DEBT DYNAMICS AND CONSEQUENCES

KEY MESSAGES

• The COVID–19 pandemic has caused a surge in public financing needs as governments spend more to mitigate the socioeconomic consequences of the pandemic. African governments required additional gross financing of about $125 to $154 billion in 2020 to respond to the crisis.

• In the short term, the average debt-to-GDP ratio in Africa is expected to increase significantly to over 70 percent, from 60 percent in 2019. Most countries in Africa are expected to experience significant increases in their debt-to-GDP ratios for 2020 and 2021, especially resource-intensive economies.

• Debt decomposition indicates that the debt dynamics have been driven mainly by cumulative depreciation in exchange rates, growing interest expenses, and high primary deficits. Strong growth recorded over the years has helped to dampen the rate of growth of the debt-to-GDP ratio. Other major drivers of debt dynamics are high inflation, weak governance, security spending, and weaknesses in revenue mobilization.

• The composition of Africa's debt continues to shift toward commercial and non-Paris Club creditors, and from external to domestic sources. Commercial creditors and non-Paris Club official creditors have increasingly supplied new financing to African governments. Between 2000 and 2019, 18 African sovereigns have made debuts into international capital markets and issued more than 125 eurobond instruments valued at more than $155 billion. Local currency debt has increased since 2019, accounting for close to 40 percent of the total debt stock.

• The outlook for Africa's debt sustainability is challenged by emerging risks and vulnerabilities. Six countries were in debt distress and 14 others were at high risk of debt distress as of December 2020. Other emerging risk factors include fast-growing interest expenses as a share of revenue, rollover risks due to shorter debt maturities, a narrowing of the differential between real interest rate and growth, expanding contingent liabilities, and debt collateralization with limited transparency.

• Going forward, strengthening the links between debt financing and growth returns would play an important role in ensuring debt sustainability on the continent. Improvements in the efficiency of debt-financed investments would ensure that debt is used to finance the most productive projects that generate sufficient growth and complementarities to payoff the debt in future. Also, low global interest rates present an opportunity to use cheap capital for high return public investments that accelerate growth on the continent.
Many African governments undertook a wide range of steps to mitigate the economic and social disruptions caused by the COVID–19 pandemic, which has significant implications for debt sustainability. These measures include increased health expenditures, large fiscal stimulus packages, direct transfers to vulnerable groups, automatic fiscal stabilizers, and direct liquidity injections. These interventions were delivered in various ways, including lump-sum payments to households, broad-based tax relief, wage and utility subsidies, unemployment benefits, loans and loan guarantees to businesses, and equity investments by governments in distressed companies. Unless they are properly managed, monitored, and gradually phased out after the pandemic, these necessary but costly interventions could have far-reaching implications for debt sustainability—that is, the ability of governments to meet their current and future debt obligations on their own.¹

This chapter analyses debt dynamics, including recent trends and developments in Africa’s public debt, financing conditions, and debt management strategies. The first section examines recent debt and financing developments in Africa in relation to changes in the spending and financing environment. The second focuses on the changing structure and drivers of Africa’s debt. The third examines emerging debt vulnerabilities and the outlook for debt in Africa. And the fourth discusses debt distress and recovery episodes.

The recent debt and financing landscape in Africa

Government gross financing needs have surged since the onset of the pandemic

Since the COVID–19 pandemic began in early 2020, governments have announced fiscal stimulus packages ranging in cost from about 0.02 percent of GDP in South Sudan to about 10.4 percent of GDP in South Africa (see figure 1.10). Government financing needs surged as countries had to fund the packages aimed at allowing their citizens to weather the social and economic consequences of the pandemic. The Bank estimates that African governments need additional gross financing of about $154 billion to respond to the crisis in 2020/21. The gross financing needs as a percent of GDP varies across countries and exceeds the critical threshold of 15 percent for most countries, with levels exceeding 30 percent of GDP in Somalia, Sudan, Mauritius and Tunisia (figure 2.1).

