

# African Economic Outlook 2023

Mobilizing Private  
Sector Financing for  
Climate and Green  
Growth in Africa



AFRICAN DEVELOPMENT BANK GROUP  
GROUPE DE LA BANQUE AFRICAINE  
DE DÉVELOPPEMENT

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# FOREWORD

**A**frican economies have consolidated their recovery from the debilitating impact of COVID-19 while navigating an uncertain global environment characterized by the tightening of global financial conditions, spillover effects of Russia's invasion of Ukraine,<sup>1</sup> subdued global growth, and persistent climatic threats.

These multiple and dynamic shocks have weighed on Africa's growth momentum, with growth in real gross domestic product (GDP) estimated at 3.8 percent in 2022, down from 4.8 percent in 2021. The GDP growth in 2022 is above the global average of 3.4 percent, and all but two African countries posted positive growth rates. Despite significant headwinds, Africa has also shown remarkable resilience, evident in the projected consolidation of economic growth in the medium term. The outlook remains positive and stable, with a projected rebound to 4 percent in 2023 and further consolidation to 4.3 percent in 2024. Our projections show that 18 African countries will experience growth rates surpassing 5 percent in 2023, a number expected to increase to 22 in 2024.

This continued resilience will be reinforced by expected improvements in global economic conditions, fueled by China's reopening and a downward adjustment of interest rates as the effects of monetary policy tightening on inflation start to bear fruit. The projected rebound in growth will depend on underlying economic characteristics. For example, growth in oil-exporting countries is expected to benefit from oil prices, which, despite the recent decline, remain elevated. Non-resource-intensive economies will gain from their more diverse economic structures, highlighting the importance of diversification in withstanding shocks.

However, like elsewhere in the world, higher food and energy prices fueled strong inflationary pressures in 2022. As a result, inflation remained elevated across the continent and reached double digits in 18 African countries, putting additional pressure on public budgets as governments stepped up social spending to cushion vulnerable populations from the impacts of higher prices. In the face of these socioeconomic challenges, the Bank has demonstrated its unwavering commitment to building a resilient and prosperous Africa. Through its \$1.5 billion African Food Crisis Response and Emergency Facility, it provided much-needed support to bolster local food production and enhance food security across the continent.

Even so, Africa faces several downside risks to its growth prospects that call for cautious optimism. The tightening of global financial conditions and appreciation of the United States dollar have exacerbated debt service costs and could increase the risk of debt distress, especially for countries with severely constrained fiscal positions. The prolonging of Russia's invasion of Ukraine remains a major global risk that heightens uncertainty and could aggravate

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<sup>1</sup> Agreed wording at the 2022 African Development Bank Group Annual Meetings in Ghana. Algeria, China, Egypt, Eswatini, Namibia, Nigeria, and South Africa, entered a reservation and proposed "Russia-Ukraine Conflict."

Africa's food insecurity situation and living costs more generally. This is in addition to climate change, which continues to threaten lives, livelihoods, and economic activities.

Against this backdrop, the *2023 African Economic Outlook* (AEO) explores the potential roles of the private sector in financing Africa's climate action and green growth ambitions as well as the benefits of Africa's enormous and untapped natural capital as a complementary source of financing. These two potential financing sources are important given the already strained public finances in most African countries and the scale of resources needed for climate action and green growth. Between \$2.6 trillion and \$2.8 trillion is needed by 2030 to implement Africa's climate commitments as expressed in countries' recently submitted Nationally Determined Contributions (NDCs). When adding United Nations estimates of \$1.3 trillion needed annually to achieve the Sustainable Development Goals (SDGs), the magnitude of Africa's sustainable development financing requirements becomes starkly apparent. The report thus makes a strong case for private sector financing by identifying investment opportunities across different sectors, presenting a taxonomy of barriers and risks to attract private investments in climate and green growth, and discussing innovative financing instruments, and policy and regulatory instruments to attract private sector financing.

Taking stock of Africa's huge natural wealth, estimated at \$6.2 trillion in 2018, the report discusses the complementary role of natural capital in financing climate action and green transitions and proposes concrete actions to improve the governance of Africa's natural wealth and increase local content and value addition for extractive resources. It also recognizes the emergence of new technologies such as manufacturing of electric vehicles and how Africa can leverage its critical minerals to become the next hub for global green development.

As Africa's premiere development finance institution, the Bank has been very active in attracting private financing for climate action and green growth in Africa and in supporting Regional Member Countries (RMCs) to improve the governance of their natural resources. We have spearheaded important initiatives and instituted several innovative financing mechanisms to scale up climate co-financing

across the continent. For instance, we have used a climate safeguard screening system to ensure that all our projects are aligned with the goals of the Paris Agreement. Last year, under the ADF-16, we established a \$429 million Climate Action Window, which will allow us to mobilize up to \$13 billion for climate adaptation for 37 low-income and fragile states, the worst impacted by climate change. Through our African Natural Resources Management and Investment Centre and in conjunction with the African Legal Support Facility, we have been building the capacity of African governments to better manage their resources for inclusive and sustained growth. We also provide RMCs with advisory services and technical assistance for effective contract negotiations and improved and transparent management of renewable and non-renewable natural resources.

However, the Bank cannot be in the oven and at the mill at the same time. That is why the report is calling for an urgent action from all stakeholders. African countries will need to put in place all the necessary legal and fiscal apparatus not only to address structural barriers to private investments in climate actions and green transitions but also to improve the management of their natural resources and to create incentives for local beneficiation, processing, and value addition. Multilateral Development Banks (MDBs) and other Development Financial Institutions (DFIs) will also need to be reformed if they are to remain relevant to the new reality underpinned by the growing socioeconomic challenges confronting African countries. As key players in unlocking development and international finance, MDBs need to become less risk averse by cautiously reducing their capital adequacy ratios, moving away from project-based finance to financing a system-wide sustainable transition, and being given stronger and more coherent mandates from their shareholders to deliver transformative climate action and green growth outcomes.

Let us therefore join forces to support African countries address the existential threat of climate change and achieve sustainable and inclusive development.

**Dr. Akinwumi A. Adesina**

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2020	Developing Africa's Workforce for the Future
2021	From Debt Resolution to Growth: The Road Ahead for Africa
2022	Supporting Climate Resilience and a Just Energy Transition in Africa

# HIGHLIGHTS

## CHAPTER 1 AFRICA'S ECONOMIC PERFORMANCE AND OUTLOOK

### **African economies remain resilient amidst multiple shocks with average growth projected to stabilize at 4.1 percent in 2023–24, higher than the estimated 3.8 percent in 2022**

Africa's growth in real gross domestic product (GDP) was estimated at 3.8 percent in 2022, down from 4.8 percent in 2021 but above the global average of 3.4 percent. The growth slowdown was attributed mainly to the tightening global financial conditions, and supply chain disruptions exacerbated by Russia's invasion of Ukraine,<sup>1</sup> subduing global growth. Growth was also impaired by the residual effects of the COVID-19 pandemic and the growing impact of climate change and extreme weather events. While the deceleration was broad-based, with 31 of the 54 African countries posting weaker growth rates in 2022 relative to 2021, the continent performed better than most world regions in 2022, with the continent's resilience projected to put five of the six pre-pandemic top performing economies—Benin, Côte d'Ivoire, Ethiopia, Rwanda, and Tanzania—back in the league of the world's 10 fastest-growing economies in 2023–24.

Growth is projected to rebound to 4 percent in 2023 and consolidate at 4.3 percent in 2024, underpinning Africa's continued resilience to shocks (figure 1 and appendix table A1.1). The forecast for 2023 has been maintained as predicted in the January 2023 edition of *Africa's Macroeconomic Performance and Outlook* (MEO) published by the African Development Bank Group. However, due to expected slight improvements in medium-term global and regional economic conditions—mainly underpinned by China's re-opening and slower pace of interest rate adjustments—the forecast for 2024 has been revised up by 0.4 percentage points relative to the January 2023 MEO projection. Despite this, climate change, elevated global inflation, and persistent fragilities in supply chains will remain on the watchlist as potential factors for possible slowdowns of growth in the continent.

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1 Agreed wording at the 2022 African Development Bank Group Annual Meetings in Ghana. Algeria, China, Egypt, Eswatini, Namibia, Nigeria, and South Africa, entered a reservation and proposed "Russia-Ukraine Conflict."

Growth is projected to rebound to 4 percent in 2023 and consolidate at 4.3 percent in 2024, underpinning Africa's continued resilience to shocks

### The medium-term growth outlook is heterogeneous across Africa's regions

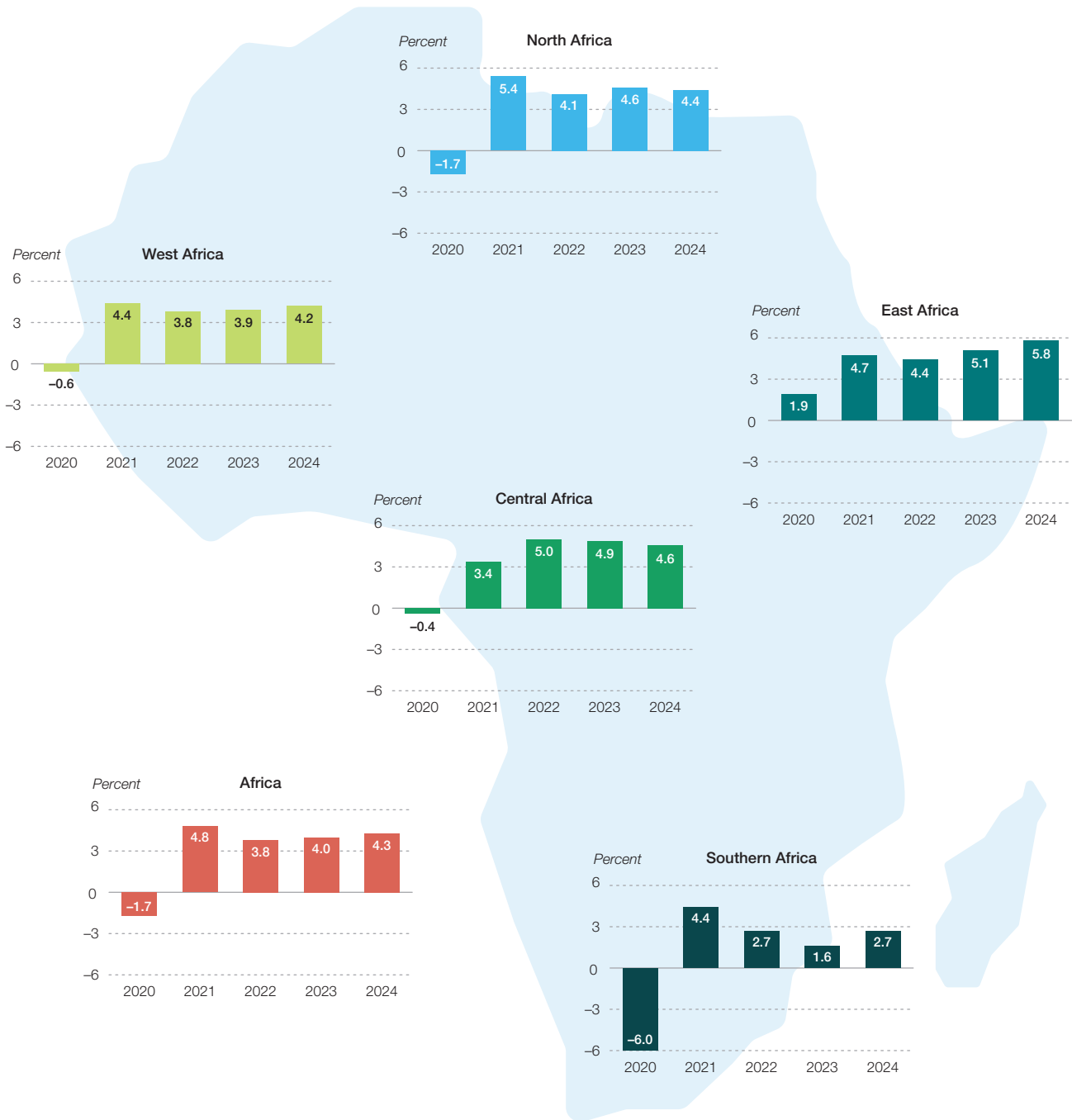
- The growth momentum in **Central Africa** is projected to decline from an estimated 5.0 percent in 2022 to 4.9 percent in 2023 and 4.6 percent in 2024. The slowdown reflects a downward trend in commodity prices from their peak in 2022. Central Africa comprises mostly commodity exporters, and fluctuations in commodity prices indicate the risks associated with commodity export dependence across these countries.
- Growth in **East Africa** is projected to strengthen from an estimated 4.4 percent in 2022 to 5.1 percent in 2023 and 5.8 percent in 2024. With the exception of South Sudan, growth in all countries in this region are estimated to increase in 2023, with seven of them achieving 5 percent GDP growth or higher, driven by fairly diversified production structures and a decline in commodity prices. Many countries in East Africa are commodity importers, and lower prices would benefit their GDP growth. However, pockets of drought and insecurity remain and may pose a challenge to achieving the projected higher growth.
- In **North Africa**, growth is projected to rise from an estimated 4.1 percent in 2022 to 4.6 percent in 2023 and 4.4 percent in 2024. The increase in 2023 will come largely from the strong recoveries in Morocco and Libya, the former from devastating drought, the latter from fluctuating oil production.
- Growth in **Southern Africa** is projected to decelerate by 1.1 percentage points, from an estimated 2.7 percent in 2022 to 1.6 percent in 2023. But with the right policy interventions, growth could recover to 2.7 percent in 2024. The projected sharp decline in 2023 largely reflects continued growth weakness in South Africa, the region's largest economy and trading partner, from an estimated 2.0 percent in 2022 to 0.2 percent in 2023, as it grapples with the impact of high interest rates and persistent power outages on economic activity.
- Growth in **West Africa**, despite macro-economic challenges in some of the region's large economies, is projected to rise from an

estimated 3.8 percent in 2022 to 3.9 percent in 2023 and 4.2 percent in 2024. This favorable outlook reflects higher growth in the region's small economies. Of the nine countries with projected growth rates of 5 percent or higher in 2023, eight are small economies, accounting for 15 percent of the region's GDP and 22 percent of the projected growth.

### The growth outlook also varies according to economic groupings reflecting diverse exposure to underlying economic uncertainties

- Growth in **tourism-dependent economies** is projected to decline from an estimated 8.4 percent in 2022 to 4.9 percent in 2023 and 4.4 percent in 2024, reflecting an abating base effect and growth slowdowns in important tourist source markets, especially Europe and North America.
- Despite the decline, oil prices have remained above the five-year trend, boosting growth in **oil-exporting countries** since the recession at the peak of COVID-19. Growth in this group, estimated at 4.0 percent in 2022, is projected to strengthen to an average of 4.2 percent in 2023 and 2024. The oil output effect, notably in Libya and Nigeria, could also shore up economic growth as production improves following efforts to tackle insecurity.
- Growth in **other resource-intensive economies** is, however, projected to decline from an estimated 3.0 percent in 2022 to 2.4 percent in 2023, with a recovery to 3.5 percent in 2024. The growth deceleration in 2023 is largely attributed to limited diversification and the lower prices of key commodities, notably minerals, amid weak global growth.
- **Non-resource-intensive economies**, largely countries with more diversified economic structures, are likely to sustain their resilience. Average growth for the group is projected to accelerate to 5.0 percent in 2023 and 5.6 percent in 2024 from an estimated 4.4 percent in 2022. This group recovered the strongest from the effects of COVID-19. The projected higher growth underscores the importance of economic diversification to weather the effects of exogenous shocks.

**FIGURE 1** Growth performance and outlook, by region, 2020–24



Source: African Development Bank statistics.

**Sustained tightening of global financial conditions has put pressure on African national currencies.** National currencies in Africa’s net commodity exporters lost substantial value in 2022, mainly due to monetary policy tightening

in the United States, which propped up the US dollar and historical domestic macroeconomic imbalances. Zimbabwe’s dollar, Ghana’s cedi, and Sierra Leone’s leone were among Africa’s most devalued currencies against the US dollar in

Africa's average consumer price inflation is projected to increase from an estimated 14.2 percent in 2022 to 15.1 percent in 2023, and to decline to 9.5 percent in 2024

2022, with respective depreciation rates of around 323.4 percent, 42.5 percent, and 34.0 percent. Although most African currencies weakened, others appreciated or remained stable. Countries with appreciating currencies included Angola (27.1 percent), Seychelles (15.6 percent), and Zambia (15.3 percent). Depreciation rates could ease in 2023 and 2024, but continued strengthening of the US dollar will keep African currencies under pressure. Currency weaknesses in some of Africa's more globally integrated economies (Kenya, Nigeria, and South Africa) are expected to persist in 2023, largely due to potential capital outflows as investors search for safe assets in advanced economies.

**Africa's average consumer price inflation is projected to increase from an estimated 14.2 percent in 2022 to 15.1 percent in 2023, and to decline to 9.5 percent in 2024.** The projected increase in 2023 mirrors structural weaknesses in most African countries: supply constraints to offset the effects of elevated food prices, dependence on energy imports, even in key oil producers such as Nigeria, and exchange rate passthrough effects from the stronger US dollar. The resulting increase in the cost of living could further intensify price-induced social unrest events across the continent. Other contributors include the lingering impact of supply chain disruptions, excess demand fueled by massive government spending in the aftermath of the pandemic, and spillover effects of Russia's invasion of Ukraine. The return to single-digit inflation in 2024 after four years of sustained build-up in inflationary pressures reflects the benefits of monetary policy tightening and countries' efforts to tackle structural impediments to domestic food supplies. The number of countries with at least double-digit inflation in 2024 is projected to halve from 16 in 2023, down from the 18 in 2022. Countries with inflation-targeting frameworks have been more successful in taming inflation relative to non-targeting peers. The former group's average inflation, at 10.9 percent in 2022, was half the rate for non-targeters (23.1 percent), and the trend is expected to persist in 2024. The inflation rate for inflation targeters is projected to hit single digits of 7.9 percent, against 13.6 percent

for non-targeters in 2024. Figure 2 presents the detailed outlook for countries' key macro-economic indicators in 2023–24.

**Fiscal performance improved in 2022, reflecting reversals of pandemic-induced expansionary spending across the continent.** The overall fiscal deficit is estimated to have narrowed to 4 percent of GDP in 2022 from 4.9 percent in 2021. The fiscal deficit in 2022 also shows a 0.4 percentage point improvement from the earlier estimate of 4.4 percent of GDP reported in the 2023 MEO. This is the second consecutive year of improved fiscal position after the sharp deterioration to 6.8 percent of GDP in 2020 due to large fiscal support to alleviate the socioeconomic impacts of the pandemic. The sustained improvement was broad-based, and Africa's average fiscal deficit is projected to stabilize at 4.1 percent of GDP in 2023 and could narrow to 3.8 percent in 2024, below the pre-pandemic 4 percent in 2019.

**Improvement in the current account positions in oil-exporting countries was insufficient to mitigate weaknesses in other economies.** Net oil exporters recorded a current account surplus of 1.4 percent of GDP in 2022, benefiting from higher oil prices, which helped reverse a deficit of 1.1 percent the previous year. However, the current account in non-resource and other resource-intensive countries deteriorated further, eroding the gains from their oil-exporting peers. The deficit in non-resource-intensive economies rose from an estimated 5.4 percent of GDP in 2021 to 7.6 percent in 2022 and 2.8 percent of GDP in other resource economies, against a surplus of 0.5 percent the previous year. Despite an improvement in tourism-dependent economies from 21.5 percent in 2021, the current account deficit remained elevated at 14.4 percent of GDP in 2022, reinforcing the deterioration in other resource economies and non-resource dependent counterparts. As a result, Africa's average current account deficit widened to 2.1 percent of GDP in 2022 from 1.7 percent in 2021.

Continued implementation of corrective measures to restore external balances and increased export revenues could prop up the current



**FIGURE 2** Outlook for key macroeconomic indicators, average, 2023–24

	GDP growth	Inflation	Current account balance	Fiscal balance		GDP growth	Inflation	Current account balance	Fiscal balance
Algeria	2.7	7.2	2.7	-4.8	Lesotho	2.3	6.0	-5.5	-5.3
Angola	3.7	11.4	4.1	-0.1	Liberia	4.5	7.4	-16.4	-4.0
Benin	6.1	2.5	-3.9	-4.3	Libya	13.0	4.6	23.7	20.5
Botswana	3.9	7.0	3.4	1.5	Madagascar	4.6	8.9	-5.5	-3.3
Burkina Faso	3.8	4.9	-3.0	-5.6	Malawi	2.7	19.1	-12.0	-7.8
Burundi	4.6	9.7	-9.2	-4.2	Mali	5.2	2.5	-6.7	-4.4
Cabo Verde	6.0	7.1	-6.2	-4.0	Mauritania	5.1	8.5	-9.8	-1.7
Cameroon	4.3	4.6	-3.0	-0.7	Mauritius	4.6	6.3	-6.4	-5.1
Central African Rep.	2.4	6.2	-11.4	-4.0	Morocco	3.4	4.5	-4.2	-4.3
Chad	3.7	3.3	-2.8	5.7	Mozambique	6.6	8.2	-25.0	-3.8
Comoros	3.7	2.6	-4.7	-2.7	Namibia	2.8	5.2	-4.3	-5.2
Congo Dem. Rep.	7.6	9.9	-4.0	-2.4	Niger	9.4	2.5	-14.0	-4.9
Congo Rep.	4.3	2.9	6.2	6.0	Nigeria	3.3	16.6	-0.2	-4.8
Côte d'Ivoire	7.1	3.2	-6.0	-4.7	Rwanda	7.8	6.5	-11.0	-7.4
Djibouti	5.9	3.0	22.2	-2.1	São Tomé & Príncipe	1.8	11.5	-15.0	-5.0
Egypt	4.8	14.0	-3.0	-5.4	Senegal	7.7	3.0	-11.3	-5.2
Equatorial Guinea	-3.9	3.1	-8.6	-3.2	Seychelles	4.7	4.3	-5.1	-1.0
Eritrea	2.9	5.6	10.5	-1.6	Sierra Leone	4.0	24.0	-7.7	-2.8
Eswatini	4.2	5.3	0.9	-4.1	Somalia	3.2	4.1	-14.6	-1.1
Ethiopia	6.0	24.1	-3.7	-2.8	South Africa	0.8	5.2	-2.3	-6.5
Gabon	2.8	3.3	-2.0	1.4	South Sudan	2.1	13.7	6.8	4.9
Gambia, The	5.4	10.4	-11.2	-2.2	Sudan	2.9	79.4	-2.4	-1.4
Ghana	2.4	32.5	-2.7	-9.0	Tanzania	5.8	4.3	-4.6	-3.5
Guinea	5.6	10.6	-5.6	-2.7	Togo	6.4	3.2	-6.2	-5.9
Guinea-Bissau	4.9	4.3	-4.4	-4.4	Tunisia	2.3	8.0	-5.9	-5.0
Kenya	5.8	7.3	-5.1	-5.8	Uganda	6.6	6.3	-8.9	-4.2
					Zambia	4.1	7.8	-0.5	-7.7
					Zimbabwe	3.2	84.2	0.6	0.1

Note: This heatmap plots the countries' outlook for selected key macroeconomic indicators. Countries are green for good performers, yellow for fair performers, and red for weak performers. Real GDP growth above 6 percent green, 4–6 percent yellow, and below 4 percent red. Inflation below 5 percent is green, 5–9.9 percent yellow, and above 10 percent red. Current account surplus is green, deficits below 5 percent yellow, and above 5 percent red. Fiscal surpluses and deficits below 3 percent are green, 3–5 percent yellow, and above 5 percent red.

Source: AfDB staff calculations.

account, with the deficit projected to stabilize at around 2.3 percent in 2023–24, an improvement of more than 1.5 percentage points from the pre-pandemic 3.8 percent. Corrective measures to restore external balance include fiscal consolidation and monetary policy actions to curb domestic inflation and reverse capital outflows, reduce dependence on imported products, and enhance African countries' external competitiveness.

**Public debt is projected to remain high, with lingering vulnerabilities.** Although the median public debt in Africa is estimated to have declined to 65 percent of GDP in 2022 from 68 percent in 2021 thanks to debt relief initiatives in some countries, it will remain above the pre-pandemic level of 61 percent of GDP. Moreover, this debt-GDP ratio is expected to increase to 66 percent in 2023 and then to stabilize at around 65 percent in

2024 due to growing financing needs associated with rising food and energy import bills, high debt service costs due to interest rate hikes, exchange rate depreciations, and rollover risks. In addition, many countries' difficulties in accessing international capital markets, combined with limited revenue mobilization, have led them to issue local currency debt, which increased substantially from 35 percent of GDP on average in 2019 to 42 percent in 2021. Domestic debt restructuring, therefore, should be part of the negotiations for the resolution of public debt crises in countries facing heightened risks.

### **The main downside risks to the outlook**

#### *Main headwinds include:*

- Subdued global growth, which, if it weakens further, could affect demand for Africa's exports.
- The associated persistence of tight global financial conditions, which could exacerbate the cost of debt service and drive more countries into debt distress or a high risk of debt distress.
- Losses and damages due to frequent extreme weather events with potential to translate into a fiscal crisis as countries expand public spending to rebuild damaged infrastructure and protect affected households.
- Sustained geopolitical tensions including a prolonged Russia's invasion of Ukraine remains a major source of global risk and heightened uncertainty. Further escalation could affect commodity prices and dampen medium-term growth prospects and endanger the resilience of Africa's economic recovery.
- Unresolved internal conflicts in some countries are diverting resources from growth-enhancing public investments and activities toward military spending.
- Political risks due to upcoming national elections in some countries could affect investors' confidence and cause disruptive capital outflows and depress investment.

#### *Main tailwinds include:*

- A faster than expected rebound in China's growth, which could spill over and accelerate

growth in the rest of Asia and the global economy, increasing demand for Africa's exports, boosting growth.

- Improved effectiveness of monetary policy in tackling inflation in Africa and globally would mean a faster exit from the cycle of aggressive policy tightening toward more support for the economy and livelihoods.
- Reduced pace of tight monetary policy could also halt appreciation of the US dollar, providing a respite for African currencies.
- Ongoing efforts by the global coalition on climate change to mobilize resources to combat the effects of climate change could lessen physical impacts and create fiscal space to invest in greening Africa's economies.

### **A mix of short term and medium to long term policies is needed to accelerate and sustain the momentum of Africa's economic growth**

#### *In the short term:*

- A clearly communicated anti-inflation monetary policy, supported by prudent fiscal policy, will achieve lower inflation faster at minimum cost to the economy.
- Macroprudential policies such as capital and liquidity buffers to supplement monetary policy actions will be necessary to address financial stability risks and maintain price stability.
- Coordinated debt treatment strategy between official and private creditors is key to avoiding debt crisis given tight global financial conditions and a bunching of debt service payments.

#### *Over the medium to long term:*

- Scaling up domestic revenue mobilization is critical to restore fiscal sustainability and finance inclusive growth and sustainable development.
- Enacting strategic industrial policies to accelerate economic diversification in Africa would limit the effects of recurrent headwinds and global shocks.
- Boosting regional trade would enhance Africa's resilience to spillovers from global economic slowdown and reduce persistent trade deficits.

In the short term, a clearly communicated anti-inflation monetary policy, supported by prudent fiscal policy, will achieve lower inflation faster at minimum cost to the economy

- Reforming the global financial and debt architecture would reduce the cost, time, and legal complications associated with debt restructuring for African countries.
- Governance reforms should strengthen public financial management to deal with increased debt and tight fiscal space.

## CHAPTER 2 PRIVATE SECTOR FINANCING FOR CLIMATE ACTION AND GREEN GROWTH IN AFRICA

**Sustainable development, economic growth, and climate action are critical for Africa, and concurrently achieving these priorities requires commitments to green growth pathways.** Since the beginning of the 21st century, Africa’s population has almost doubled and its GDP quadrupled. However, Africa currently contributes only about 4 percent of global GHG emissions, much less than China (30.9 percent), the United States (13.5 percent), European Union (7.5 percent), or India (7.3 percent). The continent has also been severely affected by recent global events and risks, including the COVID-19 pandemic, and the disruptive effects of Russia’s invasion of Ukraine. So, although Africa has committed to addressing climate change, significant environmental and social issues and inequalities remain that can be addressed only by promoting green growth.

**Africa has a great potential to pursue green growth and climate objectives to accelerate economic growth.**

- First, it has some of the world’s fastest-growing economies and its real GDP growth is projected to surpass the global average in 2023–24, even as headwinds persist. Embedding climate change in policy frameworks could catapult the continent to a higher and greener growth trajectory over the next decades.
- Second, the continent has an important human capital base, with its population projected to increase to 2.4 billion by 2050. As most of the current population is young, compared with other regions’ aging population, Africa is

the current and future frontier market in green growth opportunities.

- Third, Africa hosts 25 percent of the world’s natural biodiversity and 30 percent of the world’s mineral resources, most of which will be essential for a green transition.
- Fourth, Africa has a large renewable energy potential—including wind, solar, hydropower and geothermal—and the world’s highest solar energy potential.
- Last, African countries have the greatest potential for investments in green infrastructure and technology due to their low levels of development, low legacy high-emissions infrastructure, and low frequency of infrastructure and project finance default rates, estimated at 5.5 percent.

**Despite all the above potential and the urgency of green transitions, Africa’s progress toward green growth has been slow.** Between 2010 and 2021, Africa was among the least performing regions in achieving green growth targets, lagging Europe, North America, East Asia and Pacific, and Latin America and the Caribbean but above South Asia and the Middle East. In particular, the continent has underperformed on the promotion of green economic opportunities, such as green trade, green innovation, and green investment. The continent’s share of exports of environmental goods to total exports—a proxy for green trade—was the world’s lowest, at 1.5 percent on average over 2010–20, well below an average of at least 3 percent in other world regions. Underperformance is similar in green employment, measured by the share of green jobs in total manufacturing employment, which averaged 2.5 percent in Africa between 2010 and 2018, less than half the average of 5.5 percent for the rest of the world. Despite progress on efficient and sustainable resource use, and on the promotion of social inclusion, the continent has not yet been able to catch up with other world regions on green growth.

**The participation of the private sector in financing climate action and green growth is crucial to address climate challenges and to fast-track progress on green growth.** Public climate finance alone is insufficient to materialize

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Although Africa has committed to addressing climate change, significant environmental and social issues and inequalities remain that can be addressed only by promoting green growth

Between \$2.6 trillion and \$2.8 trillion—or \$234.5–\$250 billion a year—is needed by 2030 to implement the continent’s climate action ambitions

Africa’s green growth agenda. The United Nations estimates that about \$1.3 trillion will be required annually to meet Africa’s financing needs for Sustainable Development Goals (SDGs) by 2030. To move from billions to trillions of climate finance, and given already strained public resources, bolstering resource mobilization from the private sector becomes imperative.

In addition, it is in the private sector’s best interest to invest in climate action and green growth sectors, thanks to the enormous opportunities for high returns they offer. For example, there are climate investment opportunities of about \$1 trillion through 2030 in energy-efficient buildings, low-carbon transport, and renewable energies in Africa. And investing \$1.8 trillion between 2020 and 2030 in climate adaptation and resilience could generate private sector investors \$7.1 trillion in net benefits globally. The electric vehicle (EV) market also offers a trillion-dollar market opportunities for private investors. Africa is at the center of this supply chain given its substantial endowments in lithium, cobalt, nickel, manganese, graphite, iron, and phosphate, critical minerals in the production of lithium-ion batteries used in EV and electricity storage.

