MTBFs have yet to deliver tangible benefits in the region (Haruna and Vyas-Doorgapersad 2016, Allen and others 2017). South Africa stands as an outlier, with a performance of its MTBF and budget institutions comparable with advanced countries in many respects. But other countries in the region have generally lagged behind (see further discussion in Chapter 3).

Other Signs of De-Anchoring

Beyond the weak implementation of fiscal rules and MTBFs, there are other signs that fiscal policy has lacked effective anchoring in the region. For instance, debt-to-GDP projections have repeatedly drifted upward over time (Figure 11). This pattern is not specific to sub-Saharan Africa, but the debt drift has been more pronounced than in other regions: the median sub-Saharan African debt ratio has increased by 30 percentage points in the past decade despite very negative interest rate-growth differentials. This is twice the average of other EMDE (+15 percentage points) and much larger than in advanced economies. The lack of anchoring is also apparent when estimating fiscal reaction functions, as discussed in Chapter 1 (Box 2): contrary to advanced economies, sub-Saharan African countries do not seem to tighten their fiscal stance when debt levels are rising.

B. Debt Tolerance in Sub-Saharan Africa

Calibrating the fiscal anchor—that is determining the ceiling or target imposed to the debt trajectory in the medium term—is a difficult exercise in any country, and even more so in developing economies. This difficulty is, in part, linked to the absence of consensus on what constitutes an appropriate debt limit in these

Figure 11. Evolution and Revisions of Government Debt Ratios**1. Selected Regions: General Government Debt, 2000-25***(Percent of GDP, median)***2. Sub-Saharan Africa: Drift in Debt Ratio Projections across WEO Vintages, 2013-27***(Percent of GDP, simple average)*

Source: IMF, World Economic Outlook (WEO) database.

Note: Some WEO vintages (2017, 2018, 2021) were removed for presentation purposes. EMDEs = emerging market and developing economies; SSA = sub-Saharan Africa.

economies. Sovereign defaults and debt restructuring have been relatively infrequent in the sub-Saharan African region in the past two decades (about 1 episode per year), and they have occurred at very different debt levels, thus providing limited practical guidance on possible debt distress thresholds (Figure 12). In addition, most developing countries enjoy negative interest rate-growth differentials—a powerful force stabilizing debt ratios over time, even in the absence of significant fiscal adjustment.³ Some economists even argue that, when growth exceeds the interest rate in a systematic manner, debt limits become an elusive concept, since the debt ratio would eventually stabilize, no matter how high the primary fiscal deficit could be, thereby mitigating the risk of explosive debt dynamics. This section summarizes some elements of this debate.

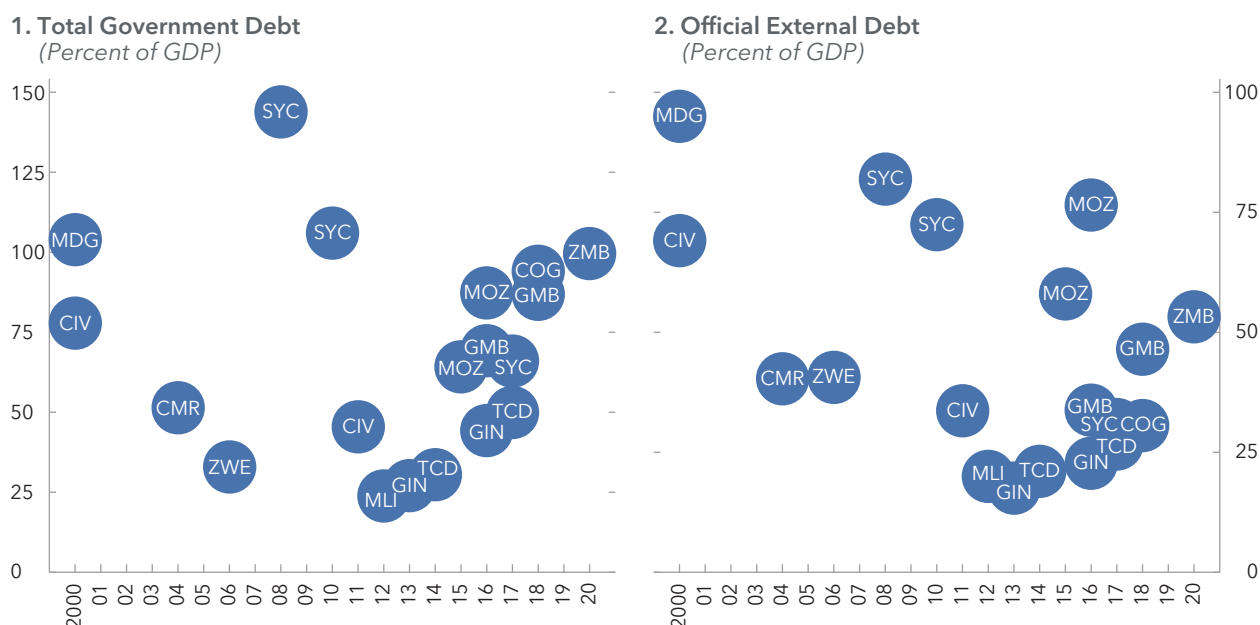
Debt Limits in Developing Countries: What Do We Know?

In principle, countries should ensure that their debt ratios are kept under a “debt limit,” which is the level above which over-indebtedness generates severe adverse consequences, for instance a significant deceleration of GDP growth or a debt crisis. There have been various attempts to estimate such debt limits for developing countries, using a range of methodologies (Box 3): some papers identify the factors impacting the probability of debt distress; others estimate the thresholds above which debt tends to lower GDP growth; and still others determine the level above which debt spirals out of control because a country cannot generate a sufficiently large primary surplus to offset the automatic debt dynamics (fiscal fatigue).

Most studies confirm that debt levels influence the occurrence of debt distress and that excessively high debt levels hurt growth. But the literature does not offer a consensual view on where these exact limits are. Estimated debt limits vary between 30 and 70 percent of GDP for developing countries and depend on country-specific characteristics, variable definitions, and methodological choices. As expected, debt limits for developing countries are lower than debt limits for advanced economies which are typically estimated

³ In the IMF April 2023 WEO projections, the median interest rate-growth differential for sub-Saharan Africa is projected at about -5 percent in the medium term.

Figure 12. Sub-Saharan African Countries: Debt Ratio a Year Prior to Start of Default or Restructuring, 2000-20



Sources: Asonuma and Trebesch (2016); and IMF, World Economic Outlook database.

Note: Includes HIPC/MDRI and covers both domestic and external restructuring. Official external debt refers to debt owed by the resident general government and monetary authorities to all foreign (nonresident) sectors. Data labels in the figure use International Organization for Standardization country codes.

Box 3. Literature Review of Public Debt Limits in Developing Countries

The methodological approaches used to estimate debt limits can be broadly grouped into three main categories:

- *Debt limits inferred from early warning systems of public debt crises.* These econometric models, such as the ones proposed by Kray and Nehru (2006) and Manasse and Roubini (2005), identify the key macroeconomic factors that predict the occurrence of public debt crises and infer public debt thresholds correlated with a higher risk of debt distress. This methodology is at the core of the Low-Income Countries Debt Sustainability Framework developed by the IMF and the World Bank (IMF and World Bank 2018).
- *Debt limits based on estimation of the level of debt above which economic growth tends to slow down.* Initial contributions on developing economies have focused on external debt thresholds, whereas more recent papers have looked at total public debt.
- *Debt limits based on the concept of fiscal fatigue.* Conceptually, this limit is defined as the point above which a government cannot generate sufficiently high fiscal surpluses to offset automatic debt dynamics (which are likely to be debt-increasing in times of crisis). Baum and others (2017) apply this methodology to low-income countries and find limited additional fiscal space for these economies. Under this approach, debt limits are country specific and depend on the fiscal reaction function of each country and the historical vulnerability of countries to macro-fiscal shocks.

Box 3. (continued)

The literature shows that debt limit levels are fundamentally linked to the capacity of countries to carry debt, which is a multidimensional concept. Its determinants include: the strength of institutions (Kraay and Nehru 2006); the maturity of debt and the quality public spending (Gomez-Puig and others 2022); the level of development of the domestic financial market and the reliance on nonresident investors (Bhattacharya and others 2022); as well as the degree of budget transparency, the prevalence of informality, and regulatory quality (Gbohoui, Ouedraogo, and Some 2023). The LIC Debt Sustainability Framework of the IMF and the World Bank (IMF and World Bank 2018) uses a composite indicator that synthesizes several variables—the strength of institutions, the coverage of international reserves, the growth level, and remittances—to determine a country’s debt-carrying capacity.

Box Table 3.1. Estimates of Public Debt Limits in Developing Countries

Methodology	Paper	Variable	Threshold for developing countries
Debt Crisis	Reinhart, Rogoff, and Savastano (2003)	Public external debt to GNP	15–35 percent of GDP depending on history of default
	Kraay and Nehru (2006)	PV of public external debt to export	100–300 percent of export depending on CPIA level
	Manasse and Roubini (2009)	Public external debt to revenue	215 percent of GDP
	IMF and World Bank (2018)	PV of PPG external debt and PV of total public debt	3 different thresholds for each variable according to countries’ debt carrying capacity: ranges 35–70 percent of GDP for PV of total public debt
	Baldacci and others (2011)	Total public debt	43 percent of GDP for emerging market economies
	Belhocine and Dell’Erba (2013)	Total public debt	45 percent of GDP for emerging market economies
	Tran (2018)	Total public debt	40–50 percent of GDP (based on a sample of 14 emerging market economies)
Growth slowdown	Caner and others (2010)	Total public debt	64 percent of GDP
	Imbs and Ranci�re (2005)	Total public debt	60 percent of GDP
	Eberhardt and Presbitero (2015)	Total public debt	No evidence for common debt thresholds.
	Law and others (2021)	Total public debt	50 percent of GDP
Fiscal fatigue	Baum and others (2017)	Total public debt	Country-specific debt limits with median estimate of 40–50 percent of GDP

Source: Authors’ elaboration.

Note: CPIA = Country Policy and Institutional Assessment; GNP = gross national product; PPG = public and publicly guaranteed; PV = present value.

in the 90 to 150 percent of GDP range. But, even within the group of developing countries, some factors—including the quality of institutions—impact greatly the ability to sustain debt levels. For instance, the IMF-World Bank Debt Sustainability Framework for low-income countries establishes several external and total debt thresholds depending on countries' debt-carrying capacity (IMF and World Bank 2018).

Has Debt Tolerance Increased in the Region over the Past Decade?

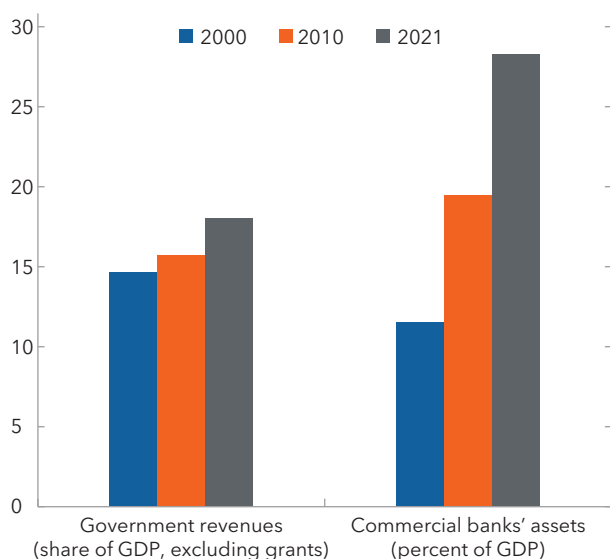
As debt levels have increased significantly since the early 2010s, a debate has emerged as to whether debt tolerance may have increased concurrently. Several policymakers in the region have argued that sub-Saharan African countries, like advanced economies, could sustain higher debt ratios than commonly believed and that the international community tends to underestimate the ability of developing countries to service debt. For instance, in May 2022, Senegal President

Macky Sall called for the creation of a pan-African credit ratings agency, claiming that international agencies do not assess accurately the credit risk posed by African countries' debt. He noted that "studies show that at least 20 percent of the ratings criteria for African countries are based on more subjective factors, cultural, or linguistic ones, for example, which bear no relation to the parameters used for measuring economic stability."

These concerns are not unfounded. Several slow-moving structural trends have indeed increased the capacity of sub-Saharan African countries to carry debt, all else equal. Progress in revenue mobilization and financial market deepening (albeit at a slow pace) are helping countries better mobilize and sustain debt by enhancing their repayment capacity and extending the range of potential creditors—improving both solvency and liquidity conditions (Figure 13). More robust institutions and more credible policy frameworks are also likely to have had a positive effect on debt tolerance. For instance, many countries have strengthened their debt management institutions and strategies, allowing them to better manage the risks associated with debt—by avoiding, for instance, the bunching of repayments in a single year or limiting foreign currency exposures. More generally, since all countries in the world have seen their debt ratios increase dramatically during the pandemic, it is likely that investors will reconsider existing fiscal targets and norms, with all countries moving to a new stable equilibrium, one which may allow to tolerate higher debt (Selassie 2022). To further support this claim, it should be noted that sub-Saharan Africa debt is now close to 60 percent of GDP, a level that exceeds many debt limits previously estimated in the literature; still, in 2022, only six low-income countries in the region (out of 35 LIC countries in sub-Saharan Africa) were in debt distress according to the IMF LIC Debt Sustainability Framework.

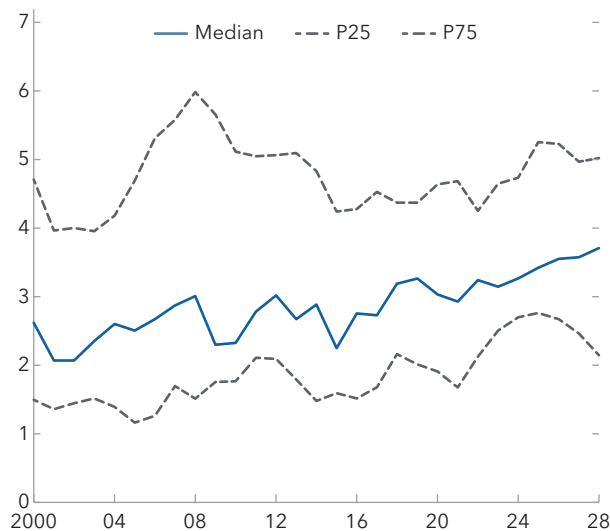
At the same time, any claim that debt tolerance has increased significantly should be expressed with great caution. This assessment is very complicated for three main reasons. First, debt limits depend on macro-economic assumptions that are extremely uncertain in the current environment marked by high volatility and repeated shocks such as the COVID-19 pandemic, the war in Ukraine, and the surge in global inflation. At \$20 a barrel, the debt of several oil producers in Africa was considered unsustainable in 2020, but, two years later, when oil prices exceeded \$100 in the first months of the Ukraine war, the fiscal sustainability

Figure 13. Two Factors Impacting Debt Tolerance
(Percent of GDP, median)



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

Figure 14. Effective Nominal Interest Rates across Sub-Saharan Africa, 2000-28
(Percent)



Sources: IMF, World Economic Outlook database; and authors' calculations.

Note: P25 = 25th percentile; P75 = 75th percentile.

Assistance. In fact, for the median sub-Saharan African country, the effective interest rate on debt has increased in the past 20 years, from about 2 percent in the early 2000s to close to 3½ percent in recent years, and rates are expected to increase even further over the medium term (Figure 14).

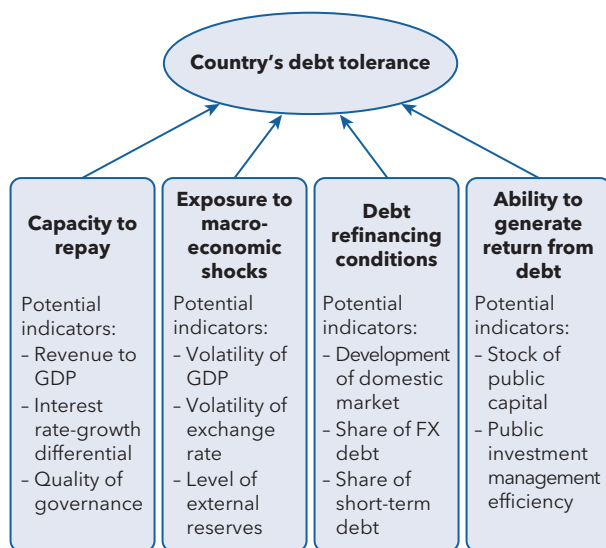
Third, many sub-Saharan African countries still struggle with turning debt into productive investment and investment into higher taxes. Even if returns from public investment could potentially be high in the region due to the large capital shortfalls, realized economic and social returns are often low, reflecting inefficiencies in public investment management. Public investment efficiency scores (which compare how much a given quantity of public capital stock offer in terms of infrastructure access and quality) suggest that sub-Saharan African countries are on average the least able to get positive return from their investment (Barhoumi and others 2018). In addition, the capacity of governments to capture the gains from public investment depends on their ability to tax the returns, but revenue mobilization remains limited in sub-Saharan Africa, as discussed previously. Thus, positive feedback loop between debt, investment, and taxation is difficult to unlock, and higher debt levels are not necessarily accompanied by higher capacity to carry debt.