These fiscal stimulus packages have largely had immediate direct implications for government spending, budgetary balances, borrowing needs, and debt levels. Although about a quarter of countries used revenue measures such as tax relief and tax payment deferrals, most have intervened using expenditure measures such as direct public investments in health, support to small- and medium-sized enterprises (SMEs), and cash transfers (figure 2.2). Measures such as government guarantees to firms, equity injections, and loans could also expose governments to contingent liabilities in the medium to long term.

The surge in government financing needs as a result of COVID–19 spending will result in fast-paced debt accumulation. Although the average debt-to-GDP ratio, a standard measure of debt sustainability, had stabilized at around 60 percent of GDP at the end of 2019, pandemic-related spending is estimated to have caused the debt-to-GDP ratio to average as many as 10 percentage points higher at the end of 2020. Countries expected to account for the most significant increase in Africa’s overall average debt levels are those that have non-oil resource-intensive economies (figure 2.3).

Challenging global financing conditions amid considerable uncertainty

Access to international capital markets, which had been a growing source of debt financing for many African countries, has declined as investors’ perception of risks increases and capital flees to safety. Capital flight from Africa, estimated at over $90 billion since January 2020, and investor risk aversion have caused volatile market movements and widening spreads on African sovereign bond yields (figure 2.4). Spreads have widened by about 700 basis points since February 2020, with the largest increases for oil exporters—although there was some moderation in the last quarter of 2020. Tightening global financing conditions make it more expensive for governments to get the
The surge in government financing needs as a result of COVID–19 spending will result in fast-paced debt accumulation.

Source: African Development Bank statistics and World Bank, World Development Indicators database.
financing they need to recover from the pandemic and to refinance maturing debt.

As discussed in chapter 1, the contraction in net financial inflows—foreign direct investment (FDI), official development assistance (ODA), portfolio investments, and remittances—will affect corporate and household financing and debt. Domestic sources of financing such as tax and non-tax revenues, which were already modest, are expected to contract as GDP drops and exports and imports decline. Government revenue, which has been a primary source for financing government budgets, was around 20 percent of GDP before the pandemic, lower than other regions such as Asia and Latin America and the Caribbean (figure 2.5). The supply and demand shocks caused by the COVID–19 pandemic directly impact the revenues of many African governments through reduced exports earnings and

Source: Staff calculations based on IMF World Economic Outlook database.
lower domestic tax revenues. The collapse in both the demand for and price of oil and other primary commodities—which account for more than 60 percent of government revenues in the 17 African countries classified as oil- and other-resource-intensive economies—means that governments do not have the required financial capacity to respond to the pandemic and have to rely on debt instruments.

THE CHANGING STRUCTURE AND DRIVERS OF AFRICA’S DEBT

The composition of Africa’s debt continues to shift toward commercial and non-Paris Club creditors

The creditor base for Africa’s debt continues to shift away from traditional multilateral and Paris Club lenders toward commercial creditors and official lenders who are not Paris Club members. The share of multilateral debt in Africa’s total external debt has remained relatively stable over the past two decades—around 30 percent (figure 2.6). The share of bilateral debt in total external debt, on the other hand, has fallen by almost half in the last two decades. In 2000, bilateral lenders, mostly Paris Club members, accounted for 52 percent of Africa’s external debt stock, but by the end of 2019, their share had fallen to 27 percent.
only three African countries borrowed commercially. Commercial creditors accounted for 40 percent of Africa’s total external debt at the end of 2019 compared with 17 percent in 2000. It is not clear whether the pandemic will reinforce or diminish this trend as financial markets and traditional Paris Club and multilateral lenders have all been adversely impacted by COVID–19.

The top five creditors to Africa since 2015 are bondholders (which account for 27 percent of the continent’s external debt at the end of 2019), China (13 percent), the World Bank-International Development Association (12 percent), the African Development Bank (7 percent), and other multilateral lenders (7 percent) (figure 2.7). The top-five bilateral creditors to Africa are China (13 percent), the United States (4 percent), France (2.9 percent), Saudi Arabia (2.5 percent) and the United Kingdom (2.4 percent). Other top creditors include Germany (2 percent), Japan (1.7 percent), Kuwait (1.6 percent), UAE (1.5 percent), India (0.7 percent), and Italy (0.6 percent) (see figure 2.7).