**However, private climate finance flows in Africa have fallen short of the continent’s needs.** Between \$2.6 trillion and \$2.8 trillion is needed by 2030 to implement the continent’s climate action ambitions as expressed in Nationally Determined Contributions (NDCs) submitted by April 2023. Put annually, this comes to between \$234.5 billion and \$250 billion. However, of the \$29.5 billion in total climate finance flows in Africa in 2019–20, private finance of \$4.2 billion was on average more than six times lower than public finance (\$25.3 billion), the lowest proportion among the world’s main regions. Given the current level of private finance flows, Africa’s private climate finance gap is thus estimated to reach about \$213.4 billion a year (about 6.9 percent of Africa’s projected GDP of \$3.1 trillion in 2023) on average through 2030, assuming that the private sector covers the entire shortfall in climate finance needs. To close this gap by 2030, private climate finance in Africa would therefore need to increase by about 36 percent a year.

**However, important barriers on the supply and demand sides continue to inhibit the full potential of private investments in climate action and green growth sectors in Africa.** The absence of clear and robust green growth policies and long-term strategies (LTSs) in many countries increase their investment risk profile and deter private actors from investing in green growth sectors. To date, only seven African countries have LTSs, and only 18 countries put in place policies and regulations specifically designed to attract private participation in green growth projects. Due to low technical, human, and institutional capacity in managing critical phases of climate and green growth project cycles, few projects get past the feasibility or planning stage. In addition, the lack of investment-ready project pipelines for climate action and green growth and the high levels of public debt limit the capacity of most countries to crowd in additional private sector finance. On the supply side, international private investors perceive African markets as high risk, leading to high costs of capital and high required rates of return. The high perceived risks result in African countries being awarded largely subjective poor credit ratings in international capital markets, in most cases below the investment grade. And some private actors, particularly those that recently committed to greening their investments, have limited experience in African markets, so they base their investment decisions on asymmetric or limited information about the performance of investments in different African markets.

**Despite existing barriers, many investment opportunities in climate action and green growth abound and could be leveraged to unlock private sector financing.** Sectors that rely on climate-smart and low-carbon technologies—such as renewable energies and electric vehicles, energy-efficient buildings, climate-resilient infrastructure, improved dryland agricultural crop production, and resilient water resources—represent trillion-dollar market opportunities to the private sector in Africa. Africa’s ICT market, expected to have grown from \$95.4 billion in 2020 to \$104.2 billion by 2023, offers good investment potential in green technologies, such as robotic trees, parasitic drones, clean-air buses, and air separation plants. Agriculture and

agribusiness sectors, with increased demand for climate-smart agricultural technologies—such as smart and renewable energy-powered irrigation, biocontrol products and precision applicators, climate-resilient livestock feed, and smart systems for pest or weed control—has the potential to become a \$1 trillion market by 2030.

**Several transformative policy actions can turn all this potential into concrete investment opportunities and mobilize private sector financing for green growth in Africa.**

Developing regulations, standards, and policies—in close collaboration with multilateral development banks (MDBs) and development finance institutions (DFIs)—for climate and green growth investments can guide potential investors. Increasing the use of blended finance instruments can de-risk investments in climate and green growth sectors. Expanding the use of sustainable financing instruments such as green bonds and loans can help crowd in private investments. Strengthening domestic financial institutions, tapping into the expanding global and domestic private equity and venture capital appetite for African markets, and cautiously engaging with the emerging carbon markets and debt-for-climate swaps and climate-linked debt, are also options to raise more private climate finance for the continent.

**To help mobilize more private financing for climate and green growth in Africa, MDBs and DFIs need to be reformed.**

Only around one-third of private finance mobilized by these institutions targeted climate action in 2018–20. As key players in unlocking development and international public finance, MDBs and DFIs should become less risk averse by cautiously reducing their capital adequacy ratios, establishing tailor-made capital and liquidity frameworks and reassessing existing regulatory capital and other prudential norms. They should move away from project-based finance to finance a system-wide sustainable transition. They should build internal capacity to integrate low-carbon, climate-resilient perspectives into policymaking. And their shareholder governments should give them stronger and more coherent mandates to deliver transformative climate action and green growth outcomes.

**Policy recommendations**

- *African countries should develop and cost LTSs to provide strong signals to domestic and international stakeholders on their green growth and climate change priorities.* They should translate these strategies into sectoral strategies, plans, and regulations. The strategies should be comprehensive and cover all sectors and be fully mainstreamed into the whole economy, not developed and implemented in silos.
- *They also need to strengthen governance and accountability systems to ensure that the proceeds from private finance generate the expected and maximum impact for green growth.* Impact monitoring and evaluation frameworks should have clear metrics and transparency and accountability systems for institutions managing this finance. These enabling policy and regulatory reforms will create incentives for the private sector to invest in both adaptation and mitigation.
- *They should establish national standardized blended finance vehicles that offer attractive returns.* They should use these vehicles effectively by ensuring that financial allocations demonstrate additionality and proportionality. The potential impact of these investments should inform the allocation of finance for blending, particularly by ensuring a balance between infrastructure financing and social development and environmental management projects.
- *MDB and DFIs need to support African countries' efforts to address debt sustainability and create an enabling environment for climate investment.* They need to expand the issuance of concessional finance for green growth and climate change projects without pushing countries into further debt. They should also enhance the roll-out of sustainable debt mechanisms to countries at risk of debt distress, for instance through domestic capital markets based on local currencies.
- *These institutions should lead global efforts to support African countries in creating a conducive environment for climate investment and in advancing their transition to a low-carbon pathway.* This will require constant interactions and complementary engagements of all stakeholders to objectively assess countries' climate

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African countries should develop and cost long-term strategies to provide strong signals to domestic and international stakeholders on their green growth and climate change priorities

Africa is endowed with 30 percent of the world's mineral resources and 65 percent of the world's uncultivated arable land, the world's most productive forests both in timber and carbon retention resources, and ample solar, wind, and hydropower. However, the returns from these resources have persistently been below their potential

and investment risk profile over time, develop mechanisms and tools to address them, and identify opportunities to enhance resilience.

- *Rating agencies need to expand their framework to better reflect the real potential for the African market.* This could involve reforming rating procedures to ensure that risk or credit ratings include the true potential of the African green growth markets. The increasing calls for the reform of the rating agencies and the ongoing progress toward the establishment of an African Rating Agency are steps in the right direction.
- *Developed country governments, which make up a majority of the shareholders of MDBs and DFIs, should champion discussions and actions that enable these institutions to reduce their aversion to risk.* This can be done by allocating more callable capital to MDBs, lowering MDB capital adequacy ratios, and reducing the profitability targets of DFIs.

### CHAPTER 3 NATURAL CAPITAL FOR CLIMATE FINANCE AND GREEN GROWTH IN AFRICA

**Africa is abundantly endowed with renewable and non-renewable natural resources.** It is endowed with 30 percent of the world's mineral resources and 65 percent of the world's uncultivated arable land, the world's most productive forests both in timber and carbon retention resources, and ample solar, wind, and hydropower. However, the returns from these resources have persistently been below their potential. Thus, while the share of Africa's resources in the world is considerable, the value of these resources, reflecting their use, is small or not measured appropriately. The trend over the past quarter century shows a decline in the value of natural capital per capita—a strong indication that development has not been sustainable. Considering the significant climate change challenge that Africa faces and the gaps in climate finance, it is imperative that Africa—a continent well-endowed with enormous natural resources—leverage its natural capital to finance its green transition.

**Natural wealth is the part of nature that generates well-being for people.** The Convention on Biological Diversity broadly defines natural wealth as the stock of natural assets, which include air, soil, water, geology, and all living things. Natural capital is part of a country's wealth, which includes other forms of capital—human, social, and physical. Reliable, comprehensive, and harmonized data on natural capital is, however, generally lacking due in part to the difficulty and complexity of precisely quantifying and valuing natural wealth on Earth. Concerted global efforts spearheaded by the United Nations and partner organizations are underway to integrate natural capital and ecosystem services in standard system of National Accounts through new frameworks such as the System of Environmental Economic Accounting (SEEA) and the SEEA Ecosystem Accounting. But challenges remain.

**Africa's natural capital was estimated at \$6.2 trillion in 2018, though the actual value of this capital could be much higher if reliable data were available on recent mineral and other extractive resource discoveries.** Due to challenges of measurement and valuation, the estimated values of natural capital do not consider several resources, including ecosystem services in the form of land-based sequestered carbon stocks, solar, wind, and biodiversity—and the ecosystem services they provide. Africa's predominant types of measured natural capital are renewables, primarily land, forest, cropland, pasture, and protected areas. But due to population growth and other factors, natural capital per capita in Africa fell from \$4,374 in 1995 to \$2,877 in 2018. This is concerning since a large part of the population depends on natural resources for livelihoods, so the result is increasing inequality and vulnerabilities, including to climate risks.

**There is a vast potential to increase the productivity of renewable natural capital while sustaining it.** With the right human capital and industrial policies, physical assets and ecosystems could provide a higher value of output without compromising environmental quality. In this regard, the application of circular economy principles—recycling and recovering materials

when possible—has the potential to increase the productivity of natural capital. And the efficiency of sequestering carbon in terrestrial ecosystems can be further increased.

**Africa possesses significant mineral resources that are key to the global transition to a net-zero carbon future, including bauxite, cobalt, graphite, lithium, manganese, and vanadium.** More than half of African countries have at least one of the critical metals and minerals needed for the energy transition, placing the continent in a strategic position to influence the global net zero transition. But Africa participates only in the small value components of the total global value chain, accounting for only about 10 percent of the total global value of such minerals, primarily exporting raw materials with little or no local value addition. That makes it important for African countries to break the vicious cycle stemming from excessive dependence on the export of natural resources by creating more value on the continent, strengthening productive capabilities, and expanding exports and intra-African trade through the African Continental Free Trade Area (AfCFTA). Africa's estimated 600 trillion cubic feet of natural gas reserves, estimated at \$210 billion in 2018, could also be used to fast-track the continent's energy access.

**The extractive sector contributes to public and private finance in many African countries, with some countries heavily reliant on these resources for public revenue.** Africa's extractive resources will contribute more than \$30 billion annually to government revenue by 2040. The continent's value of non-renewable natural capital was estimated at \$2.4 trillion in 2018, with mineral and fossil fuel wealth estimated to be \$215 billion and \$1.06 trillion, respectively. For natural resource wealth to drive sustainable economic development, African countries must ensure they receive a fair share of resource rents and effectively manage revenues generated from such resources. Tax policies should be designed to internalize environmental opportunity costs associated with the exploitation of non-renewable resources, but the negotiated royalty taxes are low in many African countries. So, African governments should deploy

different fiscal instruments to obtain a fair share of revenues from non-renewable resources.

**Renewable resources replenish themselves over time and can generate benefits in perpetuity if the extraction rate does not exceed the reproduction rate.** If the resources are extracted sustainably, their flow generates revenue streams and is not considered capital-depleting. For instance, Africa's annual captured fish production is estimated at 10 million tons—about 7 million tons from marine fisheries and 3 million tons from inland fisheries. Mangroves, as a coastal ecosystem in tropical and subtropical regions, provide several economic and ecosystem benefits, including carbon sequestration, flood protection, biodiversity conservation, and timber and non-timber forest benefits. The continent's forest cover is estimated at about 637 million hectares, or 23 percent of the continent's land area. In addition, wooded landscapes and trees outside forests are estimated at 350 million hectares, or 13 percent of the land area. There is also enormous potential for ecotourism to leverage natural resources and wildlife. Tourism is a powerful source of economic growth and job creation, with a strong environmental and gender dimension. Protecting biodiversity and forests through a multifaceted approach involving government policies, community engagement, and public education and awareness is thus imperative.

**International multilateral agreements can provide opportunities for African countries to tap into new resources and markets.** A global low-carbon transition to net-zero greenhouse gas emissions by 2050 presents considerable resource-based opportunities. Africa is already much closer to net-zero than other world regions, and thus could further build on this advantage to attract funding from, for example, increased sequestration of carbon in forests. There are opportunities for trade in carbon credits under the Paris Agreement as prices on emission reductions in compliance markets are much higher than in voluntary markets. The wedge between compliance and voluntary markets is widening. For instance, the difference between the European Union (EU)-Emissions Trading System and

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African countries must break the vicious cycle stemming from excessive dependence on the export of natural resources by creating more value on the continent, strengthening productive capabilities, and expanding exports and intra-African trade through the African Continental Free Trade Area

Africa has also lost more than \$1 trillion in illicit flows over the last 50 years and is likely to continue to lose about \$89 billion a year if corrective action is not taken

voluntary carbon markets for Africa in 2017 was just \$3.41 per metric ton of emission, but widened to \$52 per metric ton in 2021. The potential annual cost reductions through trade in carbon credits instead of each country implementing its NDCs on its own could total about \$250 billion in 2030 and rise to \$1 trillion in 2050.

**Another opportunity is the EU Carbon Border Adjustment Mechanism, which aims to support the low-carbon transition by cutting emissions by 55 percent by 2030 and to net-zero by 2050.** It allows trade in carbon emission permits in goods that are produced emitting carbon dioxide (CO<sub>2</sub>). Africa has the potential to benefit from this mechanism due to its enormous carbon sequestration potential. Greening initiatives such as the Great Green Wall Initiative, which also provide funding opportunities for carbon sequestration through tree plantation, could further solidify these benefits from carbon trades. Recently, COP 27 in Sharm El-Sheikh, Egypt, reached a landmark agreement on creating a Loss and Damage Fund for vulnerable countries with aims to provide financial assistance to developing countries most affected by the adverse effects—losses and damages—of climate change. Similarly, the Convention on Biological Diversity (CBD) agreement provides environmental protection opportunities for African countries through the Global Environment Facility. Other opportunities include the proliferation of voluntary carbon markets and the Adaptation Benefit Mechanism, an innovative mechanism managed by the African Development Bank to mobilize new and additional public and private sector finance for enhanced climate change adaptation action.

**African countries need to build institutional capacity.** The meager benefits for Africa from past international agreements have been partly attributed to the limited capacity to negotiate better positions, underpinned by the limited capacity to take stock of its resources and to identify and communicate gaps for assistance. Most African countries also fail to negotiate for optimal benefits from their natural resources with private investors, partly due to the challenge of conducting surveys to ascertain the value of resource reserves.

**To fully harness their natural resource potential for climate finance and green growth, African countries should improve the governance of their natural resources.** In many resource-rich countries, including those in Africa, resource rents have resulted in fierce contests between ruling elite factions in the process of creating, capturing, allocating, and distributing the rents. The resource curse has been manifested in most African countries, casting a negative socioeconomic and political outcome from mismanagement of rents from extractive sectors. Africa has also lost more than \$1 trillion in illicit flows over the last 50 years, and it is likely that Africa will still lose about \$89 billion annually, if corrective action is not taken. Illicit financial flows typically originate from corporate resource leakages, organized crimes, corruption, and bribery. Drivers of illicit financial flows include high tax rates on natural resources, low institutional capabilities, political instability, and poor regulatory quality.

Policy and governance options to increase the contribution of natural capital to green growth transitions in Africa include separating policy and regulatory functions in cases where various government institutions and departments have conflicting mandates. They also include improving natural capital and sovereign credit risk factors to earn a better rating. The rich natural capital on the continent stands as a barometer of the confidence and creditworthiness of governments. Finally, policymakers should have the right local content policy to add value and invest in building local capacity and improve regional integration to enhance trade and cooperation in tackling cross-border challenges, such as the smuggling of nature-based products.

### **Policy recommendations**

- *The global community should honor pledges and commitments in international agreements such as the agreement on a Loss and Damage Fund, the post-2020 Global Biodiversity Framework, and the Paris climate agreement.* Developed countries also need to establish a global fund for nature that incorporates and incentivizes the preservation of nature and sustainable natural resource management. This



includes funding the Global Biodiversity Framework and raising its ambition to meet the financial requirement of \$200 billion a year by 2030.

- *Increase collaboration and coordination among stakeholders—including international and regional multilateral organizations, national governments, and the private sector—to invest in sustainable management of Africa’s natural resources.* To improve the governance of natural resources, there must be deliberate efforts to safeguard biodiversity and ensure that resource extraction is done sustainably and equitably, inclusive of communities, indigenous people, and human rights, especially in ecologically sensitive areas where threats to biodiversity and habitat destruction are very high.
- *Develop long-term policy options to establish markets for innovative financing mechanisms.* Consider bio-credits, sustainable bonds, carbon bonds, resource-backed loans, Certified Adaptation Benefits, debt-for-nature swaps, and natural capital funds. However, it is crucial to consider the nature and origin of the entities financing the debt-for-nature swaps, as some may have interests other than strict development or environmental conservation. These can be done both in the voluntary and intergovernmental sectors but should avoid depletion of renewable natural resources and promote responsible extraction and use of non-renewable natural resources.
- *Promote a circular economy in nature-sensitive investments to responsibly guide the environmental, social, and governance aspects of natural capital.* Increase material reuse and recycling in non-renewables (such as green minerals) and renewables (sustainable fishing and forestry management). This can provide significant win-win opportunities for investment in nature-based solutions and the overall protection of biodiversity.
- *African countries need a strong and sustained commitment to carry out public policy reforms to ensure that natural resource wealth drives sustainable economic development.* This will trigger actions to resolve the myriad of other management and governance issues, including internalizing environmental opportunity costs associated with exploiting natural resources

and investing in natural capital. The actions include developing Natural Capital Investment Plans as complements to National Biodiversity Action Plans; mainstreaming natural capital in development planning and finance; integrating natural capital accounting in the national systems of accounts; developing specific fiscal instruments to improve renegotiation of royalty rates and windfall taxes, to generate more revenue from Africa’s natural resources. Other actions are reforming state-owned enterprises to promote beneficial ownership and working with global credit rating institutions to feature natural capital more prominently in credit ratings for fairer ratings so that African countries can have improved access to international capital markets. Developing strategies that will also give African countries the impetus to process at least 50 percent of their primary commodities into consumable goods by 2030. The implementation of this set of recommendations could fast-track development in Africa because no country can develop by exporting raw materials.

- *Re-basing countries’ GDP in the light of the positive externalities associated with the carbon sequestration value of forest ecosystems could further expand the economic base, and will align it with the inclusive growth agenda.* The benefits of carbon sequestration to overall GDP and as value for the purpose of credit rating is an area where risk rating agencies and African scholars could explore more using growing opportunities of big data and innovative models that will incorporate the pricing of these positive externalities as global public goods.
- *Africa’s natural capital accounts need to be developed, transparent, and open to the public to build investor confidence in the role of natural capital in financing inclusive economic growth.* This would be a first step toward generating appropriate macroeconomic management and sustainability indicators as part of the regular system of national accounts. It could also help generate geological and geospatial data by investing part of natural resource rents to support regional exploration, carry out required environmental assessments, and strengthen negotiation power with investors.

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To improve the governance of natural resources, there must be deliberate efforts to safeguard biodiversity and ensure that resource extraction is done sustainably and equitably, inclusive of communities, indigenous people, and human rights, especially in ecologically sensitive areas where threats to biodiversity and habitat destruction are very high

- *Africa's endowment in green development minerals needed in the battery value chain will require a regional approach, cooperation, and capacity building to ensure effective value addition.* In addition, producing lithium-ion batteries from Africa's substantial mineral resources will be necessary to decarbonize the supply chains while creating decent and quality employment opportunities on the continent. However, such investments need conducive and stable policies and institutions to foster regional collaborations.
- *Multilateral development partners could support African countries by supporting the design of appropriate fiscal instruments and policies to extract revenues from resources and ecosystem services, invest in human capital, and build capacity in international negotiations.* To increase international financing for climate adaptation, mitigation, and nature, MDBs should play a role in de-risking climate and nature-related investments, as is done in the Adaptation Benefits Mechanism.

# AFRICA'S ECONOMIC PERFORMANCE AND OUTLOOK

## KEY MESSAGES

- **African economies remain resilient amid multiple shocks with average growth projected to stabilize at 4.1 percent in 2023–24, higher than the estimated 3.8 percent in 2022.** Following a strong recovery from the debilitating impact of COVID-19, Africa's growth declined to an estimated 3.8 percent in 2022, from 4.8 percent in 2021. The slowdown in growth had many causes: tightening global financial conditions, supply chain disruptions exacerbated by Russia's invasion of Ukraine,<sup>1</sup> subdued global growth constraining demand for Africa's exports, residual effects of the COVID-19 pandemic, and growing impacts of climate change and extreme weather events. Growth's projected stability in 2023 and 2024 reflects the expected benefits from a slight improvement in global economic conditions—mainly underpinned by China's re-opening and the slower pace of interest rate adjustments following aggressive tight monetary policy. But elevated inflation and persistent fragility in supply chains and climate change impacts will remain on the watchlist as potential constraints to accelerated growth in the continent.
- **The outturn for growth in 2022 and the outlook for the medium-term mask cross-regional variations.** Underpinned by high commodity prices, Central Africa had the highest growth of 5.0 percent in 2022, up from 3.4 percent in 2021, but it is projected to decline slightly to 4.8 percent in 2023–24. West Africa's growth slowed to 3.8 percent in 2022 from 4.4 percent in 2021 but is projected to rise to about 4.1 percent in 2023–24. Similarly, North Africa's average growth is projected to rise to 4.5 percent in 2023–24 after a decline to 4.1 percent in 2022 from 5.1 percent the previous year. East Africa's growth moderated to 4.4 percent in 2022 from 4.7 percent in 2021 but is projected to rise to 5.5 percent in 2023–24. Growth in Southern Africa is expected to slow further to 2.1 percent in 2023–24 after decelerating to 2.7 percent in 2022 from 4.4 percent in 2021, weighed down by subdued growth in South Africa.
- **The dynamics of Africa's macroeconomic fundamentals are still mixed, and considerable challenges remain.** The average fiscal deficit is estimated to have narrowed to 4.0 percent of GDP in 2022, from 4.9 percent in 2021, and is projected to stabilize at 3.9 percent, reflecting relative improvement in revenues, especially in oil-exporting countries. However, the average current account deficit is estimated to have widened to 2.1 percent of GDP in 2022, from 1.7 percent in 2021, and is projected to widen further to 2.3 percent in 2023–24, reflecting net capital outflows and subdued export revenues mainly in other resource-intensive economies. Exchange rate fluctuations continued in most countries, and domestic currencies in African net commodity-exporters lost substantial value against the US dollar due to interest rate hikes in the United States, which

bolstered the dollar. Despite the decline, food and energy prices remained high, with average inflation increasing to an estimated 14.2 percent in 2022, from 12.9 percent in 2021. The increase in inflation also reflected strong exchange rate passthrough effects. Inflation is projected to rise to 15.1 percent in 2023, due to prevailing structural weakness on domestic food supply, volatility in energy prices, as well as continued weakening of domestic currencies. But it should fall to 9.5 percent in 2024, benefiting from the current cycle of tightening monetary policy and easing domestic food supply constraints.

Africa's stable economic outlook comes with cautious optimism, given the considerable global uncertainty and geopolitical tensions

- **Public debt is projected to remain high, increasing the vulnerabilities.** Although the median public debt in Africa is estimated to have declined to 65 percent of GDP in 2022 from 68 percent in 2021—thanks to debt relief initiatives in some countries—it will remain above the pre-pandemic 61 percent of GDP. Moreover, this debt-GDP ratio is expected to increase to 66 percent in 2023 and then stabilize at around 65 percent in 2024 due to growing financing needs—associated with rising food and energy import bills, high debt service costs due to interest rate hikes, exchange rate depreciations, and rollover risks.

In addition, many countries' difficulties in accessing international capital markets, combined with limited revenue mobilization, have led them to issue local currency debt, which increased substantially from 35 percent of GDP on average in 2019 to 42 percent in 2021. Factoring in the cost of subsidies and cash transfers to mitigate food and energy prices, domestic borrowing could have risen further in 2022. Domestic debt restructuring, therefore, should be part of the negotiations for the resolution of public debt crises in countries facing heightened risks.

- **Africa's stable economic outlook comes with cautious optimism, however, given the considerable global uncertainty and geopolitical tensions.** The failure to diffuse Russia's invasion of Ukraine and the pockets of conflict in Africa could unravel growth's

projected stability. Continued appreciation of the US dollar could also heighten risks of debt distress and perpetuate debt vulnerabilities, dampening the growth momentum. And general elections scheduled in several African countries in 2023 and 2024 could increase political uncertainty, weaken investor confidence, derail the recovery in investment flows and disrupt economic activity. Other outstanding downside risks include prolonged global tightening of monetary policy and the resulting drag on global growth that could dampen demand for Africa's exports and investment flows.

- **A mix of short term and medium to long-term policies is needed to accelerate and sustain the growth momentum in Africa.** In the short term: A clearly communicated anti-inflation monetary policy, supported by prudent fiscal policy will achieve lower inflation faster at minimum cost to the economy. Macroprudential policies to build capital and liquidity buffers to supplement monetary policy actions will be necessary to address financial stability risks and maintain price stability. Coordinated debt treatment strategy between official and private creditors is key to avoiding debt crisis, given tight global financial conditions and a bunching of debt service payments.

In the medium to long term: Scaling up domestic revenue mobilization is critical to restore fiscal sustainability and finance inclusive growth and sustainable development. Enacting strategic industrial policies to accelerate economic diversification in Africa would limit the effects of recurrent headwinds and the transmission of global shocks to growth. Boosting regional trade would enhance Africa's resilience to spillovers from global economic growth slowdown and reduce the persistent trade deficit. Reforming the global financial and debt architecture would reduce the cost, time, and legal complications associated with debt restructuring for African countries. Governance reforms should strengthen public financial management to deal with increased debt and tight fiscal space.

## GROWTH PERFORMANCE AND OUTLOOK

### Africa remains resilient amidst multiple shocks with average growth projected to stabilize at 4.1 percent in 2023–24, higher than the estimated 3.8 percent in 2022

The pace of economic recovery in Africa was dampened by tightening global financial conditions, elevated inflation, and supply chain disruptions stoked by Russia's prolonged invasion of Ukraine and subdued global growth. The effect of these factors was reinforced by growing impact of climate change and extreme weather events. Average growth of real gross domestic product (GDP) was estimated at 3.8 percent in 2022, down from 4.8 percent in 2021 but above the global average of 3.4 percent.

Updated estimates also show that growth in 31 of the continent's 54 countries, including the two biggest economies, Nigeria, and South Africa, weakened in 2022 and three countries—Libya, Sudan, and South Sudan—went into recession and faced prolonged growth decelerations sparked by internal imbalances and COVID-19. Libya also experienced declines in oil production due to blockades of several major ports and oil fields by protests that began in April 2022. In addition to the three countries experiencing a recession, three others recorded rapid growth deceleration: Morocco (6.8 percentage points), Botswana (6.1 percentage points), and Zimbabwe (5.5 percentage points). Morocco's deceleration was attributed to a drought, and Botswana's to declines in both mining and non-mining output and an ebbing base effect. Zimbabwe's growth slowdown was attributed to low agricultural output due to drought and persistent domestic macro-economic imbalances.

Despite the persistence of shocks, Africa will consolidate its economic recovery, with growth projected to stabilize at 4.1 percent in 2023–24, 0.1 percentage points higher than the earlier projection of 4.0 percent reported in January 2023 edition of *Africa's Macroeconomic Performance and Outlook* (figure 1.1 and appendix table A1.1).<sup>2</sup> Growth in 18 African countries, including 5 of the world's 10 fastest growing economies before the

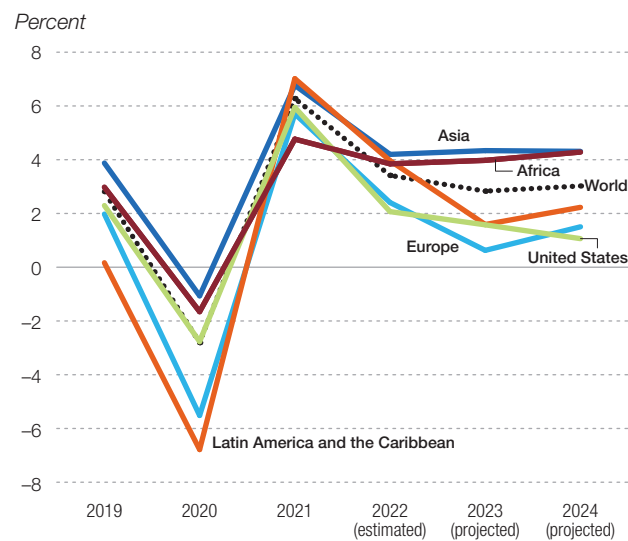
pandemic, is projected to exceed 5 percent in 2023, and the number of countries with growth exceeding 5 percent is expected to rise to 22 in 2024. However, Equatorial Guinea, in recession for most of the past decade due to maturing oil fields and low investment, could remain so even in 2024.

Africa's projected growth for 2023–24 will be stronger than Europe's and the global average but will lag Asia's (4.3 percent), which is likely to benefit from the rebound in China. The April 2023 edition of the International Monetary Fund's *World Economic Outlook* projects global growth to decline from an estimated 3.4 percent in 2022 to 2.8 percent in 2023 (see figure 1.1). The projected weakness in global growth reflects persistence of shocks just highlighted above and is expected to continue to impact investment flows to Africa and demand for its exports. But China's reopening and economic rebound and associated impact on Asia's overall growth could shore up the demand for Africa's commodities. Asia accounts for almost half of the continent's merchandise exports.

The pulse of economic activity gauged by evolution in high frequency leading indicators such as the Purchasing Managers' Index (PMI) also suggests a deceleration in four of Africa's top six economies in 2022 (figure 1.2). The PMI values for Egypt, Kenya, Nigeria, and South Africa, which constitute half of the continent's GDP, have generally trended

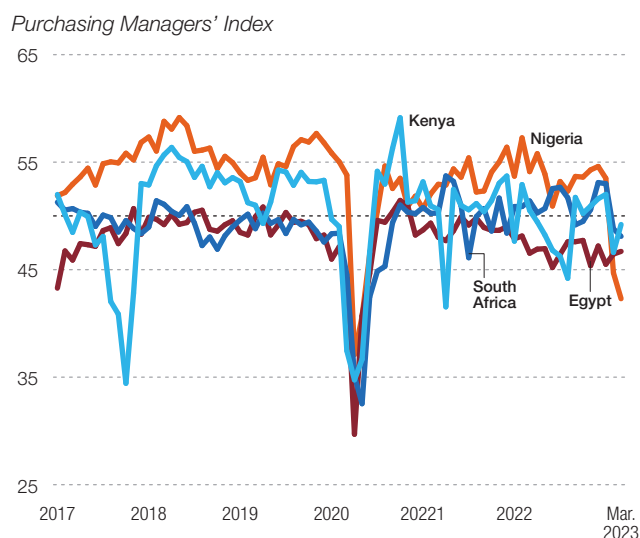
Average growth of real gross domestic product in Africa was estimated at 3.8 percent in 2022, down from 4.8 percent in 2021 but above the global average of 3.4 percent

FIGURE 1.1 Real GDP growth, 2019–24



Source: African Development Bank statistics and IMF 2023.

**FIGURE 1.2** Purchasing Managers' Index in Africa, 2017–March 2023



Source: Haver Analytics and IHS Markit.