A Heterogeneous Region

Assessing a country's capacity to issue and repay debt is complex. Although the literature often synthesizes the concept of "debt-carrying capacity" with a single indicator such as governance quality or institutional development, the factors that influence a country's ability to sustain debt are essentially multidimensional. These factors can be classified in at least, four main categories that encompass various aspects of fiscal sustainability (Figure 15). Debt tolerance improves when a country (1) has a stronger ability to repay debt (that is, better solvency in the traditional macroeconomic sense); (2) is less vulnerable to macroeconomic shocks (thus, it can handle debt levels that are closer to the limit without the fear of falling off the edge); (3) faces better conditions for refinancing debt (which implies that liquidity risks are more contained), and (4)

of those same countries no longer appeared to be a serious concern. Thus, debt limits are not a knife's edge but rather a "gray zone," where there is significant uncertainty as to whether countries are about to fall off the cliff or are further away from the edge.

Second, the global inflation surge has prompted central banks around the world to raise their policy rates since 2021, tightening both international and domestic financial conditions for African economies. Current IMF projections suggest that negative interest rate-growth differentials should remain the norm in the region in the medium term, but the differential could be much less favorable than previously anticipated. The increase in interest rates is likely to continue in the coming years, since countries, faced with a decline in concessional aid, are likely to continue diversifying further their financing mix toward domestic borrowing and international loans (Eurobonds and bank loans), which are more expensive than Overseas Development

Figure 15. What Impacts a Country's Debt Tolerance?

Source: Authors' elaboration.

is capable of generating high returns from debt and taxing them (allowing debt-financed investments to pay for themselves). Online Annex 2 describes this framework in greater detail and shows how to operationalize it.⁴

When comparing key indicators that underlie debt tolerance, sub-Saharan African countries appear to lag both advanced economies and other emerging and developing countries. Figure 16 shows selected indicators of debt tolerance, such as in the revenue-to-GDP ratio or public investment efficiency. Online Annex 2 extends this approach to a more comprehensive set of indicators and applies it to all countries in the region. This comprehensive analysis shows considerable disparity across countries in the region in terms of capacity to carry debt. While some countries, such as Botswana or Mauritius perform relatively well across almost all dimensions, other countries, such as the Central African Republic or the Republic of Congo, tend to underperform across multiple factors. Nonetheless, for the majority of countries, there is no clear correlation between their performance across the various dimensions. For example, while Senegal performs relatively well with respect to the ability-to-repay indicators and those related to the capacity to generate returns from debt, it performs less favorably when it comes to the exposure to shocks and capacity to refinance debt.

This simple framework shows that countries' debt capacity can be enhanced through appropriate reforms. Indeed, the crucial attributes that affect countries' debt tolerance are not exogenous. Countries can, for instance, enhance their ability to sustain debt by boosting domestic revenue mobilization, strengthening their debt management capacity, or improving the way they select and implement public investment projects. Rwanda is a prime example of a country that has improved its debt tolerance over the years through policy reforms by increasing its tax to GDP ratio (from 7.5 percent in the mid-1990s to 16 percent recently), making notable strides in strengthening its public investment management system (through enhancing its planning and budgeting processes and improving its project selection and appraisal procedures), deepening its domestic financial sector, and building macroeconomic buffers.

Figure 16. Selected Debt Tolerance Fundamentals in Sub-Saharan Africa and Rest of the World (Most recent year, percent)

Sources: Database on public investment efficiency from Barhouni and others (2018); and IMF, World Economic Outlook database. Note: Data are defined in Online Annex 2. AEs = advanced economies; EMDEs = emerging market developing economies; SSA = sub-Saharan Africa. * Indicator based on the inverse of GDP standard deviation over 2000-20.

⁴ The online annexes to this paper are available at r.imfe.li/APCFSFSSACEA-S001.

C. Setting Fiscal Anchors to Preserve Debt-Servicing Capacity

Maintaining Debt-Servicing Capacity: A Central Objective for Sub-Saharan African Countries

This section describes and applies a simple tool to calibrate the medium-term debt anchor by assuming that the debt ratio should be kept at a level that preserves countries' debt servicing capacity. This tool could be used to inform the decision of countries that are in the process of designing or revising their fiscal rules. Indeed, the debt anchor threshold can serve as ceiling for a debt rule, and it also impacts indirectly the calibration of all the other rules.⁵

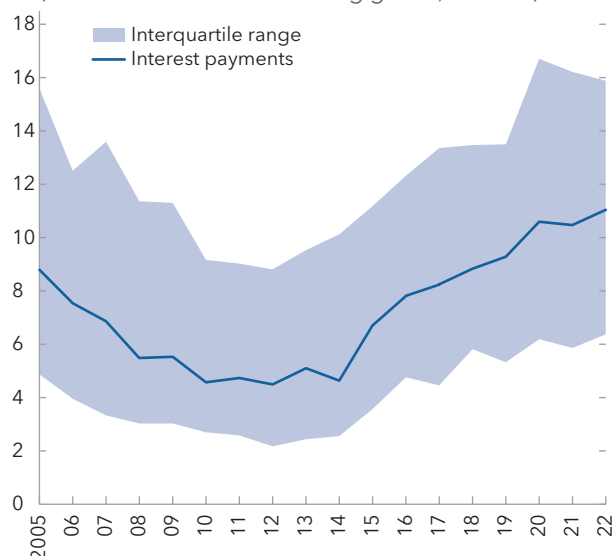
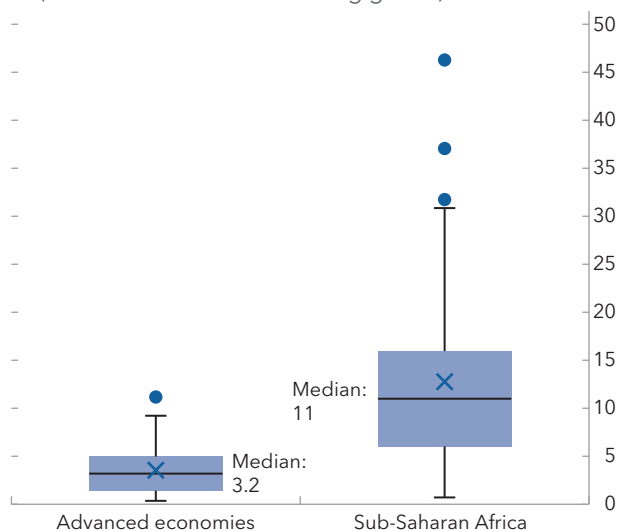
In this section, the capacity to service debt is measured with the ratio of either interest payments or total debt service to revenue (excluding grants). The higher the indicator, the lower the capacity to repay debt. The framework relies on total interest payments and total debt service, capturing both domestic and external debt. It is important to consider total debt, since domestic debt has increased very significantly in the past decade and now represents more than half of sub-Saharan Africa's debt.

Many policy discussions in sub-Saharan African countries revolve around this simple yet powerful concept of debt servicing capacity, which presents a number of desirable features:

- *Proxy for fiscal sustainability.* Fiscal sustainability is defined by the IMF as the "ability of the government to service its current and future liabilities with high probability under feasible policies" (IMF 2013). Thus, the ratio of debt repayments to revenue is at the core of any fiscal sustainability assessment. In particular, empirical evidence suggests that the ratio of interest payments to revenue is tightly correlated with episodes of fiscal stress (see below).
- *Simplicity.* The approach based on the interest-to-revenue ratio can be applied consistently across countries given its ease of computation and modest data requirements. While this approach does not substitute for more sophisticated country-specific methods, it can be used as a simple benchmarking tool across countries.
- *Focus on revenue mobilization.* Many African countries may face difficulties in servicing their debt due to low government revenue. Relating debt indicators to revenue is essential since taxes are ultimately the primary resource for orderly debt repayments.
- *Uncertainty on debt limit.* When there is significant uncertainty about the debt limit that a government can sustain, it can be useful to estimate the debt anchor indirectly by assuming a limit to the capacity to service debt. This indirect method is, for instance, used to estimate debt limits for local governments in advanced economies (IMF 2020b).
- *Link to growth and development.* Ample empirical evidence shows that, when the debt service burden becomes very large, it can crowd out other growth-enhancing government expenditure, including public investment, and have adverse consequences for economic development (Clements, Bhattacharya, and Quoc Nguyen 2003).

As shown in Figure 17, the ratio of interest to revenue (excluding grants) has deteriorated significantly in the past decade, doubling to reach 11 percent for the median sub-Saharan African country—a level that is almost four times higher than in advanced economies.

⁵ For instance, the fiscal deficit ceiling should be consistent with the debt rule ceiling (Eyraud and others 2018).

Figure 17. Indicators of Debt Servicing Capacity**1. Interest on Government Debt in SSA, 2005-22**
(Percent of revenue excluding grants, median)**2. Interest on Government Debt by Region, 2022**
(Percent of revenue excluding grants)

Source: IMF, World Economic Outlook database; and authors' calculations.

Note: The box and whisker chart of panel 2 in the figure shows the interquartile range, median, and mean, while also highlighting the outliers.

A Simple Method to Estimate Debt Anchors

The proposed methodology involves three sequential steps in line with Eyraud and others (2018). First, a *medium-term debt limit* is estimated using debt repayment capacity thresholds. Second, a *safety buffer* around the debt limit is calibrated, by taking into account past macroeconomic and fiscal volatility. Third, the *medium-term debt anchor* is computed as the debt limit minus the safety buffer.

Step 1: Calibrating the debt limit. An empirical analysis is conducted to determine a maximum threshold on the debt service indicator (that is, the limit beyond which it would be associated with a high probability of fiscal stress). Detailed econometric results are presented in Online Annex 3. Subsequently, the implicit debt limit is derived as the level at which the debt service exceeds the estimated threshold. We focus here on results based on the interest to revenue (excluding grants) ratio, but a similar analysis, described in the Online Annex, was undertaken for the ratio of total debt service (including principal repayments) to revenues.⁶

The econometric analysis shows that the interest payments to revenue ratio is tightly linked to periods of fiscal stress.⁷ In particular, the models indicate that interest-to-revenue ratios above thresholds estimated between 16 to 19 percent robustly predict a higher risk of upcoming fiscal stress. In the rest of the section, we suggest using the threshold of 19 percent based on the models' predictive ability.

Then, country-specific debt limits are computed under the condition that the interest-to-revenue (excluding grants) ratio remains below the threshold:

$$\frac{\text{Interest Payments}}{\text{Revenue}} < \tau$$

⁶ These two ratios provide complementary information on the sustainability of fiscal positions, but the interest to revenue ratio is arguably more pertinent in general circumstances, while the total debt service ratio becomes more binding when countries lose market access (see discussion in Online Annex 3).

⁷ In the empirical analysis, fiscal stress periods are identified as years in which at least one of the following occurs (Cerovic and others 2018): (1) credit events (default, restructuring); (2) loss of market confidence (loss of access and/or spike in spreads); (3) recourse to large-scale IMF financial support; and (4) implicit domestic public default (for example, via high inflation rates or arrears).

where τ is the threshold for fiscal stress (of 19 percent in our preferred model). This expression is equivalent to

$$\frac{i * D}{\text{Revenue}} < \tau$$

where i is the effective interest rate paid on debt (D). Re-arranging this expression gives the debt limit as a share of GDP (d^{\max}):

$$d^{\max} = \tau \left(\frac{\text{Revenues/GDP}}{i} \right)$$

For example, based on a revenue ratio of 15 percent of GDP and effective interest rates of 4 percent, using this approach, one would obtain a debt limit of: $d^{\max} = 19 * \left(\frac{15}{4} \right) = 71$ percent of GDP. An interesting feature of this approach is that, keeping other things equal, the debt limit increases with the degree of domestic revenue mobilization. Therefore, the framework allows quantifying how tax policy and tax administration measures can improve the debt-carrying capacity. In the application below, we use medium-term (five-years-ahead) IMF projections for the effective interest rates and revenue ratios, given that the debt anchor is the prudent debt level that is estimated in the medium term.

Importantly, a feedback effect from the level of debt to the effective interest rate needs to be taken into account. As the effective interest rate is not independent from the level of public debt, the current value of the effective interest rate may not be a good indicator of the effective interest rate that would prevail once the debt anchor is reached. The effective rate is likely to increase as debt levels rise, and under certain circumstances, possibly in a nonlinear manner. Notably, the poorest LICs without market access tend to have very low effective interest rates because they finance themselves almost exclusively through concessional debt. However, as their debt levels increase, these countries can experience a diversification of their financing sources, with an increased share of nonconcessional borrowing, which in turn raises their effective interest rates. The Online Annex explains how the framework incorporates this feedback effect by using an estimated elasticity of the effective interest rate to public debt.

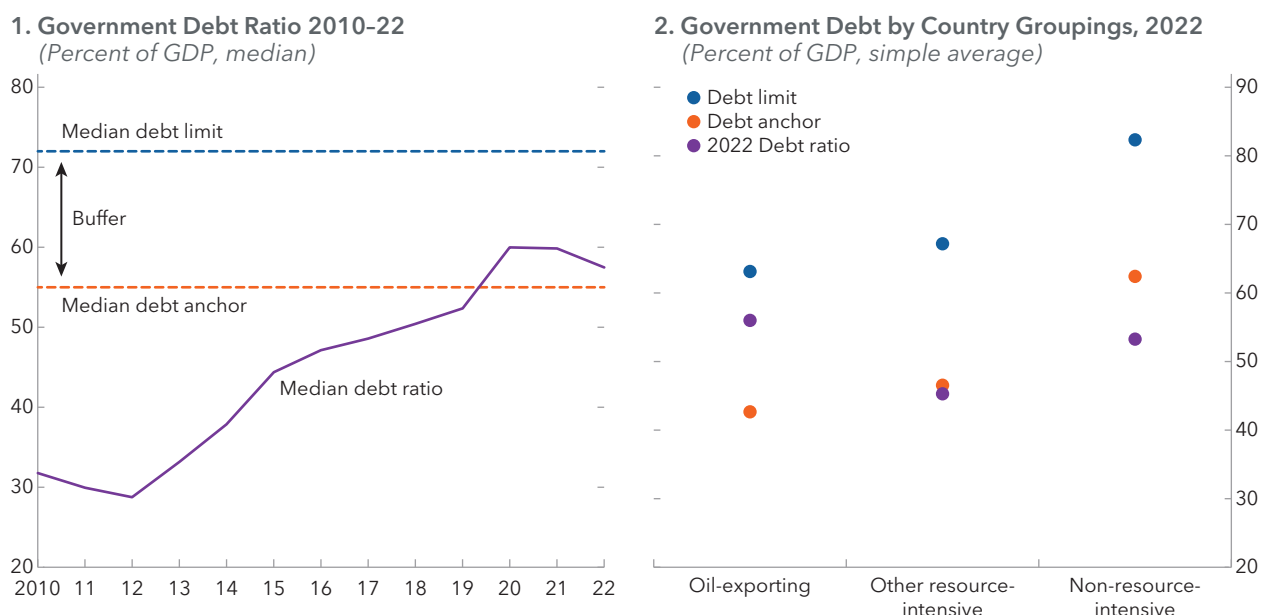
Step 2: Setting the safety buffer. A prudent medium-term fiscal strategy should ensure that the debt ratio remains well below the debt limit, with the safety buffer reflecting the extent of economic and fiscal volatility. The size of the buffer will depend on the country exposure to shocks on key macroeconomic variables driving debt dynamics (for example, shocks to the exchange rate, growth, inflation, and interest rates). Fiscal shocks, such as the realization of contingent liabilities could also be captured in the buffer. The required safety margin can be estimated with econometric models (see toolkit in Eyraud and others 2018).

While the estimates of safety buffers are inherently country-specific, we use, for illustrative purposes, a simpler approach and apply buffers to each country's debt limit, ranging from 10 to 30 percent of GDP.⁸ More specifically, countries are classified in three "buckets" based on the historical volatility of their fiscal deficit to GDP ratio (measured over the 2000-22 period): the buffer is set at 30 percent of GDP for countries whose deficit volatility is in the top third of the region's distribution, 20 percent of GDP for countries whose volatility is in the second third, and 10 percent of GDP for countries whose volatility is in the bottom third. With this methodology, the median size of the buffer in sub-Saharan Africa is 20 percent of GDP, which seems reasonable.

Step 3: Inferring the debt anchor. The country-specific debt anchor can finally be computed as the debt limit that preserves the debt-servicing ability minus the safety buffer. With this methodology, the median debt anchor in the region would stand at about 55 percent of GDP at end-2022 (Figure 18, panel 1).⁹ Slightly more than half of sub-Saharan African countries (25 countries) had debt ratios in 2022 that were above their

⁸ Baum and others (2017) estimate buffers for low-income countries and find that they range between 10 and 30 percent of GDP, depending on the specification and country group.