Although commercial creditors are playing an increasingly important role in frontier market
economies, non-frontier market and African Development Fund (ADF) economies continue to rely on official creditors, particularly multilateral and, increasingly, non-Paris Club members. Non-frontier market economies and low-income ADF countries, which do not have access to international capital markets, have continued to rely on multilateral concessional credit. There has been a growing shift among these countries away from traditional Paris-club lenders to non-Paris Club lenders, notably China (see figure 2.7). The scale of non-Paris Club lending has increased for these countries, but due to lack of transparency, it is not clear what the precise magnitudes of borrowing have been.

### Sovereign eurobond issuances in the last decade have increased the significance of private creditors

Since 2003, there has been a surge in eurobond issuances. About 19 countries made their first appearance on international capital markets with bond issuances as large as 3 percent of GDP. The number of international bond issuances by African countries has risen sharply to an estimated total...
The number of international bond issuances by African countries has risen sharply to an estimated total in excess of $155 billion by the end of 2019 (figure 2.8). This has helped drive the changing composition of Africa’s debt. Eurobond issuances have been led by middle-income heavyweight countries such as Egypt, South Africa, and Nigeria, followed by resource-intensive middleweights such as Zambia, Angola, and Ghana, among others (see figure 2.8).

Private commercial issuances have become an increasingly popular source of funding because they often come without the conditionalties attached to multilateral and bilateral loans. However, Morsy and Moustafa (2020) show evidence of mispricing of African sovereign risk due to herding by international investors and their tendency to lump all African bonds in one asset class, making them highly susceptible to shifts in market sentiment. If not properly managed, eurobond issuances could elevate debt vulnerabilities as shown in a recent synthetic control experimental study by Chuku and Mustafa (forthcoming). They found that the estimated impact on the debt-to-GDP ratio in the eurobond issuance post-intervention period caused an increase of about

**FIGURE 2.8 Africa Eurobond issuances, 2000–19**

![Graph showing trends in sovereign bond issuances and cumulative size of Eurobond issuances by country](image-url)

Source: Bloomberg database.
13 percentage points on average above the level of debt in the counterfactual scenario.

**Domestic bond issuances and contingent liabilities from public-private partnerships are becoming significant components of Africa’s debt**

Although domestic bond issuances have risen in the last decade, local currency debt financing has increased only slightly since 2007, climbing to 38 percent of total debt in 2019 (figure 2.9). This trend has reflected recent deepening in Africa’s local bond markets, enabling countries to mobilize domestic resources and tap into idle domestic savings (figure 2.10). Although increasing domestic borrowing helps to mobilize idle domestic savings, it carries the risk that in troubled times, governments could inflate away the debt in nominal terms by devaluing the domestic currency, in turn damaging the health of the

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**FIGURE 2.9 Shares of domestic and external public debt in Africa, 2007–19**

![Chart showing shares of domestic and external public debt in Africa, 2007–19.](chart1)

*Source: Staff calculations based on IMF and World Bank databases.*

**FIGURE 2.10 African domestic bond markets are deepening, 2006–18**

![Chart showing African domestic bond markets, 2006–18.](chart2)

*Source: African Development Bank, African Bond Markets database.*
Syndicated loans and public-private-partnership (PPP) project finance are playing an increasingly important role in Africa’s financing mix. Total investments in PPP infrastructure rose nearly six-fold from $1.2 billion in 2004 to $6.9 billion in 2019, while the number of PPP projects doubled from 16 to 30. In 2012 alone, there were more than 59 new PPP projects in Africa with a total value of $17.2 billion (figure 2.11). These investments are mostly concentrated in the energy and transportation sectors. Market failures and deep structural problems in these sectors elevate the risks to contingent liabilities—which are those that kick in only when a future event occurs. A government, for example, may guarantee loans contracted by a state-owned enterprise (SOE) or a PPP. If the government has to repay a guaranteed loan that defaults, it will likely have to borrow to do so—adding to its debt stock.