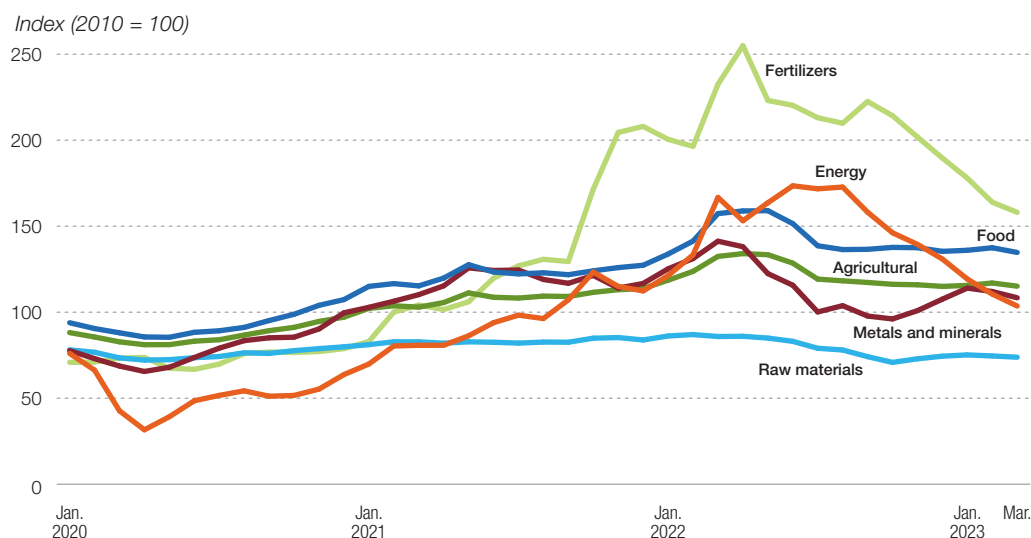
downward since March 2022, an indication of subdued economic activity. The PMI values reinforce the estimated growth slowdown in Africa in 2022. For instance, between March and December 2022, Egypt's PMI declined by 4.3 percent year-on-year, compared with an increase of 6.4 percent during the same period in 2021. Similarly for Kenya, the year-on-year PMI values also declined by

3.2 percent in 2022, against growth of 5.2 percent in 2021. The annual decline in Nigeria (0.5 percent) was less severe than others, relative to an increase of 9.6 percent in 2021. In South Africa, the growth rate of PMI in the same period declined by 11.3 percentage points to 1.6 percent, from 12.9 percent.

The underwhelming PMI performance partly reflects structural weaknesses, and the interest rate hikes to tame spiraling inflation in these countries. In South Africa, power outages have affected virtually all sectors of the economy, from retail and other services to manufacturing and mining, further exacerbating the effects of the subdued external demand and tight monetary policy. South Africa's economy might barely escape a recession, with growth projected at 0.2 percent in 2023. Nigeria's infrastructure challenges and rising insecurity have hit oil production, with spillover effects to non-oil sectors. Low oil production eroded the positive price effect of high global oil prices, while rising global prices of food and fertilizer fed into already elevated inflation. Growth in Nigeria is projected to remain subdued at about 3.3 percent in 2023–24.

Following Russia's invasion of Ukraine in February 2022, commodity prices rose immediately in March 2022 (figure 1.3) and peaked within a few months. However, prices have since declined to below pre-invasion levels. The decline is largely attributed to weak global demand. At end March

**FIGURE 1.3** Global commodity price indices, January 2020–March 2023



Source: AfDB staff calculations based on the World Bank Commodity database.

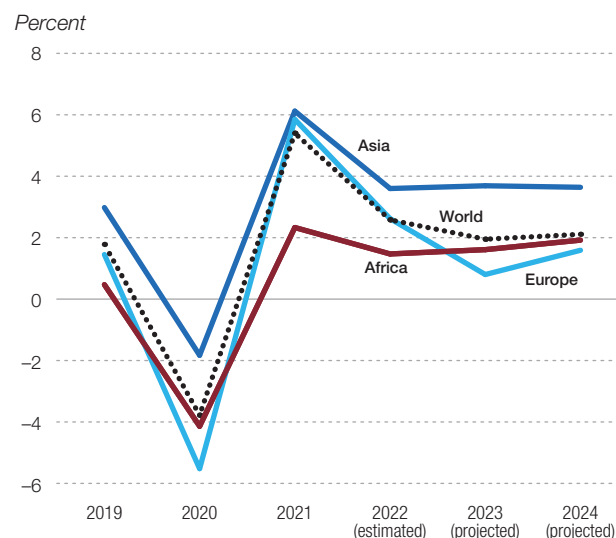
2023, the energy price index was 69.9 percentage points lower than its peak in June 2022, while the food price index was 24.3 percentage points lower than its peak in May 2022. The price index for fertilizers followed a similar pattern, declining by 77 percentage points from a peak of 255 in April 2022 to 178 in January 2023. But prices for metals and minerals have since risen from their trough in October 2022, mainly because of renewed demand in Asia and particularly in China, driven by increased construction and manufacturing activity after the country's reopening. Evolution in global commodity prices remains uncertain however, and the current levels could quickly reverse if Russia's invasion of Ukraine were to escalate further or linger for much longer. The early April 2023 surprise decision by OPEC+ to cut oil production by more than one million barrels a day could also stoke a rise in oil prices.

Financial markets in advanced economies remain volatile in response to inflation and central bank actions (figure 1.4). Major equity markets have edged up on expectations of interest rate cuts, as fears of persistent inflation and recession ease and improve the outlook, though with considerable uncertainty. Capital gains from rising equity markets in advanced economies have not translated into corresponding improvements in economic

activity, as reflected in the projected slower growth in advanced economies in 2023 and 2024.

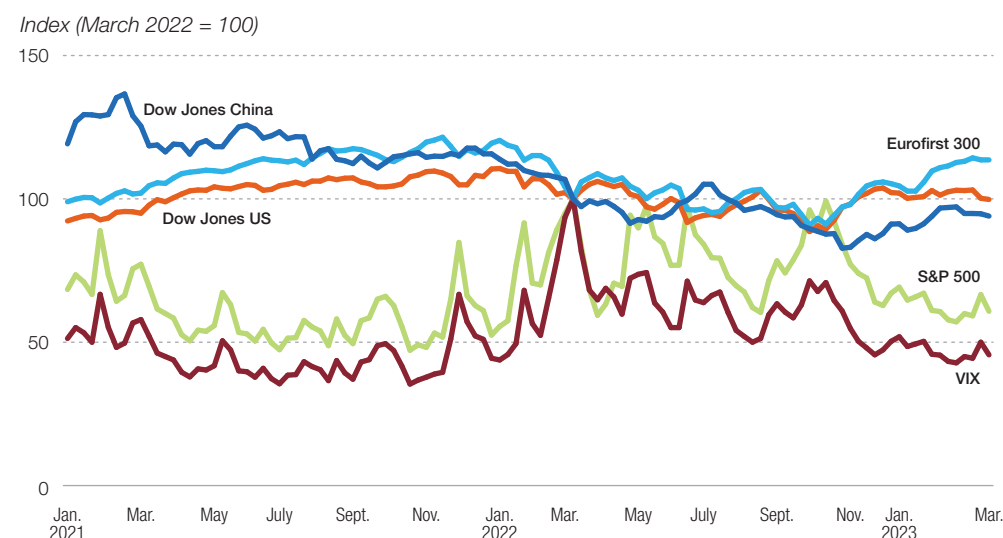
The growth momentum of per capita income in Africa remains sluggish (figure 1.5), and the continent faces a major threat to reversing the increase in poverty over the past three years. In 2022, per capita income grew by 1.5 percent,

**FIGURE 1.5 Real GDP per capita growth, 2019–24**



Source: African Development Bank statistics, World Economic Outlook Update, April 2023, and United Nations Population Division estimates.

**FIGURE 1.4 Leading global capital market indices, January 2020–March 2023**



Note: VIX is the Chicago Board Options Exchange's CBOE Volatility Index.

Source: African Development Bank statistics and Haver Analytics.

Household consumption spending, historically the key driver of growth on the demand side, weakened in 2022. It contributed 3.3 percentage points, or 86 percent, of the estimated 3.8 percent growth

shedding 0.8 percentage points from the 2.3 percent recorded in 2021. It's expected to recover to about 1.8 percent in 2023–24 but will lag growth in Asia (3.7 percent) and globally (2 percent). Africa's high population growth rate—estimated at 2.4 percent a year—continues to weigh on per capita income growth, particularly in an environment where economic growth has remained subdued for a prolonged period. At the current rate of per capita income growth, Africa's convergence with Asia and other fast-growing regions will remain elusive. Its socioeconomic transformation will thus fall further behind other regions, unless growth is accelerated and sustained at higher rates than those registered in the 1990s and 2000s.

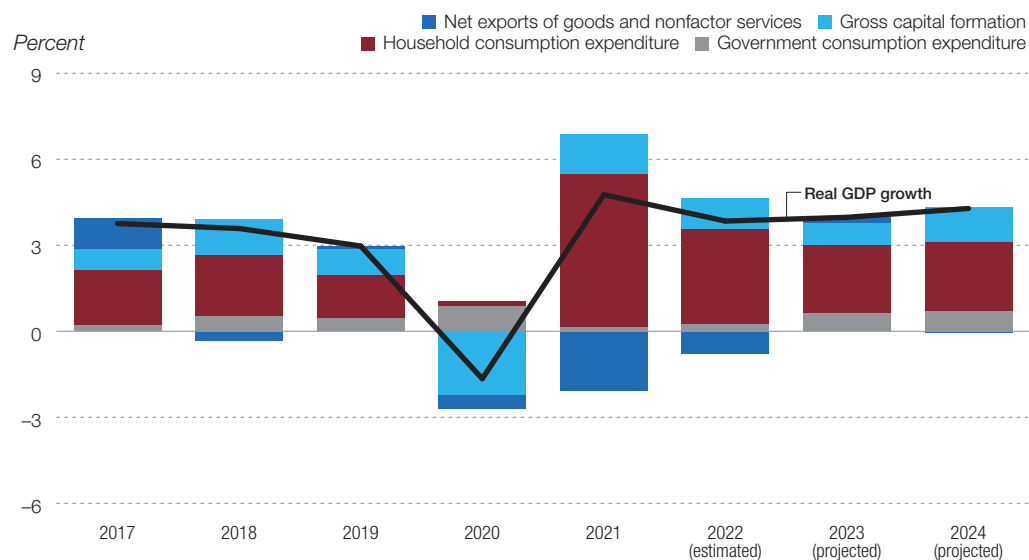
### Sectoral and demand-side decomposition of growth

The slowdown in growth in 2022 partly reflects weakness in private consumption and investment on the demand side and in the industrial sector on the supply side. Household consumption spending, historically the key driver of growth on the demand side, weakened in 2022. It contributed 3.3 percentage points, or 86 percent, of the estimated 3.8 percent growth (figure 1.6). But this was lower than the 5.3 percentage points (equivalent to 112 percent) contribution to growth for that year. Despite the decline, the contribution is an

improvement over pre-pandemic levels—50.0 percent in 2019 and average of 58.2 percent in 2014–18. Much of the decline in private spending is due to relatively high commodity prices and tight monetary policy, which eroded household purchasing power. These factors could further push down the contribution of household consumption spending to 2.4 percentage points in 2023–24.

The slack in household consumption spending was offset by a slight improvement in the contribution of net exports to growth while the share of private investment fell. Net exports shed 0.8 percent of growth, lower than the 2.1 percent for 2021. In contrast, the contribution of gross capital formation, although positive, declined to 1.1 percent from 1.4 percent the previous year. The combination of government consumption spending remained flat, at 0.2 percent, for the second consecutive year. This is a pullback from pandemic-induced expansionary fiscal policy, when government consumption spending added nearly 1 percent to growth in 2020. Continued improvement in public revenues bodes well for a recovery in the contribution of government spending to overall growth, projected at 0.6 percent in 2023 and rising further to 0.7 percent in 2024. Investment's contribution to growth may pick up only in 2024, at 1.2 percent, after falling to 0.8 percent in 2023 from 1.1 percent in 2022.

**FIGURE 1.6** Demand-side decomposition of GDP growth, 2017–24



Source: African Development Bank statistics.



On the supply side, the contribution of services to growth remained flat in 2022—at 2.6 percentage points. This represented about 68.9 percent of the sectors' contribution and was the most dominant driver of growth (figure 1.6). The contribution of the services sector is expected to remain higher than in other sectors, but its share will decline to about 2.3 percentage points in 2023 and 2024, mainly due to continuing tight financial conditions. High interest rates have affected growth in private sector credit, with the net effect reflected in the lower contribution of financial services to services growth.

After rebounding strongly in 2021, the contribution of industry to growth more than halved to 0.5 percentage points in 2022 from 1.2 percentage points. This fall in industry's share was mainly attributed to high energy input prices and the higher cost of other imported raw materials, fueled by exchange rate passthrough effects and supply chain disruptions. Persistent domestic structural weaknesses such as power outages and transport costs added further challenges to industrial activity. Improved supply chains and lower commodity prices could ease some of these challenges, boosting industry's contribution back to an average of 1.2 percentage points in 2023 and 2024. Agriculture's contribution to growth has been flat at 0.6 percentage points for most part

of the last six years, and it is expected to remain unchanged in the medium-term.

## Growth performance and outlook across regions and countries

### *Economic performance in Africa exhibits marked cross-regional variations*

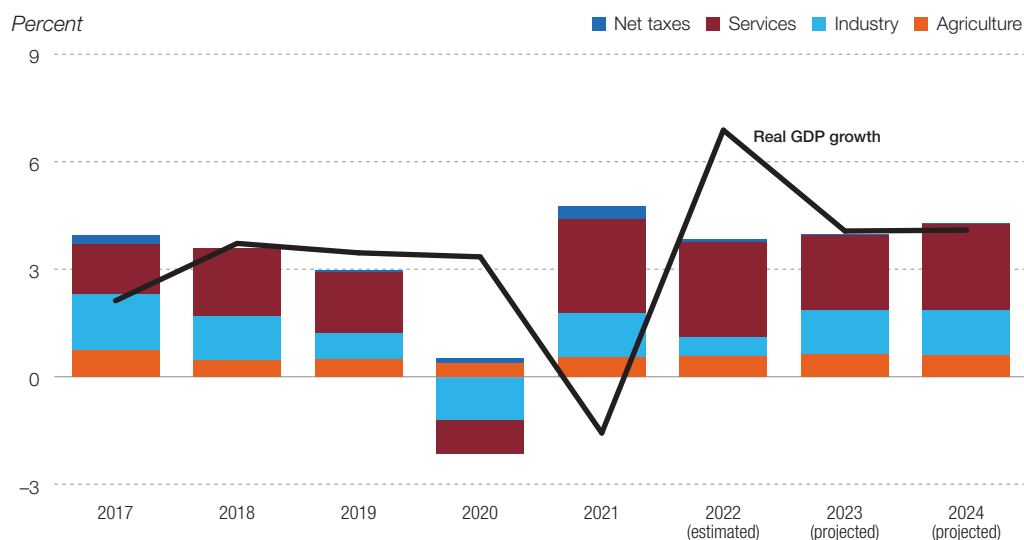
Africa's economic performance exhibits cross-regional variations, largely reflecting differences in the economic structure, commodity dependence, different exogenous shocks, and the domestic policy responses to mitigate the impact of these shocks (figure 1.7).

### Central Africa

Growth in Central Africa is estimated to have risen to 5 percent in 2022 from 3.4 percent in 2021, benefiting from high commodity prices. Central Africa mainly comprises net exporters of crude oil, minerals, and other commodities such as timber. Growth is projected to moderate to 4.9 percent in 2023 and stabilize at 4.6 percent in 2024 as global commodity demand picks up and domestic conditions improve, supporting investment, after the weak performance induced by the COVID-19 pandemic. The projected growth in 2023–24 will be underpinned by sustained growth in the Democratic Republic of the Congo

After rebounding strongly in 2021, the contribution of industry to growth more than halved to 0.5 percentage points in 2022 from 1.2 percentage points

**FIGURE 1.7** Sectoral decomposition of GDP growth, 2017–24



Source: African Development Bank statistics.

(36 percent of Central Africa's GDP), the region's top performer, with real GDP growth exceeding 6 percent since 2021. That growth has benefited from scaling up investments and exports in the mining sector. Cameroon and Congo will also sustain their growth momentum, at rates averaging above 4 percent in the medium term. In contrast, after a recovery in 2021, Equatorial Guinea faces a prolonged recession extending into 2024, as the country grapples with declining hydrocarbon output from maturing operational oilfields and tightening global financial conditions hindering investments in new oil and gas fields.

### East Africa

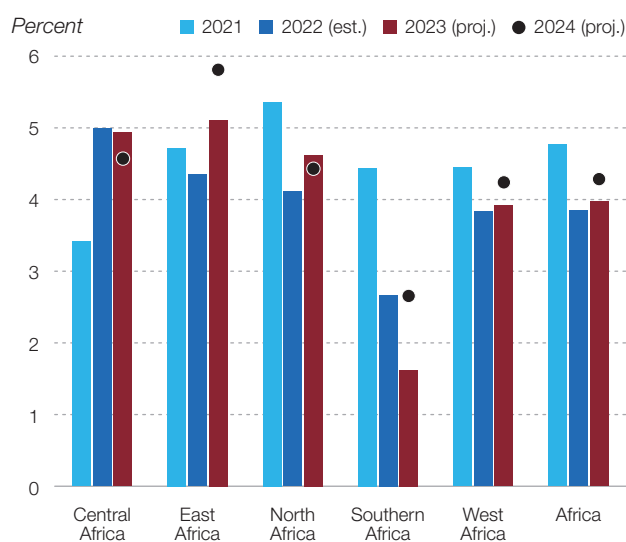
East Africa has experienced better economic performance and was the only region that escaped a recession during the pandemic, underpinned by its more diversified production structure. Its growth momentum moderated to 4.4 percent in 2022 from 4.7 percent in 2021 but is projected to rise strongly to 5.1 percent in 2023, firming up to 5.8 percent in 2024. Since most countries in the region are net importers of commodities and bear the brunt of high international prices, especially for energy and food, high commodity prices often translate into slower growth, as in 2022, and this remains a concern for the medium-term outlook. The region is also prone to recurrent climate

shocks such as drought, particularly in the Horn of Africa, and pockets of fragility, including internal conflicts. The slowdown in 2022 was attributed mainly to these shocks, exacerbated by disruptions to global supply chains. Tight monetary and fiscal policy to rein in inflation has also constrained domestic consumption, compounded by contractions in agriculture and manufacturing activities, weak growth in credit to the private sector, and the rise in public debt.

Growth in the region is expected to consolidate at above 5 percent in the medium term. High growth will be anchored on Ethiopia, Rwanda, and Uganda (which together account for 41 percent of the region's GDP). Rwanda has consistently grown by 7 percent or more, except in 2020, and is projected to sustain this momentum in 2023 and 2024. Growth in Rwanda will be driven by higher public infrastructure spending and mineral exports, boosted by value addition in minerals through enhanced investment. Uganda and Ethiopia are also projected to grow strongly in 2023 and 2024, exceeding 5 percent on account of developments in the oil sector for Uganda and continued infrastructure spending for Ethiopia. Djibouti, Kenya, and Tanzania are also expected to sustain their recent gains. Sudan's projected higher growth of 2 percent in 2023 and 3.8 percent in 2024 is subject to downside risks, including the political impasse. South Sudan may not return to positive growth until 2024.

East Africa was the only region that escaped a recession during the COVID-19 pandemic, underpinned by its more diversified production structure

**FIGURE 1.8** GDP Growth in Africa, by region, 2021–24



Source: African Development Bank statistics.

### North Africa

Growth in North Africa is estimated to have declined by 1.3 percentage points to 4.1 percent 2022. It was hit by the sharp contraction in Libya (6 percent of the region's GDP) and the effects of drought in Morocco (13 percent of the region's GDP). Higher growth is projected in 2023–24 at an average of 4.5 percent, supported by strong recovery in these two countries and consolidating the gains in others. For instance, Libya's growth is projected to increase to 8.0 percent in 2024, from the contraction of 12.1 percent in 2022, boosted by better oil production. Similarly, Morocco's growth rate is projected to more than double to 3.5 percent in 2024, from 1.1 percent in 2022, reflecting waning effects of the earlier supply-side shock on the economy.

However, the region remains vulnerable to significant headwinds, including climate shocks and fluidity in Libya's political situation. These factors and persistent social challenges pose significant risks to the region's economic outlook. Yet the region has immense potential to meet its own energy needs and to serve as an alternative source for the European Union's oil and gas needs, given its proximity to Europe and the European Union's shift away from Russia's oil and gas.

### **Southern Africa**

Southern Africa faces significant headwinds to growth, ranging from structural weakness in South Africa, high debt in Zambia and Zimbabwe, and adverse weather conditions, including cyclones in Malawi and Mozambique. Growth is therefore estimated to have remained tepid in 2022, declining to 2.7 percent from 4.4 percent in 2021. South Africa, the region's largest economy (60 percent of the region's GDP) and main trading partner, recorded a 2 percent real GDP growth in 2022, less than half the growth rate in 2021 (4.9 percent), due to subdued global demand, power outages, and devastating floods that affected industrial production in Kwa-Zulu-Natal.<sup>3</sup> A build-up in inflationary pressures also affected household consumption spending, a key driver of growth in South Africa. South Africa's close trade ties with other countries in Southern Africa means that shocks buffeting the country are transmitted to the rest of the region. Countries in the Common Monetary Area<sup>4</sup> and the Southern African Customs Union<sup>5</sup> experience near-symmetrical shocks to those affecting South Africa.

Protracted delays in addressing South Africa's worsening energy crisis, coupled with operational and financial weaknesses in state-owned entities and slow progress in implementing reforms, will keep the country's growth below emerging market peers. Growth in the region will thus remain subdued, with real output projected to decelerate to 1.6 percent in 2023 before rising to 2.7 percent in 2024. Higher growth for the region as a whole is projected in 2024, largely reflecting post-Idai recovery in Mozambique, which is projected to expand by 3.5 percentage points to 8.3 percent. Faster debt resolution in Zambia could also unlock stalled investments and cement macroeconomic

stability, providing a boost to the country's growth, which is projected to accelerate to an average of 4.1 percent, above the 2022 estimate of 3.0 percent. Favorable weather conditions after a series of droughts could support growth in Madagascar, projected at 4.2 percent in 2023 and 5 percent the following year.

### **West Africa**

Growth in West Africa is estimated to have slowed to 3.8 percent in 2022 from 4.4 percent in 2021. All countries except Cabo Verde, The Gambia, Guinea, Mali, and Niger, recorded growth decelerations in 2022. The region's smaller economies will thus anchor average regional growth to 3.9 percent in 2023 and 4.2 percent in 2024. Of the nine countries with projected growth rates of 5 percent or higher in 2024, eight are small economies, accounting for 15 percent of the region's GDP and 21.9 percent of the projected growth. This will offset the subdued growth in two of the region's biggest economies, Ghana and Nigeria.

Weighed down by growing macroeconomic imbalances—high inflation, depreciating local currency, and high public debt estimated at 91 percent of GDP—growth in Ghana is projected to decline to an average of 2.4 percent in 2023–24, from 3.3 percent in 2022. Similarly, Nigeria's growth is projected to stabilize at 3.3 percent in 2023–24, unchanged from 2022, reflecting structural weaknesses in the oil sector and deep macroeconomic imbalances—near 20-year high inflation, foreign exchange shortages that drove rapid depreciation of the national currency, and effects of local currency shortages that affected the country in the first quarter of the year. In Côte d'Ivoire, investment in strategic logistics infrastructure, expanded construction projects to meet growing urbanization and infrastructure in preparation to host the 34th edition of the Africa Cup of Nations in January 2024, and planned energy projects to enhance the country's renewable energy sector, are projected to boost growth from an estimated 6.7 percent in 2022 to 7.1 percent in 2023–24.

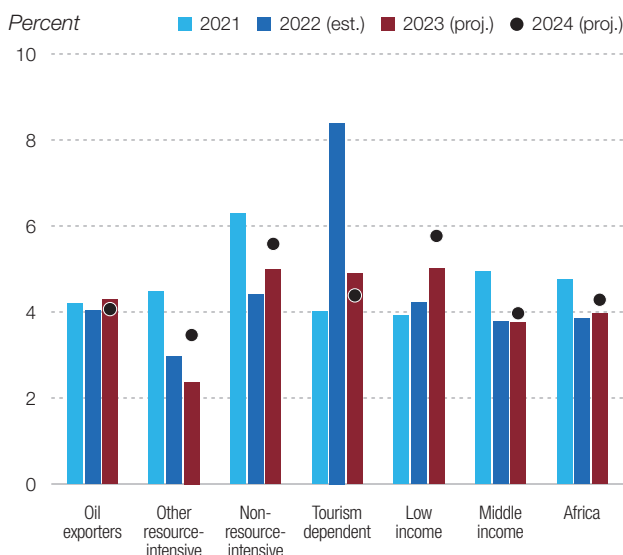
### **Country groupings**

*Tourism-dependent economies* grew by an estimated 8.4 percent in 2022, sustaining the

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Growth declined to 2.7 percent in 2022 from 4.4 percent in 2021 in Southern Africa and to 3.8 percent in 2022 from 4.4 percent in 2021 in West Africa

**FIGURE 1.9 GDP Growth in Africa, by country grouping, 2021–24**



Source: African Development Bank statistics.

Average growth for *non-resource-intensive economies* declined to an estimated 4.4 percent in 2022 from 6.3 percent in 2021, weighed down by the effects of heightened inflation on household consumption and subdued global demand for exports. These economies represent about a quarter of Africa's GDP, and most of them are relatively more diversified than their commodity-dependent peers. However, agriculture remains the mainstay for most of them. Cabo Verde, Côte d'Ivoire, Mauritius, Rwanda, and Seychelles posted growth rates above 6.5 percent, and sustaining higher rates in these countries will accelerate medium-term average growth for non-resource-intensive economies to 5 percent in 2023 and 5.6 percent the year after. This expansion reflects the projected recovery in public infrastructure investment across the group and resilience due to diversified structure of the economies.

*Oil-exporting countries* have gradually recovered from the effects of the pandemic, but the momentum weakened slightly in 2022, with growth estimated at 4 percent, down from 4.2 percent in 2021. This slowdown is largely blamed on a sharp decline in Libya and weaker growth in Nigeria. Africa's oil-exporting countries account for about 51 percent of the continent's GDP, so their growth has a significant influence on Africa's average performance.

Nigeria, Africa's largest economy and top oil producer, accounts for about 30 percent of the output for this group of countries and about 15 percent of Africa's GDP. But it has suffered from a steady decline in oil production, due to aging infrastructure and rising pipeline vandalism. The negative output effect has thus offset any gains from higher prices of crude oil, impeding the sector's contribution to the country's growth.

With Nigeria's medium-term growth projected to remain tepid, much of the group's projected average growth of 4.2 percent in 2023–24 will be driven by strong recovery in Libya (13 percent average for the period) and consolidation in other countries. Efforts to shore up political stability in Libya and spur catalytic investment in oil sector could contribute to growth in Africa's oil exporters. Addressing insecurity and rehabilitating infrastructure as well as anticipated coming on stream

momentum from 2021 (figure 1.9). Growth was aided by the easing of travel restrictions that released pent-up tourism demand, evidenced by higher than expected rebound in the number of visitors. In 2022, tourist arrivals in Seychelles reached a total of 334,552, 82 percent higher than 2021 and exceeding the government's forecast of 258,000 arrivals.<sup>6</sup> Data from the United Nations World Tourism Organization indicates that international tourist arrivals in 2022 were 140 percent higher than the 19.4 million in 2021.

Tourist arrivals in Africa's major destinations were also boosted by domestic strategies, including the award of long-term temporary residency permits and suspension of visa requirements for high-end tourism markets such as Mauritius and Seychelles. These strategies reflect policy efforts to promote the sector to secure sustainable tourism revenues and employment. The full impact of the resumption of tourism activities and easing of residual minimal restrictions in international travel may, however, be offset by persistently high inflation and the impact of tight financial conditions on discretionary income in key tourist-source markets. On the back of these potential risks, growth is projected to slow to 4.9 percent in 2023, and if adverse global conditions persist, it could slow further to 4.4 percent in 2024.

**Tourism-dependent economies grew by an estimated 8.4 percent in 2022, sustaining the momentum from 2021**

of the Dangote oil refinery in Nigeria, could add further impetus to the group's future growth. Africa's oil exporters, with vast reserves, have the opportunity to capture European markets as well as other markets that rely on Russian oil. Considerable risks remain for the long term, however, as the net-zero transition gathers pace.

Falling commodity prices, especially for metals and other minerals, dampened performance in *other resource-intensive economies*. Average growth for the group declined to an estimated 3 percent in 2022 from 4.5 percent in 2021. The key factors for weaker growth include inadequate electricity generation, subdued household consumption spending due to high inflation, weak global demand, and high indebtedness. Growth in Botswana decelerated the most (6.1 percentage points), followed by Zimbabwe (5.5 points), Burkina Faso (3.7 points), South Africa (2.9 points), and Ghana (2 points). With the challenging economic situation in South Africa, average growth for this group is projected to remain subdued at a low of 2.4 percent in 2023, before strengthening to 3.5 percent in 2024, much lower than the continent's average. Growth in other countries for the group—Guinea, Liberia, Mali, Niger, and Tanzania—will be aided by the resumption of full-scale mining.

### Risks and upside factors of the growth outlook

The projected stabilization of growth in Africa in 2023 and 2024 is subject to headwinds and

tailwinds that could alter the outlook. The balance of risks is, however, tilted to the downside. The risk of geopolitical tensions both regionally and globally persists and this could affect Africa's projected medium-term growth. Globally, Russia's prolonged invasion of Ukraine remains a key source of uncertainty, and any further escalation could exacerbate already strained supply chains and reverse the recent decline in global commodity prices. This could affect growth in Africa's net commodity-importing countries. Within Africa, conflicts in some of Africa's hotspots—such as Burkina Faso, Democratic Republic of Congo, Ethiopia, Mali, and Mozambique and the security situation in Sudan—present challenges for political stability and continue to put undue fiscal strain on these countries due to increased security spending, while disrupting investment flows and tourism activity. The rise in the cost of living due to elevated prices has also sparked social unrest (box 1.1) and could unravel the continent's hard-earned stability. General elections scheduled for 2023 and 2024 in several African countries could disrupt economic activity through increased political risks. The other outstanding downside risks to the growth outlook include the prolonged tightening of global financing conditions, slower than expected global recovery that could dampen demand for Africa's exports, potentially reversing financial flows and elevating risks of debt distress.

The tailwinds to the outlook include a faster than expected rebound in China's growth, which could spill over and accelerate growth in the

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Any further escalation of Russia's prolonged invasion of Ukraine could exacerbate already strained supply chains and reverse the recent decline in global commodity prices—which could affect growth in Africa's net commodity-importing countries

#### BOX 1.1 Increasing food and energy prices led to heightened social unrest in Africa

Russia's invasion of Ukraine in February 2022 created significant disruptions to already strained global supply chains, impacting food and energy prices globally and across the continent. Higher food and energy prices have eroded household's purchasing power and increased incidence of poverty. This has fueled social unrest across Africa as people protested against the rising cost of living and insufficient (or lack of) policy responses to protect citizens. More than 400 events of social unrest recorded in Africa in 2022 were directly related to rising food and energy prices. By end of February 2022, there were 45 price-related incidents, close to three times more than in January 2022 (box figure 1.1.1, left panel).