⁹ Due to the non-transitivity of the median, the median debt anchor across countries (56 percent of GDP) is not exactly equal to the median debt limit (72 percent of GDP) minus the median buffer (20 percent of GDP), although the relationship holds at the individual country level.

Figure 18. Sub-Saharan Africa: Debt Ratios and Debt Anchors

Sources: IMF, World Economic Outlook database; and authors' calculations.

estimated anchor. Out of these 25 countries, 10 had debt that was above their anchor but below their debt limit suggesting that they had entered a risky zone and fiscal consolidation should be pursued to bring back debt toward the anchor, while 15 countries had debt above the limit, pointing to elevated fiscal stress risks.

When considering different country groupings within the region, Figure 18, panel 2, shows some heterogeneity. As of 2022, oil-exporting countries presented, on average, debt levels that were well above the debt anchor (and close to the debt limit) indicating that buffers had been depleted and adjustment was needed. In contrast, non-resource-intensive countries still presented debt levels below (albeit quite close to) their anchors, suggesting that some fiscal space may remain. Other (non-oil) resource-intensive countries were, on average, at their debt anchor level, indicating that their debt-servicing capacity seemed adequate.

Caveats and Link to the Debt-Sustainability Analysis

Because of its simplicity, the proposed method presents some shortcomings that must be kept in mind:

- First, the method is centered on the capacity of countries to repay debt, not the willingness of financial markets to lend. Other factors—not captured in this approach—are essential to assess and measure liquidity risks, including the composition of debt, indicators of market perception, or the time profile of the debt service. More comprehensive approaches, such as the frameworks for debt sustainability analysis in low-income countries (IMF and World Bank 2018) or market access countries (IMF 2022c), are better suited to capture the multidimensional aspects of debt distress risk. In case conflicting signals arise between the simple debt servicing capacity method and more comprehensive frameworks (for instance, if the calibrated debt anchor results in a fiscal deficit trajectory that is assessed as unsustainable by the debt sustainability framework), the more comprehensive frameworks should prevail. Online Annex 3 discusses further the links and complementarity between the debt sustainability framework and the debt-servicing capacity approach, which is described in this section.
- Second, the proposed method assumes that the debt servicing capacity is well proxied by government revenues, but other resources could be mobilized to repay debt, including government's liquid assets or external reserves.

- Third, the calibration of a debt anchor could also be based on fundamentally different principles, like the need to finance development objectives and support growth (taking into account the feedback effect of debt-financed investment on growth). In this regard, the approach taken here may tend to set overly -prudent fiscal targets by concentrating on financing constraints rather than spending objectives and related outcomes.
- Finally, this paper focuses on situations where government debt is assumed to be sustainable. The fiscal strategy, as defined in the paper, does not depict a fiscal path that brings back debt to sustainable levels from an unsustainable starting point in the context of a debt restructuring operation. The calibration of the debt relief envelope (in case of unsustainable debt) should be based on Debt Sustainability Analysis tools, not the debt anchor calibration.

To conclude, the proposed method constitutes a useful starting point, grounded in a robust analytical framework; it provides clear and simple actionable guidance that could be helpful to policymakers and allows for easier cross-country comparisons. However, it does not preclude the use of other methods to arrive at a more complete assessment of the appropriate debt anchor. Best practice in setting fiscal anchors generally involves using alternative methods and comparing them to come up with a reasonable calibration. In addition, the proposed method may not be applicable or relevant to all countries and in all circumstances and does not substitute for comprehensive analysis based on more sophisticated tools and models like the IMF-World Bank Debt Sustainability Framework for Low-Income Countries and the IMF's Sovereign Risk and Debt Sustainability Framework for market access countries.

D. The Path Toward the Anchor

Estimating the size of fiscal adjustment needs is an important element of a fiscal strategy. This estimation helps determine whether fiscal consolidation efforts are required to reach a chosen debt anchor or whether there still is fiscal space to cushion macroeconomic shocks and borrow more for development projects. This section applies three alternative approaches to estimate these needs in sub-Saharan African countries.

Before discussing the methodology and results, it is useful to clarify two points on terminology. First, this section considers both positive and negative adjustment needs. The term “negative adjustment needs” characterizes a situation where a country still has borrowing space and can relax its fiscal position if warranted. Second, the adjustment needs are computed as the total adjustment required over the period; thus, the needs are multiyear and cumulative—the question of the annual pace of adjustment is covered in another section.

Methodology

The computation of the adjustment needs is based on the concept of primary gap. Following Escolano (2010) and Eyraud and others (2018), the primary gap is defined as the difference between the primary balance that would stabilize debt at the debt anchor by a given date and the cyclically-adjusted primary balance (CAPB) prevailing in 2022. A (positive) primary gap measures the amount of fiscal adjustment that is needed.

Formally, given an initial debt-to-GDP ratio d_{t-1} and the debt anchor d^* (which is the debt-to-GDP ratio to be achieved in the medium-term), the primary balance target p^* that ensures convergence of the initial debt stock d_{t-1} to the anchor d^* after n years and in the absence of shocks is expressed as:

$$p^* = \frac{\lambda}{(1 + \lambda)^n - 1} [(1 + \lambda)^n d^* - d_{t-1}] \quad (1)$$

with

$$\lambda = \frac{i_t - \gamma_t}{1 + \gamma_t} \quad (2)$$

where i_t and y_t denote, respectively, the nominal effective interest rate and the nominal GDP growth rate expected to prevail in the medium term, and, in this exercise, assumed to be equal to their 2023–27 average.

The effective interest rate is expressed as:

$$i_t = \frac{INT_t}{D_{t-1}} \quad (3)$$

where INT_t denotes interest spending on government debt at year t , and D_{t-1} is the debt stock at the end of year $t-1$.

The primary gap is defined as:

$$gap_t = p^* - p_t \quad (4)$$

where p_t is the CAPB at time t (which is 2022 for this exercise). To control for the presence of stock-flow adjustments¹⁰ that create a wedge between changes in debt and the budget deficit, the primary gap is modified as follows:

$$gap_t^* = p^* + \overline{sfa} - p_t \quad (5)$$

where \overline{sfa} denotes the recurrent annual stock-flow adjustment in percent of GDP.

The intuition behind (5) is that a country with a positive primary gap needs to pursue fiscal adjustment, as its primary balance is not high enough to bring its debt-to-GDP ratio toward the debt anchor. Furthermore, the more ambitious the debt anchor d^* (that is, the lower debt anchor d^*), the larger the primary gap gap_{t^*} . Moreover, when there are systematic SFAs, the primary balance needed to bring debt toward the desired anchor is also higher, as shown in equation (5).

Assumptions

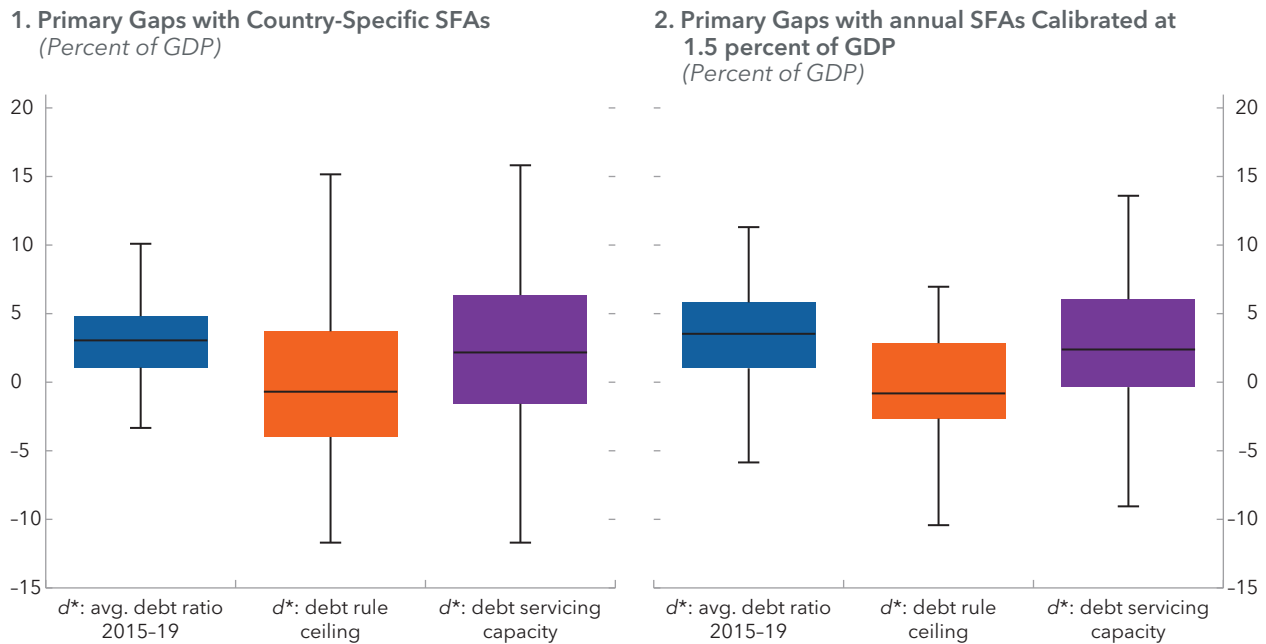
Fiscal adjustment needs are estimated using three alternative debt anchors d^* , assuming that the convergence to the anchor takes five years during 2022–27. In the first approach, the debt anchor is set, for each country, at the average debt-to-GDP ratio over the period 2015–19, which represents the pre-COVID-19 situation. In the second approach, the debt anchor is set at the ceiling of the debt rule adopted by the country.¹¹ In the third approach, the debt anchor is estimated using the framework based on debt-servicing capacity presented in the previous section.

We also conduct some sensitivity analysis by using alternative values of key parameters. For the SFA, we use two alternative measures—either a country-specific annual SFA corresponding to the median value (by country) over the period 2010–19, or an ad hoc SFA, identical for all countries, of 1½ percent of GDP, which is the historical average in the region.

For the primary balance, our baseline specification relies on the CAPB for 2022, constructed using the standard methodology outlined in Fedelino, Ivanova, and Horton (2009) to correct for the business cycle (using the Hodrick-Prescott filter to obtain trend GDP). For resource-rich countries, we correct for cycles in commodity and non-commodity fiscal revenues separately (trend revenues are also obtained using the Hodrick-Prescott filter). As a robustness check, we also calculate the primary gap relative to the 2022 *unadjusted* primary balance.

¹⁰ The formula (1) used to calculate p^* implicitly assumes that there are no SFAs over the projection period (that is, debt dynamics are fully accounted for by changes in the primary balance, the interest-growth differential and exchange rate movements). But in reality, systematic SFAs have caused debt levels to drift upward in the region, as documented in previous sections. Therefore, a country would need to undertake additional fiscal effort to reduce the primary balance so as to offset these SFAs.

¹¹ When a country has no debt rule, the authors set the debt anchor as the median debt-to-GDP level in existing fiscal rules in sub-Saharan African countries (which is 70 percent of GDP).

Figure 19. Sub-Saharan Africa: Distributions of Primary Balance Gaps, as of 2022

Sources: IMF, World Economic Outlook database; and authors' calculations.

Note: d^* is the debt anchor. Horizontal lines denote the (cross-country) median. Vertical lines denote the interquartile range. SFAs = stock-flow adjustments.

Results

The analysis shows that many countries in sub-Saharan Africa would need to pursue fiscal consolidation over the next five years to bring their debt ratio to the anchor. Our baseline specification relies on the CAPB, a convergence period of five years, and country-specific SFAs. Under these assumptions, the median country would display a positive primary gap under two out of the three approaches (Figure 19, panel 1). The share of sub-Saharan African countries needing fiscal adjustment (that is, with a positive primary gap) ranges between half and 80 percent depending on the approach. Median adjustment needs over the next five years vary across methods and are as high as 3 percent of GDP in the first approach. While these are median estimates, Figure 19 shows that some countries would require much larger adjustment, raising the questions of whether such fiscal consolidation would be feasible and debt restructuring may be necessary as a complementary tool to restore fiscal sustainability. Results are broadly robust to alternative specifications, including starting from the 2022 unadjusted primary balance instead of the 2022 CAPB, or using an ad hoc constant SFA instead of a country-specific estimate (Figure 19, panel 2).

Differences in adjustment need estimates across the three methods underline the importance of the choice of the debt anchor, which is the key target variable. This anchor can take very different values depending on policy choices and macroeconomic assumptions. In the exercises presented here, the different debt anchors reflect three alternative policy objectives of (1) reversing the crisis-related debt surge, (2) complying with the existing fiscal rule, and (3) reducing the risk of fiscal stress and preserving the ability to repay debt. Lower debt anchors are naturally associated with higher adjustment needs.

The results indicate that adjustment needs are the largest when the policy objective is to offset the effect of the recent crisis (first method). This finding is not surprising given that the COVID-19 pandemic and the war in Ukraine have had a large impact on debt dynamics; therefore, large efforts would be needed to return to the precrisis state of play. By contrast, adjustment needs are the lowest with the method based on debt rules

Table 4. Cumulative Fiscal Adjustment Needs in Sub-Saharan African Countries*(Percent of GDP)*

	All SSA countries	Resource-intensive countries	Non-resource-intensive countries
Approach 1. Debt anchor is the average debt-to-GDP ratio over 2015-19			
Simple average (with country-specific SFA)	1.9	1.6	2.2
Simple average (with calibrated SFA)	1.6	1.3	1.9
Median (with country-specific SFA)	3.1	1.4	3.8
Median (with calibrated SFA)	3.5	2.4	4.9
Approach 2. Debt anchor is the ceiling of debt rule adopted by countries			
Simple average (with country-specific SFA)	-0.4	-2.1	1.4
Simple average (with calibrated SFA)	-0.6	-2.3	1.1
Median (with country-specific SFA)	-0.6	-2.2	1.5
Median (with calibrated SFA)	-0.8	-1.6	1.4
Approach 3. Debt anchor is estimated with the framework based on debt-servicing capacity			
Simple average (with country-specific SFA)	2.1	2.3	1.9
Simple average (with calibrated SFA)	1.9	2.0	1.7
Median (with country-specific SFA)	2.1	3.3	0.9
Median (with calibrated SFA)	2.4	3.7	1.4

Sources: IMF, World Economic Outlook database; and authors' calculations.

Note: A negative number means that the country has fiscal space. A positive number points to the need for fiscal adjustment. SFA = stock-flow adjustment; SSA = sub-Saharan Africa. "Calibrated SFAs" refers to the assumption of annual SFAs being set at 1.5 percent of GDP for all countries.

(second method), which reflects the fact that debt rule ceilings in sub-Saharan African countries tend to be calibrated at relatively high levels (their median value is 70 percent of GDP) and are not binding for many countries. Estimates relying on the debt-servicing capacity (third method) lie in the middle.

When considering different country groupings in the region, an interesting result appears: resource-rich countries present lower adjustment needs than their non-resource-rich counterparts according to methods 1 and 2, whereas the opposite result is observed with method 3, as shown in Table 4. This finding is not surprising though. Method 3 finds higher adjustment needs for commodity producers, since these countries have relatively lower debt anchors for three main reasons: they are exposed to greater macroeconomic volatility (hence a larger required safety buffer), they mobilize less domestic revenue, and they tend to face higher interest rates, since many of these countries have market access. By contrast, the lower adjustment needs for method 1 reflect the fact that the debt ratios of commodity producers, especially oil exporters, have increased less than in non-resource-intensive countries in recent years. Finally, adjustment needs of resource-rich countries are also lower in method 2 (with the debt rule ceiling as a debt target), given that these countries tend to have lower debt ratios (compared to non-resource-intensive ones), while all countries in the region have broadly similar debt rule ceilings (of 70 percent of GDP). Overall, method 3 seems to provide the most policy-relevant result, with resource-rich countries displaying greater need for consolidation due to elevated vulnerabilities.

It is also important to note that the sub-Saharan African region presents significant heterogeneity. Regardless of the methodology, a non-negligible number of countries are found to have some fiscal space¹² and can use it to continue making vital investments in human and physical capital. According to approaches 1 and 3, about a quarter of countries have negative primary gaps.¹³ At the opposite end of the spectrum, a few countries display very large adjustment needs, and it is unlikely that fiscal consolidation alone will be enough to ensure fiscal sustainability. In this case, the necessary adjustment may need to be accompanied by debt reprofiling or restructuring.

Conclusion

Overall, the primary gap of the median country is about 2–3 percent of GDP in approaches 1 and 3, which are our preferred specifications. Given historical experience, this adjustment could be realistically met with a combination of revenue mobilization measures and better prioritization of expenditure. However, sustaining elevated primary balances over the medium-term can be politically difficult to accomplish, even if technically feasible. In subsequent sections, we discuss ways for policymakers to increase the probability of success when implementing sizeable and durable fiscal consolidation.

These estimates should be interpreted with caution as they are subject to considerable uncertainty. The first source of uncertainty is methodological. There is no one way to select and define debt anchors, and fiscal needs estimates are sensitive to this choice. This source of uncertainty is somewhat mitigated in this section by considering results from different approaches rather than relying on a single debt anchor to calculate fiscal adjustment needs. Another challenge is the uncertainty regarding medium-term forecasts of key macroeconomic variables, including growth and interest rates—an uncertainty which has greatly increased in recent years (IMF 2021).