**FIGURE 2.11 Public–private-partnership projects in Africa, 2001–19**

### Total investment in public-private-partnership projects

<table>
<thead>
<tr>
<th>$ billions</th>
<th>Number of projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td></td>
</tr>
</tbody>
</table>

### Number of projects, by sector

<table>
<thead>
<tr>
<th>Number of projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
</tr>
</tbody>
</table>

Source: Staff calculations based on World Bank Private Participation in Infrastructure database.
Debt decomposition analysis shows that debt dynamics have been driven by depreciation in exchange rates, growing interest expenses, and high primary deficits

A decomposition of Africa’s debt identifies three main drivers: the cumulative depreciation in exchange rates, growing interest expenses, and high primary deficits. Strong economic growth over the years has helped to dampen the rate of growth of the debt-to-GDP ratio, but was insufficient to reduce debt because of growing interest expenses (figure 2.12). For oil-exporters and other resource-intensive economies, the decomposition shows that debt dynamics have primarily been driven by exchange rate depreciation and primary deficits, largely as a result of volatility in commodity prices. Whereas for non-resource-intensive and tourism-dependent economies, interest expenditures and other factors (contingent liabilities, reserve drawdowns) have been the major drivers.

Other factors driving the debt accumulation include governance issues, large public investment programs, and defense-related expenditures

Poor governance and weak institutional capacity have also been responsible for the recent debt build-up in some countries. In some cases, countries had “hidden debt”—obligations that were not on the public books—in Mozambique, Cameroon, and Chad, for example. After the hidden debt was discovered, the countries reported a sudden surge in debt burdens. Problems with economic governance, corruption, and mismanagement have been identified as a culprit in the debt distress episodes that recently occurred in countries such as The Gambia, Democratic Republic of Congo, and Republic of Congo. Also, the mismanagement of SOEs has contributed to the most recent surge in the debt build-up. In the past five years, many countries in Africa have experienced a deterioration in their Country Policy and Institutional Assessment (CPIA) ratings from the World Bank on debt management and policy, while only a few have improved (figure 2.13).

Large and ambitious public investments, while needed, have been a significant source of the recent debt build-up, especially for the lower-income countries. Although fiscal balances deteriorated for most African countries between 2015 and 2020, it was mostly the result of borrowing to increase investments (box 2.1). Public capital investments as a share of total expenditure have increased for most of the countries faster than recurrent expenditure. Growth returns to debt-financed investment are found to be lower in Africa than in other low- and middle-income economies.

**FIGURE 2.12 Decomposition of drivers of Africa’s debt, 2013–20**

Cumulative change (percentage points)

<table>
<thead>
<tr>
<th>Year</th>
<th>Exchange rate depreciation</th>
<th>Interest expenditure</th>
<th>Primary deficit</th>
<th>Real GDP growth</th>
<th>GDP deflator</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>-100</td>
<td>-100</td>
<td>-100</td>
<td>-100</td>
<td>-100</td>
<td>-100</td>
</tr>
<tr>
<td>2015</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2016</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>2017</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>2018</td>
<td>150</td>
<td>150</td>
<td>150</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>2019</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>2020</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
</tbody>
</table>

Source: African Development Bank statistics and the IMF World Economic Outlook database.

Poor governance and weak institutional capacity have also been responsible for the recent debt build-up in some countries.
Recent debt-investment-growth models developed by the African Development Bank in collaboration with the International Monetary Fund (IMF) show the links between debt and investments in social and economic infrastructure given segmented labor markets. Merely by increasing returns, African countries can maximize outcomes on investment without increasing spending (see box 2.1). Going forward, strengthening this link between debt and investments would play an important role in ensuring debt sustainability on the continent. Improvements in the efficiency of debt-financed investments would ensure that debt is used to finance the most productive projects that generate sufficient growth and complementarities to pay off the debt in future.

Increased defense-related expenditures to contain rising conflict and terrorism in the Sahel and some transition states has contributed to rising debt levels. Before the COVID–19 pandemic, insecurity was on the rise in many parts of the continent. The pandemic has helped to reinforce the stressed situation in many countries. The number of conflict-related events—including political violence, protests, and riots—is higher in 43 countries than before the pandemic.