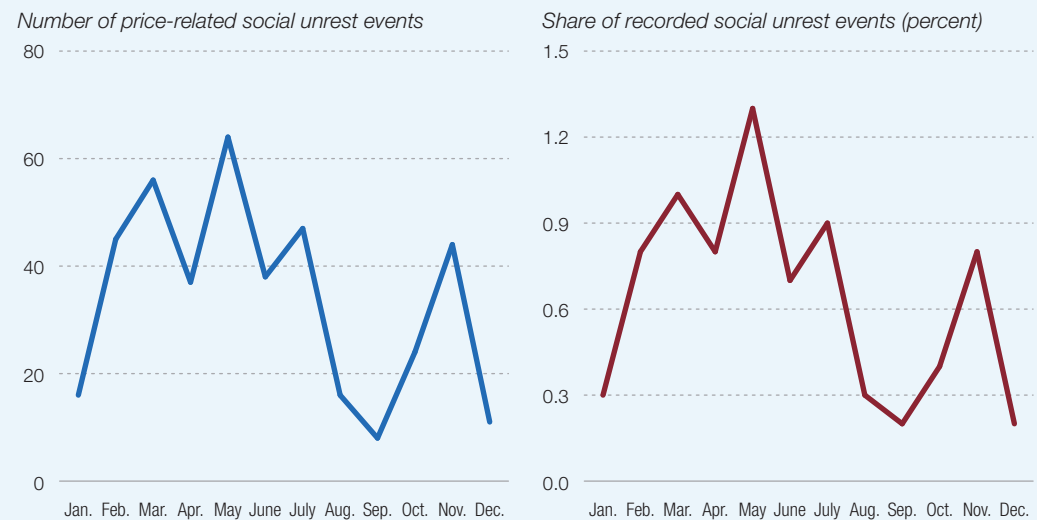
Between March and July 2022, at the peak of Russia's invasion of Ukraine and disruptions to global commodity prices, price-related social unrest was at the highest, hovering at about  
*(continued)*

**BOX 1.1 Increasing food and energy prices led to heightened social unrest in Africa** *(continued)*

1 percent of all recorded social unrest events in Africa (box figure 1.1.1, right panel). Although price-related social unrest temporarily increased in October and November 2022, it has not reached the average levels during the first half of 2022, as global and domestic prices stabilized and policy responses announced by most African governments during the first half of 2022 gained some traction.

Most price-related social unrest was in the form of protests (80 percent), while 17 percent of protests turned into riots with less than 1 percent leading to violence against civilians by security forces. Most protests were peaceful (84 percent) while about 16 percent of them required intervention from police and other security forces. Across the continent, most price-related riots were violent demonstrations (94 percent) leading to the arrests and/or injuries of protesters, and a few triggered mob violence.

**BOX FIGURE 1.1.1 Monthly price-related social unrest in Africa in 2022**



Source: Staff calculations based on The Armed Conflict Location and Event Data Project databases.

With domestic inflation expected to increase in Africa at 15.1 percent in 2023 from 14.2 percent in 2022, it is likely that the frequency of protests, riots, and other forms of social unrest due to rising cost-of-living will increase. Curbing the prevalence of these events will require faster and more effective public policy responses to the rising inflation that has eroded living conditions. Additional social safety nets and other social protection programs will be urgently needed to support vulnerable households, including those affected by policy reforms.

rest of Asia and the global economy. That would increase demand for Africa's exports, boosting growth. More effective monetary policy in tackling inflation in Africa and globally would mean a faster exit from the cycle of aggressive policy tightening and toward more support for the economy and livelihoods. Reducing the pace of US monetary

tightening could also halt appreciation of the US dollar, providing a respite for African currencies. Ongoing efforts by the global coalition on climate change to mobilize resources to combat the effects of climate change could lessen physical impacts and create fiscal space to invest in greening Africa's economies.

## OTHER MACROECONOMIC DEVELOPMENTS AND OUTLOOK

### Exchange rates, inflation, and monetary policy

*Tighter global financial conditions have destabilized the foreign exchange markets of most African countries*

As the US dollar serves a global reserve currency and a prominent international medium of exchange, its appreciation for most of 2022 (figure 1.10) in response to the US Federal Reserve's resolve to keep raising policy rates to rein in persistently high inflation continues to adversely affect economies across the globe. With more than half of Africa's countries dependent on imported cereals and grains, and the continent being a net importer of hydrocarbon fuels for its energy needs, the strengthening of the US dollar is amplifying inflationary stresses from the significant spikes in global food and energy prices following Russia's invasion of Ukraine. The prospects of a prolonged invasion of Ukraine and the recent increase in oil prices point to continuing pressure on African

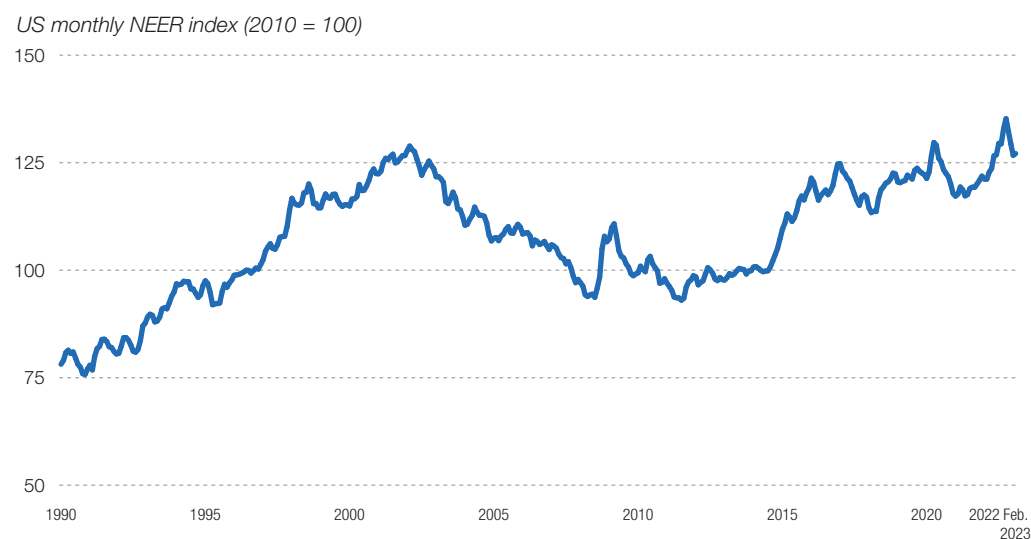
currencies and increasing inflationary pressures, particularly in countries where climate-driven weather disasters have had a negative impact on the growing season.

In light of the strong appreciation of the dollar, exchange rate dynamics in Africa were mixed, with the majority of the continent's currencies depreciating against the US dollar in 2022 (figure 1.11). Beyond the spike in inflationary pressures, the US Federal Reserve's aggressive interest rate hikes in 2022 heightened global uncertainty and contributed to investors exiting assets of emerging market economies, including African currencies, toward safe US treasuries.

All of Africa's leading commodity-exporting countries except Angola, with a 27.1 percent appreciation of its local currency, experienced sustained exchange rate depreciations despite higher international commodity prices in 2022. Depreciation rates varied from 75 percent in South Sudan, whose currency weakened following exchange rate reunification and a further deterioration in its economic and political situation, to 22.5 percent in Egypt, 6.2 percent in Nigeria, and 5.1 percent in Algeria. In Egypt, the authorities' decision to move to a more flexible exchange

In light of the strong appreciation of the dollar, exchange rate dynamics in Africa were mixed, with the majority of the continent's currencies depreciating against it in 2022

**FIGURE 1.10** Movement in the US dollar nominal effective exchange rate

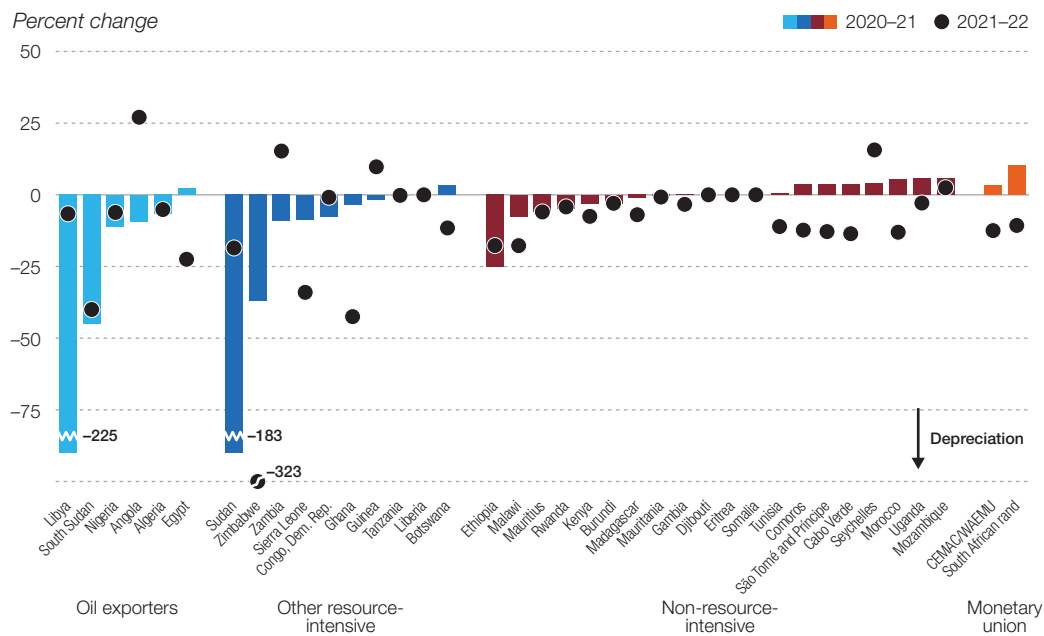


Note: The NEER is a measure of the value of a currency against a weighted average of several foreign currencies. An increase in the NEER indicates an appreciation of the local currency against the weighted basket of currencies of its trading partners.

Source: Staff calculations based on IMF International Financial Statistics (IFS) data.

All of Africa's leading commodity-exporting countries except Angola, with a 27.1 percent appreciation of its local currency, experienced sustained exchange rate depreciations despite higher international commodity prices in 2022

FIGURE 1.11 Exchange rate changes, 2020–21 and 2021–22



Note: CEMAC is the Central African Economic and Monetary Community. WAEMU is the West African Economic and Monetary Union.

Source: African Development Bank statistics.

rate regime as part of the reforms under the IMF-supported program led to a sharp decline of the Egyptian pound. In Algeria, after a devaluation, the dinar has started to appreciate in both nominal and real terms. In Nigeria and South Sudan, foreign exchange supply constraints stoked a widening of the premium between the official exchange (commonly referred to as the investor and exporter rate in Nigeria) and the parallel market exchange rate. In Nigeria, the parallel market exchange rate depreciated by nearly a third year-on-year, dwarfing the 6.2 percent depreciation for the official rate. This widened the premium between the two rates by about 70 percent.

Among the currencies of other resource-intensive countries—Zimbabwe’s dollar, Ghana’s cedi and Sierra Leone’s leone—were among Africa’s weakest currencies in 2022, respectively depreciating by around 323.4, 42.5, and 34 percent against the US dollar. The rapid fall in value of the Zimbabwean dollar is due mainly to the effects of the economic sanctions imposed by the United States and the European Union and prevailing global economic conditions. In Ghana, the first-order effects of declining investor confidence

about the sustainability of the country’s debt and conclusion of its debt restructuring strategy led to the sharp depreciation of the cedi. Currency depreciation pressures were significant for Sierra Leone’s leone (down 34 percent against the US dollar) and the Sudanese pound (down 18.5 percent). Both countries are experiencing severe macroeconomic imbalances, including constrained revenues and weak investment flows.

The currencies of Botswana, Cabo Verde, Comoros, Ethiopia, Malawi, Morocco, São Tomé and Príncipe, South Africa, Tunisia, and the Monetary Union (CEMAC/WAEMU<sup>7</sup>) depreciated by more than 10 percent against the US dollar, due to global risk aversion and waning investor confidence. Currency weaknesses in some of Africa’s major economies—Kenya, Nigeria, and South Africa—are expected to persist in 2023, due largely to tighter global financial conditions and weak external demand. For most of Africa’s dollar-denominated debt, currency depreciations pose a significant downside risk for debt management and sustainability in a continent where external debt stock—including bonds, syndicated loans, and bilateral borrowing—surged to \$466 billion in



2022. This wave of depreciations could be contained if countries continue to strengthen their monetary policies in the face of tighter financial conditions in advanced countries, though further tightening could exacerbate the already high cost of capital and halt economic recovery.

Although most African currencies lost substantial value against the dollar during 2022, some gained or remained stable. Among the best performing currencies, Angola's kwanza appreciated by more than 27.1 percent year-on-year against the US dollar in 2022, reflecting the combined effects of higher oil revenues, improved credit rating by major rating agencies, and more accommodative monetary policy. The Zambian kwacha was also bolstered following creditors' agreement to restructure the country's external debt, which triggered approval of the International Monetary Fund's three-year \$1.3 billion Extended Credit Facility. The resultant investors' favorable outlook for Zambia's macroeconomic situation boosted the kwacha, which appreciated by 15.3 percent year-on-year against the US dollar in 2022. Seychelles' exchange rate appreciated by around 15.6 percent against the US dollar in 2022, mainly

due to the resumption of tourist activities and the associated increase in foreign exchange inflows.

*The build-up of inflationary pressures in 2022 is expected to ease gradually in the medium term as tight monetary policy interventions gain traction*

Global supply chains remain weak (figure 1.12), partly reflecting Russia's persistent invasion of Ukraine, which is keeping global commodity prices and inflation elevated. The standard deviation of the Global Supply Chain Pressure Index averaged 2.10 in 2022, significantly higher than the average of -0.07 in 2019 before the COVID-19 pandemic. Global supply chain pressures remain a major concern for global commodity prices and inflation, even with weak global demand. In Africa, the prevailing global supply chain weaknesses are further amplified by structural bottlenecks in several countries.

The consumer price inflation in Africa rose by an estimated 1.3 percentage points to 14.2 percent in 2022 from 12.9 percent in 2021—a 0.5 percentage point revision from the estimated 13.8 percent in *Africa's Macroeconomic Outlook 2023* published in January. The strong rise of

In Africa, the prevailing global supply chain weaknesses are further amplified by structural bottlenecks in several countries

**FIGURE 1.12** Global Supply Chain Pressures Index



Note: Index scaled by its standard deviation. The Global Supply Chain Pressure Index (GSCPI) is a new measure of supply chain conditions, provided by the Federal Reserve Bank of New York. It is calculated by combining variables from several transportation and manufacturing indices, such as those related to delivery times, prices, and inventories. Source: Bureau of Labor Statistics; Harper Petersen Holding GmbH; Baltic Exchange; IHS Markit; Institute for Supply Management; Haver Analytics; Refinitiv; staff calculations.

Inflation in Africa is projected to increase further to a record 15.1 percent in 2023 but decline to 9.5 percent in 2024, close to the pre-pandemic levels of 9 percent in 2019 and 9.7 percent in 2014–18

inflation in Africa is due to domestic factors such as drought, expansionary public investment, and, more important, the direct effect of imported inflation, and external factors such as rising oil and food prices, exacerbated by supply chain disruptions. The rise in inflation was broad-based, surpassing central bank target rates for most countries with explicitly defined bands, except in Benin, Congo, Egypt, Eswatini, Liberia and Tanzania. Inflation reached at least double digits in 18 countries, including seven that have explicitly defined inflation targets, with the highest rates in Zimbabwe, Sudan, Ethiopia, and Ghana in that order (figure 1.13). Double-digit inflation persisted in East Africa (28.9 percent), West Africa (17.0 percent), and Southern Africa (12.6 percent) in 2022, and is expected to decline gradually to 17.7 percent, 11.3 percent, and 6.7 percent, respectively in 2024. While inflation in Central Africa and North Africa is low, it almost doubled in 2022 to 6.7 percent and 8.2 percent, from 3.9 percent and 4.6 percent, respectively, in 2021.

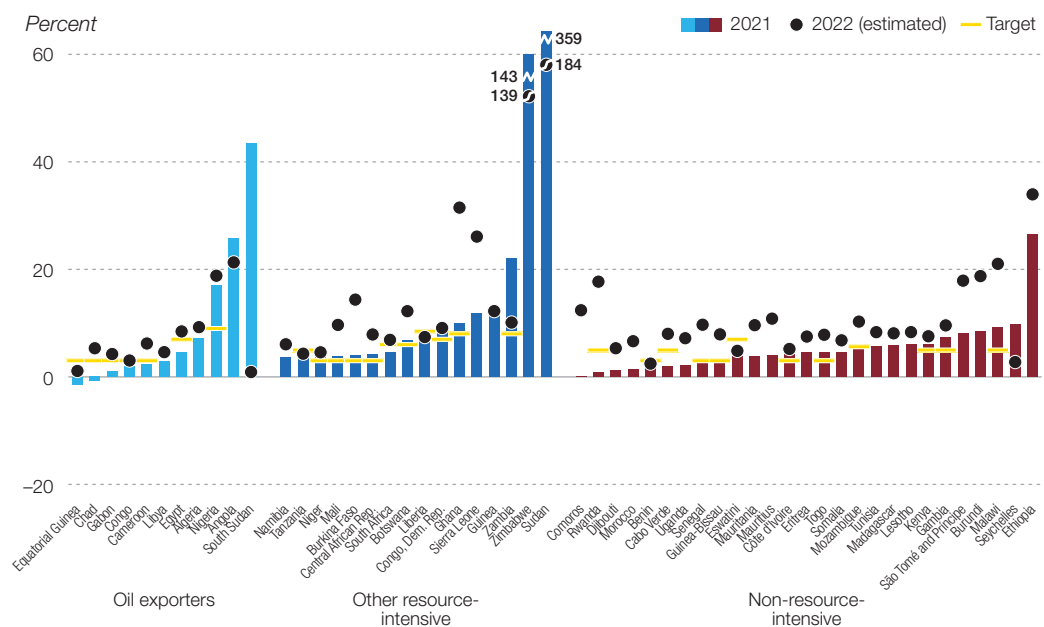
Inflation in Africa is projected to increase further to a record 15.1 percent in 2023 but decline to 9.5 percent in 2024, close to the pre-pandemic levels of 9 percent in 2019 and 9.7 percent in 2014–18. The projected increase in inflation in

2023 is largely attributed to prevailing structural weaknesses in most African countries—including supply chain constraints, output gaps, imported inflation—and an exchange rate passthrough from the stronger US dollar, despite declining international commodity prices. It is expected to increase in 2023 in North Africa (6 percentage points), Central Africa (1 point), and West Africa (0.5 point), and to decline in East Africa (7.1 points) and Southern Africa (2.6 points). The strong increase in North Africa is mainly attributed to developments in Egypt, where currency devaluations, foreign currency shortages, and import shortfalls continue to cause a surge in prices.

A decline in inflation is expected in 2024 in all regions and most countries, reflecting the expected benefits from the current cycle of monetary tightening. Despite the expectations of single-digit inflation in Africa in 2024, double-digit inflation could persist in East Africa (17.7 percent), West Africa (11.3 percent) and a few countries that have a history of high inflation such as South Sudan, Sudan, and Zimbabwe.

Africa’s non-inflation targeting countries have a history of higher inflation than their targeting peers (figure 1.14). Moreover, the recent confluence of shocks has caused significant

FIGURE 1.13 Consumer price inflation, 2021 and 2022



Source: African Development Bank statistics.

divergence in inflation rates among inflation targeting and non-targeting countries in the continent. At the peak of the pandemic in 2020–21, inflation in non-inflation targeting countries averaged 24.2 percent, more than triple the average of 7.1 percent rate for the targeters, compared with 10.2 percent and 9.4 percent respectively in the six years (2014–19) preceding COVID-19. Furthermore, while inflation rates in both targeting and non-targeting countries closely tracked each other and showed signs of convergence until 2019, the picture significantly changed during the peak of the pandemic in 2020–21 when disruptions to supply chains caused inflation to spiral out of control. For instance, in 2018–19, the average inflation rate for targeting countries was about 2.6 percentage points below their non-targeting counterparts. In 2020–22, the wedge had widened nearly sixfold to 15.5 percentage points. This suggests that, to a large degree, inflation targeting regimes in Africa have had strong policy levers and credibility to better anchor inflation expectations, even during periods of great economic uncertainty.

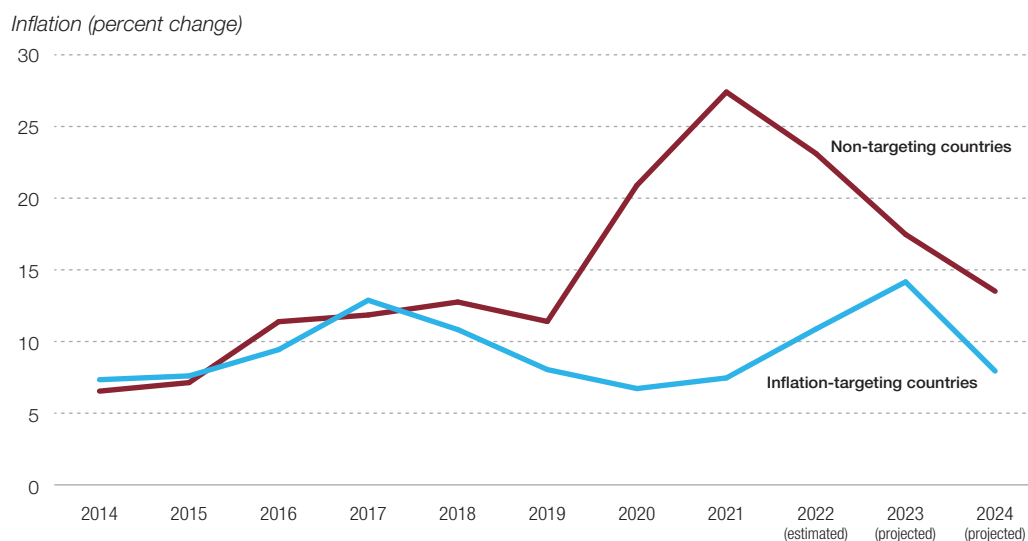
*As inflationary pressures remain high in 2023, policymakers in developed countries will continue to prioritize tight monetary policy*

Continued interest rate hikes, further tightening global financial conditions, raise the prospect of disruptive capital outflows from developing countries and emerging markets, currency depreciations, and rising servicing costs for foreign currency-denominated debt. Uncertainty about the easing of interest rate hikes persists, with the March 2023 increase by the US Federal Reserve of a quarter percentage point. This raises the risk of global financial instability. Compared with other advanced economies, the US's relatively restrictive monetary policy could contribute to further dollar appreciation and a widening of external imbalances.

Central banks in African countries with higher than targeted inflation have embarked on aggressive contractionary monetary policy, taking a cue from monetary authorities in advanced economies. Benchmark policy rate increases following the US Fed rate hike in March were recorded in Nigeria (+50 basis points), South Africa (+50 basis points), Egypt (+200 basis points), Morocco (+50

Central banks in African countries with higher than targeted inflation have embarked on aggressive contractionary monetary policy, taking a cue from monetary authorities in advanced economies

**FIGURE 1.14** Inflation dynamics in targeting and non-targeting countries



*Note:* Inflation targeters in this context, refers to countries with full inflation targeting regime and those with declared target or band for inflation. These are: Benin, Botswana, Burkina Faso, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Congo, Côte d'Ivoire, Egypt, Equatorial Guinea, Eswatini, Gabon, Gambia, Ghana, Guinea-Bissau, Kenya, Liberia, Liberia, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Togo, Uganda, Zambia.

*Source:* African Development Bank statistics.

Rising interest rates have resulted in higher borrowing costs for African countries

basis points), and Kenya (+25 basis points). These adjustments have pushed the rates to record highs and could limit the scope for large policy rate adjustments should inflation expectations become entrenched. For many of these countries, however, real interest rates remain negative, implying that further adjustments may be possible without causing economic damage.

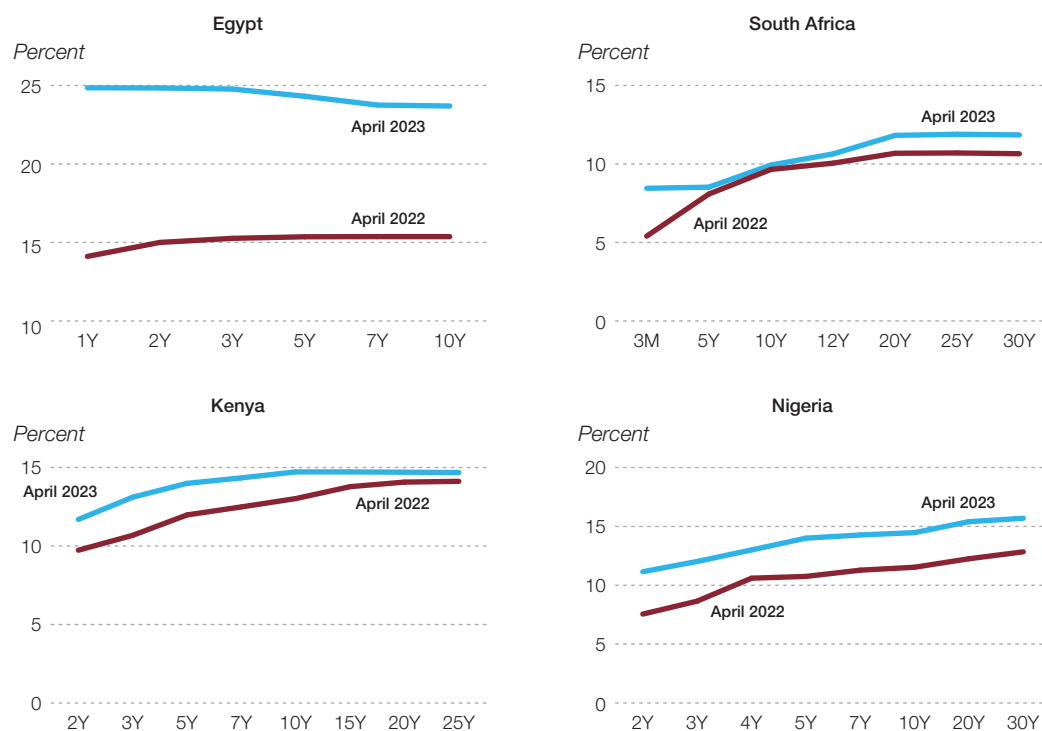
Other countries, including Mauritius and Seychelles, have chosen to keep benchmark rates unchanged as inflationary pressures have moderated. Naturally, the rate and frequency of policy rate adjustments have varied greatly since 2022. Zimbabwe's central bank, for example, cut its key rate in 2023, citing a downward trend in month-on-month inflation, while Angola's central bank cut key rates twice in 2023, similarly citing moderating inflation. However, the mixed outlook and structural nature of the current inflation episodes would dictate country-specific policy responses, depending on strength of the sources of inflation and sociopolitical costs of inaction.

Rising interest rates have resulted in higher borrowing costs for African countries. Yield curves

for large African economies have continued to rise, with sharp rate movements, particularly in Egypt, which issues shorter maturity sovereign bonds (figure 1.15). Since April 2022, 10-year bond yields have risen by nearly 830 basis points. In addition, the 10-year Nigerian bond has risen by nearly 294 basis points. In comparison, the 10-year benchmark bonds in South Africa and Kenya saw modest year-on-year increases of 29 basis points and 170 basis points, respectively. The upward shifts of bond yield curves imply that investors demand a higher return for holding government debt either because they expect inflation to rise, reducing the value of fixed income investments, or the central bank to continue raising the policy rate to combat inflation, which would raise the cost of government financing and reduce the value of existing bonds.

While many African countries' policy options for mitigating tightening financial conditions are limited, those falling behind the curve should consider strengthening safeguards to manage growing uncertainties. Price stability is a prerequisite for long-term economic growth. With inflationary

FIGURE 1.15 Yield curves are shifting upward, 2022 (percent)



Source: AfDB staff calculations based on Investing.com data.

pressures on the rise, African central banks should rethink their monetary policy positions to keep inflationary pressures at bay. To target inflation, policy rates may need to be raised where sufficient slack exists. Central banks should communicate the likely need to keep interest rates higher for a longer period, until inflation is contained. Foreign exchange intervention, where reserves are adequate, may help to stabilize currencies. And macroprudential policy and capital flow management can help improve monetary policy autonomy and price stability, particularly as commodity prices moderate. This frequently is a delicate task, however. Gradual and modest adjustments can prolong price increases while doing little to dampen future inflation expectations. Aggressive rate hikes, on the other hand, may stall the recovery.

*While higher inflation and interest rates could test the resilience of financial systems in Africa, the banking sectors are sufficiently capitalized to withstand potential losses and maintain financial stability, although this varies across countries*

Financial institutions are crucial in providing access to credit and spurring economic growth. In the aftermath of the global financial crisis, financial institutions have experienced phenomenal growth owing to extended periods of accommodative monetary policies. However, recent developments following the COVID-19 pandemic and Russia's invasion of Ukraine have put additional pressures on governments and the financial sector, reminiscent of the 2008 crisis. Indeed, the tightening of monetary policies, particularly the rise in interest rates to stem inflation, has caused the collapse of two US banks and the takeover of others across the US and Europe. This has led to more than \$400 billion in direct support from the US Federal Reserve and the Swiss National Bank.

Financial systems in Africa, which mainly revolve around the banking sector (more than 90 percent of financial sector assets) are not immune to these external shocks. While trying to contain inflation, central banks must also ensure that banks are sufficiently capitalized to withstand potential losses and maintain financial stability. High sovereign risk exposures in most African

banks are expected to contribute to the deterioration of the sector, given the current environment of increasing interest rates and debt distress levels. Fitch Ratings notes that sovereign debt downgrades could result in more bank rating downgrades in 2023, and potential sovereign defaults are a significant concern for the financial sector, with many African governments facing high and increasing debt servicing burdens.<sup>8</sup> And banks' asset quality risks could become more pronounced given the dampening of household and business activity due to high inflation, rising interest rates, and foreign exchange shortages. This could lead banks to further constrict credit for investment in the real sectors.