E. Pace of Fiscal Adjustment: Costs and Benefits of Frontloaded Consolidation in Sub-Saharan Africa

This section reviews some considerations on the optimal pace of adjustment toward fiscal targets in the particular context of developing economies. It discusses whether adjustment should be frontloaded or more gradual depending on circumstances. For many sub-Saharan African countries, the speed of consolidation is not a matter of choice; it is largely imposed by market pressures and financing constraints. But even for countries that can afford to follow a more gradual path, the pace of adjustment is not a straightforward question. One key issue involves the trade-off between, on the one hand, the adverse short-term effects of faster consolidation on growth, and, on the other hand, the reduced risk of fiscal crisis coming from lowering debt levels earlier.

Previous work by IMF staff has suggested that a fiscal consolidation of about 1 percent of GDP per year is broadly appropriate in the context of advanced economies to reach desired fiscal targets without significantly undermining economic growth (IMF 2012). Frontloading the adjustment is typically not recommended unless there is a risk of sharp increase in sovereign spreads and loss of market confidence. Would these recommendations also apply to African countries given the tighter financing constraints and less credible fiscal and monetary policy frameworks?

¹² The primary gap indicator is commonly used to measure fiscal space. However, the distance between the current debt ratio and the debt anchor is not as informative. For instance, a country with debt above its anchor may still have fiscal space if its initial primary balance is high enough to bring the debt ratio below the anchor over a given time horizon (after five years, in our analysis).

¹³ Under the first approach, 9 or 11 countries have negative primary gaps (depending on whether SFAs are country specific or calibrated). For the second approach, the number of countries is 23 or 26. And for the third approach, this is 14 or 15. The average across approaches 1 and 3 (our preferred specifications) is 27 percent of countries with negative primary gaps.

Factors Determining the Pace of Adjustment in Developing Countries

This section discusses some key parameters that influence the pace of adjustment, including: the role of financing constraints, the effect of consolidation on growth, credibility, and adjustment fatigue. These factors have been described in other publications, but this section tailors the discussion to the specific circumstances of sub-Saharan African countries.

The primary consideration is the extent of **financing constraints** faced by countries. These constraints are particularly prevalent in sub-Saharan Africa, where domestic financial markets are less developed and access to international markets is often limited. If a country loses market access and struggles to rollover its debt, a more frontloaded fiscal adjustment is often unavoidable. In less extreme situations, countries may consider delaying part of the adjustment, but they will need to balance the benefits from smoother consolidation with the additional interest costs associated with higher debt. Therefore, the tightness of financing conditions is a key parameter: if interest rates are low and not too sensitive to negative shocks (which is the case for concessional financing), a more gradual consolidation strategy could be more desirable, as the cost of smoothing is lower; on the other hand, if borrowing costs are elevated (including on domestic markets), countries may have less room to delay the adjustment.

Thus, countries facing elevated financing constraints may not have the option of setting freely the pace of adjustment. The rest of the section concentrates on **cases where financing constraints are less pressingly binding**, leaving some scope for countries to distribute their fiscal efforts over time. This can happen when market conditions are loose or when countries facing balance of payments pressures receive countercyclical financing from the international community, including the IMF, which helps them smooth their adjustment. In this case, three main factors will affect their decision:

- The first factor is the *effects of consolidation on growth*, and, more specifically, how fiscal multipliers vary over time depending on economic conditions. Fiscal consolidation should, to the extent possible, be concentrated in the years when multipliers are relatively low, using instruments that have lower effects on output. The literature indicates that multipliers tend to be higher when monetary policy cannot offset the fiscal shock, when the financial sector is impaired, and when the economy is in a severe economic downturn with a high proportion of credit-constrained agents. In other words, it makes sense to wait if conditions are expected to change in the near future and reduce fiscal multipliers. This argument, which favors gradualism and a “wait-and-see” approach over frontloading, is perhaps less relevant for low-income countries than advanced economies, since multipliers are, on average, lower in the former group (Box 4).
- Beyond fiscal multipliers, *credibility* is another factor influencing the pace of adjustment. Governments with higher credibility can, to some extent, delay the adjustment. On the contrary, countries with low credibility may be penalized with excessive backloading, which could be perceived by financial markets as increasing fiscal risks. David, Guajardo, and Yezpe (2022) find that sovereign spreads decline significantly following fiscal consolidation announcements in a sample of emerging and developing countries; the reduction in spreads is particularly large in economies with initially high sovereign spreads, high debt levels, and low credit-risk ratings.
- Third, *fiscal fatigue* is another important consideration to set the pace of adjustment. Intense fiscal efforts are typically difficult to maintain, both because they have high political and electoral costs, and because easy-to-implement measures (“low-hanging fruit”) tend to be adopted first. Sustaining adjustments over long periods of time can also be challenging, even when yearly fiscal efforts are relatively moderate. Empirical evidence for a broad set of countries confirms the presence of fiscal fatigue effects: the probability of terminating an adjustment episode increases with time even after controlling for several

macroeconomic, political, and design (composition) aspects (Tsibouris and others 2006). Therefore, gradualism might be more credible in countries where risks of social discontent and political instability are lower.

Taking all these elements into consideration, a frontloaded adjustment strategy is likely to be unavoidable for many countries in sub-Saharan Africa at the current juncture given tight financial conditions, both globally and domestically. If countries do not access or have lost access to international capital markets, the availability of donor financing and the absorption capacity of domestic markets would be crucial determinants of the pace of adjustment, but both sources of financing are limited. For other countries, the above arguments would probably argue against excessive backloading: the evidence suggests that fiscal multipliers are lower in Africa compared to advanced economies, thus the growth cost associated with frontloading is likely to be less significant, while the benefits of frontloading in terms of credibility may be larger given higher risk premia and, in some countries, political instability. These are general considerations, and the optimal pace of consolidation should, of course, be tailored to country-specific circumstances.

When fiscal consolidation occurs over a relatively long period of time and is backloaded, strong fiscal institutions are essential for setting a credible medium-term plan and mitigating adjustment fatigue. Successful fiscal consolidations have typically been accompanied by institutional reforms, including the establishment of medium-term expenditure frameworks, the introduction of fiscal rules, or reforms to intergovernmental fiscal arrangements, as discussed in Chapter 3 (IMF 2010).

Differences across Country Groups in the Region

Having outlined above some of general factors affecting the desired pace of fiscal adjustment, it is important to note that the optimal strategy is likely to differ across groups of countries in the region, given the range of economic characteristics and institutional settings.

The credibility of fiscal policies will be a more important factor in countries with market access because the macroeconomic effects of fiscal adjustments can be either mitigated or amplified by the response of sovereign spreads. In countries with greater credibility, the adjustment is likely to be associated with a contraction of spreads, which would reduce the costs on output; therefore, for these countries, adjustment could be more gradual. For lower-income countries that cannot access international capital markets, the availability of budget support from donors will play a more prominent role in determining whether a gradual adjustment path is feasible.

In the case of resource-rich countries, the pace of fiscal adjustment is likely to be partly dictated by the stage of the commodity price cycle and whether resources from a stabilization fund are available to smooth out fluctuations in revenues. Naturally, periods of favorable terms of trade (when resource prices are above trend) seem a more opportune time to build up fiscal savings; this means that adjustment will be easier and possibly larger if it is conducted in “good times.” Conversely, periods during which natural resource prices are below trend may call for more gradual adjustment given weaker economic conditions, which would be exacerbated by fiscal retrenchment. Nevertheless, in times of low commodity prices, financing constraints tend also to become more severe. It is, for instance, quite common for borrowing costs on international markets (spreads) to spike when commodity prices collapse, which may force countries to adjust in a procyclical manner.

Political instability is a fundamental feature of fragile states with important but also ambiguous implications for the pace of fiscal adjustment. On the one hand, a sharp, even if short-lived, front-loaded adjustment could push a fragile country over the edge fueling social unrest and instability. In fact, there is some evidence that fiscal tightening measures are associated with increases in the probability of social unrest in samples of advanced economies and Latin American countries (Passarelli and Tabellini 2017, Voth 2013). In particular,

spending cuts seem to be linked to higher incidence of riots and other types of violent protests. On the other hand, political instability renders the implementation of more gradual adjustment less credible, as political commitment to fiscal consolidation is likely to fade over time if the balance of power shifts.

Box 4. Fiscal Multiplier Estimates in Emerging Market and Developing Economies

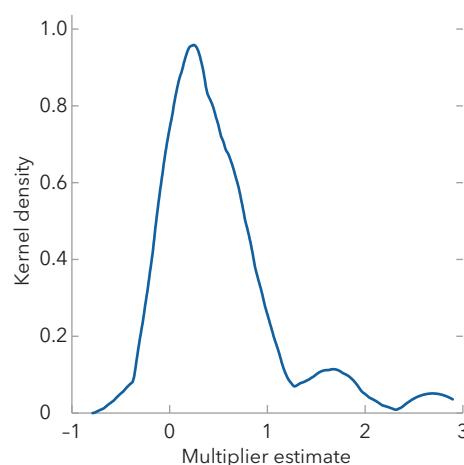
This box reviews the evidence on the size of fiscal multipliers in EMDEs by carrying out a meta-analysis based on 79 estimates from studies in the literature initially compiled by Carrière-Swallow, David, and Leigh (2021) and updated for the purpose of this box. To facilitate comparison across studies, we define the fiscal multiplier as the cumulative change in GDP over a two-year horizon in response to cumulative changes in fiscal policy. Box Figure 4.1 depicts the distribution of estimates and shows that there is substantial dispersion for EMDEs with a median value for the fiscal multiplier of 0.4 compared to a median estimate of 0.8 for advanced economies.

Several factors can explain why fiscal multipliers tend to be lower in EMDEs and typically well below 1 in the near-term: (1) the large informal sector often plays the role of shock absorber when the economy slows down (see Lemaire 2020, Colombo and others 2022); (2) lower efficiency of public spending in these countries tends to reduce the multiplier all else equal because cutting inefficient spending does not have much effect on output; and (3) the large risk premium embedded in interest rates could generate confidence effects (that is, fiscal adjustment fosters investors' confidence, reducing the risk premium and supporting private demand).

When considering different types of fiscal policy instruments, our meta-analysis points to higher multipliers for public investment, with a median value of 0.8, compared to current spending (median value of 0.5) and taxes (median value of about 0.4). There are few estimates of multipliers for transfers to households. In a recent paper, Bracco and others (2021) find that multipliers for social transfers are larger in developing economies reaching 0.9 compared to about 0.3 for advanced economies. This is to a large extent because these economies tend to have a larger share of consumers without access to finance and with a high propensity to consume.

Economic theory suggests that interactions between monetary and fiscal policy matter for the size of fiscal multipliers. Monetary policy accommodation can mitigate the magnitude of the effect of fiscal adjustment on output. This is confirmed by empirical evidence presented by Cloyne, Jordà, and Taylor (2020). Using narrative fiscal consolidation shocks, these authors find that the fiscal multiplier at any point in time depends crucially on the monetary policy response, even after controlling for other factors, such as the business cycle. Fiscal multipliers can be as low as zero and as large as two over a period of three years depending on the degree of monetary policy offset.

Box Figure 4.1. Fiscal Multiplier Estimates in EMDEs



Sources: Carrière-Swallow, David, and Leigh (2021); and authors' calculations.
Note: EMDEs = emerging market and developing economies.

3. Ensuring that the Fiscal Strategy Is Successfully Implemented

This chapter discusses some aspects of fiscal policy implementation in African countries. Historical experience suggests that African countries in the region have been able to improve their primary balance by about 1 percent of GDP per year during past fiscal adjustment episodes, which tended to rely mostly on expenditure cuts, and lasted, on average, two to three years. Implementation pitfalls are numerous in the region, with less than a third of the consolidation episodes being sustained (that is, not reversed in immediate subsequent years). Although the situation is not worse in Africa than elsewhere, there is evidence that deviations from plans are significant, especially at longer horizons: on average, fiscal deficits tend to be 1 percent of GDP higher than envisaged three years earlier. The chapter also explores the role of institutions in addressing these implementation challenges. Policy changes are more likely to be sustained and yield tangible results if institutions for expenditure and revenue management are strong and efficient. On the expenditure side, the main priorities to minimize implementation risks are to strengthen the medium-term orientation of fiscal policy, put in place tools to better assess and manage fiscal risks, and enhance expenditure controls. On the revenue side, revenue administration reforms in key compliance areas and digitalization seem critical for durably raising the tax ratio.

A. How Large Have Been Past Fiscal Adjustment Episodes in Sub-Saharan Africa?

The goal of this section is to examine past experience of sub-Saharan African countries in order to gain insights into the size, duration, and composition of fiscal adjustment. To do so, a dataset of fiscal consolidation episodes is created and used to compare successful and unsuccessful cases.

Identifying Fiscal Consolidation Episodes

The definition of fiscal consolidation used here is similar to the one proposed by Escolano, Jaramillo and Mulas-Granados (2018)¹⁴ but is less strict in that it allows for years of fiscal neutrality (that is, a consolidation could include a few years with broadly constant CAPB) as well as small slippages during an episode.

Specifically, this section identifies a fiscal consolidation episode using the criterion that such episode should include, at least, two consecutive years with an annual increase in the ratio of CAPB to potential GDP of, at least, 0.1 percent each year.

During a consolidation episode, we allow for years of fiscal neutrality defined as years when the annual change in the CAPB-potential GDP ratio is close to 0 (between -0.1 percent and 0.1 percent of potential GDP). These years of neutrality are allowed at any time during the episode, including at the beginning or at the end. The rationale is that, in many countries, stabilizing the fiscal position already entails some fiscal effort. In any case, there are very few episodes with neutral years in our sample.

Small slippages are also allowed within an episode, provided that these are not larger than one tenth of the cumulative change in the CAPB-to-potential GDP ratio observed during the total episode. In addition, slippages can take place during each year of the adjustment episode, except the first and last one.

¹⁴ See Box 5 for a discussion of the literature on identifying fiscal adjustment episodes.

The CAPB, expressed as a percentage of potential GDP, is estimated for all sub-Saharan African economies using the approach described in Fedelino, Ivanova, and Horton (2009) to correct for the cycle. Potential GDP is estimated using the Hamilton filter.¹⁵ Some countries have been excluded either because of poor data quality (Equatorial Guinea, Eritrea, and Zimbabwe) or excessive volatility in the series (Seychelles).

The choice of using the CAPB to identify fiscal consolidation episodes is justified by the need to focus on discretionary fiscal policy actions, once the effects of business cycle and interest payments on the fiscal balance have been removed. Nonetheless, the CAPB has some clear limitations as highlighted in the literature. Therefore, the CAPB computation is supplemented with two additional exercises to ensure that the identified episodes do correspond to discretionary tightening of fiscal policy. First, cases where the annual increase in commodity-related revenues is equal or above 1 percent of GDP, and cases where annual increases in grants are larger than 2 percent of GDP are excluded. Second, a “narrative” approach is also implemented by examining in more detail the information available in IMF country reports for those cases where annual changes in the CAPB were assessed to be (excessively) large.¹⁶ Overall, combining the three approaches allows us to build the fiscal consolidation data set.

Box 5. Definition of Fiscal Adjustment Episodes in the Literature

The identification of fiscal consolidation episodes has been the subject of several empirical studies following a range of methodologies. Among those, this box highlights three contributions that are relevant for defining episodes in the context of this paper.

First, Arizala and others (2021) identify fiscal consolidation episodes as those cases where the CAPB improves by, at least, 1 percent of GDP in a year. Cases where commodity-related revenues increase by at least 1 percent of GDP are excluded. They identify 211 episodes of fiscal consolidation in sub-Saharan Africa and 568 episodes in emerging market and developing economies between 1990 and 2016. During these episodes, the CAPB improves on average by 3 of GDP each year and growth typically decelerates by 0.6 percentage points.

In another study, Ardanaz and others (2021) characterize a fiscal adjustment episode when either the change in the CAPB-to-GDP ratio is greater or equal to 2 percentage points in a specific year, or when there is a two-year consecutive improvement in the CAPB of at least 1.5 points per year. They identify 125 episodes of fiscal consolidation in 70 advanced and emerging market economies between 1980 and 2019. The typical consolidation episode has a duration of approximately two years. During this period, the CAPB improves by about 3.5 percentage points of GDP on average.

Finally, to identify a fiscal consolidation episode for a broad set of countries, Escolano, Jaramillo, and Mulas-Granados (2018) require that the CAPB improves by at least 0.1 percent of GDP each year for two consecutive years, which is less stringent than under the previous approaches, but they add an additional criterion: the country should face a fiscal adjustment need, defined as a primary gap of at least 2 percent of GDP at the beginning of an episode. These criteria are applied to a group of 83 countries during 1945–2014. They identify 91 episodes of fiscal adjustment, and the median cumulative improvement in the primary balance is close to 5½ percent of GDP, while the primary balance achieved at the end of consolidation episodes varies between 1.5 and 1.8 percent of GDP. They also find that the primary gap closes in two-thirds of the consolidation episodes and that public debt stabilizes in most cases.