**EMERGING VULNERABILITIES AND THE OUTLOOK FOR DEBT IN AFRICA**

Debt vulnerabilities are elevated with deteriorating debt sustainability ratings, and more downgrades are expected as a result of COVID–19

Over the past decade, debt sustainability ratings using the Debt Sustainability Analysis (DSA) framework indicate that a large number of countries have fallen into debt distress—unable to meet their obligations—and more downgrades are expected as a result of COVID–19. Rising debt levels in the past decade have negatively affected debt sustainability ratings for low-income countries in Africa. Of 38 countries with DSA ratings available, 14 were rated as in high risk of debt distress at the end of December 2020 and another six were already in debt distress (figure 2.14). Sixteen countries have moderate risk of debt distress, while two are considered at low risk. Safety margins are being eroded by COVID–19 as spending rises and revenue falls, and even countries with comfortable margins, if not properly managed, could deplete their buffers during...
BOX 2.1 Debt, investment, and growth

Big-push public investment programs have been a significant source of the recent debt build-up, especially for the African Development Fund (ADF) group of countries. The positive correlation between fiscal deficit and public investment for ADF group countries is an indication that an increasing share of public debt has been used to finance ambitious investment programs in ADF countries (box figure 2.1.1). This is particularly true in the non-resource-intensive economies and non-oil resource-intensive economies, but not necessarily for oil exporters.

BOX FIGURE 2.1.1 Investment and primary fiscal deficit

Source: Staff calculations based on IMF World Economic Outlook database.

While some countries that have borrowed to finance investment projects have had high growth rates (such as Ethiopia, Kenya, and Rwanda), there is also evidence that the link between debt financing and the growth-enhancing role of public investment is weakened by low efficiency. To assess the impact of debt-financed public capital investment programs on growth, we use the Debt-Investment-Growth (DIG) Labor model, an open-economy, perfect foresight, general equilibrium model with three sectors, in which public investment in physical and human capital plays a complementary role in raising productivity in the different sectors.

The model uses different fiscal options to close financing gaps on big push public investments. When revenues fall short of expenditures, the resulting deficit can be financed through domestic borrowing, external commercial borrowing, or concessional borrowing. The private sectors’ (firms and households) response drives the transmission and the overall impact of the government investment surges on the economy.

The model is calibrated to match the average African country and used to simulate the growth, debt, and distributional consequences of big-push investment programs with different mixes of investment in human capital and infrastructure.

The key findings are:
- Investment in physical and human capital is associated with favorable long-run effect on debt, reflected in the growth and revenue gains.
It is more difficult for countries to move from lower to stronger ratings—rating improvements are sticky upward while downgrades have been common. In 2010, 12 countries were rated as having a low risk of debt distress; 10 years later, only three maintain that rating. Since 2017, seven low-income countries have had downgrades in the DSA ratings, either moving from low risk to medium risk or from medium to high, but mostly from high risk to being in distress. Only three countries have managed to improve from a distress rating to a high-risk rating.

Increasing interest expenses on public debt and shorter maturities of new debt have exposed countries to higher refinancing and rollover risks

The recent increase in interest expenses as a share of revenue for many countries undermines their ability to service maturing debt obligations. A major vulnerability to the debt outlook in Africa is the diminishing liquidity available for many countries. Interest burdens are rising fast and government revenue is declining. For some countries, the interest burden has doubled in the last five years (figure 2.16). COVID–19 is expected to reduce...
government revenues further, and many countries may not have the necessary liquidity to service the debt obligations coming due in the first half of 2021 (figure 2.17). There could be widespread defaults and restructuring agreements as countries miss maturing payments.