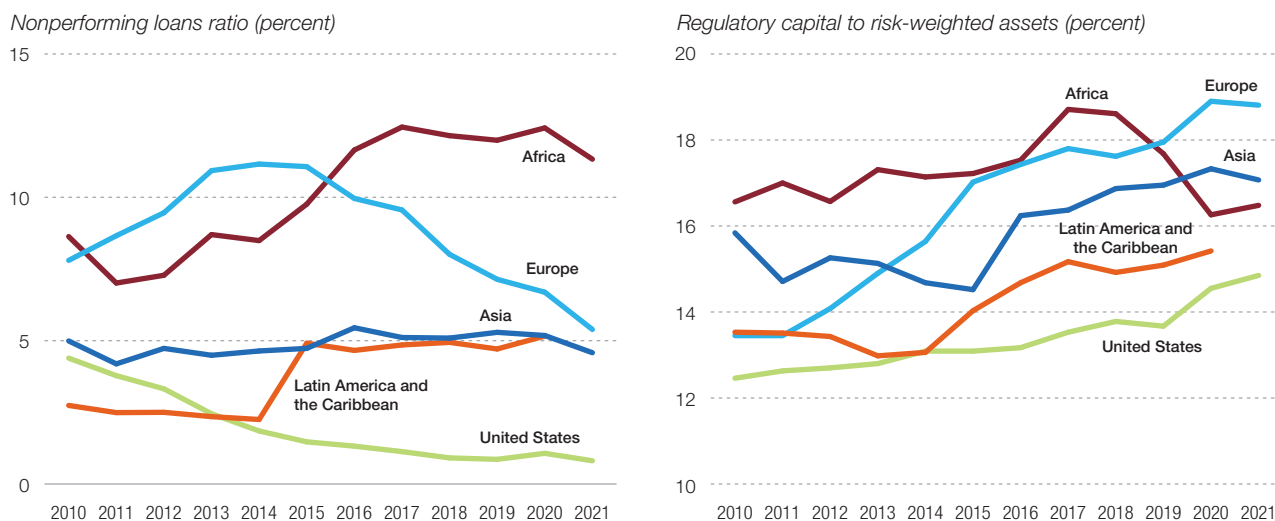
Historically, non-performing loans (NPLs) have always been a challenge that threatens the viability of banks in emerging markets, especially in Africa. On average, NPLs are increasing in Africa similar to Latin American Countries but in stark contrast to the observed declines in Europe and the US (figure 1.16). Given the tightening of financial conditions globally, the upward trend in NPLs on the continent is worrisome as it occurs against the backdrop of marked decreases in capital adequacy and high concentration of assets.

Even so, the resilience shown by African banks over the past years in additional capital buffers and robust profitability should help mitigate some of the risks just described. For example, the capital adequacy ratio of WAEMU banks increased from 10.5 percent in 2018 to 12.4 percent in June 2021, above the minimum regulatory requirement of 8.25 percent.<sup>9</sup> South African banks' average capital adequacy ratio was 17.9 percent in January 2023, against the regulatory minimum of 10 percent. The regulatory capital to risk-weighted assets ratio shown in figure 1.16 (right panel) for African countries has been consistently above that in the US and LAC, while it has only recently fallen below the ratio for Europe as 2018, illustrating the stricter minimum capital requirements on the continent. For liquidity, African banks also appear to have more liquid assets as a share of total assets over time compared with their counterparts in Asia, Europe, and the US while they have similar liquidity ratios to LAC banks in more recent years. However, within Africa, the evolution of the two ratios is quite heterogeneous, with marked

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Potential sovereign defaults are a significant concern for the financial sector, with many African governments facing high and increasing debt servicing burdens

**FIGURE 1.16** Nonperforming loans ratios and regulatory capital to risk-weighted assets



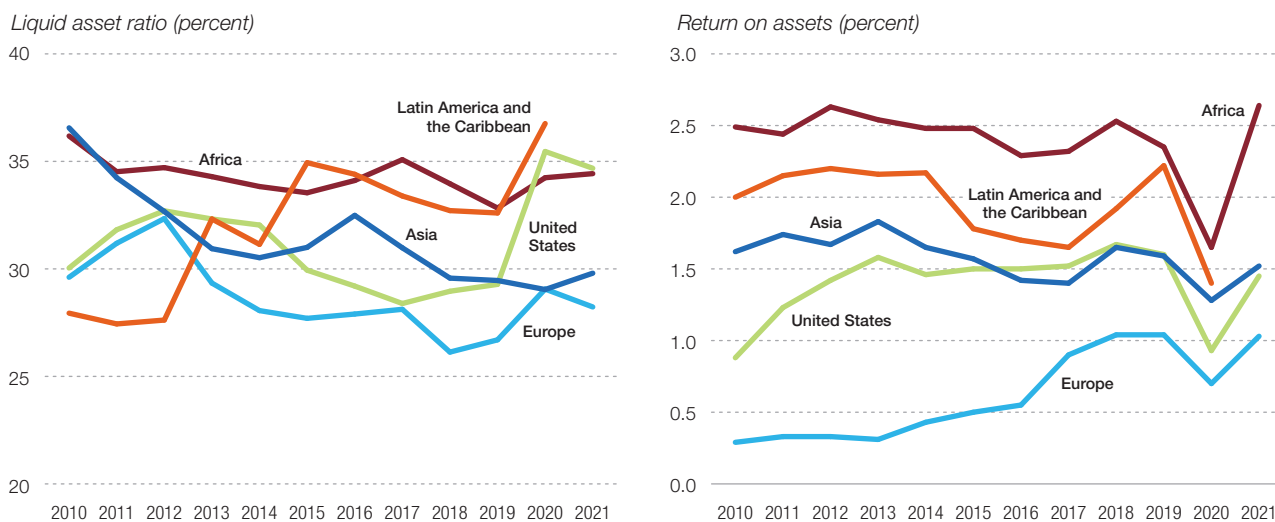
Source: IMF Financial Soundness Indicators and AfDB staff calculations.

declines in countries such as Algeria, Central African Republic, Chad, Madagascar, Seychelles, and Tanzania.

Furthermore, banks in Africa, on average, remained profitable based on return on assets (ROA), with a noticeable dip between 2018 and 2020 partly attributed to COVID-19 related challenges (figure 1.17, left panel). Their ROA has been consistently higher than those in the other regions (Asia, LAC, Europe, and the United States). This is partly driven by the emerging consumer class

and phenomenal growth rates in some economies, despite lingering concerns about social and political challenges. The decreases in ROA from 2018 will pressure African banks to innovate to meet the huge unmet demand on the continent while trying to remain financially solvent in the current challenging economic environment. Similarly, data show that banks in Africa held large reserves of liquid assets in the decade leading up to the COVID-19 pandemic, with a liquid asset ratio exceeding 34 percent, surpassing that of Europe

**FIGURE 1.17** Liquid asset ratios and returns on assets



Source: IMF Financial Soundness Indicators and AfDB staff calculations.

and the United States. This ratio declined around 2019, falling below that of the United States, but has since resumed an upward trend.

## Fiscal positions and domestic resource mobilization

*Africa's fiscal balance is improving and could converge toward pre-pandemic levels, but significant challenges remain*

The average fiscal deficit is estimated to have narrowed to 4 percent of GDP in 2022, down from 4.9 percent in 2021 and lower (by 0.4 percentage point) than in the 2023 MEO. This is the second consecutive year of improvement, after the sharp deterioration to 6.8 percent of GDP in 2020, due to large fiscal support to alleviate the socioeconomic impacts of the pandemic. With this improvement, Africa's average fiscal deficit is returning to its pre-pandemic level in 2019. The narrowing of the fiscal deficit was broad-based with all groups of countries registering lower deficits, with the largest fiscal gains recorded in oil-exporting countries and tourism-dependent economies (figure 1.18).

The average fiscal deficit for *oil exporters* declined by nearly 2 percentage points to 2.7 percent of GDP in 2022 from 4.6 percent in 2021, supported by strong revenue performance driven by favorable global energy prices. Figure 1.19

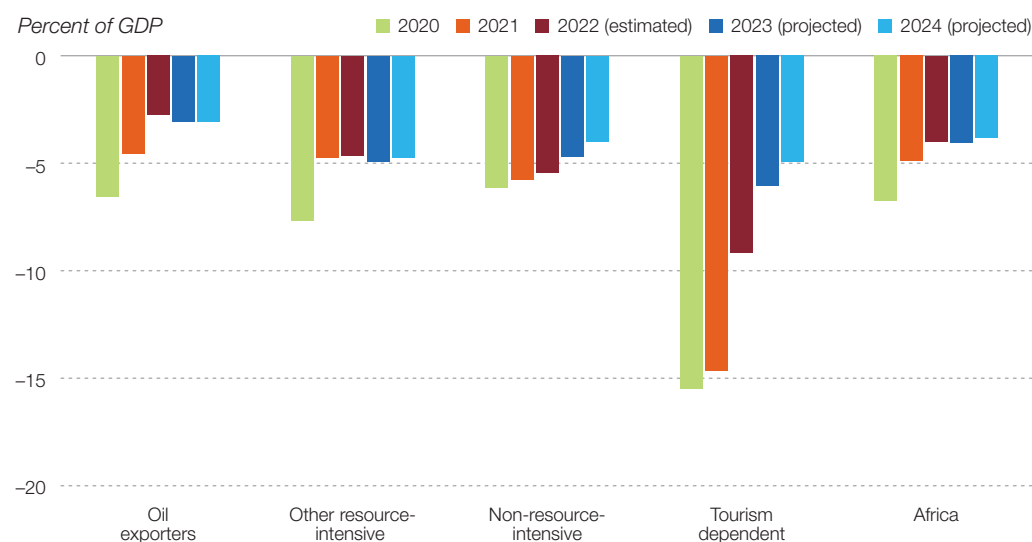
shows that half of these countries posted fiscal surpluses. Congo, Equatorial Guinea, and Libya posted larger surpluses, ranging from 4.8 percent to 13.8 percent, which nearly offset fiscal deficits in countries with higher deficits, such as Nigeria (5 percent). Weak oil production in Nigeria coupled with large expenditures on fuel subsidy, estimated at about 3 percent of GDP, eroded the fiscal benefits from higher international oil prices. The average fiscal deficit of oil-exporting countries is projected to widen marginally to 3.1 in 2023–24, reflecting an improvement in revenues due to the rise in oil prices that offsets to some extent the expected large and persistent deficit in Nigeria, the group's main economy.

Fiscal deficits in *other resource-intensive economies* stabilized around 4.6 percent of GDP in 2022. Countries in this group used revenues from favorable commodity exports to bolster social spending in response to higher energy and food prices, but fiscal consolidation measures targeted to non-essential spending helped stabilize the deficit. The average fiscal deficit for this group is projected to widen slightly and stabilize at 4.8 percent of GDP, 0.2 percentage point above the pre-pandemic level, reflecting continued fiscal support to cope with the impact of high food and energy prices.

*Non-resource-intensive countries* also recorded a marginal decline in fiscal deficits by 0.3 percentage

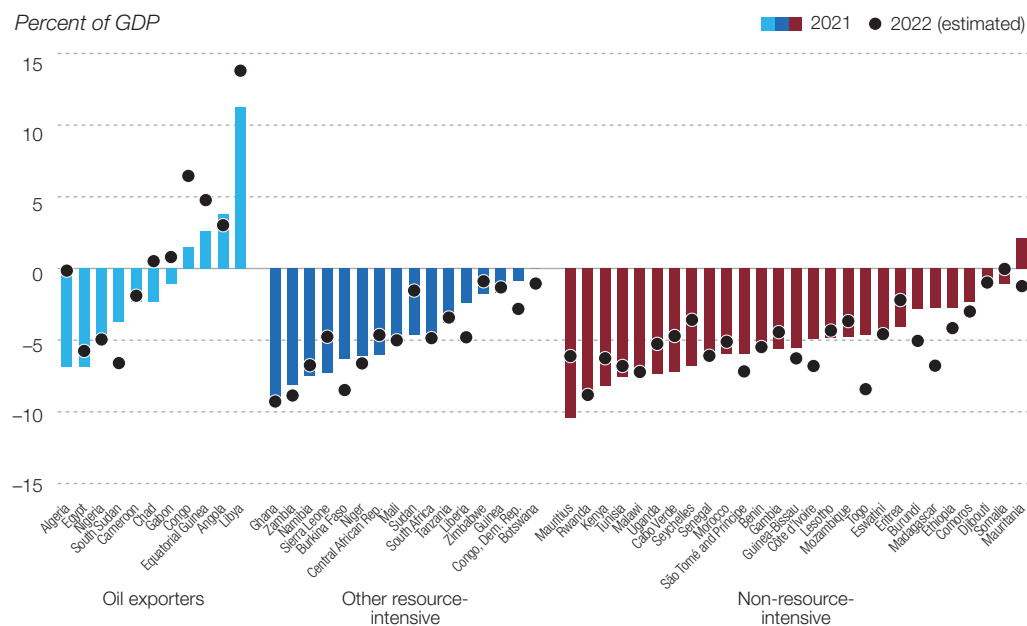
The narrowing of the fiscal deficit was broad-based with all groups of countries registering lower deficits, with the largest fiscal gains recorded in oil-exporting countries and tourism-dependent economies

**FIGURE 1.18** Fiscal balance as a share of GDP by country grouping, 2020–24



Source: African Development Bank statistics and IMF 2023.

**FIGURE 1.19** Fiscal balance as a share of GDP by country, 2021–22



Source: African Development Bank statistics and IMF 2023.

Stronger and faster than expected economic recovery supported fiscal consolidation, culminating in narrowing of the gap between recurrent spending and revenues, with the primary deficit decreasing in tandem to an average of 1.2 percent of GDP in 2021–22, making up about 26 percent of the overall fiscal balance

point in 2022. Higher energy and food prices have severely strained government budgets in countries such as Malawi, Rwanda, São Tomé and Príncipe, and Togo with fiscal deficits exceeding 7 percent of GDP. In contrast, other countries including Djibouti, Mauritania, and Somalia managed to maintain fiscal deficits at less than 1.3 percent of GDP despite the challenging economic and financial environment. These countries helped to contain the average deficit for the group at 5.5 percent of GDP in 2022. The average fiscal deficit for non-resource-intensive countries is projected to decline to 4.7 percent of GDP in 2023 and 4 percent in 2024, as the expected decline in food and energy prices will put less pressure on the group's revenues.

Following large fiscal deteriorations in the aftermath of the COVID-19 pandemic, *tourism-dependent economies* rebounded strongly, with the average fiscal deficit for the group narrowing to 9.2 percent of GDP in 2022 from 14.6 percent the previous year. The improved fiscal performance benefited from increased tourism receipts following gradual retrenchment of COVID-19-related government spending. Despite this strong improvement, the average deficit remains large at 1.7 percentage points above the pre-pandemic

level in 2019. In the medium term, growing uncertainty about the global economic outlook and weakness in advanced economies increase risks for demand for Africa's tourism. Revenues could thus be depressed, and although the deficit is projected to narrow progressively to 6 percent of GDP in 2023 and 4.9 percent the following year, the prospect for this performance remains remote without fiscal restraint due to rapidly evolving external forces.

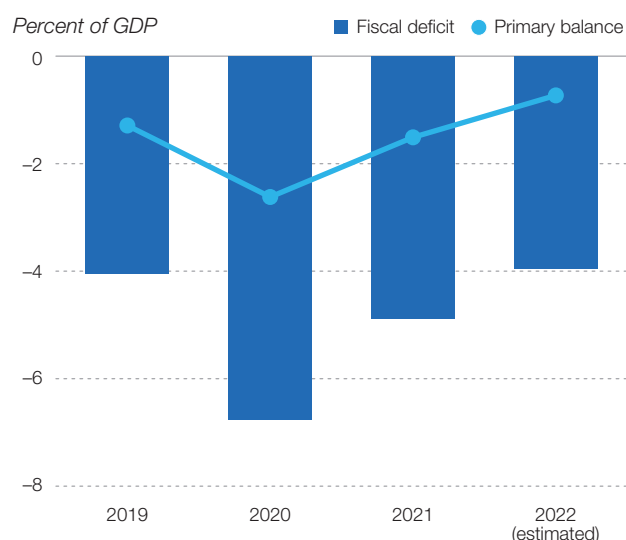
Improvement in the overall fiscal balance in Africa was underpinned by narrowing primary deficit. In 2020, above-the-line budgetary support doubled the primary deficit to 2.6 percent of GDP, accounting for nearly 40 percent of the overall deficit against 32 percent in the preceding year. Stronger and faster than expected economic recovery supported fiscal consolidation, culminating in narrowing of the gap between recurrent spending and revenues, with the primary deficit decreasing in tandem to an average of 1.2 percent of GDP in 2021–22, making up about 26 percent of the overall fiscal balance (figure 1.20).

As governments struggle to compensate for the decline in purchasing power among the most vulnerable sections of their populations—due to the triple challenge of high inflation, climate change



and legacy impact of COVID-19—improving spending efficiency and tax administration should be the top priority of fiscal consolidation. Countries have varying levels of fiscal space and their consolidation strategies will differ, but the gains from sound and prudent fiscal policy for more efficient spending could be substantial. Contractions in capital expenditure have been the main casualty of fiscal restraint amidst spending pressures to shield populations from elevated energy and food prices (box 1.2). The share of capital expenditure in total general government expenditure dwindled in more than half of African countries (28) in 2020–21, relative to five-year pre-pandemic average (figure 1.21). Among countries with the largest reductions in the ratio of capital outlay to total expenditure in 2020–21 were Equatorial Guinea (36.4 percentage points), Congo (16.1 percentage points), and Guinea (15.6 percentage points). These countries are resource-intensive

**FIGURE 1.20 Overall fiscal balance and primary fiscal balance (percent of GDP), 2019–22**



Source: African Development Bank statistics.

### **BOX 1.2 Policy responses from African governments to protecting households and businesses from rising food and energy prices**

The surge in international energy and food prices in 2022, amplified by Russia's invasion of Ukraine, triggered a cost-of-living crisis worldwide and pushed 15 million more Africans into extreme poverty, as real household income fell drastically, especially for net buyers.<sup>1</sup> To mitigate the impact of rising commodity prices on households and businesses, most governments across the world swiftly announced a vast array of policy measures, some related to revenue and expenditure, others to below-the-line and non-fiscal measures. A review of policy measures announced by 37 African countries during the first half of 2022 reveals that of 108 policy responses (about 14.4 percent of 750 total policy responses announced worldwide), about 40 percent were revenue-related such as suspension, removal, or reduction of custom duties on food and fuel, suspension or reduction of taxes (VAT/sales, excise, personal income and corporate income) (box figure 1.2.1). Spending measures—price subsidies to food and energy companies; cash, semi-cash, or in-kind transfers; increases in base or minimum wages; and increases in pensions—accounted for 35.2 percent of all new measures. Other policy responses included below-the-line measures (such as price freezes) or export restrictions of selected agricultural products.

While predominant policy announcements in Africa were either tax-related (21.3 percent) or direct subsidies (15.7 percent), advanced economies, especially in Europe, implemented a significant number of cash transfers as well as vouchers and discounts in addition to reductions in consumption taxes such as VAT/sales tax and excises. Such policy differences could stem from the fact that advanced economies have well developed and robust social safety net and social protection programs with transparent social registries and payment systems already facilitating rapid, cost-effective implementation of well-crafted targeting policies. And most new measures announced by advanced economies tended to focus on addressing the impact of higher energy prices (more than 60 percent of all measures) while those in Africa focused mainly on responses to higher food prices (more than 50 percent of all measures), reflecting the high share of food expenditure in households' budgets.

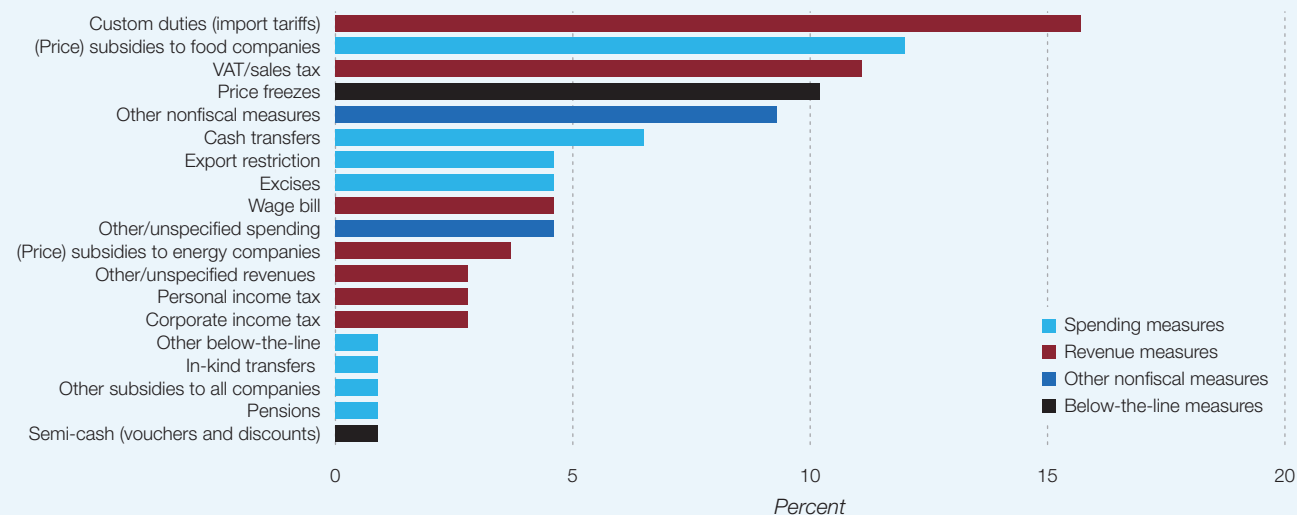
In addition to the fact that food expenditure accounts for a large share of household budget in Africa, the limited focus on energy could be due to the already high energy price subsidies in most African countries. About two-thirds of countries announced policy packages in response to energy prices exceeding 1 percent of GDP, with the largest in Tunisia (5.2 percent),

*(continued)*

**BOX 1.2 Policy responses from African governments to protecting households and businesses from rising food and energy prices** (continued)

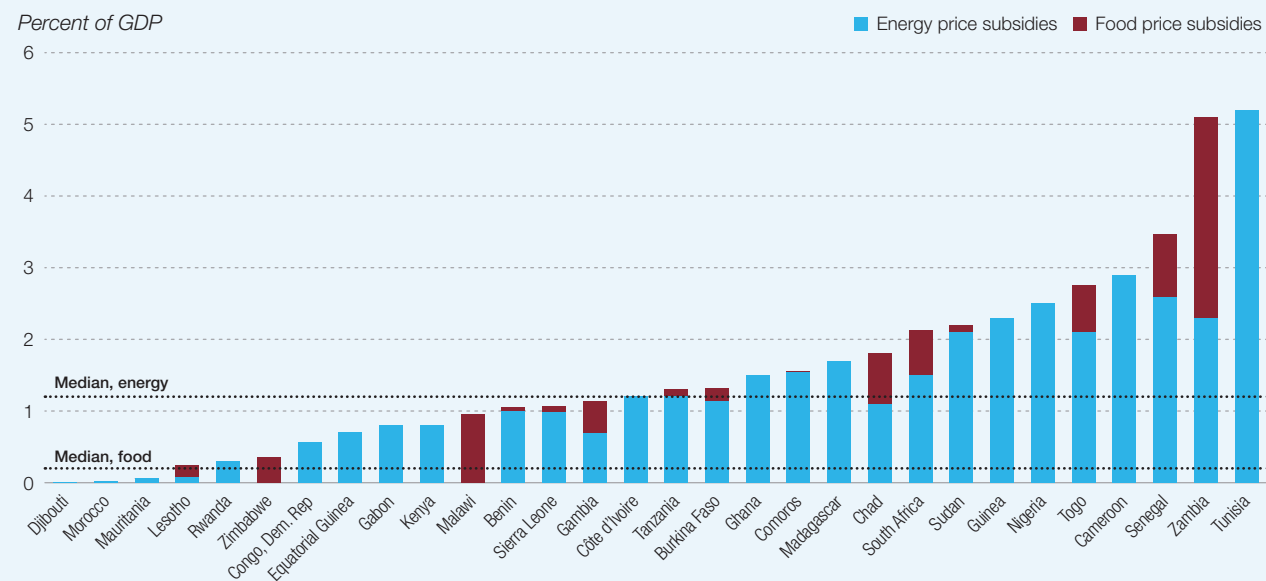
followed by Guinea (4.6 percent), South Africa (3 percent), and Cameroon (2.9 percent) (box figure 1.2.2). However, these newly announced energy-related measures and other spending measures put additional pressure on public budgets of most countries that were already dealing with constrained fiscal space.

**BOX FIGURE 1.2.1 Announced policy responses to rising food and energy prices in Africa, in 2022**



Source: Staff calculations using IMF's Food and Energy Price Action (DEFPA) Database.

**BOX FIGURE 1.2.2 Size of announced subsidies for food and energy products in Africa, in 2022**



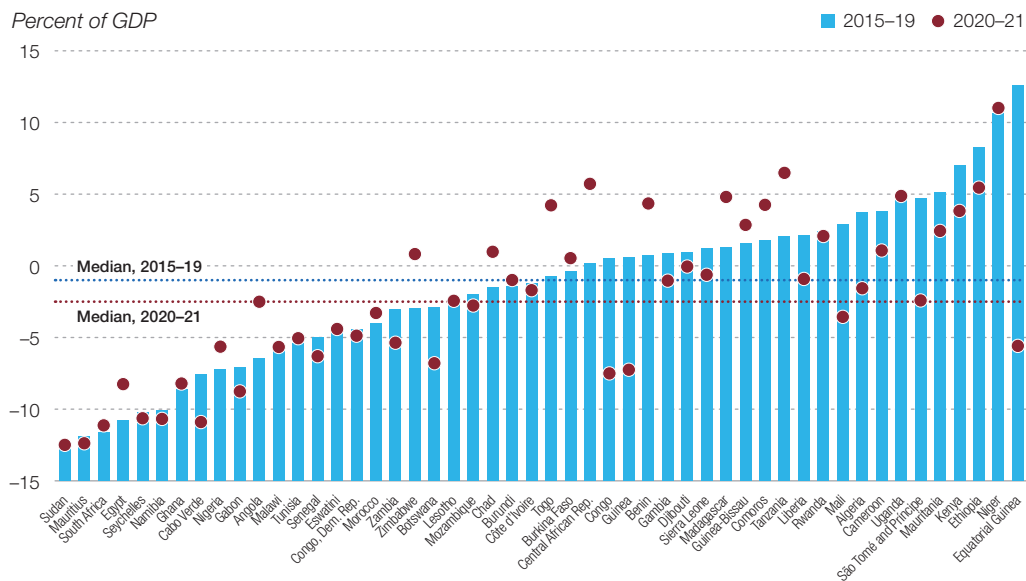
Note: Energy price subsidies include energy subsidies total; diesel; kerosene; electricity, natural gas and petroleum-derived products and gas; gasoline; and liquefied petroleum gas. Food price subsidies include bread, wheat, grains, cereal, and flour; fertilizer; staple foods; food (unconditional cash transfers); sugar, rice, and vegetable oil; maize seed and meat. The median energy and food subsidies are 1.2 and 0.2 percent of GDP, respectively.

Source: Staff calculations using IMF's Food and Energy Price Action (DEFPA) Database.

Note:

1. AfDB 2023.

**FIGURE 1.21** Average shares of capital expenditure in total general government expenditure



Source: African Development Bank statistics.

economies with either large fiscal surplus or low deficit in 2022, which should provide them with fiscal room for higher capital spending, underscoring the need to improve spending efficiency and resource allocation.

About 22 countries have managed to preserve development expenditure amid significant fiscal challenges, with the largest percentage point increases in Tanzania, Togo, and Central African Republic, in that order. However, unlike Tanzania which registered a modest fiscal deficit of about 2.9 percent of GDP in 2020–21, the expansion of capital expenditure has been associated with larger fiscal deficits in the other two countries. This highlights the need for a sound and prudent fiscal stance in promoting investment expenditure through some adjustments to discretionary recurrent spending to ensure fiscal sustainability. Postponing investment spending should not be an option, as this would pose threats to sustained and stronger growth and could add to debt vulnerabilities as productive spending with the potential to repay debt slows.

Africa’s fiscal deficit is projected to continue to narrow through the medium term as economies sustain post-pandemic fiscal consolidation despite higher interest rates and currency depreciations and the associated increases in debt service payments. The average fiscal deficit to

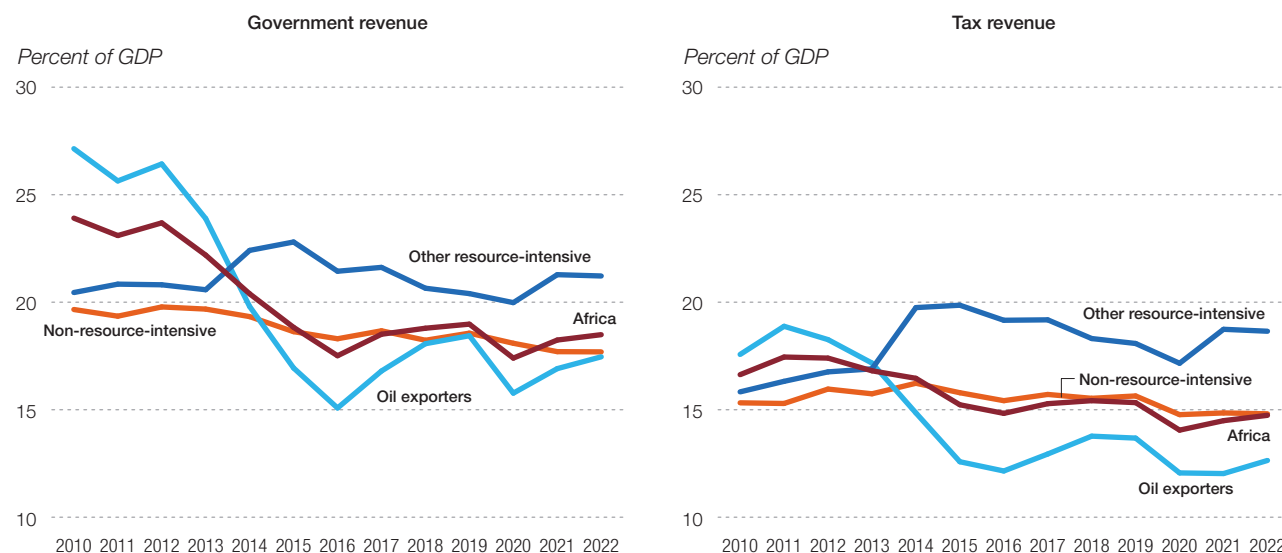
GDP ratio is expected to gradually converge to the pre-pandemic level of 4 percent in 2019, stabilizing at 4.1 percent in 2023 and narrowing to 3.8 percent in 2024. The expected additional fiscal room over the medium term will hinge on strengthening domestic resource mobilization.

As pointed out in the MEO 2023, the continent still exhibits lower revenue-to-GDP ratios than most other world’s regions. Average general government revenue as a percentage of GDP, excluding grants, declined in the decade preceding the COVID-19 pandemic. From 2010 to 2019, the ratio declined substantially from 23.9 percent to 19 percent (figure 1.22). Mirroring this trend, the tax revenue-GDP ratio also declined by about 1.3 percentage points, to 15.3 percent of GDP. This figure was well below the average for Asia-Pacific (21 percent), Latin America (22.9 percent), and Organisation for Economic Cooperation and Development members (33.8 percent). The pandemic further reduced the tax revenue ratio to 14.7 percent in 2022, below the 15 percent minimum required for a developing country to adequately finance progress toward the Sustainable Development Goals.

Only resource-intensive countries other than those dependent on oil and tourism recorded higher tax revenue ratio in 2019 of 18.1 percent of GDP. With a tax revenue ratio at 15.6 percent of

Africa’s fiscal deficit is projected to continue to narrow through the medium term as economies sustain post-pandemic fiscal consolidation despite higher interest rates and currency depreciations and the associated increases in debt service payments

**FIGURE 1.22** Government revenue by economic grouping in Africa, 2010–22



Source: AfDB staff calculations.

Where fiscal deficits are large and exceed sustainable medium-term levels, promoting external rebalancing may necessitate fiscal consolidation to avoid sudden stops and balance-of-payment crises

GDP, non-resource-intensive countries barely met the threshold for the Sustainable Development Goals' development financing target for developing countries, but there is room to expand their performance by improving tax collection capacity. These economies depend largely on direct income taxes, notably corporate income and pay-as-you-earn. Given the inefficiency in tax collection systems, the share of tax revenue in total GDP has fallen progressively.