¹⁵ For Madagascar, Sierra Leone, and Togo, potential GDP has been estimated with the Hodrick-Prescott filter to smooth the volatility of the output gap.

¹⁶ More specifically, we have reviewed IMF country reports for episodes where annual changes in the CAPB were larger than 3 percent and assessed whether the episode constituted a genuine fiscal effort or whether the improvement in the CAPB was driven by other factors. See Online Annex 4 for a list of excluded episodes of fiscal adjustment and the rationale for excluding these cases.

The Subset of “Sustained” Consolidation Episodes

Within the data set created, we identify the subset of consolidation episodes described as “sustained” if they meet two additional conditions related to *size* and *non-reversibility*—two conditions that are common in the empirical literature:

- The average annual size of the change in the CAPB-to-potential GDP ratio is larger than 0.5 percent, and
- The episode is not immediately reversed, meaning that no more than 25 percent of the adjustment effort is reversed in the first year following the end of the episode.

Results

Table 5 reports the main characteristics of consolidation episodes, which are split between “sustained” and “non-sustained.” 82 episodes of fiscal consolidation are identified in sub-Saharan Africa during 1980–2021, but only 24 of those (between a quarter and a third of total) are assessed to be sustained.¹⁷ The median cumulative improvement of the CAPB during an episode is about 2½ percent of GDP with a median annual improvement of about 1 percent of GDP per year.

Sustained episodes involve much larger adjustments in the CAPB (more than 4 percent of GDP on a cumulative basis), last longer (the median duration is three years), are characterized by an initial sizeable fiscal adjustment need—as identified by a positive primary balance gap—and involve both larger increases in revenues and reductions in expenditure compared to other types of adjustments.¹⁸

In terms of composition, primary expenditure cuts are the main driver of fiscal consolidations episodes in sub-Saharan Africa (Figure 20). While the median decrease in expenditures over an episode amounts to 1.7 percent of GDP, the median increase in revenues is substantially lower at about half percent of GDP.

Compared to EMDEs in other regions, the median size of fiscal consolidations in sub-Saharan Africa is somewhat lower (the median cumulative change in the CAPB amounts to 2.4 percent in the region compared to 3.4 percent elsewhere). In addition, the composition of fiscal consolidation episodes in other EMDEs appears to be somewhat more balanced, with revenue increases and primary expenditure cuts above 1 percent of GDP (Figure 20). By contrast, African countries tend to rely more on expenditure cuts while increases in revenues seem to play a more limited role.

The findings from the analysis of consolidation episodes presented here are broadly in line with those of other studies. For example, Escolano, Jaramillo, and Mulas-Granado (2018) find an average annual improvement in the CAPB during fiscal consolidations of 1.1 percent of GDP for the global sample of countries and 1.7 percent of GDP for developing economies. Arizala and others (2021), which examine fiscal adjustments in sub-Saharan Africa, find that the CAPB improves cumulatively by about 3 percent of GDP over a typical consolidation episode.

¹⁷ The lower number of episodes compared to previous studies such as Arizala and others (2021) reflect the fact that we exclude (1) a few sub-Saharan African countries from the analysis, and (2) several episodes that were mechanically identified through changes in the CAPB but did not appear to be true consolidation after reviewing IMF country reports.

¹⁸ It is important to note that the definition of the “primary balance gap” used in this exercise is different from the one used in Chapter 2, which computes adjustment needs according to different debt anchors. Following Escolano, Jaramillo and Mulas-Granados (2018), in this section, a country is considered as having a fiscal adjustment need when its primary gap, that is, the difference between the primary balance required to stabilize debt ratio at the level prevailing in year $t-1$ and the primary balance in year t , is positive.

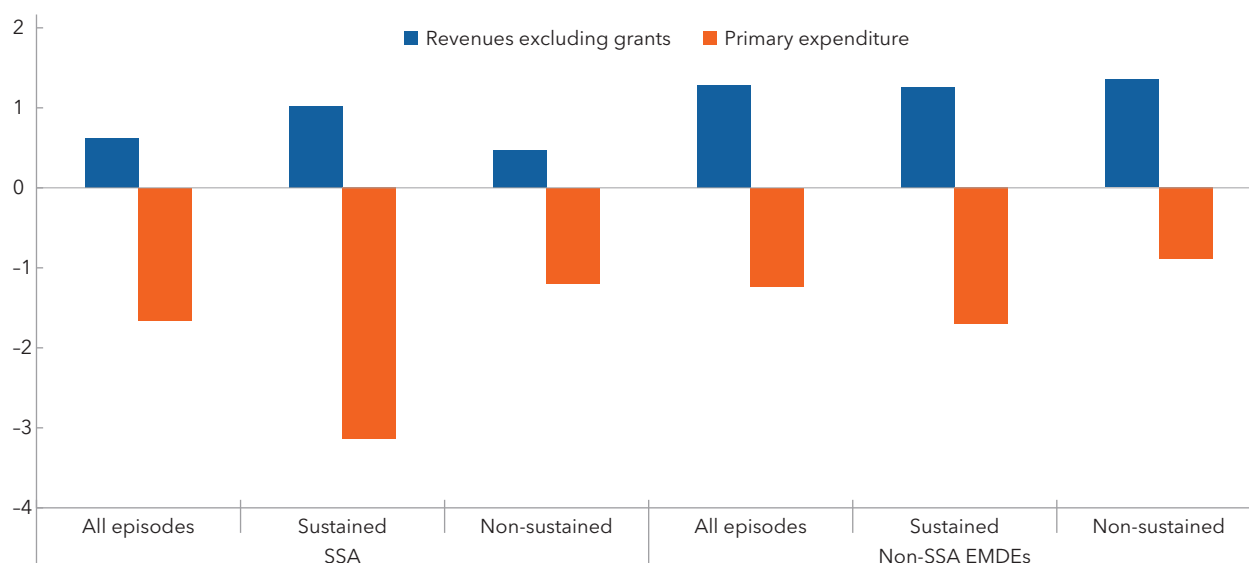
Table 5. Characteristics of Fiscal Consolidation Episodes (1980–2021)

	Number of episodes	Median cumulative change in CAPB ratio	Median annual change in CAPB ratio	Median final CAPB ratio	Median initial primary balance gap	Median Change in revenue ratio (excl. grants)	Median change in primary expenditure ratio	Median duration of an episode (years)
SSA	82	2.4	1.0	-0.3	-0.2	0.6	-1.7	2.0
Of which:	24	4.2	1.1	0.1	1.4	1.0	-3.1	3.0
Sustained consolidations								
Of which:	58	2.1	0.8	-0.3	-0.4	0.6	-1.2	2.0
Non-sustained consolidations								
Other EMDEs	251	3.4	1.2	0.2	-0.5	1.1	-1.8	2.0

Sources: IMF, World Economic Outlook database; and authors' calculations.

Note: The "initial primary balance gap" is defined here as the difference between the primary balance required to stabilize debt at the level prevailing at year $t - 1$ (just before the start of the consolidation episode) and the primary balance in the first year of the consolidation, such that a positive value denotes an adjustment need (see Escolano, Jaramillo, and Mulas-Granados 2018). CAPB = cyclically adjusted primary balance.

Figure 20. Composition of Fiscal Consolidation Episodes
(Changes in ratios to GDP between beginning and end of episode, median)



Sources: IMF, World Economic Outlook database; and authors' calculations.

Note: EMDEs = emerging market and developing economies; SSA = sub-Saharan Africa.

Sensitivity Analysis

To assess the sensitivity of the results to the assumptions, we use an alternative calibration of the non-reversibility condition of fiscal adjustments. Specifically, we consider that an episode is not reversed if:

- Option A: no more than 25 percent of the adjustment effort is reversed in the first year after the episode—this is the definition used above.
- Option B: no more than 50 percent of the adjustment effort is reversed in the first year after the episode.
- Option C: no more than 75 percent of the adjustment effort is reversed in the first year after the episode.

Using the most restrictive definition, only 24 episodes of sustained fiscal consolidations were identified, as in the previous section (Table 6). When the non-reversibility condition is relaxed to allow for up to 50 percent reversals of the adjustment effort in the first year post-consolidation, the number of sustained consolidations

Table 6. Sustained Fiscal Consolidations in Sub-Saharan Africa

(Number and frequency of fiscal consolidation episodes)

Country groups	Total number of episodes	Number of sustained consolidation episodes			Share of sustained episodes in total episodes (%)		
		A	B	C	A	B	C
Sub-Saharan Africa: all countries	82	24	40	46	29	49	56
Oil exporters	3	1	3	3	33	100	100
Other resource-intensive countries	26	8	12	14	31	46	54
Non-resource-intensive countries	48	14	24	28	29	50	58
Other EMDEs	251	72	128	164	29	51	65

Sources: World Economic Outlook database; and authors' calculations.

Note: EMDEs = emerging market and developing economies.

rises from 24 to 40. The number rises further to 46 when large reversals (up to 75 percent of the adjustment effort is immediately reversed) are allowed, which represents slightly over half of the episodes. SSA oil exporting countries manage to sustain more fiscal adjustment episodes than other country groupings. Finally, the shares of sustained episodes in total episodes in SSA are broadly similar to those in non-SSA emerging market and developing economies.

Overall, the evidence shows that sustained fiscal consolidations in sub-Saharan Africa are possible but challenging, as most of the times consolidation episodes are reversed. Even when large reversals are allowed (option C), only about a half (56 percent) of the consolidation episodes are sustained through time. By contrast, when only small reversals are allowed, less than a third of the consolidation episodes (29 percent) are sustained. This suggests that policymakers face challenges to maintain their fiscal adjustment effort over time.

B. Another Look at Implementation Risks

This section provides additional evidence on fiscal policy implementation risks in sub-Saharan Africa. These risks materialize when policymakers are unable (or unwilling) to implement key fiscal reforms that are necessary to bring public finances on a sustainable path and create fiscal space. In sub-Saharan African economies, risks are more acute because of elevated macroeconomic uncertainty and volatility, less predictable business cycles, more dependency on volatile aid inflows, less stable political systems, shallow domestic financial markets, and weaker governance and budget institutions.

In this context, this section presents new evidence quantifying implementation risks in the region over the past two decades. Two exercises are presented to examine whether fiscal efforts are sustained over time and fiscal plans are complied with. Compared to the previous section, the focus here is on the level of fiscal variables (for example, ability of countries to achieve elevated primary surpluses), instead of their first difference (for example, adjustment over time).

Sustaining Fiscal Efforts

Experience shows that many countries are able to achieve high fiscal balances occasionally, but fiscal efforts are much more difficult to maintain over time. This section replicates the work of IMF (2013) in a global sample by computing the maximum primary balance that countries in sub-Saharan Africa have achieved over the past two decades. Table 7 reports the median of these maximum balances in various country groupings. The exercise is then replicated by using the three- and five-year moving averages of the data to identify the maximum fiscal position that countries were able to reach over longer time windows.

The results confirm that maintaining high primary balances for extended periods of time is very difficult. While the maximum annual primary balance is, on average, 5.7 percent of GDP in sub-Saharan countries, this median value falls to 2.5 percent of GDP (using a three-year window) and 2.3 percent of GDP (with a five-year window).

Table 7 also reports the deviations from the peak effort when the window is expanded. These deviations are calculated, for each country, as the difference between the maximum balance for 3-year (\tilde{b}^{3Y}) or 5-year (\tilde{b}^{5Y}) moving averages and the maximum annual primary balance (\tilde{b}^A), divided by the maximum annual primary balance. Formally,

$$D^{3Y} = \frac{\tilde{b}^{3Y} - \tilde{b}^A}{\tilde{b}^A}$$

$$D^{5Y} = \frac{\tilde{b}^{5Y} - \tilde{b}^A}{\tilde{b}^A}$$

Table 7. Maximum Primary Balances during 2000–22*(Percent of GDP unless otherwise indicated; median across countries)*

Country group	Annual data	Three-year moving average		Five-year moving average	
	Median maximum primary balance ratio	Median maximum primary balance ratio	Median deviation from peak annual effort (%)	Median maximum primary balance ratio	Median deviation from peak annual effort (%)
Sub-Saharan Africa: all countries	5.7	2.5	–42%	2.3	–60%
Oil exporters	13.7	10.3	–27%	7.5	–37%
Other resource-intensive countries	9.5	4.3	–62%	2.7	–77%
Non-resource-intensive countries	2.9	1.6	–44%	0.9	–68%
Non-SSA emerging market and developing economies	4.4	3.5	–23%	2.6	–39%
Advanced economies	3.8	3.7	–14%	2.9	–31%

Sources: IMF, World Economic Outlook database; and authors' calculations.

Note: SSA = sub-Saharan Africa.

In sub-Saharan Africa, the median deviation shows a drop of 42 percent when comparing annual balances to three-year averages, and the decline is even larger over five years (60 percent). These deviations from peak efforts are much more pronounced than in the samples of other developing countries (23 and 39 percent) or advanced economies (14 and 31 percent)—a result that partly reflects the fact that higher primary surpluses are, by definition, more difficult to maintain.

Within sub-Saharan Africa, differences across subgroups of countries emerge. Oil exporters, which benefited from elevated oil prices from the mid-2000s to the mid-2010s, were able to record very high primary surpluses. However, other countries—in particular non-resource-intensive ones—were less successful: maximum primary balances for this latter group were much lower than in other countries (for instance, a median of 2.9 percent versus 4.4 percent in other developing countries and 3.8 percent in advanced economies) and the decline from peak effort was also much stronger (for instance, a decline by 68 percent versus 39 percent for other developing countries and 31 percent in advanced economies using five-year moving averages).

Sticking to Fiscal Plans

This section assesses the ability of countries to comply with their fiscal plans. In the absence of fiscal plan data for sub-Saharan Africa, we rely on WEO projections and compare forecasts to outturns for key fiscal variables over various forecasting horizons.

In a seminal contribution on the quality of GDP growth and budget balance forecasts, Frankel (2011) and Frankel and Schreger (2016) show that forecast errors associated with budget balance projections in advanced and emerging market economies tend to be positive on average (that is, overly optimistic), and even larger (hence more biased) when the forecasting horizon is extended.

We replicate the analysis by constructing forecast errors for 45 sub-Saharan African economies for the period 1990–2021. For each fiscal variable (total revenue, government spending and fiscal balance), forecast errors are calculated over one-, two-, and three-year forecasting horizons and are defined as the difference

Box 6. Constructing Forecast Errors of Fiscal Variables

Forecast errors (FE) for a given fiscal variable are defined as the difference between projected and actual values. One-, two-, and three-year forecast errors are constructed for all sub-Saharan African countries by using the April vintages of IMF WEO data during 1990–2021. Formally, forecast errors are calculated as follows:

$$FE_{i,t,j}^f = f_{i,t|t-j} - f_{i,t}$$

where f denotes the fiscal variable of interest which can be (1) total revenue, (2) government expenditure or (3) the fiscal balance, $f_{i,t}$ is the actual value of the fiscal variable of interest for country i at time t , as reported in the WEO April vintage of year $t + 1$, while $f_{i,t|t-j}$ denotes the forecast made for country i 's fiscal variable f at time t , as reported in the WEO April vintage of year $t - j$, where $j = 0, 1, 2$.

Moreover, following Geli and Moura (2023), both realized and projected values are expressed as a share of their corresponding vintage contemporaneous GDP such as

$$f_{i,t} = \frac{F_{i,t}}{Y_{i,t}}$$

$$f_{i,t|t-j} = \frac{F_{i,t|t-j}}{Y_{i,t|t-j}}$$

where $F_{i,t}$ denotes the actual value of the fiscal variable of interest at time t for country i , $Y_{i,t}$ is country i 's actual nominal GDP at time t , $F_{i,t|t-j}$ denotes the value of the fiscal variable of interest at time t projected at time $t - j$ for country i , and $Y_{i,t|t-j}$ denotes country i 's nominal GDP at time t projected at time $t - j$. All capital letter variables are expressed in nominal terms in local currency.

Finally, the sample of forecast errors is trimmed. To remove data outliers, top and bottom 5 percent of the observations were excluded from the sample.

between projected and actual values, all expressed in percent of GDP (Box 6). Positive (negative) forecast errors indicate that the value of the fiscal variable projected at time $t - j$ with $j = 0, 1, 2$ is higher (lower) than the realized value of that variable observed at time t .

The next paragraphs summarize some results related to forecast bias and accuracy. To assess a possible “forecast bias,” the analysis computes average forecast errors, allowing positive and negative errors to compensate each other; when forecast errors are, on average, positive (negative), fiscal projections are considered to show an optimistic (pessimistic) bias. By contrast, the analysis of “forecast accuracy” is based on absolute forecast errors, measuring the absolute size of the deviations—in this case, negative and positive errors do not compensate each other.