Increased reliance on external non-concessional market financing exposes countries to higher exchange rate and rollover risks

The shifting composition of Africa’s debt toward non-concessional, market-financed external debt—denominated primarily in foreign currency (the US dollar and the euro)—implies that countries are becoming increasingly exposed to higher real interest rate risks (figure 2.18) and, more important, to exchange rate depreciation risks. Depreciation of the local currency causes an upward revaluation of a country’s debt and also makes debt service in the foreign-currency more expensive. This currency-mismatch exposure explains a significant portion of the deteriorating debt dynamics shown by the decomposition analysis. COVID–19 has caused recent sharp swings in currency valuations for many countries, especially oil-exporting economies. The outlook for the debt ratios in these countries is expected to worsen simply because of the depreciation of their currencies. This issue would be less severe for countries that rely more on the domestic capital market for borrowing and on concessional debt with low-interest rates.

Note: Fitch uses a letter system: a country rated AAA has the lowest expectation of default risk, while a country rated RD has defaulted on a payment.

Source: Staff calculations based on Fitch ratings (as of November 2020).
Many countries may not have the necessary liquidity to service the debt obligations coming due in the first half of 2021. Shorter debt maturities have created a bunching of external loan repayments coming due in the next five years. Higher borrowing from the non-Paris Club and commercial creditors has meant shorter maturities and higher refinancing risks. The surge in the issuance of 10-year eurobonds by many African countries since 2013 and the increase in non-Paris Club loans with maturities shorter than typical multilateral concessional long-term loans will cause bunching of maturing sovereign debt liabilities coming due in 2024 and 2025. That wall of liabilities will come due just as countries are expected to be recovering from the recessions caused by the COVID–19 pandemic (figure 2.19) and will elevate risks of debt distress. Affected countries need to begin debt resolution and restructuring negotiations before risks materialize. On the positive side, since 2010 maturities have
The wall of repayment liabilities will come due just as countries are expected to be recovering from the recessions caused by the COVID–19 pandemic.

lengthened for several local currency debt markets from 1.75 years to 2.5 years. Ghana, Kenya, and Tanzania have issued local currency bonds at maturities greater than 15 years and Nigeria issued a debut 30-year naira bond in April 2019. Higher real interest rates and lower growth prospects imply weaker long-run debt and fiscal sustainability. While the real interest rate–growth differential has been declining for most emerging markets and advanced economies over the past two decades, it has risen in Africa (figure 2.20). Higher real interest rates imply higher interest payments to service debt. The differential has narrowed since 2011, partly due to rising interest rates from market-based borrowing, especially by African frontier market economies. It also reflects weaker-than-expected growth rates in countries such as South Africa and Nigeria. The expected slow-down in growth as a result of COVID–19 will further narrow the differential. Africa’s negative real interest-growth...
The interest-growth differential has narrowed in Africa since 2011.

The interest-growth differential over the past years has not been sufficient to ensure declining debt ratios. The reason is that most countries have operated at primary deficits above the level needed to stabilize debt. Also, low global interest rates present an opportunity to use cheap capital for high return public investments that accelerate growth on the continent.

A decomposition of the real interest–growth differential and its cross-country dispersion shows that it has been driven by nominal GDP growth. Zooming in on country groupings, the differential has been more volatile in oil-exporting and other-resource intensive economies than for other country groupings, reflecting the underlying volatility of commodity prices, which drives growth in these countries (figure 2.21). While the growth rate has been a key driver of the differential in non-resource intensive economies, the contribution of interest has been comparatively muted due to their higher dependence on concessional loans (see figure 2.21).

Most countries have primary balances well below their debt-stabilizing levels, which implies...
The differential has been more volatile in oil-exporting and other-resource intensive economies.
long-run fiscal unsustainability. Debt sustainability conditions require that debt-to-GDP ratios not exceed a certain threshold, governments do not continue service their debt by issuing new debt, and governments eventually run fiscal surpluses to pay off existing debt and interest. Some countries have seen their debt ratios stabilize and even decline in the recent past—for example, Ethiopia and Egypt—because of the favorable real interest-growth differential. However, debt ratios have not stabilized for an increasing number of African countries. Between 2017–18 and 2019–20, the number of times countries had fiscal balances above their debt-stabilizing levels increased from 48 to 63 (figure 2.22).