Across Africa, the COVID-19 pandemic has further exacerbated the already fragile fiscal situation, and general government revenue as a share of GDP fell by 1.6 percentage points, from 19 percent in 2019 to 17.4 percent in 2020. Consolidating economic recovery could bolster average general government revenue above the estimated 18.4 percent of GDP in 2022.

Where fiscal deficits are large and exceed sustainable medium-term levels, promoting external rebalancing may necessitate fiscal consolidation to avoid sudden stops and balance-of-payment crises. Fiscal austerity should be implemented in a way that does not exacerbate the pandemic's long-term consequences, particularly by preserving growth-friendly investments in infrastructure, healthcare, and education. Policies should be maintained to protect vulnerable households from the effects of rising food and oil prices. Making

room for gradual but significant growth-friendly fiscal consolidation would aid in current account rebalancing and the accumulation of international reserves to more appropriate levels, particularly in economies with weaker-than-warranted external positions. Countries with structural external imbalances should do more to address competitiveness issues through gradual labor and product market reforms. Even in difficult economic times, policymakers need to find ways to increase investment and economic development while reducing fiscal pressures. Implementing structural reforms that improve business climate and foster competition is one approach. This can not only increase investment, it can also increase tax revenues. Implementing targeted fiscal policies, such as tax incentives for public-private partnerships, could also encourage private investment while minimizing the government's fiscal burden.

As reported in the 2023 MEO, given the low tax base and subdued aid due to fiscal pressures in advanced economies, enforcing compliance and improving tax administration more generally is imperative for mobilizing domestic resources to support economic recovery and engender sustainable, inclusive, and resilient growth for the continent. Improving the efficiency of revenue collection through institutional reforms, such as improved governance and accelerating

investments in digitalization and e-governance, will improve transparency and reduce illicit financial flows and build fiscal credibility. These policies, if sequenced and implemented appropriately, could enhance domestic resource mobilization to complement private resources in meeting financing needs for green growth and sustainable development.

## Debt dynamics and implications for growth

### *Public debt is projected to remain high, with lingering vulnerabilities*

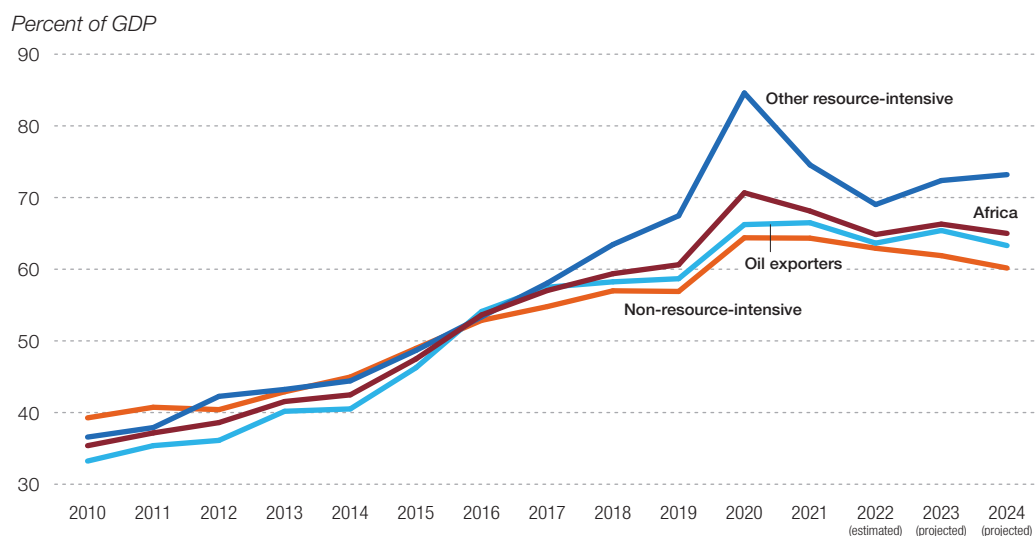
As reported in the 2023 MEO, the median public debt in Africa is estimated to have declined to 65 percent of GDP in 2022 from 68 percent in 2021 thanks to debt relief initiatives that help countries withstand the confluence of global shocks including the COVID-19 pandemic. This ratio remains higher than the pre-pandemic level of 61 percent of GDP, and it is expected to increase further to 66 percent in 2023 and then to stabilize at around 65 percent in 2024 (figure 1.23). The expected increase in debt reflects growing financing needs—associated with rising food and energy import bills, high debt service costs due to interest rate hikes, exchange rate depreciations, and rollover risks.

Public debt-to-GDP ratios are especially high among other resource-intensive (non-oil) economies. For this group of countries, the median public debt-to-GDP ratio declined in 2022 from 74.5 percent of GDP to 69 percent mainly due to a decline of more than 60 percentage points in Sudan’s debt, which reached the Heavily Indebted Poor Countries Initiative decision point in 2021 and is expected to receive substantial external debt relief. However, public debt remains above the pre-pandemic level of 67.5 percent of GDP and is expected to increase respectively to 72 percent and 73 percent in 2023 and 2024, mainly due to rising interest costs of debt, depreciation of national currencies and growing financing needs.

For oil-rich countries, debt is set to decline to 64 percent of GDP in 2022 from 66.5 percent in 2021 despite a build-up in Nigeria. Nigeria’s public debt has increased steadily due to a weak revenue position coupled with large outlays on fuel subsidies, estimated at about 3 percent of GDP. For other countries in this group, the gain from export earnings boosted by high oil prices have strengthened their currencies and improved their external position. These factors have mitigated the effect of rising interest rates and reduced the debt burden in these countries. Debt is estimated to have declined by double digits in Angola

For oil-rich countries, debt is set to decline to 64 percent of GDP in 2022 from 66.5 percent in 2021 despite a build-up in Nigeria

**FIGURE 1.23** Gross government debt as a share of GDP, 2010–24



Source: AfDB staff calculations based on the IMF World Economic Outlook database.

For the key drivers of debt dynamics during 2013–23, the decomposition of debt-creating flows indicates that the projected exchange rate depreciation and high primary deficits will have a greater cumulative impact on external debt dynamics than historical drivers such as real GDP growth

(20 percentage points), Equatorial Guinea (15 percentage points), and Congo (9 percentage points). In Angola, an appreciation of the national currency as well as improved receipts from oil exports accounted for the sharp decline in public debt in 2022. All countries in this group, except Gabon and South Sudan are expected to see a decline in their public debt-to-GDP ratios in 2023 and 2024.

Non-resource-rich countries exhibit a similar pattern in the evolution of public debt, which is estimated to have declined to 63 percent of GDP in 2022 from 64 percent the previous year, reflecting stronger economic growth. Projected higher economic growth and efforts to reduce the fiscal deficit through fiscal consolidation and expenditure restraint are expected to bring down the debt ratio to 62 percent of GDP in 2023 and 60 percent of GDP in 2024.

For the key drivers of debt dynamics during 2013–23, the decomposition of debt-creating flows indicates that the projected exchange rate depreciation and high primary deficits will have a greater cumulative impact on external debt dynamics than historical drivers such as real GDP growth (figure 1.24). Similarly, interest expenditures, through increased nominal interest rates, are projected to contribute significantly to higher debt accumulation relative to past values, due to the current normalization of monetary policy

across the world, reversing the historically ultra-low interest rate environment.

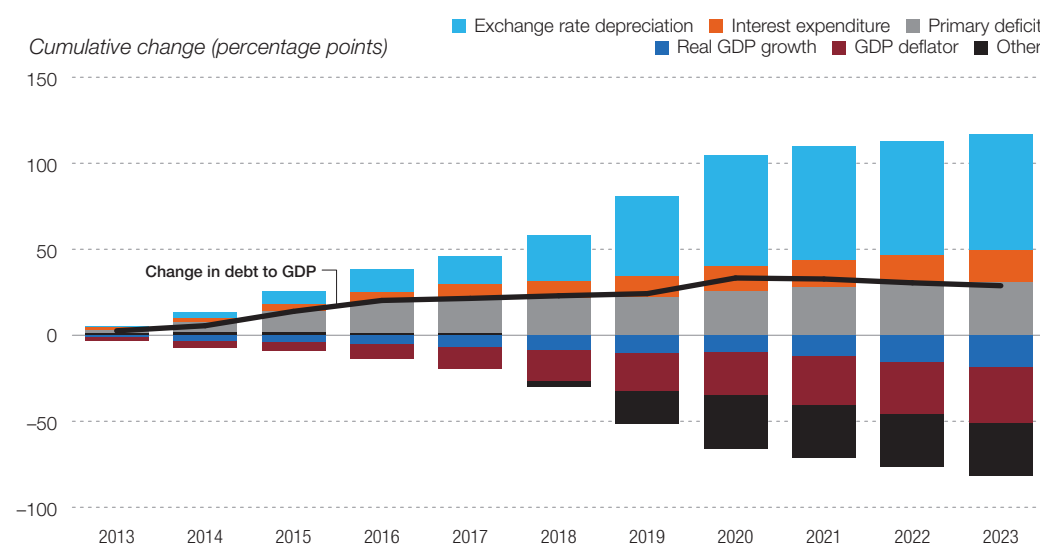
**Tighter global financial conditions are weighing on sovereign borrowing costs**

Global monetary policy tightening has stoked capital flight and the sell-off of eurobonds, and concomitantly led to weakening of national currencies and increased sovereign bond spreads across market-access countries (figure 1.25). Ghana's sovereign bonds, for example, were already trading distressed prior to Russia's invasion of Ukraine due to the country's domestic fiscal concerns, and spreads have widened by more than 1,500 basis points (bps) since August 2022. Hurt by the increase in wheat prices, Egypt has seen the sovereign spread widen by more than 900 bps since February 2023. Equally Nigeria, which has not fully benefited from higher oil prices due to production constraints, faced spreads of more than 1,000 bps between July and November 2022. In South Africa, the 10-year bond yield spreads have risen less dramatically and remain below 300 bps.

**Debt service costs have risen, narrowing the scope for government spending and increasing vulnerabilities**

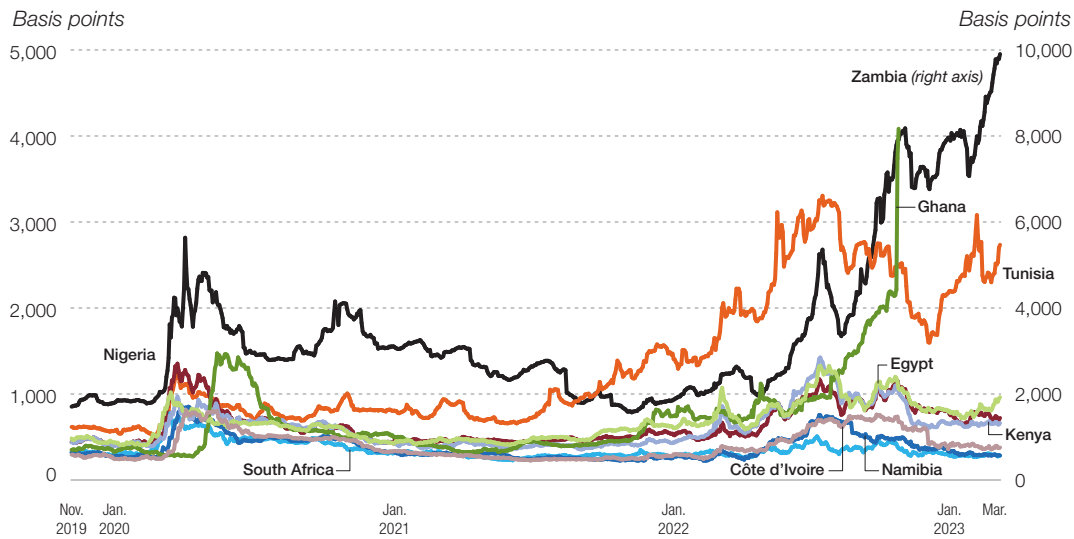
Public finances are becoming overstretched due to rising debt interest costs. External debt interest

**FIGURE 1.24 Drivers of public debt dynamics as a share of GDP, 2013–23**



Source: AfDB staff calculations based on the IMF World Economic Outlook database.

**FIGURE 1.25** 10-year sovereign bond spreads in Africa, November 2019–March 2023



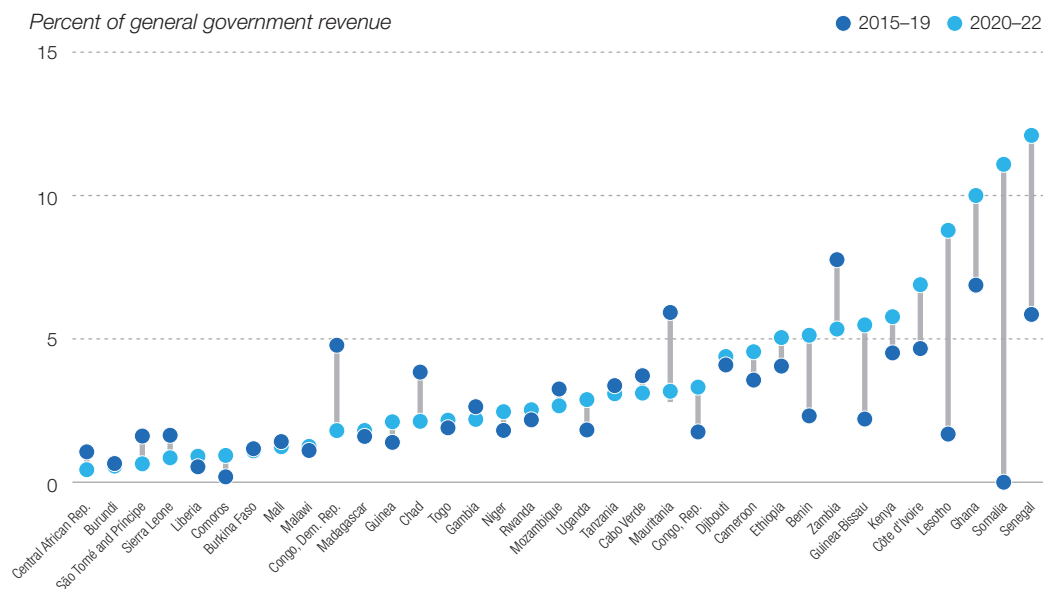
Source: AfDB staff calculations based on Haver Analytics.

payments as a proportion of the government revenues have risen above the pre-pandemic level in many countries (figure 1.26). The median interest payments on external debt for the 35 countries as a percent of government revenue rose from 2.2 percent over 2015–19 to 2.7 percent over

2020–22.<sup>10</sup> This increase indicates that government revenues have not kept pace with the rise in interest payments and highlights the erosion in fiscal space, which constrains governments' capacity to finance domestic recurrent spending and public investment. For all 35 countries,

External debt interest payments as a proportion of the government revenues have risen above the pre-pandemic level in many countries

**FIGURE 1.26** Interest payments on external debt, public and publicly guaranteed



Note: Countries shown are low-income African countries for which a debt sustainability analysis is available and where data are available for debt service on external debt.

Source: AfDB staff calculations based on World Bank International Debt Statistics database.

The rise in interest costs has been compounded by rising US dollar-denominated principal payments, resulting in overall high debt service payments

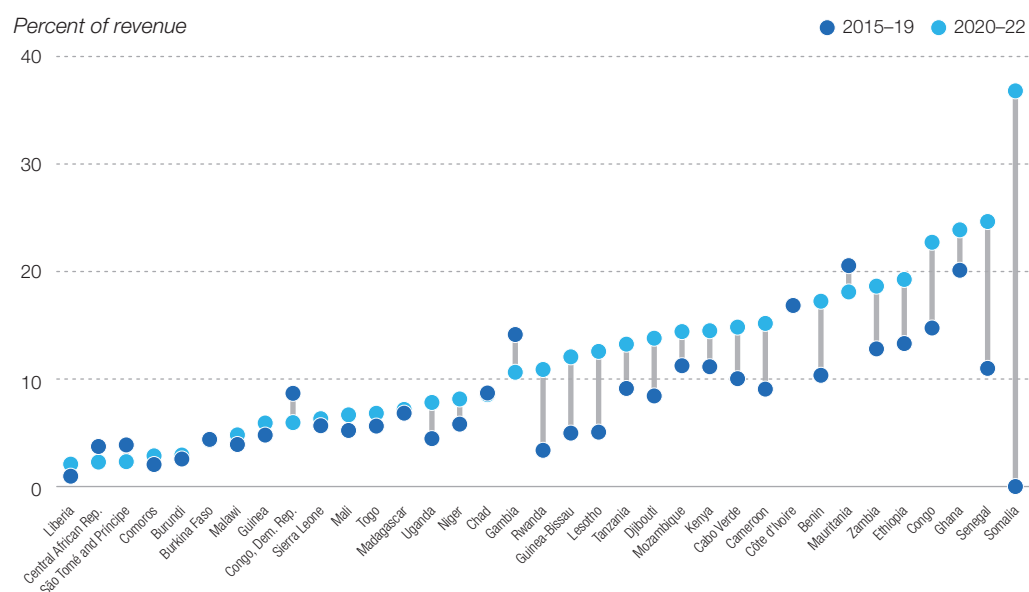
interest costs were higher in 2020–22 than in 2015–19, except in Zambia, Mauritania, Chad, and Democratic Republic of Congo. For Zambia, the decline in interest payment as a share of total revenue is due to missed interest payments or defaults during the pandemic.

The rise in interest costs has been compounded by rising US dollar-denominated principal payments, resulting in overall high debt service payments. Total external debt service payments as a percentage of government revenues increased between 2015–19 and 2020–22 in many countries (figure 1.27). The median debt service to revenue ratio of the countries was about 6.8 percent in 2015–19, well below the IMF/World Bank debt sustainability threshold of 18 percent. The ratio increased to about 10.9 percent in 2020–22, still below the threshold. Even in the four countries where interest payments declined—Chad, Democratic Republic of Congo, Mauritania, and Zambia—total debt service has risen relative to the pre-pandemic period, underscoring that principal payments were the dominant component of debt service in 2020–22 in these countries.

The 25 African countries in high risk of, or already in, debt distress in February 2023 (considering total indebtedness—external and domestic)<sup>11</sup> have experienced the highest increase in the burden of debt service. The median external debt service payments in 2020–22 for countries with high risk of debt distress accounted for more than 11.3 percent of revenues, up from 8.6 percent in 2015–19 (figure 1.28). The median ratio more than doubled for countries already in debt distress, at 16.5 percent in 2020–22 from 7.6 percent in 2015–19. Further acceleration in external debt service payments could significantly shrink fiscal space in these countries, making it harder for affected economies to recover from multiple crises that have buffeted countries over the past three years.

The insolvency risk could morph into a liquidity crisis due to potential shortages of foreign exchange to service the debt. Moreover, the diversion of resources to debt service payment from critical social and public investment spending could create a vicious cycle of an ailing economy reinforcing pre-existing debt vulnerabilities. This underscores the need for faster and substantial debt relief to help African countries free up

**FIGURE 1.27** Debt service on external debt, public and publicly guaranteed

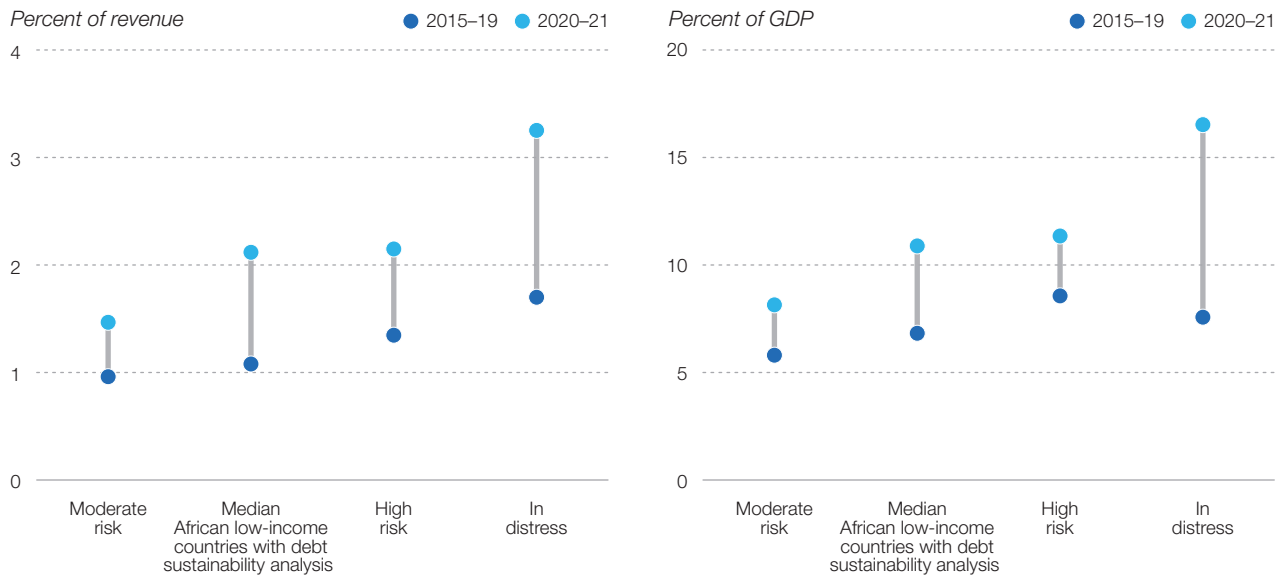


Note: Debt service payments are the sum of principal repayments and interest payments in the year specified. Countries shown are low-income African countries for which a debt sustainability analysis is available and where data are available for debt service on external debt.

Source: AfDB staff calculations based on World Bank International Debt Statistics database.



**FIGURE 1.28** Debt service on external debt, public and publicly guaranteed, by risk of debt distress



Note: Countries shown are low-income African countries for which a debt sustainability analysis is available and where data are available for debt service on external debt.

Source: AfDB staff calculations based on World Bank International Debt Statistics database.

resources for spending on education, health, and public physical infrastructure.

Debt service payments falling due in 2023–25 could further elevate the risk of distress. A bunching of debt service due in 2023–25 will further increase debt vulnerabilities and aggravate the risks. Total external debt service payments due in 2023 for 16 African countries will increase by about a billion dollars to \$22.3 billion from \$21.4 billion in 2022 (figure 1.29).<sup>12</sup> Nigeria faces a \$500 million debt payment in July 2023, while Rwanda will need to pay \$61 million in May. In December, Côte d'Ivoire and Gabon will face payments of \$56 million and \$37 million respectively, while Cameroon has debt repayments of \$50 million annually in 2023–25. If global monetary policy remains tight and depreciations of national currencies against the US dollar persist, countries will face a difficult trade-off between honoring debt repayment and meeting their food and energy import bills, both of which could exert pressure on foreign exchange reserves. Without a comprehensive debt reduction strategy and financial support similar to the SDR allocation, debt vulnerabilities will continue to rise, and countries may face a balance of payment crisis.

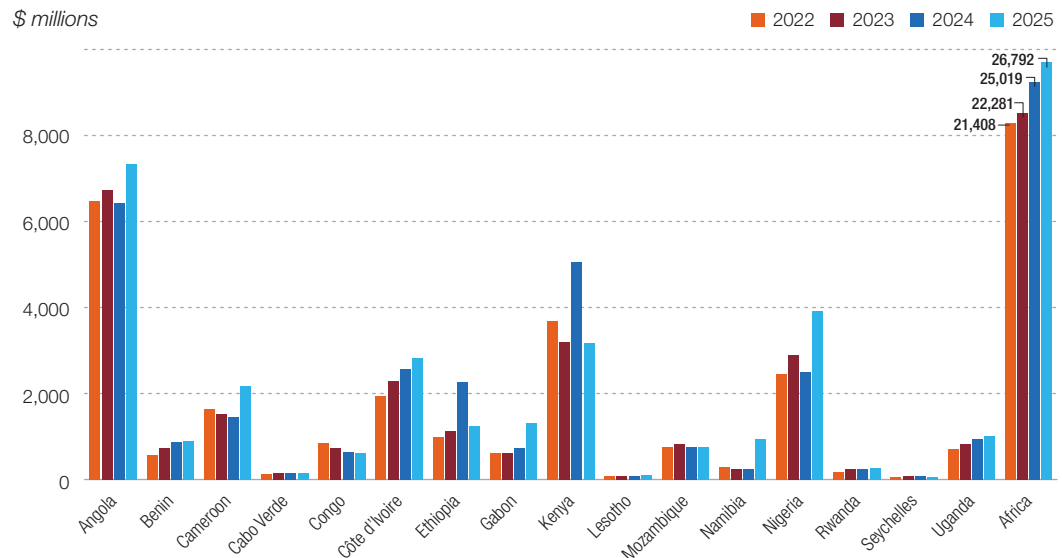
*The increasing share of domestic debt in Africa's public debt could exacerbate fiscal and debt risks with implications for financial stability and economic growth*

As opportunities for external finance diminish, African countries are increasingly relying on domestic debt to finance fiscal deficits, and this trend is likely to accelerate in the near term.<sup>13</sup> Prior to the COVID-19 pandemic, the share of domestic debt in total public debt was on a downward trend, but since 2020 this trend has been reversed (figure 1.30, left panel). In 2019, external debt accounted for about 65 percent of Africa's total public debt. This share fell to 62 percent in 2020 and at end of 2021 external debt accounted for about 58 percent of total debt. The change in debt composition has shifted toward domestic debt, whose share has increased from 35 percent in 2019 to approximately 42 percent of 2021. This trend reflects growing financing needs, the difficulty by many countries to access international capital markets which, coupled with limited tax revenue mobilization, have prompted them to turn to local currency debt issuances.

The broad picture of the shifting share of public debt toward the domestic market masks

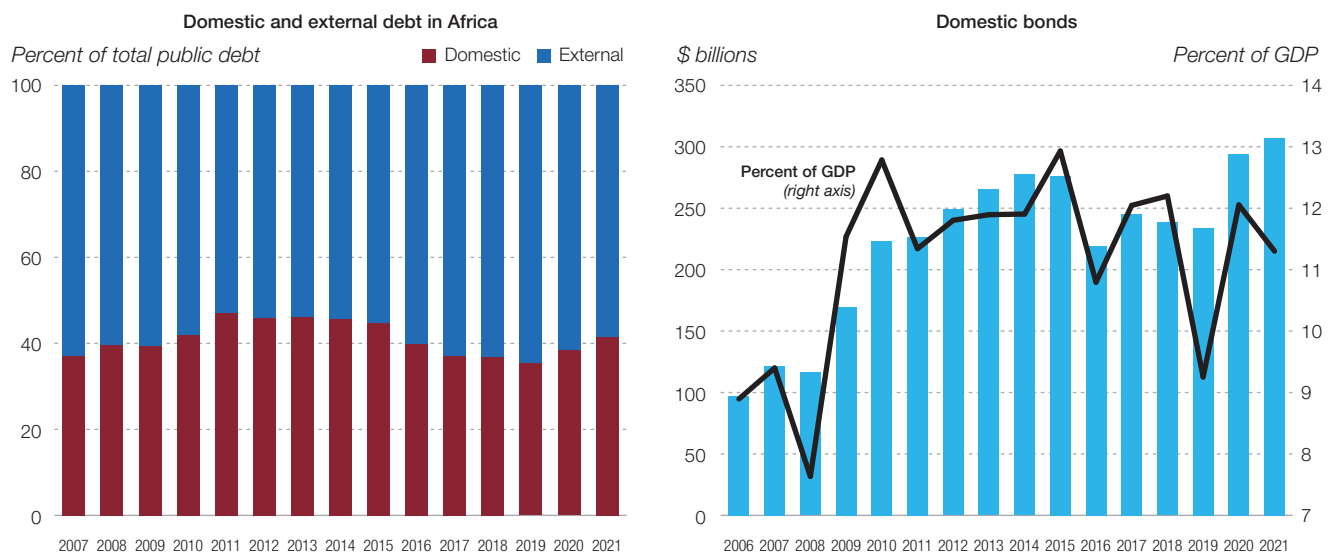
The median external debt service payments in 2020–22 for countries with high risk of debt distress accounted for more than 11.3 percent of revenues, up from 8.6 percent in 2015–19

**FIGURE 1.29 African sovereigns, total external debt service due**



Source: AfDB staff calculations based on World Bank International Debt Statistics database.

**FIGURE 1.30 Domestic and external debt and domestic bond issuances**



Source: AfDB staff calculations based on AFMI database and IMF and World Bank database.

significant differences across individual countries and countries' groupings. For frontier market economies with relatively deeper local bond markets, domestic bond issuances have surged since the start of the COVID-19 pandemic in 2020 (figure 1.30, right panel). On average, African countries issued domestic bonds worth \$294 billion in 2020 (12.1 percent of GDP) from \$234 billion in

2019 (9.3 percent of GDP). This is a one-quarter increase within a year, due to the pandemic-induced financing needs and limited opportunities for external financing from both private and multilateral sources, coupled with domestic banks' shift toward holdings of public sector assets as risks of corporate lending heightened. The average bond issuance in 2021 increased to \$307 billion, a

smaller increase of 4 percent, reflecting the end of the worst of COVID-19.

In frontier market economies whose external bonds are currently trading at distressed spread levels, domestic debt represented more than 50 percent of total public debt in 2021. For Africa's heavily indebted non-frontier market economies, domestic debt still constitutes a relatively low proportion of public debt, except in Burundi and São Tomé and Príncipe, where domestic debt accounts for more than 50 percent of total public debt.<sup>14</sup> With government financing still elevated and likely to rise further and as global financial conditions remain tight, domestic bank holdings of sovereign debt will keep rising. This will further crowd out private sector credit and present risks to domestic financial stability.<sup>15</sup> Restructuring of domestic debt should be part of the negotiations for the resolution of public debt crises in countries facing heightened risks, with domestic debt representing a substantial share of public debt. Negotiations should involve all parties, including bilateral lenders, the private sector, domestic lenders, and multilateral financial institutions.

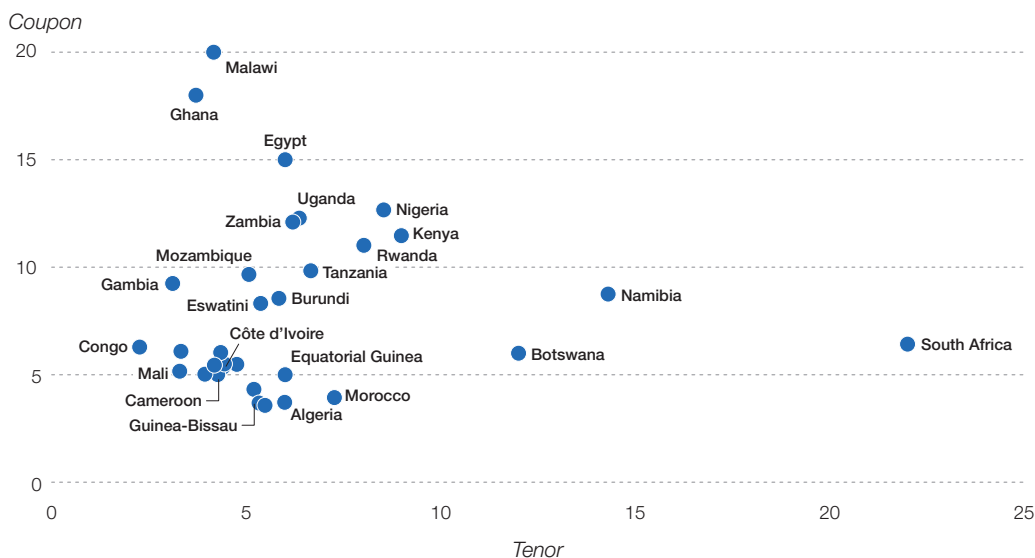
Shorter tenors of domestic bond issuances and relatively high coupon rates in many countries may exacerbate debt vulnerabilities. Domestic sovereign bond markets in many African countries is characterized by shorter tenors and high coupons at

issuance. Indeed, sovereign bonds are often considered the most liquid and safest debt instruments which explains their shorter maturity. In addition, central banks rely on sovereign bonds with shorter maturity to conduct monetary policy operations.