Bias in Fiscal Projections

From the perspective of this paper, the most interesting result is the one on bias, since the goal is to assess whether countries deviate systematically from their initial plans. To establish whether projections (and plans) are systemically optimistic or pessimistic, average forecast errors are reported in Table 8. The table shows that, when the forecasting horizon is one year, the fiscal balance forecast tends to be unbiased, as the mean and median forecast errors are very close to zero. By contrast, when the forecasting horizon is extended beyond one year, forecast errors associated with fiscal balance projections become positive and large, meaning that countries tend to have optimistic projections (and plans) that do not materialize *ex post*.

Table 8. Bias in Fiscal Projections*(Percent of GDP)*

	Total revenue ratio			Government spending ratio			Fiscal balance ratio		
	1Y	2Y	3Y	1Y	2Y	3Y	1Y	2Y	3Y
Mean forecast error	0.3	0.3	0.4	0.3	-0.2	-0.5	0.0	0.5	0.9
Median forecast error	0.2	0.3	0.3	0.2	-0.1	-0.6	0.0	0.4	0.9
Sample average (all countries, all years)	25.3			28.3			-3.0		

Sources: IMF, World Economic Outlook database; and authors' calculations.

Note: Positive numbers signal that ex post revenue, government spending and the fiscal balance, all expressed in percent of GDP, were, on average, lower than previously projected ex ante. By contrast, negative numbers signal that revenue, government spending and the fiscal balance were, on average, higher than previously projected.

In the case of fiscal balance projections, mean and median forecast errors are close to 1 percent of GDP at a three-year horizon. This means that fiscal balances for a given year (say, 2019) tend to be 1 percent of GDP lower than projected 3 years earlier (for example, when the 2019 balance was projected three years earlier).¹⁹ Interestingly, the 1 percent of GDP fiscal slippage is due, in equal parts, to revenue shortfalls (the revenue ratio tends to be almost half a percent of GDP lower than anticipated three years earlier) and expenditure overruns (the expenditure ratio tends to be half a percent of GDP higher than anticipated, also after three years).

Accuracy of Fiscal Projections

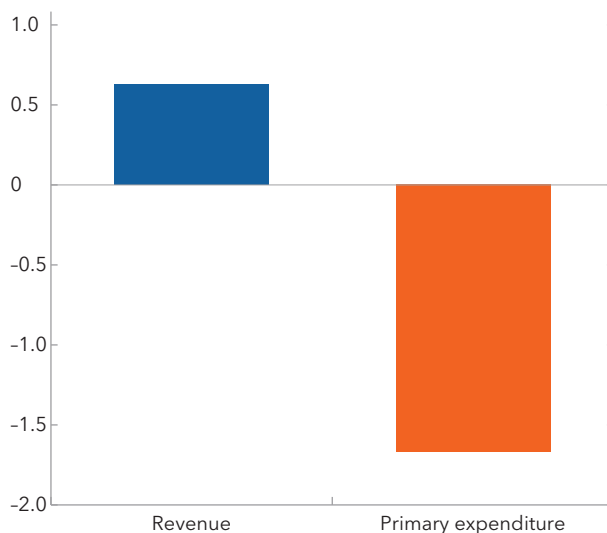
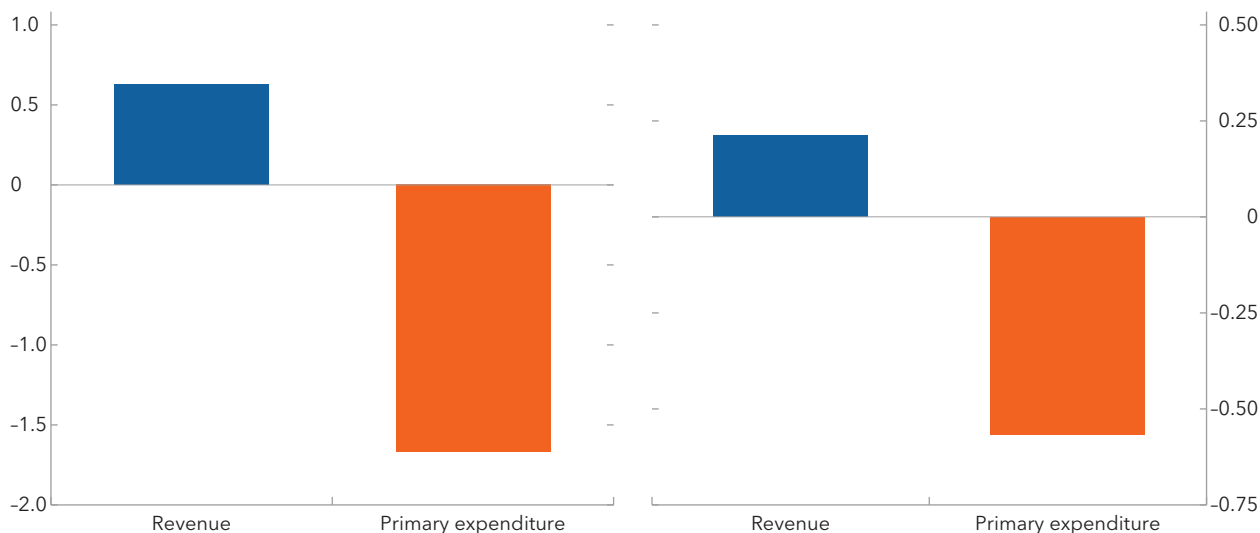
Results on forecast accuracy are reported in Table 9. For all fiscal variables, as the forecasting horizon is extended, absolute forecast errors tend to be larger, implying that projections over longer horizons become less accurate. On average, at two- and three-year forecasting horizons, absolute forecast errors can be as large as 4 percent of GDP. In addition, total revenues and government expenditure projections are less accurate compared to projections of the fiscal balance; indeed, at each forecasting horizon, mean absolute forecast errors for the fiscal balance are smaller than those associated with government spending and revenue projections. A possible interpretation of this puzzle is that the forecasting errors on the revenue and expenditure sides offset each other to some extent.

Table 9. Accuracy of Fiscal Projections*(Percent of GDP)*

	Total revenue ratio			Government expenditure ratio			Fiscal balance ratio		
	1Y	2Y	3Y	1Y	2Y	3Y	1Y	2Y	3Y
Mean forecast error	2.3	3.4	4.0	2.4	3.4	4.1	2.0	2.8	3.2
Median absolute forecast error	1.5	2.3	3.0	1.7	2.6	3.1	1.4	2.1	2.5
Sample average (all countries, all years)	25.3			28.3			-3.0		

Sources: IMF, World Economic Outlook database; and authors' calculations.

¹⁹ Frankel and Schreger (2016) report one- and two-year-ahead average forecast errors for the budget balance of 0.3, 1 percent of GDP (official forecasts), and 0.1 and 0.6 percent of GDP (private sector forecasts) in a sample of 26 countries, most of them being advanced economies, over 1999-2015. Thus, these forecast errors are slightly larger than those observed in our sub-Saharan African country sample. But the comparison is difficult since time periods differ.

Figure 21. Composition of Fiscal Adjustment in Sub-Saharan Africa: Revenue versus Expenditure**1. Composition of Cumulative Fiscal Adjustment***(Cumulative change in the ratio to GDP between the beginning and end of episode; median across episodes)***2. Composition of Annual Fiscal Adjustment***(Annual change in the ratio to GDP over the duration of each episode; median across episodes)*

Sources: IMF, World Economic Outlook database; and authors' calculations.

C. Finding the Right Composition of Fiscal Adjustment

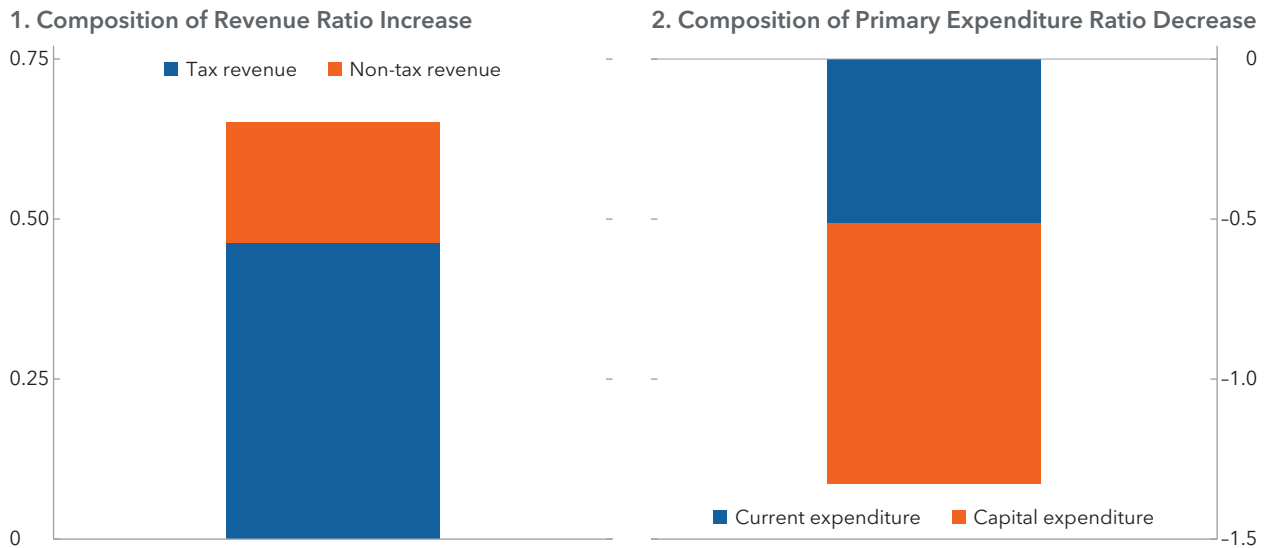
How Have African Countries Adjusted in the Past?

As discussed previously, African countries' past fiscal consolidation efforts have typically been more expenditure-based. Cumulative expenditure cuts have indeed been much larger than cumulative revenue increases across all episodes (Figure 21, panel 1). This is also true after correcting for the differences in duration across episodes and measuring composition effects on an annual basis (Figure 21, panel 2). This experience contrasts with that of other emerging market and developing economies, where the composition of fiscal adjustment tends to be somewhat more balanced.

When examining in greater detail the role of specific fiscal instruments, our fiscal consolidation data set indicates that, in sub-Saharan countries, the bulk of revenue increases during consolidation episodes was linked to tax revenues (Figure 22, panel 1). On the expenditure side, reductions in capital expenditures typically account for a large share of cuts during consolidation episodes (more than 60 percent, Figure 22, panel 2).²⁰ This may be because cuts to physical investment spending are more politically palatable than cutting sensitive items such as public employment, wages, or untargeted subsidies that benefit large segments of the population (Ardanaz and others 2021). Moreover, African countries may have relied more on expenditure cuts simply because of their limited control over the tax base (at least in the short term), given the relatively narrow formal sector.

²⁰ Please note: due to the lack of availability of detailed information on components of government revenues and expenditures, these numbers do not reflect the full sample of consolidation episodes. Specifically, information on the decomposition of spending is missing for the following cases: Ghana (1983 and 1987); Kenya (1984, 1988, 1995); Lesotho (1984); Tanzania (1996). Arizala and others (2021) argue in their study that, during fiscal consolidation episodes in sub-Saharan African, reductions in primary expenditures were roughly evenly distributed between capital spending and current primary spending cuts.

Figure 22. Composition of Fiscal Adjustment in Sub-Saharan Africa: Specific Instruments
(Cumulative change in the ratio to GDP between the beginning and end of episode; median across episodes)



Sources: IMF, World Economic Outlook database; and authors' calculations.

Note: The panels in the figure are based on information for all consolidation episodes (including sustained and non-sustained ones). But some episodes lack detailed information on components of revenues and expenditures, which were then excluded. The figure adds up the medians, across episodes, of the change in the tax ratio and the change in the non-tax ratio, which is, by construction, not exactly equal to the median change in total revenue ratio. The same additivity issue appears on the expenditure side, with panel 2 adding up the median changes for the current expenditure ratio and the capital expenditure ratio.

Are Revenue-Based Adjustments More Desirable in Africa?

This section discusses some normative considerations on the optimal composition of adjustment. Much debate in the policy literature focuses on the alleged “superiority” of expenditure-based adjustments in advanced economies. This section summarizes the arguments and empirical evidence in the context of developing countries.

Revenue-based adjustments present two main advantages in sub-Saharan Africa:

- First, given the low level of domestic revenue mobilization, there is significantly more scope to raise revenues (through tax policy or revenue administrative reforms) than to cut government spending, which is already very tight in critical areas like health or education. Past studies estimate a large revenue-raising potential in the region. For instance, Akitoby and others (2019), and Gaspar and others (2019) deem that increasing the tax-to-GDP ratio by 5 percentage points of GDP over the next decade is an ambitious but realistic target for many low-income countries. Benedek and others (2021) sets a target of 3-7 percent of GDP for comprehensive tax strategies in developing countries. In the April 2018 *Regional Economic Outlook: Sub-Saharan Africa* (IMF 2018), the tax gap (relative to frontier) was estimated at 3-5 percent of GDP.
- Second, some evidence suggests that growth effects may be less detrimental for revenue-based adjustments. Whereas research on advanced economies suggests that revenue-based consolidations are generally more costly than expenditure-based ones (Alesina and others 2018), evidence for developing countries is less conclusive, with no statistically significant difference between revenue and expenditure-based consolidations on average (Carrière-Swallow, David, and Leigh 2021). When taking into account the level of taxation, revenue-based adjustments may even appear to be superior. Increases in tax rates are, indeed, found to be more costly for growth in countries with higher rates of taxation; conversely, multipliers for changes in tax rates in countries with low tax levels can be close to zero, as the distortions imposed by taxation on economic activity are non-linearly related to the level of tax rates (Gunter and

others 2021). Given that revenue mobilization is low in most countries of sub-Saharan Africa, this suggests that revenue-based adjustments could be more growth-friendly in the region. In this regard, Arizala and others (2021) find that fiscal consolidations based on revenue mobilization are less harmful to growth in Africa.

Of course, the growth effects of consolidation depend also on the specific fiscal instruments being used. As discussed in the section on the pace of fiscal adjustment, fiscal multipliers tend to be higher for public investment given its effects on productive capacity and the stock of infrastructure, indicating that this type of expenditure should be protected to the extent possible during adjustment periods. Moreover, targeted social transfers tend to have large effects on output in developing economies because of the higher share of consumers without access to finance (Bracco and others 2021); hence, there is a case for also preserving these expenditures. On the revenue side, measures that entail less distortion on economic incentives to labor supply and investment are likely to have less deleterious effects on economic activity. In this regard, increases in VAT and property taxes might be favored relative to increases in income taxes. In addition, measures to broaden the tax base or improve revenue administration would also tend to be less distortive than increases in tax rates.

Besides the effect on growth, the literature has also examined the duration of consolidation episodes. The main finding: no clear evidence exists that fiscal adjustments are more durable when based on current expenditure cuts (transfers, subsidies, and wage bill), especially for developing economies. Whereas early studies had argued that expenditure-based consolidations were more sustained (Alesina and Perotti 1996, Alesina and Ardagna 1998), more recent evidence shows that revenue-based adjustment can be equally durable after correcting a bias in the selection of the episodes (Abbas and others 2011). In fact, in the case of developing countries, which tend to have lower revenue-to-GDP ratios, revenue increases could even be associated with longer fiscal consolidations (Gupta and others 2005).

Nonetheless, revenue-based adjustments must face two important hurdles that cannot be overlooked. First, in many African countries, raising revenue is typically much more politically difficult and sensitive than cutting expenditures in the short term. This is particularly the case in countries wherein the formal tax base is narrow, the habits of tax compliance and tax payments are not well established, and populations are reluctant to contribute when they do not see clear benefits from taxation in terms of better public services. In addition, revenue measures may have negative effects on poverty and inequality (Woo and others 2017). Consolidations that rely on increases to progressive income taxes, taxes on immovable property, as well as untargeted expenditures and subsidies tend to have less detrimental effects on social indicators. Nevertheless, the tax structure of many sub-Saharan African economies is skewed toward reliance on indirect taxes, in particular taxes on consumption and trade, while the ability to raise more revenues from property taxes is constrained by inadequate or inexistent cadasters and registries. In that context, the effects of revenue-based adjustments may have negative effects on income distribution.

To sum up, the structural characteristics of African economies suggest that revenue-enhancing measures have the potential to play a greater role in fiscal adjustment compared to advanced economies, since there is significant room to better mobilize revenues and the possible negative effects of on growth tend to be more contained.²¹ Nonetheless, revenue-based consolidations are often very difficult to carry out, and could have adverse effects on poverty and inequality. Overall, while expenditure-based adjustments are clearly not superior in developing countries, the jury is still out on the advantages of revenue-based adjustments, not so much in terms of their potential (which is undeniable) but in terms of political and social feasibility. A better way to approach this debate is probably to consider that successful fiscal consolidation does not rely on simple recipes (either all expenditure or all revenue measures) but takes into account country characteristics and acknowledges the need for a more holistic approach, as discussed in the next section.

²¹ In some countries, revenue mobilization efforts should be accompanied by expenditure measures, such as reforming costly, inefficient, and poorly targeted energy subsidies.