**Expanding contingent liabilities, debt collateralization, and the “race to seniority” raise debt vulnerabilities**

The increasing reliance on public-private partnerships, and the explicit or implicit government guarantees that accompany them, exposes African sovereigns to contingent liabilities in the event of bankruptcies of the private partner. Moreover, the “race to seniority” in debt collateralization has become an important risk factor, as creditors seek to collateralize their debt with strategic assets of the borrowing country (for example in Chad and Republic of Congo), which creates an uneven hierarchy of creditors that could complicate debt resolution negotiations (see box 2.2 and chapter 3). The risk is compounded by limited reporting on SOE debt obligations (some of which are as large as 4.5 percent of GDP in Zambia and 1.3 percent in Ghana) in sectors with systemic importance such as energy, finance, transport, and telecommunications. These hidden debt obligations, when revealed, create additional vulnerabilities to the debt outlook.

**Non-Paris Club creditors with less transparent loan terms complicate debt management issues**

The number of Non-Paris Club creditors in Africa’s creditor landscape has been increasing, by far the most important being China (figure 2.23). Many of these loans are not transparent regarding loan terms and collateralization. Most of the countries currently in debt distress or classified as being at high risk of debt distress have high exposure to Chinese loans—Djibouti (57 percent), Angola (49 percent), Republic of Congo (45 percent), Cameroon (32 percent), Ethiopia (32 percent),

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**FIGURE 2.22 The number of episodes with fiscal balance above debt-stabilizing levels has been rising in Africa, 2017–20**

| 2017–18 | Debt ratio decrease: 56 times | Debt ratio increase: 48 times |
| 2019–20 | Debt ratio decrease: 37 times | Debt ratio increase: 63 times |

*Source: Staff calculations based on African Development Bank statistics.*
Kenya (27 percent), and Zambia (26 percent)—and oil-backed loans from commodity traders. Thus, any meaningful debt restructuring or resolution for African countries would require negotiating with Paris Club and Non-Paris Club official lenders, such as China. Given limited coordination among the two groups, it is not clear how this process would turn out, increasing rollover and refinancing risks for affected sovereigns.

**Debt accumulation on the continent is projected to accelerate quickly from the combined effect of increased public spending and a contraction in GDP and revenue**

Although the average debt-to-GDP ratio had plateaued around 60 percent in 2017 to 2019, it is expected to climb significantly to more than 70 percent in the short term. That reflects the growing...
The jump in debt levels is expected to be more pronounced in tourism- and resource-dependent economies financing needs of many governments as a result of increased public expenditure to respond to the impact of the virus and shrinking revenues due to COVID-19’s shocks to economic fundamentals—exports, remittances, and tourism. Debt-to-GDP ratios are projected to increase by up to 10 to 15 percentage points in the near to medium term (figure 2.24). The jump in debt levels is expected to be more pronounced in tourism- and resource-dependent economies that rely heavily on these sectors for foreign exchange earnings and government revenue.

DEBT DISTRESS AND RECOVERY EPISODES IN AFRICA: GOOD POLICY OR GOOD LUCK?

Secondary market information shows that countries can recover from debt distress episodes without going into a default, depending on initial conditions.

Although debt vulnerabilities are rising in Africa, countries could make appropriate policy choices to avoid events of debt default. This section seeks to identify episodes of debt distress in Africa’s frontier market economies and assess the role that policies play in fostering recovery from debt distress. The definition of debt distress used goes beyond the traditional event of default or loan restructuring. Debt distress is described as an event that occurs when the spreads on sovereign debt in the secondary debt market (where loans are traded as assets by investors) exceed a critical threshold. Sovereign debt spreads commonly show market participants’ perceptions of sovereign risk and therefore bear information on the external financing conditions faced by African bond issuers. Identifying bond distress episodes requires determination of the critical thresholds, the explicit definition of a time origin, unit of measurement, and the definition of the event that terminates the episode of debt distress. Duration models are used to assess the role played by the global economic environment, domestic policy, institutional factors, political events, and multilateral debt programs (by the IMF and others) in fostering recovery from debt distress episodes.