The majority of the 40 African countries with data between 2000 and 2022 have tenors between two and seven years and coupon rates between 4 and 12 percent (figure 1.31). Countries such as Ghana and Malawi have coupon rates around 20 percent. On the opposite side, Botswana, Namibia, and South Africa have longer tenors with coupon rates below the Africa average. For instance, the average tenor on local currency bonds in South Africa is 22 years with coupon rates around 6 percent. These countries have relatively more developed and liquid primary domestic bond markets, which allows them to borrow at longer maturities, thereby reducing rollover risk compared to other countries. The secondary market in these countries also allows for additional trading and price formation of local currency debt. Shorter tenors and high coupons in most countries are good for banks. But they are also a cause for concern because they increase rollover risk and borrowing costs and may exacerbate debt vulnerabilities in countries with relatively higher domestic debt, as governments may be tempted to turn to the restructuring of domestic debt.

The majority of the 40 African countries with data between 2000 and 2022 have tenors of domestic bond issuances between two and seven years and coupon rates between 4 and 12 percent

**FIGURE 1.31** Average coupon and tenor of government bonds in Africa over 2000–22



Source: AfDB staff calculations based on AFMI database.

## External position and current account balance

*Africa's overall external position is estimated to have weakened in 2022 and it is projected to weaken further in the medium term, reflecting the gloomy export sector outlook*

The average current account deficit is estimated to have widened to 2.1 percent of GDP in 2022 from 1.7 percent in 2021. As economies continue to implement corrective measures to restore external balances, it is projected that external balances will stabilize at around 2.3 percent in 2023–24, an improvement of more than 1.5 percentage points from the pre-pandemic level of 3.8 percent (figure 1.32).

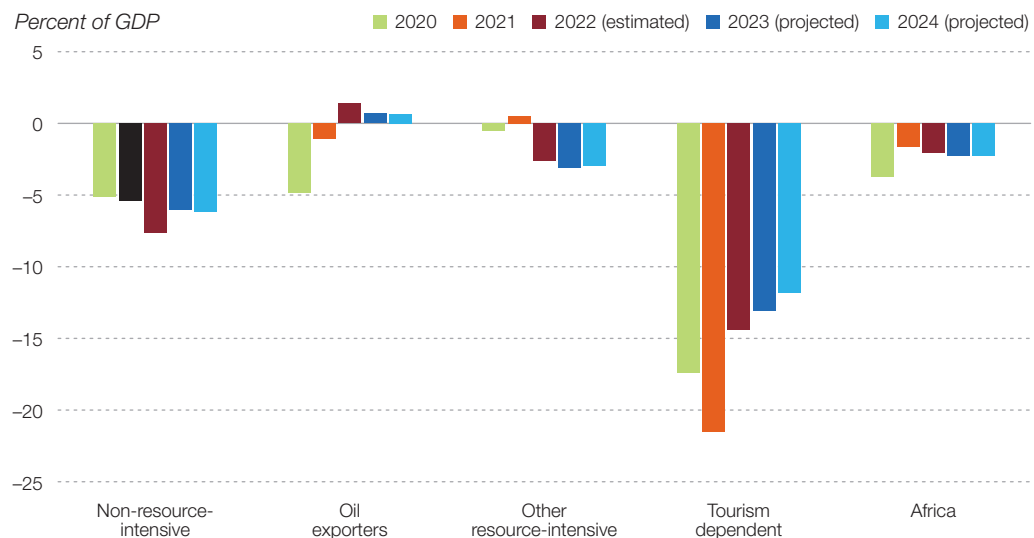
While external positions are favorable relative to the period preceding the pandemic, a combination of current account deficits and negative international investment positions could create feedback loops, particularly where debt vulnerabilities exist. Persistent current account deficits may result in large outflows of investment income, producing even larger deficits that must be financed. This poses a significant downside risk for countries that have relied on debt financing to deal with the negative effects of the pandemic, such as low-income and non-resource-intensive economies. Lower growth and higher interest rates are

Domestic debt restructuring may thus become more frequent in the future. With a bunching of external and domestic loan repayments coming due within the next few years, difficulties in restructuring external debt and delays in implementing the G20's Common Framework, it is likely that debt restructuring will involve discussions on domestic debt restructuring as well and include all stakeholders. The latter may be easier to achieve as debt is issued under domestic law.

For instance, many countries could rollover their domestic debt through debt exchange strategies. Ghana's recent debt restructuring strategy is instructive. In early December 2022, due to delays and difficulties in restructuring its external debt, the government<sup>16</sup> announced a restructuring of local-currency debt—which represented around 50 percent of total debt in 2021—through a voluntary domestic debt exchange program. So far, the negotiations with domestic bondholders have stalled with investors raising concerns that the debt swap will lead to significant financial losses. Ghana's unsuccessful experience to date shows that domestic debt restructuring can also be challenging. To be successful, countries must design their domestic debt restructuring strategies in such a way as to achieve the required debt reduction target while minimizing risks to the domestic financial system and the broader economy.

As economies continue to implement corrective measures to restore external balances, it is projected that external balances will stabilize at around 2.3 percent in 2023–24, an improvement of more than 1.5 percentage points from the pre-pandemic level of 3.8 percent

**FIGURE 1.32** Current account balances by type of resources, 2020–24



Source: African Development Bank statistics.

expected to hasten the deterioration of net international investment positions.

Africa's commodity-exporting economies recorded mixed external positions. While oil exporters benefiting from higher oil prices are estimated to have recorded current account improvement to a surplus of 1.4 percent of GDP in 2022, reversing the deficit of 1.1 percent in the previous year, other resource-intensive countries recorded a deterioration to a deficit to 2.6 percent of GDP from a surplus of 0.5 percent in the same period. This deterioration is mainly due to the subdued demand for non-oil commodities, outweighing the price increase in that year. The current account surplus in oil-exporting countries is projected to decline to 0.7 percent of GDP in 2023–24, reflecting the expected decline of oil prices and subdued global activity. Similarly, the projected subdued global demand could affect demand for non-oil commodities and induce a widening of the current account deficit for this group of countries to 3.1 percent of GDP in 2023–24.

Non-resource-intensive economies have seen their external positions weaken further in 2022 due to higher food and energy import bills and depreciating national currencies. The current account deficit for these economies is estimated to have deteriorated to 7.6 percent in 2022 from 5.4 percent in 2021. If the recent phase of weak

national currencies persists, it could increase the import bill and erode countries' external positions, creating ripple effects in the real economy through an increase in imported inflation. The average current account deficit for non-resource-intensive economies is projected to narrow to 6.1 percent of GDP in 2023 and stabilize at 6.2 percent of GDP in 2024.

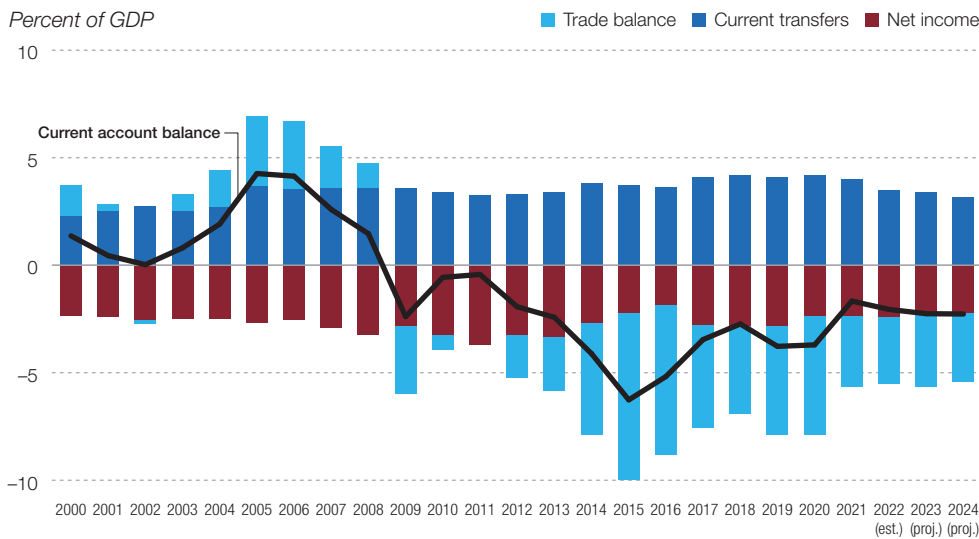
The average current account in tourism-dependent economies remains weak, with a deficit of 14.4 percent of GDP in 2022, though it improved substantially from 21.5 percent in 2021. It is projected to narrow further to 13.1 percent in 2023, and to 11.8 percent in 2024 as tourist arrivals gradually increase. According to the World Tourism Organization, an estimated 700 million tourists traveled internationally between January and September 2022, more than twice (133 percent) the number for the same period in 2021, and a strong recovery of nearly 61 percent of pre-pandemic levels.

Current account deficits in most African countries continue to be driven mainly by trade deficits and net factor payments, while net current transfers including remittances and foreign aid prop them up (figure 1.33).

The continent's average current account deficit which peaked at 6 percent of GDP in 2015 has steadily narrowed and stabilized at slightly above

Current account deficits in most African countries continue to be driven mainly by trade deficits and net factor payments, while net current transfers including remittances and foreign aid prop them up

**FIGURE 1.33** Current account balance decomposition: continental averages over 2000–24



Source: AfDB statistics.

Total external financial inflows to Africa—foreign direct investment, portfolio investments, official development assistance, and remittances—have rebounded by around 20 percent to \$216.5 billion in 2021

2 percent since 2020. The contribution of net income outflows has declined over time, particularly in the aftermath of the COVID-19 pandemic as softer global economic conditions weighed on dividends and interest payments to foreign investors. But the deficit in merchandise trade has been growing since 2012, peaking at about 57 percent in 2015 as net commodity exporters suffered trade losses from lower prices.

Aided by commodity prices well above pre-pandemic levels, the contribution of the trade deficit has since declined. But it remains above 35 percent on average and is projected to remain at the same level in the medium term as slower growth in global economy dampens demand and softens export prices. In contrast, net current transfers (workers' remittances, intergovernmental official transfers, among others) have been positive and resilient throughout the period, alleviating the impact of the trade deficit and income outflows on the current account. These dynamics are expected to persist at least in the medium term, given the resumption of official development assistance and other transfers.

While these projections indicate a gradual rebalancing of external positions, countries must continue to address persistent deficits proactively rather than reactively. Unfortunately, many African countries have limited policy space for dealing

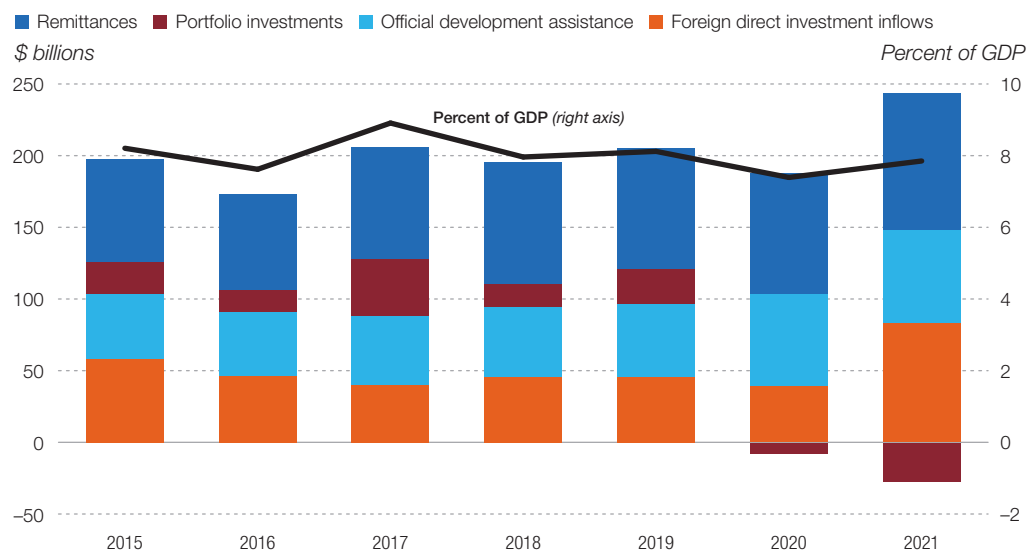
with macroeconomic imbalances in the short term due to a bleak global economic outlook, a persistent supply chain crunch, and tighter global financial conditions.

### External financial flows to Africa, implications, and outlook

*The rebound in financial flows from the decline in 2020 has proven robust, but several uncertainties remain due to tighter global financial conditions*

Total external financial inflows to Africa—foreign direct investment (FDI), portfolio investments, official development assistance (ODA), and remittances—have rebounded by around 20 percent to \$216.5 billion in 2021 (figure 1.34). The increase was led by FDI, which more than doubled to \$83 billion in 2021 from \$39 billion in 2020, when the pandemic weighed heavily on investment. Despite the strong expansion in 2021, FDI flows to Africa accounted for only 5.2 percent of global FDI, up from 4.1 percent in 2020. Although weak, the rising importance of Africa as host of global FDI flows highlights increased investor appetite for investment opportunities in the continent. As pointed out in the MEO 2023, the largest FDI recipient in 2021 was South Africa, with investments worth more than \$40.9 billion, nearly

FIGURE 1.34 External financial flows to Africa, 2015–21



Source: African Development Bank statistics and staff calculations assuming constant ODA between 2020 and 2021.

half the total inflows to Africa that year, followed by Egypt and Mozambique, each attracting nearly \$5.1 billion in FDI inflows, about 6.2 percent of the total. FDI in Mozambique, which increased by 68 percent in 2021, is largely directed to green-field projects in the energy sector. Other countries such as Nigeria (5.8 percent of Africa's FDI inflows) and Ethiopia (5.1 percent) also managed to attract important FDI flows despite economic challenges. The bulk of FDI to these countries is increasingly directed to projects in clean energy resources.

The reversal of portfolio investments in 2020 persisted in 2021 with a record \$27.5 billion of outflows, after \$8.1 billion outflows in 2020. This sustained asset selloff highlights the sensitivity of portfolio investments to changes in the global and domestic financial environment as opposed to FDI which has proven to be more resilient against economic shocks. Recent interest rate hikes by central banks, mainly in advanced economies, and tighter global financial conditions are weighing on capital outflows, with attendant pressures on currencies and interest rates in emerging and developing economies, which are particularly vulnerable to capital flight. The recent bank defaults could further reinforce global financial instability and exacerbate capital outflows from the continent.

Portfolio investment, however, displays significant cross-country heterogeneity in Africa. Countries such as Mauritius and South Africa with more mature equity and debt markets recording the largest outflows in 2021 (figure 1.35). But a few African countries recorded net inflows in 2021. These include Egypt (\$18 billion), Nigeria (\$5.9 billion, reversing the capital flight in 2020), and Ghana (\$2.1 billion, bolstering its portfolio inflows of \$1.6 billion in 2020). Capital flight through net portfolio investment outflows is estimated to have continued in 2022 at \$28 billion, close to the 2021 level due to rising interest rates associated with contractionary monetary policies in advanced countries.

Official development assistance (ODA) to Africa steadied at \$65 billion in 2021 after the 28 percent jump in 2020. The surge in ODA since 2020 reflected support from the international community to help African governments tackle the humanitarian and socioeconomic impacts of the pandemic and navigate through the challenging

global environment. African countries that experienced the largest increase in ODA in 2021 include Egypt (428 percent), Equatorial Guinea (115 percent), Angola (109 percent), Gabon (82 percent), and Sudan (60 percent). But the bulk of ODA to Africa in 2021 was concentrated in Egypt (\$8.2 billion), Ethiopia (\$4 billion), Sudan (\$3.8 billion), DRC (\$3.5 billion), Nigeria (\$3.4 billion), and Kenya (\$3.1 billion). The top aid-receiving African countries in 2021 accounted for more than half the total ODA flows to the continent. African countries need to leverage this external support to address existing vulnerabilities and build more resilient economies, especially given risks that advanced economies may reallocate resources to reconstruction and humanitarian assistance in Ukraine at the expense of meeting their ODA commitments to Africa.

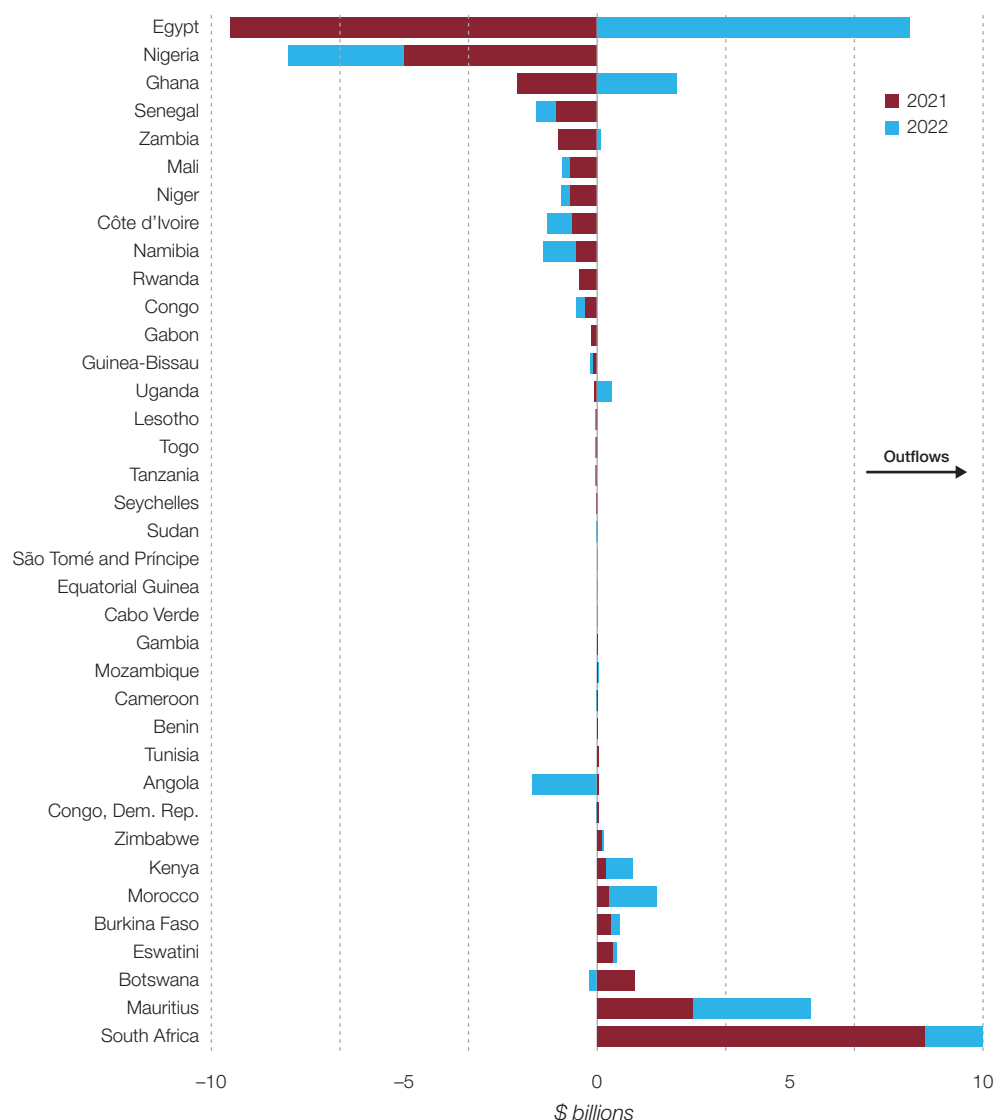
In 2022, member countries of the Development Assistance Committee (DAC) provided \$204 billion in total ODA to the rest of the world, a 13.6 percent increase from 2021 levels. Contributing to this increase was net ODA to Ukraine of \$16.1 billion, equivalent to 7.8 percent of total ODA resources made available in 2022. In comparison, net bilateral ODA flows from DAC countries to Africa declined by 7.4 percent in real terms from \$36.6 billion in 2021 to \$34 billion, the lowest level since 2010 and the third consecutive decline since 2019.<sup>17</sup> The net ODA flows to Africa are a small fraction of the more than \$91 billion in financial commitments, between January 2022 and February 2023, from the Western governments (mainly the G7 and European Union member countries) and non-bilateral donors (including the IMF, World Bank, and the European Bank for Reconstruction) to help sustain economic and financial stability in Ukraine following Russia's invasion.<sup>18</sup>

Remittances rebounded by 13.5 percent to \$95.5 billion in 2021 from the modest drop of less than 1 percent to \$84.2 billion in 2020. The relative resilience of remittances in 2020 was due in large part to increased personal transfers to Angola, Egypt, Kenya, Morocco, Zambia, and Zimbabwe, which offset the sharp fall in other countries such as Nigeria. The increase in remittances was driven by better-than-expected economic conditions in top African migrant destination countries, including the OECD, and the Gulf countries,

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The reversal of portfolio investments in 2020 persisted in 2021 with a record \$27.5 billion of outflows, after \$8.1 billion outflows in 2020

**FIGURE 1.35 Portfolio investments, 2021 and 2022**



The increase in external financial flows needs to be sustained in a context of large financing needs for the continent, including for climate action

Note: A positive number signifies an outflow of portfolio investment from Africa, and a negative number an inflow of portfolio investment.

Source: AfDB staff calculation.

depreciating exchange rates against the US dollar, and a shift from cash (informal) to digital (formal) transfers. The increase in remittances in 2021 was driven by Egypt (\$31.5 billion, or 33 percent), Nigeria (\$19.5 billion, or 20 percent), and Morocco (\$10.7 billion, or 11 percent). Remittances have become a vital source of foreign financing for many African countries and serve as a private coping mechanism against shocks, reducing people's vulnerability to severe shocks. This highlights the importance of improving conditions

for channeling these flows to mitigate the socio-economic impacts of recent overlapping shocks on African households.

As highlighted in chapter 2, the increase in external financial flows needs to be sustained in a context of large financing needs for the continent, including for climate action estimated at \$2.6–\$2.8 trillion over 2020–30, or \$234.5–\$250 billion a year. Even more important is the need for African countries to increase the scope and depth of available financing options. This is critical to allow



Africa to achieve the Sustainable Development Goals and accelerate progress toward greener and more inclusive growth. Against this background, chapter 2 is on private sector financing for climate and green growth in Africa and chapter 3 is on natural capital for climate finance and green growth in Africa.

## POLICY OPTIONS

African countries continue to feel the impacts of recent global and domestic shocks that have weakened macroeconomic fundamentals. Amid high inflation, tightening financing conditions, and elevated debt and climate risks, addressing the headwinds affecting Africa will require a mix of short and medium to long-term policies that can achieve faster disinflation while accelerating and sustaining the growth momentum.

### Short-term policies

*A clearly communicated anti-inflation monetary policy, supported by prudent fiscal policy, will achieve lower inflation faster at minimum cost to the economy*

Inflation remains significantly high across Africa, even by historical accounts, and the outlook points to sustained increase this year before falling and returning to single digits next year. Although the risk for global recession has waned and growth in Africa is projected to stabilize at around 4 percent, tackling high inflation would rekindle prospects for faster and sustained growth. But this requires careful consideration of policy options to ensure that inflation expectations do not become entrenched and impose costs on growth.

These policy choices will vary from one country to another, depending on prevailing economic and policy circumstances and the growth outlook. In countries where inflation rates are projected to remain significantly higher than targets or in double digits, raising policy rates and keeping them higher in the short term will help to anchor inflation expectations and drive inflation downwards. But this policy choice must consider the implied costs for growth and other socioeconomic challenges. It is therefore important that countries adopt such

policies to have a strong and credible central bank communication strategy that would hasten disinflation and thus lower the cost of aggressive monetary policy. Such a monetary policy stance will have to be coordinated with a tighter fiscal policy that restricts government spending in non-critical areas to achieve faster desirable outcomes on inflation. In countries whose inflation outlook is relatively low and well anchored, and that have spare capacity, appropriate monetary policy responses should be coordinated with fiscal policy to ensure that support for growth remains firmly on course.

*Macroprudential policies to supplement monetary policy actions will be necessary to address financial stability risks and maintain price stability*

Aggressive anti-inflation monetary policy aimed at realigning current inflation with its medium-term target could test the resilience of the banking sector in Africa. Strains in the financial system could in turn complicate the task of central banks. In this case, macro-prudential policies such as capital and liquidity buffers would be essential to address the risks to financial stability and should help central banks manage the trade-off between the twin objectives of maintaining price stability and financial system stability. This will allow central banks to continue with tight monetary policy to address inflationary pressures. Should financial strains emerge, requiring central banks to align monetary policy with its mandate of preserving financial stability, they should do so swiftly and credibly while clearly communicating a continued commitment to contain inflation as financial stress lessens. This clear communication is necessary for the credibility of monetary policy.

As global financial conditions tighten and financing needs mount, governments are increasingly turning to domestic banks for deficit financing. Increased exposure to domestic financial markets raises the risk of large publicly financed bank balance sheets, creating an adverse bank-sovereign feedback loop that could threaten financial stability should fiscal risks escalate. To avoid transmitting fiscal risks to the banking sector, a comprehensive domestic debt restructuring mechanism involving domestic banks and other domestic debtholders will be necessary to

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Countries need a strong and credible central bank communication strategy that would hasten disinflation and thus lower the cost of aggressive monetary policy

achieve the required debt reduction target while minimizing the associated financial stability risks.

*Coordinated debt treatment strategy between official and private creditors is key to avoiding a debt crisis, given tight global financial conditions, and a bunching of debt service payments*

Countries facing a high risk of debt distress should firmly implement policies, including expenditure-focused fiscal consolidation, aimed at restoring fiscal fitness and debt sustainability. Reforms should however be gradual to cushion poorer households from expenditure cuts. For countries currently in debt distress or whose debt is on tipping point of sustainability, early consideration of debt treatment and engagement with creditors are paramount to restoring debt sustainability. Accompanying policies such as fiscal consolidation focusing on both efficient revenue mobilization and public expenditure will be needed to build market confidence and restore macroeconomic stability. Aligning the new Global Sovereign Debt Roundtable<sup>19</sup> with the G20 Common Framework will help strengthen the collaboration among bilateral and multilateral lenders as well as private creditors, and build credibility for successful debt restructuring.

### **Medium to long-term policies**

*Scaling up domestic revenue mobilization is critical to restore fiscal sustainability and finance inclusive growth and sustainable development*

Domestic resource mobilization is an imperative for African countries faced with huge financing needs for inclusive and sustainable growth and development. Mobilizing domestic resources requires strong policy commitment to reforms focusing, in the long term, on broadening the tax base, enhancing formalization of informal activities, improving the transparency and efficiency of tax administrations through digitalization and simplified procedures, and curbing illicit financial flows.

Countries should improve enforcement capacity and promote voluntary tax compliance through better use of tax revenues for public welfare—by providing quality public goods and services—and campaigns to increase awareness of the importance of paying taxes. Deepening domestic

financial markets is critical to unlocking private sector financing for development. Resource mobilization could also be enhanced by improving institutional governance and enacting policies that can leverage private financing, especially in climate-proof and pandemic-proof greenfield projects—and mobilizing Africa's natural resources.

*Enacting strategic industrial policies to accelerate economic diversification in Africa is imperative to limit effects of recurrent headwinds and global shocks*

Cross-regional variations in growth show that the most diversified regions have more sustained growth. Although the short-term cost of diversification may seem high for countries heavily dependent on exports of primary commodities, especially oil-producing countries, it remains the most viable option for sustaining higher and inclusive growth in the medium to long term. Furthermore, the shift in economic opportunities toward green growth offers a strong business case for the design of strategic industrial policies to harness Africa's critical minerals across the entire value chain for green development to reduce the carbon footprint and lower the cost of shocks.

Diversifying into growth-enhancing and job-creating sectors can be enhanced through structural reforms including supporting investment in hard and soft infrastructure to boost regional trade and shield against volatility in trade and current accounts. Importantly, developing strategic industrial policies to spur diversification will be critical to correct market failures, drive export orientation, and encourage healthy competition in key sectors. Examples of strategic industrial policies include local content and franchising policies to promote value addition and boost the competitiveness of Africa's commodity exports. Further discussion of these policies is in chapter 3.

*Boosting regional trade to enhance Africa's resilience to spillovers from global economic growth slowdown and reduce the persistent trade deficit*

Accelerating implementation of the African Continental Free Trade Area (AfCFTA) presents an opportunity to create a borderless Africa. A combined population of 1.4 billion, equivalent to

16.7 percent of the world population and GDP of about \$3 trillion, could underpin a competitive continental market to expand intra-African trade to cushion economies from multiple shocks. But this will entail scaling up investment in soft and hard infrastructure, especially regional transport and logistics hubs, and dismantling trade and nontrade barriers that continue to hamper the free flow of goods, services, and persons.

In addition, harmonizing and strengthening cross-border payment systems through technological advances and accelerating efforts toward coordinated macroeconomic stability would facilitate regional integration and trade. Minimizing the effects of disruptions in global supply chains and the emergence of trade re-shoring and friend-shoring requires building more integrated and resilient regional economies.

*Reforming the global financial and debt architecture to reduce the cost, time and legal complications associated with debt restructuring for developing countries*

The ability of the current global financial and debt architecture to address emerging challenges is being seriously undermined by the growing share of non-concessional debt, mostly from private lenders and non-Paris Club members. This is the main reason for the delays in sovereign debt resolutions under the G20 Common Framework. And this reality can no longer be ignored and calls for urgent reform of the current global financial and debt architecture to avoid high debt resolution costs and limit the likelihood of a re-emerging debt crisis.

Reforming the global financial and debt architecture would help developing countries, especially in Africa, access international resources on affordable terms to finance investment in critical infrastructure and human capital development for the achievement of Sustainable Development Goals. These reforms should include strengthening the capacity of regional multilateral financial institutions to better respond to emerging challenges. Central to this is the need for support

to the joint initiative by the African Development Bank and African Union Commission to establish an African Financial Stability Mechanism (AFSM) to help the continent strengthen its debt management and crisis resolution capacity. The AFSM would help African countries pool resources to address idiosyncratic shocks buffeting the continent.

Other reforms could include reviewing the global rating landscape dominated by three rating agencies, which tends to raise financing costs and reduce financial inflows to Africa. The current formula for the allocation of special drawing rights (SDRs), which favors richer countries whose needs for such resources during global crisis is low, also needs to be reviewed with the aim to channel such resources to developing countries that need them the most.

*Reforming governance to strengthen public financial management to deal with increased debt and tight fiscal space.*

Africa's debt remains elevated, financial inflows have stalled, and the fiscal space has significantly narrowed as countries spend on average almost one-fifth of their annual revenues on debt service. Under such conditions, African governments need to prioritize public expenditure management and ensure value-for-money in their use of the limited resources. This must be accompanied by governance reforms and improved public financial and debt management practices as immediate steps to address the mounting debt vulnerabilities.