The Need for Comprehensive Reforms

Fiscal adjustment tends to be more durable when attained through reforms that reflect well-thought-out strategic choices on the role of the public sector and the country's needs. But policymakers often face constraints that preclude the timely implementation of these high-quality reforms (Daniel and others 2006). This is particularly true when immediate fiscal tightening is needed to avert an impending crisis. In such cases, policymakers may opt for short-term reduction of deficits through measures that cannot be sustained or that hamper growth, such as capital expenditure cuts. Higher-quality and more durable reforms, like broadening the tax base, typically take time to design, implement, and yield budgetary gains.

The importance of comprehensive strategies and reviews is apparent on both the revenue and spending sides:

- On the revenue side, the adoption of an adequate domestic revenue mobilization strategy can facilitate reform implementation (IMF 2018). Such a strategy is used to identify the needs (including on capacity building); harmonize reforms across the three tax system components (tax policy, administration, and legal framework); and properly sequence the measures. A well-conceived strategy provides explicit short-term targets and medium-term objectives and explains why the state is seeking to collect additional taxes. Experience shows that a multiyear revenue mobilization strategy can enhance the impetus and commitment for reform, especially when strongly aligned with broader national development plans. Such plans have been adopted for example during the successful mobilization episodes in Senegal (2003), Tanzania (2003), Mozambique (2006), Rwanda (2010 and 2013), and Uganda (2013).²² Box 7 discusses a few examples.
- On the expenditure side, durable reform typically requires a thorough review of underlying government policies, the composition of spending, the coverage of activities by the public sector, and the modalities of delivery of public services (Daniel and others 2006). A thorough structural reform of government spending policies can take several years. For instance, most of the successful subsidy reforms were well planned and based on a reform strategy that established clear long-term objectives, assessed the likely impact of reform, and consulted with stakeholders (Alleyne and others 2013).

D. The Role of Institutions to Support the Fiscal Strategy

This section focuses on four main reforms that are critical to the success of a fiscal strategy: (1) extending the horizon of the budget beyond a single year and introducing a credible medium-term orientation for fiscal planning; (2) more systematically identifying, anticipating, and managing fiscal risks; (3) strengthening expenditure controls; and (4) improving domestic revenue mobilization through better revenue administration.

Institutional Reform as Pre-Requisite for Policy Reform

The duration and complexity of fiscal reforms underscore the importance of anchoring policy objectives and political commitment within sound institutions. A strong institutional framework is needed to support and implement reforms and ensure that they yield the expected results. For instance, there is ample evidence that fiscal consolidations are more durable when they are supported by strong institutions (Tsibouris and others 2006; Kumar, Leigh, and Plekhanov 2007; IMF 2011).

Policy changes cannot be sustained and bring about tangible results if institutions for expenditure and revenue management are weak and inefficient. On the *spending* side, expenditure rationalization measures are easily circumvented in countries with defective public financial management (PFM) systems. PFM weaknesses lead to inefficiencies, lack of prioritization, government arrears, contingent liabilities, frequent recourse to rationing and across-the-board cuts. Similar bottlenecks are observed on the *revenue* side.

²² See MTRS website at www.tax-platform.org/medium-term-revenue-strategy

Box 7. Examples of Comprehensive Strategies Based on Revenue Mobilization

There are examples of successful fiscal consolidations based on comprehensive reforms in the sub-Saharan African region. While revenue mobilization has been a longstanding priority in the region, a few countries have achieved sustained revenue increases (Akitoby and others 2019).

Based on a comprehensive tax reform plan implemented over the course of two IMF programs, Rwanda succeeded in increasing its tax-to-GDP ratio by more than 3 percentage points between 2010 and 2015. During this period, the decline in trade revenue (from lowering external tariffs) was offset by increasing revenue from personal income taxes and consumption taxes which was achieved through simplifying and eliminating exemptions as well as broadening the tax base. Furthermore, measures such as increasing excise rates and broadening the range of products covered by excise taxes also contributed to higher tax revenues. The Rwandan medium-term revenue strategy was closely aligned with the broader national development plan supporting the attainment of the country's vision 2050 through the National Strategy for Transformation (NST-1). This alignment helped demonstrate the urgency for revenue mobilization while showing the outcomes in terms of sustainable development goals.

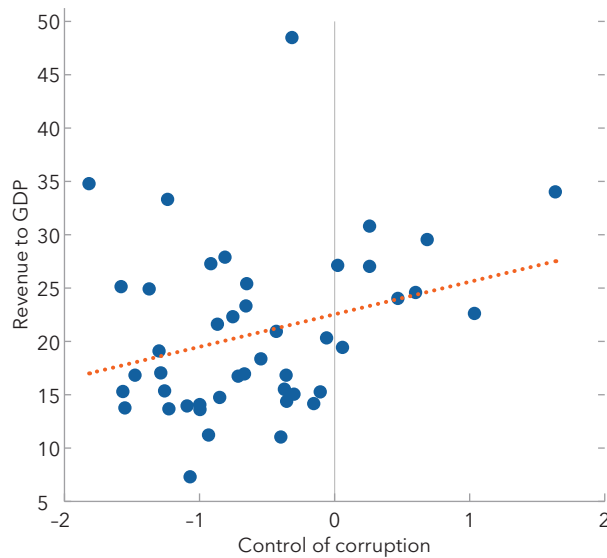
Uganda also improved revenues significantly between 2013 and 2017, based on a broad tax reform strategy, which was an important part of the National Development Plan. The strategy was partly based on a Revenue Administration Gap Analysis in 2013, supported by the IMF. VAT receipts increased through the elimination of many exemptions and higher rates. Excise tax collection was enhanced by increasing rates on a variety of products. The country also raised marginal personal income tax rates by 10 percentage points (from 30 to 40 percent) for the top income bracket.

Initial success following tax policy measures can be eroded in the absence of sustained efforts on revenue administration. For example, in The Gambia, the introduction of the VAT in 2013 was a positive contribution to revenue performance, but the limited capacity to enforce compliance caused VAT and other tax revenue growth to slow down in subsequent years (Akitoby and others 2019, 2020). More generally, countries that have weak *governance* are less likely to be effective in their fiscal reform efforts. Therefore, greater emphasis on improving governance and controlling corruption seems crucial (IMF 2018). For instance, sub-Saharan African countries that are ranked higher in terms of control of corruption and good governance also tend to have higher levels of tax effort (Figure 23).

Institutional reform has proven challenging in many sub-Saharan African countries for two main reasons. First, the change process has sometimes been driven externally and based on "international best practices" without sufficient consideration to local conditions and capacity constraints (Pritchett, Woolcock and Andrews 2013). Reform efforts that are more focused on the formal adoption of institutions than their actual functioning are likely to fail. Recent literature on building institutions highlights the importance of relying on existing local institutions and capacity and advocates for a more context-sensitive, domestically owned and adaptive approach (Andrews, Pritchett, and Woolcock 2017). The reform approach should allow learning by doing through experimentation, to identify measures that fit in the local political, social and economic context. Sequencing should also ensure that some core functions are first established before moving to more sophisticated reforms (Diamond 2013).

Second, country experiences also show that changing economic institutions without changing the political equilibrium is unlikely to bring lasting changes. Acemoglu, Johnson, and Robinson (2005) and Acemoglu and Robinson (2008) argue that economic reform is difficult because economic institutions are determined

Figure 23. Sub-Saharan African Countries: Governance and Revenue Mobilization, 2021



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

by political institutions and the distribution of political power in society—slow-moving and persistent forces with incentives to maintain the status quo. A necessary condition for reforming economic structures in a durable and effective manner is to understand and influence the political equilibrium that create and sustain them. Without changing the stakeholders’ incentives and shifting power toward those who want to modernize the economy, economic reforms simply lead to the replacement of one instrument by another, with little effect on overall policies and economic performance (sometimes dubbed as the “see-saw effect”). Shocks to the balance of political power, including from new technologies and the international environment, are necessary to generate major shifts in political institutions, and consequently, in economic institutions.

Medium-Term Fiscal Planning

Most countries in sub-Saharan Africa have introduced some forms of medium-term frameworks

(MTFs) since the end 1990s (Allen and others 2017). They range from simple medium-term fiscal frameworks (MTFFs), which are used for budgetary planning and provide aggregate medium-term estimates of revenue and expenditure, to more advanced medium-term budget frameworks (MTBFs) which establish granular multiyear expenditure estimates or ceilings and determine detailed budget allocation by ministry or activity.

There is evidence that these MTFs have had a positive impact on fiscal discipline and allocative efficiency in some countries in the region, for example in South Africa and Uganda. MTFs have raised awareness of the need to look beyond the annual budget horizon, helped countries set and deliver on multi-year priorities, and shifted focus away from inputs and toward results of government spending (Brownbridge, Giulio, and Florence 2009, World Bank 2013).

Still, despite all the attention and resources invested, many sub-Saharan African countries have seen reform efforts stall and realized limited benefit from MTFs—as documented in several reviews of country experiences (Schiavo-Campo 2009, Allen and others 2017). The adoption of MTFs has not fundamentally transformed the annual budget process and often remained a purely formal exercise in the region. Indeed, preconditions for effective medium-term fiscal planning and budgeting were often not in place:

- Although a majority of African countries have adopted fiscal rules, they are often ill-calibrated and lack credibility. Thus, future decisions are not guided by adequate and transparent high-level fiscal objectives.
- Well-functioning MTFs require that the annual budget process itself be credible—which means that the budget is a reliable predictor of actual revenue and expenditure. But many sub-Saharan African countries suffer from large divergences (both positive and negative) between the spending appropriations approved by the legislature and the annual outturns, both at the aggregate level and by sector (Allen and others 2017). Thus, countries already struggling with the credibility of their annual budget process might see little benefit from MTFs, which do not truly dictate resource allocation.

- This lack of budget credibility can be in part caused by deficiencies in macro-fiscal forecasting, limiting the government's ability to project accurately revenues and set expenditure envelopes accordingly, *a fortiori* into the medium-term. Enhancing macro-fiscal forecasting capacity is critical to the development of a credible medium-term fiscal outlook, one of the key components of a MTF.
- If MTBFs are to effectively combine top-down and bottom-up features, line ministries should be engaged in the costing of activities and programs into the medium term. But few line ministries in sub-Saharan Africa have the technical ability to do so.

On this basis, there are a few priority areas for countries in the early stages of MTF development (Gupta and Ylaoutinen 2014). First, where it is missing, countries should adopt an overall medium-term fiscal objective or anchor to provide guidance to fiscal planning, and once such objective is in place, regularly report on the fiscal performance against the stated objective. Second, there is scope to improve the accuracy and reliability of macro-fiscal forecasts to produce more realistic and reliable estimates of the overall resource envelope and individual spending ceilings for line ministries. Countries should first develop simple MTFs, which would provide a projection of the fiscal balance, include estimates of government revenues and spending at an aggregate level, before, in a second stage, providing guidelines (envelopes) to line ministries to prepare indicative medium-term spending plans in the context of an MTBF. Once the prerequisites, such as solid macro-fiscal forecasting, credible budget, top-down budget process and medium-term fiscal objectives are in place, the framework could be developed into a more binding direction.

Fiscal Risk Management

To strengthen fiscal strategy implementation, governments should also design fiscal frameworks that account for fiscal risks more explicitly. Fiscal risks have increased significantly in the past two decades, with several major crises hitting the developing world (global financial crisis of 2008–09, collapse in commodity prices in 2014–15, Covid pandemic in 2020–21, and Ukraine war in 2022), and growing exposure and occurrence of natural disasters caused by climate change. This has highlighted the great vulnerability of public finances to shocks and the importance of better assessing and managing unexpected fiscal costs (IMF 2016, 2021).

In sub-Saharan Africa, a few sources of fiscal risks merit special attention as they tend to be relatively more prevalent than in other regions:

- Regarding macroeconomic shocks, the volatility of commodity prices and exchange rates are major sources of fiscal risks, more so than in more advanced countries, partly reflecting the lack of economic diversification in the region.
- For low-income countries that are dependent on official development assistance, volatile aid flows, especially budget support, represent another important source of risk.
- SOEs play a large role in sub-Saharan African countries' economies, but many are unprofitable. Debt taken and arrears accumulated by SOEs, as well as quasi fiscal activities, such as price subsidies provided to electricity or transport providers create fiscal costs and risks for the government (Wezel and Carvalho 2022). For example, in South Africa, the debt of a single company (ESKOM, the electricity company) represented about 10 percent of GDP in 2019, of which 80 percent was guaranteed by government (IMF 2020c).
- Large infrastructure needs in sub-Saharan Africa may prompt some governments to attempt to attract large-scale private investment. This often requires the use of public guarantees or entering into private-public partnership (PPP) arrangements, to improve the risk-return perception of investors. By transferring a large portion of the project risks to the government, these arrangements can potentially lead to significant fiscal costs if these risks materialize.

Countries are increasingly aware of the need for a more informed approach to *fiscal risk disclosure and analysis*, but the quality and coverage of reporting arrangements vary greatly. A growing number of emerging and low-income economies, including in sub-Saharan Africa, produce a fiscal risk statement as part of their budget documentation, providing information on the nature, size, and exposure to fiscal risks, such as the sensitivity of the fiscal position to a wide range of economic shocks. However, in many cases, information on fiscal risks remains largely qualitative and limited in scope; and few countries produce comprehensive information on the potential impact of shocks on government balance sheets. Countries with limited fiscal risk analysis and disclosure should prioritize the development of simple macro-fiscal sensitivity analysis, for instance to understand the fiscal implications of indicative shocks to prices and volumes of their main export commodities (IMF 2016).

Efforts should also be made to keep a reliable and comprehensive record of debt liabilities, as a first step toward the gradual construction of a basic public sector's financial balance sheet. The transparency of public debt in sub-Saharan Africa is still weak, which often hinders market access and fiscal sustainability. Although greater access to bond markets has increased transparency, a share of sub-Saharan Africa's public debt is still comprised of official or private loans, whose contracts are sometimes less transparent. Finally, sub-Saharan African countries also need to improve the quantification, disclosure, and monitoring of major explicit contingent liabilities such as guarantees and PPPs. Overall, a comprehensive fiscal risk mapping exercise, based for instance on the IMF Fiscal Risk Assessment Tool,²³ is helpful to identify which risks are the most prevalent and sizeable, and deserving more analytical effort and policy attention.

Another important shortcoming of current approaches to fiscal risks is that the focus on identifying risks is not systematically followed by specific *mitigation measures* to address them. While many countries, including in sub-Saharan Africa, have been implementing a range of risk mitigation measures, such as introducing caps to guarantee issuance or limiting the borrowing activities of subnational governments and exposure to SOEs, these measures tend to be ad hoc and focus on individual risks rather than part of a comprehensive, public sector wide approach that seeks to encapsulate the wide range of risks that governments typically face.

Efforts to build fiscal risk mitigation and management practices should be tailored to countries' capacity (IMF 2016). First, countries with low capacity could benefit from direct controls to limit exposure to potential risks—for instance, legally binding limits and centralized authorization of guarantees, PPPs, subnational and SOE borrowing, and other explicit contingent liabilities. Oversight over these risks should be centralized in one place, most often in the macro-fiscal unit in the ministry of finance, to avoid fragmentation. Second, countries with basic risk management already in place could make more effective use of risk mitigation and transfer tools such as issuing partial guarantees, charging risk-based fees for guarantees, and regulate financial sector exposures more strictly (for example, by imposing leverage ratios and higher capital-adequacy requirements for systemically important banks) to reduce exposure in the event of risks materializing. Third, countries should also provision for fiscal risks by either directly expensing expected costs in the budget (for example, guarantees), establishing contingencies for specific risks (for example, natural disasters) or setting aside financial asset buffers. As of 2020, sovereign wealth and stabilization funds in sub-Saharan Africa's oil exporters held assets of less than 2 percent of GDP, a very modest figure relative to other oil-exporting countries in the world (IMF 2022a).

²³ The Fiscal Risk Assessment Tool (FRAT) is part of the IMF's wider Fiscal Risk Toolkit, a series of analytical tools to help governments identify, analyze, manage, and disclose different sources of fiscal risks. All the tools, including the FRAT, are available for download at: <https://www.imf.org/en/Topics/fiscal-policies/Fiscal-Risks/Fiscal-Risks-Toolkit>

Expenditure Controls

A recurrent problem in developing countries is the lack of adequate control over public expenditure.²⁴ In the absence of effective procedures to control expenditure, spending agencies might enter into commitments or carry out payments that exceed budget allocations, resulting in a loss of budget credibility. In some countries, expenditure controls are too weak to ensure the integrity and sound recording of operations and avoid leakages. Imbert and others (2022) have, for instance, documented, in the WAEMU and CEMAC regions, the use of “unorthodox procedures,” which bypass regular budgetary controls and rules.

Ineffective controls raise the likelihood of extra-budgetary commitments, which are a major source of fiscal risk and key contributor to the large SFA (and debt) observed in the sub-Saharan Africa region. In some other cases, redundant and antiquated controls—for instance, the application of the same type of manual controls multiple times during the execution of an expenditure item—might also lead to severe payment delays and arrears, impeding the delivery of essential public services. Thus, ensuring adequate expenditure controls is a prerequisite for the effective implementation of any fiscal strategy.