Using the baseline critical value of 800 basis-point spread, 18 episodes of bond distress events are identified across 16 countries (figure 2.25). One spell involving Zambia did not finish by the end of the sample period. For the critical threshold, the distribution of the duration (the number of months) of each debt distress episode is estimated. Overall,
the duration of the distress episodes remain stable over different critical threshold values considered.

The main policy-induced determinants tested in the model are grouped into:

- Domestic policy, captured by the country-specific inflation rate, economic openness, and trade balance.
- The external environment, represented by the three-month U.S. Treasury bill rate.
- The three-month Libor rate.
- The 10-year US Treasury bond rate; and global risk aversion measured by the yield spread between high- and low-rated US corporate bonds.
- Movements in gold prices; and the volatility index of the Chicago Board Options Exchange.
- Foreign exchange reserves-to-GDP to determine the level of risk premium because

**FIGURE 2.24** Debt-to-GDP ratios are projected to climb in the short term, 2010–23

Source: Staff calculations based on IMF World Economic Outlook database.
accumulation of foreign exchange reserves should reduce a country’s risk.
• Civil liberties and political rights indicators from the Heritage Foundation’s Index of Economic Freedom are used as a proxy for the quality of institutions. Those two indicators signal a better institutional environment, which is expected to be positively correlated with shorter crises; and finally, the presence of IMF-supported programs.

Favorable external conditions complemented by sound domestic policy and the presence of multilateral development bank programs contributes to shorter episodes of bond market distress
The findings show that the interaction between domestic policy and favorable external conditions helps to speed up the recovery from debt distress and greater openness to trade contributes to shortening debt crisis episodes. The external environment measured by risk aversion in the global market will lead to higher risk premiums in African bond markets and therefore reduce the probability of exiting from a debt distress episode.

Higher interest rates on the 10-year US Treasury bond tend to extend the episode of debt distress. The presence of an IMF-supported program contributes to reducing debt distress episodes by signalling the formulation of a comprehensive policy adjustment package, which in turn catalyzes private capital flows and the provision of financial resources that support implementation of corrective measures. The intervention of the IMF in crises plays a catalytic role by making it easier for countries to exit debt crises. Also, stronger political rights have a positive impact on the probability of exiting a debt distress episode and faster reserve growth contributes to shortening the debt distress episode. Bond market debt distress and recovery episodes identified for a cross-section of countries are presented in figure 2.26.

CONCLUSION
Africa’s debt trajectory is projected to accelerate quickly as a result of the surge in government spending to mitigate the socioeconomic consequences of the COVID–19 pandemic and the associated contraction in economic activity and...
FIGURE 2.26 Bond market distress and recovery episodes in six frontier market economies, 2000–19

Source: African Development Bank staff calculations.
government revenue. This Chapter has shown how the changing composition and drivers of Africa’s debt, with an increasing share of commercial and non-traditional sources, has elevated the continent’s exposure to debt vulnerabilities and created significant challenges for debt resolutions for countries with unsustainable debt burdens. The next chapter focuses on how countries can mitigate these vulnerabilities, improve the process of debt resolutions where necessary, and use policy reforms to improve debt sustainability profiles.
NOTES

1. See Chapter 1 for an assessment of the impact of the virus on macroeconomic fundamentals.
2. IMF 2020a.
5. Countries currently in debt distress are Democratic Republic of Congo, Mozambique, São Tomé and Príncipe, Somalia, Sudan, and Zimbabwe.
6. Refinancing risk is the risk of not being able to replace maturing debt with new debt.
7. IMF 2020c.
8. The debt-stabilizing primary balance refers to the level of primary deficits that stabilize debt. It is driven by the interest-growth differential and the initial debt stock. When the primary deficit exceeds this level, debt increases.
9. IMF 2020c.
10. Three African oil producers have struggled with oil-backed deals with commodity traders—Chad, Republic of Congo, and South Sudan—and ended up in debt distress in 2018.
11. This model has been widely used in the econometric literature to assess the impact of selected exogenous drivers on the time until some kind of transition occurs (see Pescatori and Sy (2007) and Walti and Weder (2009) among others).

REFERENCES


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