To enhance expenditure controls, governments need to rely on a systematic, country-specific review of the integrity of the spending cycle (Khemani and Radev 2009, Pattanayak 2016). A Public Expenditure and Financial Accountability (PEFA) diagnostic, available in many sub-Saharan countries, can be helpful in that respect.

Financial management information systems (FMIS) that provide real-time data on budget execution, including spending by line ministry and progress on key performance indicators, are technological tools that are critical in improving and automating expenditure controls, including in developing countries. These systems can notably help identify potential problems early on, allowing countries to take corrective action before they become more serious. Their performance has however been mixed in a number of developing countries, due to an underestimation of the institutional challenges and inadequate tailoring to the countries’ needs. Modular approaches to FMIS reforms, building on existing systems and ensuring their interoperability rather than starting from scratch, can be promising in low-capacity countries, as long as some basic requirements are met with existing systems (Una, Allen, and Botton 2019).

Other typical reforms to enhance expenditure controls in low-capacity environments would include clarifying spending procedures in the legal and regulatory framework, strengthening cash forecasting and management, and establishing commitment control. Cash management reforms, such as developing cash flow projections and establishing procedures for cash disbursements, can reduce the risk of extra-budgetary commitments by ensuring that sufficient funds are available to meet planned commitments. Establishing a multiyear commitment system requiring line ministries to plan and commit funds over a longer period, such as three to five years, can help ensure that commitments are made in a prudent and planned manner. Centralized control of the different expenditure stages by the ministry of finance is the best short-term option in countries with weak capacity; progressive streamlining and devolution of controls to spending agencies is however more efficient in the medium-term, once sufficient capacities are developed, enabled by reliable IT and reporting systems.

Internal and external audit reforms can enhance government accountability. An effective internal audit function is useful for evaluating and improving the effectiveness of internal control processes and the commitment control system. Ex post audits carried out by the supreme audit institution can help strengthen transparency and accountability in the use of public funds, which can help deter extra-budgetary spending and other financial irregularities. The reviews of budget execution regularly prepared by audit institutions can notably identify breaches of PFM laws regarding expenditure management and enforce appropriate sanctions if

²⁴ According to Pattanayak (2016), “a lack of effective expenditure controls not only threatens macroeconomic stability and fiscal discipline, but can also call into question the integrity of the public financial management system and undermine trust in a government’s stewardship of public resources.”

need be. While audit institutions in sub-Saharan Africa sometimes lack legal or financial autonomy, recent cases such as with the audit reports of COVID-19 spending in several countries of the region, have shown that these institutions can play a useful role and increase public scrutiny over the conduct of fiscal policy.

In sub-Saharan countries with low institutional and administrative capacity, reforms to improve expenditure controls should be well-sequenced and integrated within the wider PFM reform agenda, which often benefits from technical assistance by development partners, including the IMF. Upstream reforms aiming at improving budget credibility—such as the introduction of medium-term fiscal and budget frameworks, modification of the budget calendar, reform of the budget contingency reserves—can indirectly contribute to more effective expenditure controls by ensuring that the budget is a reliable and actionable reference during the execution phase. Modernizing accounting systems and enhancing procurement policies and procedures are other examples of reforms that may enhance the effectiveness of expenditure controls.

Revenue Administration

Institutional reforms are also crucial on the revenue side. Reviews conducted by Akitoby and others (2019, 2020) and the April 2018 *Regional Economic Outlook: Sub-Saharan Africa* (IMF 2018) show that most developing countries that experienced large revenue increases have pursued revenue administration and tax policy reforms in parallel (for example, The Gambia, Rwanda, Senegal, Uganda), and only a few countries pursued either tax policy or revenue administration measures separately.

Although revenue administration reforms cover a broad spectrum of legal, technical, and administrative measures, some specific areas seem especially impactful in sub-Saharan Africa:

- *Tax compliance* remains a challenge in the region, partly because of the high degree of informality in the economy. Measures in key compliance areas, such as improvements in tax audits and other verification measures, seem to be highly impactful in countries with low revenue mobilization capacity, especially when they are supported by upgrading legislation to empower tax collection agencies. Such measures were undertaken by most countries that achieved significant revenue mobilization, like Burkina Faso, Senegal and Rwanda. Tailoring enforcement to different taxpayer segments (small, medium and large) and developing specific risk-based compliance strategies by group (like in Ghana) are also important to use scarce tax administration resources in the most efficient way to maximize tax collection. Integrating domestic tax administrations and customs can help leverage economies of scale and data use.
- Countries should also focus on strengthening *management and human resources* in tax administration departments and offices, for instance by hiring more qualified staff, improving strategic planning, monitoring performance, and building technical skills of staff. Furthermore, establishing tax policy units or similar structures in ministries of finance, which act as technical advisors to the government, can *strengthen tax analysis, monitoring, and evaluation*—for instance by preparing revenue projections, estimating the effects of tax reform options, producing regular tax expenditure reports, and communicating with the public on tax changes (Mansour and others, forthcoming).
- *Digitalization* could play a major role in increasing domestic revenues in sub-Saharan Africa. Digitalization allows an effective simplification of internal processes and interaction with taxpayers by using e-filing and e-payment systems. It also facilitates the gradual broadening of coverage of tax databases, while simplifying tax and business registration processes to ease the cost of doing business. Audits can also be made much more effective using digital technology. Moreover, digital solutions could make information sharing between various agencies (for instance, tax administration and customs) more effective. Sub-Saharan Africa has made strides in digitalizing tax administration, but with only about 30 percent of countries offering e-filing or e-payment services, it still lags behind other regions (IMF 2020a).

- A *comprehensive, medium-term revenue strategy* (MTRS) can help to properly sequence reform measures, facilitate their implementation, and improve credibility. So far, only a few countries in the region have an effective medium-term revenue strategy: as of early 2023, Benin, Cameroon, Ethiopia, Kenya, Rwanda, and Togo were at pre-formulation or formulation stages, while Senegal and Uganda were at the implementation stage (according to the Platform for Collaboration on Tax)²⁵.

E. Overcoming Resistance to Fiscal Reforms

The sustainability of new policies depends on the government's ability to win over public opinion by showing that reforms generate payoffs in the short run or in the longer term. Resistance to reform is very difficult to overcome in the fiscal area since the costs of the status quo are not always visible, while many new measures reduce, at least temporarily, the welfare of broad segments of the society.

As discussed in this section, the issue of public acceptability should be at the center of policy design—for instance, by properly sequencing the reform process or conceiving compensatory measures. But “smart design” is not always feasible either because of the urgency for reform or because mitigating instruments like targeted cash transfers are not readily available in many African countries. In this context, a communication campaign is key to building broad public support by informing the population on the long-term benefits of the reforms, their distributional consequences, and the costs of no-reform. More generally, public acceptance of reforms depends on the ability of governments to convince the population that they will use public funds in an efficient, fair, and transparent manner.

Sequencing

It is much easier to convince the public of the need for change and garner support when reforms display clear gains and some degree of certainty exists about potential “winners” and “losers.” Reforms justified primarily as responses to an immediate crisis are difficult to maintain once the crisis has passed. In general, the sustainability of new policies depends on the government's ability to win over the public opinion either by showing that reforms generate rapid benefits or by making a case for their desirability on longer-term grounds. Therefore, the issue of the reform costs and gains and the distributional implications is a central consideration.

The challenge is that many fiscal reforms do not generate immediate gains,²⁶ while the costs of the status quo are not always apparent to the population. Fiscal adjustment is a prime example. Unless there is a full-fledged fiscal crisis, the cost of fiscal profligacy is difficult to measure and gauge. By contrast, fiscal prudence has immediate short-term costs and only long-term gains (in the form of enhanced macroeconomic stability, lower inflation, etc.). This illustrates a fundamental problem with fiscal reforms: the costs of the status quo are generally opportunity costs and tend to be politically “invisible.” It is often fairly clear who is going to pay the price of a reform like a wage cut—which households or firms are likely to be penalized and which jobs may be at risk—but it is less obvious who bears the cost of the status quo: it is difficult to identify firms that have never entered the market due to government distortions, sectors that have not developed or the forgone employment in the private sector. The combination of these factors (no immediate reform gain, short-term reform costs, and invisible costs of the status quo) is likely to trigger strong resistance from the citizens and make it complicated to convince them.

That said, sequencing and gradualism can help improve the population's perceptions of costs and benefits. Implementing reforms incrementally has two main advantages. The first one is to reduce costs for those affected. This is one of the main arguments for a more gradual pace of fiscal adjustment, since frontloading consolidation, especially when the economy is weak, can have detrimental consequences on economic

²⁵ Data are available at <https://www.tax-platform.org/medium-term-revenue-strategy/countries>

²⁶ Some fiscal reforms, like replacing energy subsidies with targeted cash transfers, can be welfare-enhancing in the short term.

activity and employment. This is also why it is generally recommended to postpone difficult fiscal reforms until macroeconomic conditions are more favorable and compensatory measures are in place. For instance, public resistance to the removal of energy subsidies is generally lower in times of strong economic growth, since the increase in disposable income helps households afford higher energy prices. According to Alleyne and others (2013), price increases can also be sequenced differently across energy products: petroleum price increases can initially be larger for products that are consumed more by higher-income groups and by industry, such as gasoline and jet kerosene; as the social safety net is strengthened, subsequent stages of reform can include larger increases in prices for fuel products that are more important in the budget of poor households.

The second advantage of adjusting reform pacing is that this creates the possibility of displaying concomitant gains. For instance, tariff increases for public utilities may face less resistance if service improvements can first be demonstrated (World Bank 2006). When a water lease was established in Guinea in 1989, the tariff faced by consumers was about one-third of the cost-covering tariff to be paid to the private operator. The tariff remained at its initial level for two years and then was gradually increased to full cost-recovery level over the next six years, with the World Bank providing financial support for the gradual transition.

Compensation

When resistance is expected to be high and there is little room for sequencing, opposition to reform can also be alleviated by providing support to those who are the most negatively affected. Compensatory measures are particularly important in circumstances where those benefiting from reform are dispersed and less organized, whereas the urban middle class and some key economic sectors—important constituencies for politicians—incur costs. In this case, reform strategies need to address the concerns of the “losers.”

A telling counterexample is provided by the experience of developing countries with private infrastructure in the 1990s. This decade saw a large increase in private sector participation in infrastructure in the developing world. The shift reflected a combination of factors, including some disappointment with poorly run and inefficient public utilities, governments’ budgetary pressures, limited technical and managerial resources in the public sector, and successes with pioneer privatization experiences. Investment flows peaked in 1997 and then dropped sharply at the end of the decade in the wake of the crises in Asia and Argentina. In many countries, public opinion shifted from supporting toward rejecting private sector involvement in the provision of infrastructure services. The backlash against the new paradigm was partly because governments did not manage adequately the adjustment process and its costs. For instance, many public utilities were overstaffed, and private participation often led to reductions in the number of employees. Absent any compensation and support from the state, the negative impact on employment and wages led to public discontent (Harris 2003, Andres and others 2008).

Well-targeted compensatory measures that mitigate the impact of reforms, especially on the poor, can be critical for building public support. Targeted cash transfers are, in principle, the preferred approach to compensation in low-income countries.²⁷ For targeting to be effective, three main pillars need to be in place: a reliable registry of citizens, integrated socioeconomic databases, and efficient delivery systems (Prady 2020). Many low-income countries display gaps in these three areas: a large share of the population does not have a birth certificate; the population working in the informal economy is partly or fully excluded from the government’s social and tax registries; and the potential to make mobile money or bank transfers is often limited. In this context, second-best targeting solutions should be considered by relying on either less

²⁷ Transfers are not necessarily the only or even the best way to support those who are negatively affected by reforms. For instance, advanced economies provide unemployment benefits, job search assistance, training, and other career transition services. But these services are inexistent, partial, or uncommon in low-income countries.

precise screening methods²⁸ or less efficient delivery systems, like physical handouts. When targeted cash transfers are unavailable, have a narrow coverage or cannot be easily scaled up, another approach could consist in relaxing the eligibility requirements and providing universal transfers, which are much simpler to implement but potentially costly (Coady and Le 2020). For instance, untargeted cash transfers could be used to provide relief to the entire population following a subsidy reform, but their amount should be limited to the consumption loss experienced by the poorest. In complement to transfers, other measures could also be introduced, depending on the population that is targeted, such as ceilings on public transportation fares, reduction in public school fees, increased provision of public services, or vocational training for adults.

Communication

Effective communication with stakeholders can also contribute to building broad public support. Consensus building within a country can be slow and gradual, but it creates a better basis for reform implementation than when the new policies are perceived as being imposed from the top or from abroad. In general, the public needs to understand the need for policy changes and buy-in.²⁹ A review of price subsidy reform experiences found that the likelihood of success almost tripled with strong political support and proactive public communication (IMF 2011).

Major policy changes are usually accompanied by efforts to persuade voters and other stakeholders of the need for reform and communicate the costs of no-reform:

- A far-reaching communications campaign that emphasizes the intended *benefits* should be undertaken throughout the reform process. Explaining the importance of reform objectives, providing information to dispel any misunderstanding, and highlighting its benefits can reduce the resistance of the public. Individuals may not know if they will gain or lose. Many times, the longer-term benefits are not clear to the public, while adjustment costs are observed and felt in the short term.³⁰ The reform of utilities is a textbook case. Governments in developing countries have a legacy of keeping the prices of electricity and water below costs, while providing subpar services. In this context, communication could highlight how tariff increases will translate into better service quality and, where possible, signal that part of the budgetary savings or additional revenues from reforms will be used to finance high-priority spending on education, health, infrastructure, and social protection.
- Governments should also communicate on the *costs of no-reform*. In the case of energy subsidies for instance, the public is often unable to make a link between subsidies, constraints on expanding high-priority public spending, and adverse effects on economic growth, poverty reduction, and pollution. Most countries that successfully reduced energy subsidies undertook an evaluation of their magnitude prior to implementing the reform. Public discussions based on such studies were an important component of the information campaigns.

Analyzing the role of information and communication in shifting beliefs, norms, and preferences is at the frontier of today's political economy literature (Khemani 2017). Recent research shows that communicating on the collective benefits of reform can sometimes be insufficient to change the public's views and generate buy-in for two main reasons. First, in societies where ideological polarization is elevated, people can be resistant to changing their beliefs and preferences, even when confronted with technical evidence about the costs and benefits of different policy options. Holding a viewpoint that promotes common welfare but

²⁸ The large size of the informal sector means that safety nets typically need to rely more on non-income-based targeting methods with eligibility determined by imperfect proxies for income, such as demographic characteristics (number of children or elderly), location of the residence, or ownership of housing or other assets (Hanna and Olken 2018).

²⁹ A widely cited example is Canada's large and durable adjustment between the mid-1990s and the 2008–09 global financial crisis. Opinion polls ahead of consolidation showed broad public approval of debt reduction. The authorities put also in place a communication strategy to reinforce support for their adjustment plan.

³⁰ The trade-off between short-term costs and long-term gains of structural reforms is widely discussed in the literature (see, for instance, Mourougane and Vogel 2008; Cacciatore, Duval, and Fiori 2012; Banerji and others 2017).

goes against one's cultural community creates costs, including those associated with a possible exclusion of the community. When costs are high, it can be rational for individuals to adopt the reasoning prevailing in their group, especially when the group leaders are perceived as credible and legitimate. In such polarized societies, reforms require long-term building of common purpose and shared identity. Second, non-cooperative norms may prevail in the society. Even when everyone agrees that there is a need for change, reforms may stall, because of rational beliefs that, if others are maintaining the status quo, I should too. For example, citizens tend to pay bribes to get public services when they believe that others engage in bribery; if they refuse to do so, they expect that they will get nothing or may suffer retaliation. In this context, citizens may well know the collective benefits of better governance, but the prisoner dilemma maintains the society in a bad equilibrium. Overall, these two problems related to societal fragmentation limit the benefits of better communication and information dissemination. They are likely to be particularly prevalent in low-income countries, where notions of collective interest, common goods and cooperation can be undermined by poverty, corruption, ethnic and religious divisions, and historical legacy (Mills and others 2020).

Trust

Beyond the specific aspects discussed in previous paragraphs, a more fundamental cause of resistance to fiscal reforms is the population's perception that public money is not well spent, which is a widespread concern in many sub-Saharan African countries. Weak state effectiveness in the provision of public goods and services (including security, justice, and development in rural areas), corruption, and other governance problems erode trust in public institutions, lower tax compliance, and increase the size of the informal sector, while fueling social discontent and sometimes instability.

Governments need to be more effective and efficient at managing public finances and delivering investments that respond better to citizens' needs and achieve sustainable growth and development. Building state capacity is key, and delays on this front lead to poor public policy choices and, among the population, a bias toward the status quo. Transforming the public administration can unlock positive feedback loops, where higher-quality public services foster trust, which encourages citizens to pay taxes and support the reform agenda, leading to higher government revenues, and, thus, more resources to finance development projects and deliver superior services.

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