The coverage of Africa's debt needs to go beyond general government debt to sub-national governments, state-owned enterprises, public-private partnerships, and domestic arrears accumulation. Improving the transparency and expanding the coverage of debt liabilities would help identify the exact nature of the debt burden and the type of relief required. Last, countries need to build institutional capacity to better manage public finances, block leakages, and improve investment efficiency and project selection.

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Reforming the global financial and debt architecture would help developing countries, especially in Africa, access international resources on affordable terms to finance investment in critical infrastructure and human capital development for the achievement of Sustainable Development Goals

## ANNEX 1.1 STATISTICAL APPENDIX

TABLE A1.1 Real GDP growth (percent)

	2021	2022 estimated	2023 projected	2024 projected
<b>Central Africa</b>	3.4	5.0	4.9	4.6
Cameroon	3.6	3.4	4.2	4.5
Central African Rep.	1.0	0.5	2.0	2.9
Chad	-1.1	2.4	3.6	3.7
Congo	1.5	3.2	4.2	4.4
Congo, Dem. Rep.	6.2	8.5	8.0	7.2
Equatorial Guinea	-0.9	3.1	-1.4	-6.3
Gabon	1.5	3.0	2.7	2.8
<b>East Africa</b>	4.7	4.4	5.1	5.8
Burundi	3.1	4.0	4.5	4.6
Comoros	2.2	2.9	3.5	4.0
Djibouti	4.8	3.7	5.4	6.5
Eritrea	2.5	2.3	2.6	3.1
Ethiopia	5.6	5.3	5.8	6.2
Kenya	7.5	5.5	5.6	6.0
Rwanda	10.9	8.2	7.6	8.0
Seychelles	7.9	9.5	5.1	4.2
Somalia	2.9	1.7	2.8	3.5
South Sudan	-4.9	-2.9	-0.4	4.6
Sudan	-1.9	-0.7	2.0	3.8
Tanzania	4.9	4.7	5.3	6.3
Uganda	5.6	6.3	6.5	6.7
<b>North Africa</b>	5.4	4.1	4.6	4.4
Algeria	3.4	3.0	3.1	2.4
Egypt	3.3	6.6	4.4	5.1
Libya	28.3	-12.1	17.9	8.0
Mauritania	2.4	5.3	4.3	5.9
Morocco	7.9	1.1	3.3	3.5
Tunisia	4.3	2.4	1.9	2.8
<b>Southern Africa</b>	4.4	2.7	1.6	2.7
Angola	1.1	3.0	3.5	3.9
Botswana	11.9	5.8	4.0	3.9
Lesotho	1.6	2.5	2.1	2.6
Madagascar	5.7	4.2	4.2	5.0
Malawi	2.2	0.8	2.0	3.5
Mauritius	3.4	8.7	5.0	4.2
Mozambique	2.3	3.8	4.8	8.3
Namibia	3.5	4.6	2.6	3.0
São Tomé and Príncipe	1.9	0.9	1.6	1.9
South Africa	4.9	2.0	0.2	1.5
Eswatini	7.9	3.6	3.5	4.9
Zambia	4.6	3.0	4.0	4.2
Zimbabwe	8.5	3.0	3.2	3.2
<b>West Africa</b>	4.4	3.8	3.9	4.2
Benin	7.2	6.0	6.2	6.0
Burkina Faso	6.9	3.2	3.7	3.9
Cabo Verde	7.0	10.5	5.7	6.2
Côte d'Ivoire	7.4	6.7	7.2	7.0
Gambia	4.3	4.4	5.2	5.6
Ghana	5.4	3.3	1.7	3.0
Guinea	4.4	4.8	5.5	5.6
Guinea-Bissau	6.4	3.7	4.6	5.1
Liberia	5.0	4.0	4.3	4.8
Mali	3.1	3.7	5.1	5.3
Niger	1.4	7.2	7.0	11.8
Nigeria	3.6	3.3	3.4	3.2
Senegal	6.5	4.0	5.5	9.8
Sierra Leone	4.1	2.8	3.1	4.8
Togo	6.0	5.5	6.3	6.6
<b>Africa</b>	4.8	3.8	4.0	4.3
Africa (excluding Libya)	4.3	4.1	3.7	4.2
Africa (excluding Nigeria)	5.0	4.0	4.1	4.5
<i>Memorandum items</i>				
North Africa (including Sudan)	4.9	3.8	4.5	4.4
Sub-Saharan Africa	4.4	3.7	3.6	4.2
Sub-Saharan Africa (excluding South Africa)	4.3	4.1	4.3	4.8
Oil-exporting countries	4.2	4.0	4.3	4.1
Oil-importing countries	-2.4	5.3	3.7	4.1
Other resource-intensive	4.5	3.0	2.4	3.5
Non-resource-intensive	6.3	4.4	5.0	5.6
Tourism dependent	4.0	8.4	4.9	4.4
Low income	3.9	4.2	5.0	5.8
Middle income	4.9	3.8	3.8	4.0

Source: African Development Bank statistics.

**TABLE A1.2 Country groupings**

<b>Oil exporters</b>	<b>Other resource-intensive</b>	<b>Non-resource-intensive</b>	<b>Tourism dependent</b>	<b>Low income</b>	<b>Middle income</b>
Algeria	Botswana	Benin	Cabo Verde	Burkina Faso	Algeria
Angola	Burkina Faso	Burundi	Comoros	Burundi	Angola
Cameroon	Central African Republic	Cabo Verde	Mauritius	Central African Republic	Benin
Chad	Congo, Dem. Rep.	Comoros	São Tomé and Príncipe	Chad	Botswana
Congo	Ghana	Côte d'Ivoire	Seychelles	Congo, Dem. Rep.	Cabo Verde
Egypt	Guinea	Djibouti		Eritrea	Cameroon
Equatorial Guinea	Liberia	Eritrea		Ethiopia	Comoros
Gabon	Mali	Ethiopia		Gambia	Congo
Libya	Namibia	Gambia		Guinea	Côte d'Ivoire
Nigeria	Niger	Guinea-Bissau		Guinea-Bissau	Djibouti
South Sudan	Sierra Leone	Kenya		Liberia	Egypt
	South Africa	Lesotho		Madagascar	Equatorial Guinea
	Sudan	Madagascar		Malawi	Eswatini
	Tanzania	Malawi		Mali	Gabon
	Zambia	Mauritania		Mozambique	Ghana
	Zimbabwe	Mauritius		Niger	Kenya
		Morocco		Rwanda	Lesotho
		Mozambique		Sierra Leone	Libya
		Rwanda		Somalia	Mauritania
		São Tomé and Príncipe		South Sudan	Mauritius
		Senegal		Sudan	Morocco
		Seychelles		Togo	Namibia
		Somalia		Uganda	Nigeria
		Eswatini		Zambia	São Tomé and Príncipe
		Togo			Senegal
		Tunisia			South Africa
		Uganda			Tanzania
					Tunisia
					Zimbabwe

## NOTES

1. Agreed wording at the 2022 African Development Bank Group Annual Meetings in Ghana. Algeria, China, Egypt, Eswatini, Namibia, Nigeria, and South Africa, entered a reservation and proposed “Russia–Ukraine Conflict.”
2. AfDB 2022.
3. According to Statistic South Africa, Kwa-Zulu-Natal accounted for a fifth of South Africa’s manufacturing in 2019.
4. Common Monetary Area—Eswatini, Lesotho, Namibia, and South Africa. The Lesotho and Namibian currencies trade at par with the South African rand and circulate freely in these countries.
5. The SACU, comprising Botswana, Eswatini, Lesotho, Namibia, and South Africa, provides for common external and excise tariffs to this common customs area and the revenue collected in the bloc area is shared among members according to a revenue-sharing formula, as described in the agreement establishing the bloc.
6. Seychelles National Bureau of Statistics 2022.
7. CEMAC refers to the Central African Economic and Monetary Community while WAMU stands for the West African Economic and Monetary Union. The depreciation of the currency of the monetary union CEMAC and WAMU mainly reflects the depreciation of the euro against the US dollars due to the fixed exchange rate between the CFA and euro.
8. Fitch Ratings 2022.
9. IMF 2022a.
10. The 35 countries are low-income African countries (LICs) for which a debt sustainability analysis (DSA) is available and where data on external debt service are available.
11. When considering only external debt, the total number of African countries in high risk of, or already in debt distress as of February 2023 is 22.
12. Zambia and Ghana are excluded from these figures, due to uncertainty over how debt restructuring will affect their service payments. Ghana has debt payments of \$149 million due in August 2023 and \$333 million in January 2024, but these may be affected by its restructuring currently under discussion.
13. Domestic debt as used here is restricted to the issuance of treasury bills and bonds, and excludes arrears owed to suppliers of goods and services to government. It also excludes guaranteed domestic debt owed by state-owned enterprises and/or contingent liabilities.
14. IDA and IMF 2020; IMF 2022b.
15. Banks hold sovereign debt for several reasons including the fact that sovereign debt is considered as a safe and high-quality asset for them to meet the liquidity requirements, a strong collateral asset for central bank operations, and a benchmark for pricing financial assets.
16. The government seeks to exchange about GHS137.3 billion (\$11.45 billion or about 15 percent of 2021 GDP) of existing domestic notes and bonds held by various local investors for a package of 12 new bonds with different payout dates. However, for the restructuring exercise to succeed, a qualifying majority (usually 75 percent) of debt holders must agree to change the contract’s key financial terms. This prevents a minority investor group from holding out and preventing the debt restructuring from proceeding. As of January 2023, the subscription to this program was below 50 percent, well below the 75 percent target.
17. OECD 2023.
18. Kiel Institute 2023. Over the same period, total commitments—financial, humanitarian, and military—from Western governments and non-bilateral donors amounted to more than \$183 billion. In March 2023, the IMF approved \$15.6 billion under a new 48-month arrangement under the Extended Fund Facility (EFF) for Ukraine. This arrangement forms part of a \$115 billion overall support package through which the Fund seeks to support fiscal, external, price and financial stability and support economic recovery in Ukraine, while promoting long-term growth in the context of the country’s post-war reconstruction. Between February 2022 and April 2023, the World Bank has mobilized more than \$23 billion in financial support, with \$20 billion disbursed to assist the government of Ukraine’s efforts in sustaining public sector administrative and service delivery capacity.
19. <https://www.imf.org/en/About/FAQ/gsd-roundtable>.

## REFERENCES

- African Development Bank. 2021. *African Economic Outlook 2021: From Debt Resolution to Growth: The Road Ahead for Africa*. Abidjan, Côte d'Ivoire: African Development Bank.
- African Development Bank. 2022. *African Economic Outlook 2022: Supporting Climate Finance and a Just Energy Transition in Africa*. Abidjan, Côte d'Ivoire: African Development Bank.
- African Development Bank. 2023. *Africa's Macroeconomic Performance and Outlook Report 2023*. Abidjan, Côte d'Ivoire: African Development Bank.
- Fitch Ratings. 2022. *African Banks Outlook 2023*. <https://www.fitchratings.com/research/banks/african-banks-outlook-2023-07-12-2022>.
- IDA (International Development Association) and IMF (International Monetary Fund). 2020. "Democratic Republic of São Tomé and Príncipe: Request for Disbursement under the Rapid Credit Facility – Debt Sustainability Analysis." Washington, D.C.: IMF.
- IMF (International Monetary Fund). 2022a. "West African Economic and Monetary Union Financial Sector Assessment Program, Technical Note on Stress Tests, Credit Concentration, and Interest Rate Risks, August 2022." Washington, DC: IMF.
- IMF (International Monetary Fund). 2022b. Burundi: 2022 Article IV Consultation Press Release; Staff Report; and Statement by the Executive Director for Burundi. Country Report No. 2022/257. Washington, D.C.: International Monetary Fund.
- IMF (International Monetary Fund). 2023. *World Economic Outlook, April 2023: A Rocky Recovery*. Washington, DC: IMF.
- Kiel Institute for the World Economy. 2023. *Ukraine Support Tracker Database*. Kiel, Germany: Kiel Institute for the World Economy. <https://www.ifw-kiel.de/publications/data-sets/ukraine-support-tracker-data-17410/>.
- OECD (Organisation for Economic Co-operation and Development). 2023. "ODA Levels in 2022—Preliminary Data: Detailed Summary Note." April. Paris: OECD. <https://www.oecd.org/dac/financing-sustainable-development/ODA-2022-summary.pdf>.
- Seychelles National Bureau of Statistics. 2022. "Monthly Visitors, Arrivals, 2022." National Bureau of Statistics database. <https://www.nbs.gov.sc/downloads/economic-statistics/monthly-visitors-arrivals/2022>.
- World Bank and KNOMAD (Global Knowledge Partnership on Migration and Development). 2022. "Remittances Brave Global Headwinds." Migration and Development Brief 37, World Bank, Washington, DC.





# PRIVATE SECTOR FINANCING FOR CLIMATE ACTION AND GREEN GROWTH IN AFRICA

## 2

### KEY MESSAGES

- **Africa has great potential and self-interest to achieve green growth.** However, despite its growing political commitment toward green growth and its rich natural capital endowment, the continent lags other regions on many green growth dimensions, in particular on the provision of green economic opportunities. Progress on efficient and sustainable resource use and on the promotion of social inclusion has not been sufficient to catch up with other world regions.
- **To close Africa's climate financing gap by 2030, approximately \$213.4 billion will need to be mobilized annually from the private sector, to complement constrained public resources.** Africa received \$4.2 billion in private climate finance in 2019/2020, 14 percent of total climate finance flows of \$29.5 billion. It requires \$242.4 billion a year on average until 2030—\$2.7 trillion over 2020–30—to implement its climate action expressed in the latest submitted Nationally Determined Contributions (NDCs).
- **In addition, Africa will require about \$1.3 trillion annually to meet its sustainable development needs by 2030—and thus to achieve green growth.** Most of this finance is expected to be met through private finance. To meet these needs and given the current levels of public climate finance, private climate finance should increase by about 36 percent each year until 2030.
- **However, barriers on the supply and demand sides inhibit reaching the full potential of private investments in climate and green growth sectors in Africa.** Ineffective implementation of green growth strategies, weak regulatory structures and institutions, high perceived investment risk, and the lack of bankable project pipelines continue to impede private investment in Africa's climate and green growth projects.
- **Despite the barriers, many investment opportunities in climate action and green growth could unlock private finance.** Sectors that will rely on climate-smart and low-carbon technologies—such as renewable energies and electric vehicles, energy-efficient buildings, climate-resilient infrastructure, improved dryland crop production, and water resource resilience—present Africa's trillion-dollar market opportunities for the private sector. The implementation of appropriate regulatory, policy, and institutional frameworks is essential for turning them into booming markets for private investors.

Holding promise for mobilizing private financing are emerging innovative financing instruments in green and sustainable finance (social bonds, green bonds and loans, sustainability bonds and sustainability-linked bonds and loans), carbon pricing, debt-for-climate swaps, and blended finance

**Mobilizing the trillions in finance to address climate change and meet Africa’s green growth ambitions requires:**

- *Balancing allocations of private sector investments across areas that generate economic, social, and environmental outcomes.* High volumes of finance are needed for sustainable infrastructure (clean energy and transport systems, green buildings, and industry). But achieving just transitions to green growth will also require countries to direct investments toward other infrastructure that generates social and environmental development outcomes—such as health, education, social protection—to catalyze private investment.
- *Using innovative financing instruments and mechanisms to leverage emerging sources of private sector financing.* Holding promise for mobilizing private financing are emerging innovative financing instruments in green and sustainable finance (social bonds, green bonds and loans, sustainability bonds and sustainability-linked bonds and loans), carbon pricing, debt-for-climate swaps, and blended finance.

**Accelerating progress toward green growth by mobilizing private sector finance requires that development and climate change stakeholders in Africa work together:**

- *African governments should formulate, cost, and implement long term strategies (LTS) to provide high-level and predictable policy guidance to domestic and international private and public actors on priority investment sectors.* They should also design and implement conducive policies and regulations and develop markets to attract private investments, particularly in priority sectors for climate action and green growth, while strategically deploying available public finance to direct investments toward these sectors. Given their importance in employment creation, micro, small, and medium enterprises (MSMEs) should be an integrated part of any national climate and green growth strategy, for instance, through affordable finance and skill development programs. Regional

integration through the African Continental Free Trade Area (AfCFTA) will also leverage cross-boundary opportunities for private investments.

- *Multilateral development banks (MDBs) and development financial institutions (DFIs) should accelerate their alignment with the Joint MDB Paris Alignment Framework and commit to implement the Bridgetown Initiative by leveraging their convening power to de-risk investments for green growth in Africa.* This can be done through grants, concessional finance, and credit and risk guarantees that support capacity development and innovation to increase private sector confidence in African markets. This will require MDBs and DFIs to transform into institutions that are more risk-agnostic to increase investments in priority sectors.
- *International and domestic private investors should exercise stewardship to identify barriers, investment risks, and opportunities for green growth in different African contexts to inform investment decisions.* They should commit to aligning their investments with the Paris Agreement—by ensuring that financial allocations directed toward Africa embed climate risks and contribute to green transitions, sustainability, and climate resilience.
- *Credit rating agencies could expand their framework to reflect the potential for the African market.* Reforming rating procedures to ensure that risk and credit ratings include the true potential of Africa’s green growth markets would play a catalytic role to attract private sector financing for climate and green growth. The increasing calls to reform the rating agencies and the progress toward establishing an African Rating Agency are steps in the right direction.
- *Governments in developed countries should honor their Paris Agreement commitments to mobilize \$100 billion of climate finance annually for developing countries.* They should also commit to a higher post-2025 climate finance target that is sufficient to meet needs in developing countries and target flows toward climate action and green growth.

## THE IMPERATIVE FOR GREEN GROWTH AND THE ROLE OF PRIVATE SECTOR FINANCING

### The global commitment to green growth

*The world is facing complex and overlapping crises that demand careful consideration of the synergies between economic growth, social development, and environmental protection*

Climate change and recent global events and risks, such as the COVID-19 pandemic and rising food and energy prices, have amplified the multiple risks the world faces. This underscores the need for responses that not only mitigate these risks but also promote recovery prioritizing social, economic, and environmental outcomes. Economic growth and sustainable development are at the heart of objectives for many state and non-state actors. Alongside these objectives is the Paris Agreement goal of limiting warming to well below 2°C through transformative actions that enable transitions to low carbon emissions.

However, development interventions have had a history of exacerbating climate risks while failing to reduce social inequalities. For example, the use of fossil fuels has driven economic growth in many developed countries, but it has also increased greenhouse gases (GHG) and environmental degradation through unsustainable resource extraction, production processes and consumption.<sup>1</sup> And although climate action protects development gains, some interventions may threaten sustainable development objectives, as when transitions from fossil fuels do not account for the livelihoods of local populations or countries.<sup>2</sup> Leveraging complementarities among climate action, sustainable development, and economic growth is thus crucial.

### **Green growth correlates positively with economic growth, climate resilience, low carbon development, and climate readiness**

The African Development Bank (AfDB, or the Bank) defines green growth as “the promotion and maximization of opportunities from economic growth through building resilience, managing natural assets efficiently and sustainably,

enhancing agricultural productivity, and promoting sustainable infrastructure.”<sup>3</sup> Green growth pathways therefore identify and address social and environmental externalities and market failures that emerge from pursuing economic growth and climate action, such as through material and energy efficiency.<sup>4</sup> Green growth thus contributes toward Paris Agreement alignment and access to Paris Agreement support. Developing countries that perform well on green growth also do well on other economic development and climate resilience indicators.<sup>5</sup> Indeed, green growth score of African countries over 2010–21 was correlated positively with real GDP growth, climate resilience, and climate readiness but negatively with climate vulnerability (figure 2.1).

Green growth policies have thus been highlighted as an integrated objective in key international frameworks for climate change and development, including the RIO+20 United Nations Conference on Sustainable Development in 2012, the Sustainable Development Goals (SDGs) in 2015, the Addis Ababa Declaration in 2015 on Financing for Development, the Paris Agreement, and the Sendai Framework for Disaster Risk Reduction.

### **Africa’s commitments to and progress toward green growth**

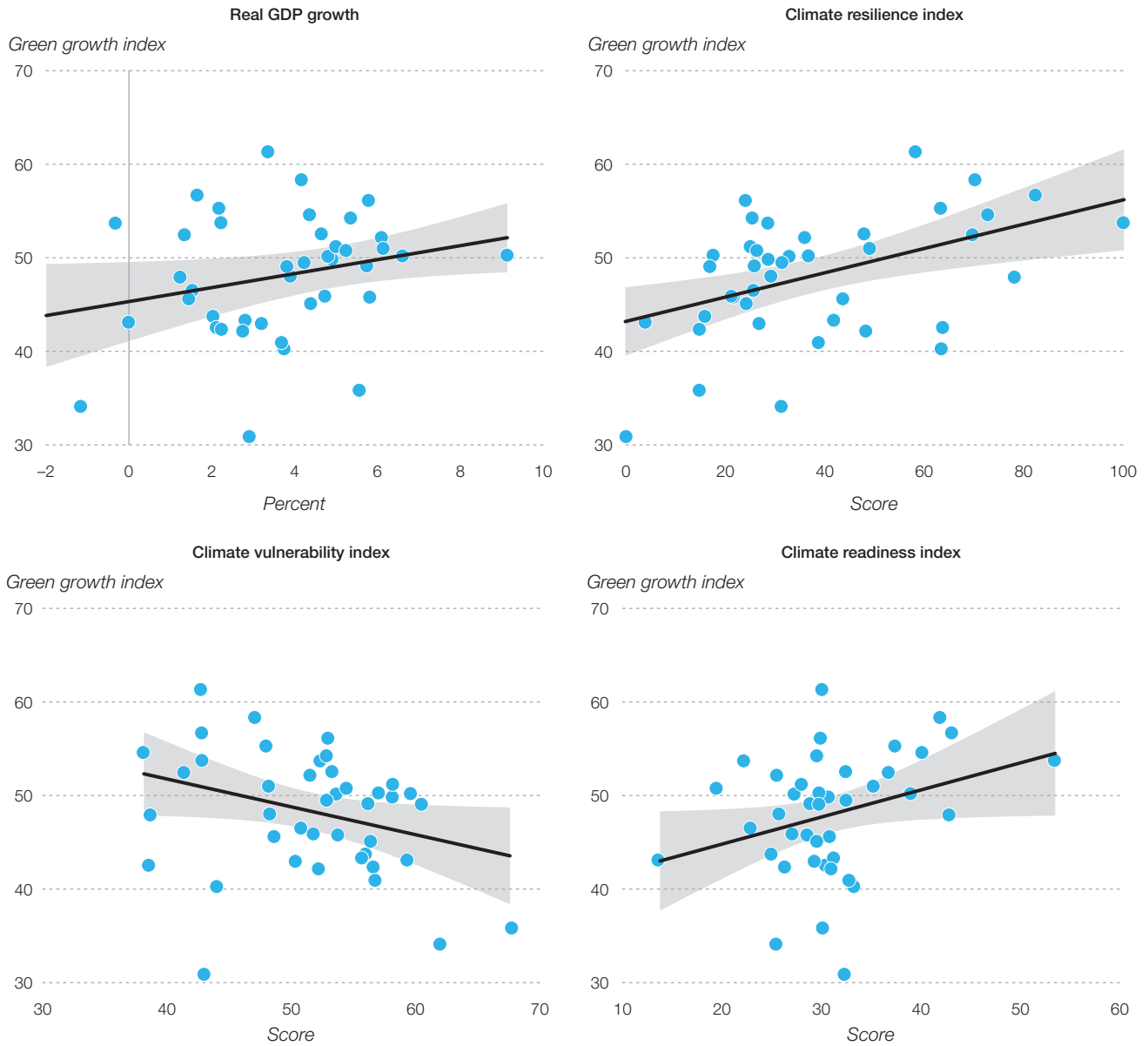
*Sustainable development, economic growth, and climate action are critical for Africa, and achieving them requires commitments to green growth*

Since the beginning of the 21st century, Africa’s population has almost doubled, its GDP has quadrupled, and its GHG emissions have increased by 50 percent. Even so, Africa currently contributes only about 4 percent of global GHG emissions, much less than China (30.9 percent), the United States (13.5 percent), European Union (7.5 percent), and India (7.3 percent).<sup>6</sup> It has also been severely affected by recent global events and risks, including the COVID-19 pandemic and the disruptive effects of the Russia’s invasion of Ukraine (chapter 1). So, although Africa has committed to addressing climate change, significant environmental and social issues and inequalities can be addressed only through green growth.

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Green growth in Africa is positively correlated with real GDP growth, climate resilience and readiness but negatively with climate vulnerability

**FIGURE 2.1** Selected correlates of green growth in Africa, average 2010–21



Note: The climate resilience index is averaged over 2010–19, and the climate vulnerability and readiness indices are averaged over 2010–20. Black lines are fitted with a 95% confidence interval.

Source: Staff calculations based on African Development Bank statistics, Notre Dame Global Adaptation Initiative, and Global Green Growth Institute databases.

Africa has a great potential to pursue climate and green growth objectives to accelerate economic growth.

- First, it has some of the world’s fastest-growing economies, and its real GDP growth is projected to surpass the global average in 2023–24, even as headwinds persist. Embedding

climate change in policy frameworks could catapult the continent to a higher and greener growth trajectory.

- Second is the continent’s human capital base. Africa’s population is projected to increase to 2.4 billion by 2050.<sup>7</sup> With most of its today’s population being young, unlike other regions’

aging populations, Africa is the current and future frontier market in green growth opportunities.

- Third, Africa hosts 25 percent of the world's natural biodiversity and 30 percent of the world's mineral resources, most of which is essential for a green transition.
- Fourth, Africa has a large renewable energy potential, including wind, solar, hydropower, and geothermal,<sup>8</sup> with solar potential the world's highest.<sup>9</sup>
- Last, African countries have the greatest potential for investments in green infrastructure and technology due to their low levels of development, low legacy high-emissions infrastructure, and the lowest frequency of infrastructure and project finance default rates (estimated at of 5.5 percent).<sup>10</sup>

***But Africa's progress toward green growth has been slow***

Transitions to green growth and desired climate actions require readiness and adequate finance. A green growth readiness assessment by the Bank and the Global Green Growth Institute (GGGI) of seven African countries—Gabon, Kenya, Morocco, Mozambique, Rwanda, Senegal, and Tunisia—indicated high political commitment to green growth, mainly supported by climate and green growth policies and strategies.<sup>11</sup> But in several other countries, there was limited evidence that climate and green growth strategies were aligned with sectoral policies and strategies. Policies also lacked fully costed implementation plans, with technical capacity and financing gaps and weak regulations limiting some countries' green growth readiness.

In addition to low readiness, analyses for this report show Africa's generally low performance on most green growth dimensions. To measure Africa's progress toward achieving green growth, this report used a Green Growth Index (GGI) constructed by the GGGI. The GGI, linked with the SDGs, is a composite index of about 40 indicators subdivided into four main dimensions.<sup>12</sup> The GGI score is normalized between 0 and 100 and benchmarked against sustainability targets, so that the higher the score, the closer the country or region to reaching green growth or sustainability

targets. Africa's GGI score hovered at about 48–50 over 2010–21, moving from a median of 48 in 2010 to just 50 in 2021, with important cross-country heterogeneity indicated by the relative size of the interquartile range over the years (figure 2.2, left panel). On green growth achievements, Africa lags Latin America and the Caribbean, North America, East Asia and Pacific, and Europe, but performs better than the Middle East and South Asia (figure 2.2, right panel).

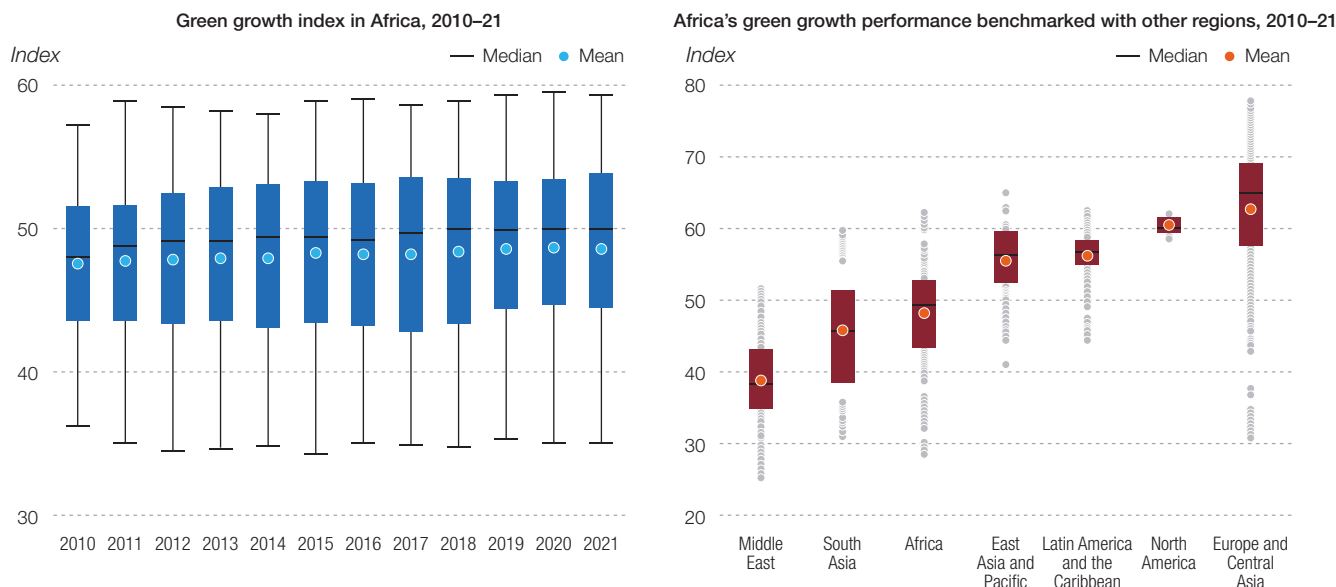
Africa's progress has been slow in most green growth dimensions (figure 2.3). It underperforms on green economic opportunities, with an average score of 18.1 over 2010–21, the second lowest among world regions. Its share of exports of environmental goods in total exports—a proxy for green trade (a score of 6.2), which refers to the competitiveness of a country to produce and export environmental goods that contribute to environmental protection, climate action, green growth, and sustainable development<sup>13</sup>—was on average 1.5 percent over 2010–20, compared to a minimum of 3 percent in other regions. The share of green jobs in total manufacturing employment—a measure of green employment (a score of 20.3)—averaged 2.5 percent in Africa between 2010 and 2018, less than half the average for the rest of the world (5.5 percent).<sup>14</sup> Africa also lags other regions in green innovation (a score of 44.1), particularly energy-saving, pollution-prevention, waste recycling, green product designs, or corporate environmental management.<sup>15</sup> The continent also underperforms on green investment (a score of 50.1) due to insufficient public and private investments to promote sustainable resource use and natural capital protection. Africa's ratio of adjusted net savings, including particulate emissions damage, to gross national income (GNI), a proxy for green investment,<sup>16</sup> was 3.6 percent on average between 2010 and 2021, compared with a minimum of 6 percent in the rest of the world.

Social inclusion has nevertheless improved over the past decade, from a score of 44.3 in 2010 to 47.2 in 2021, largely due to improvements in access to basic services and resources such as water, sanitation, electricity, and clean fuels, increasing gender balance and social equity. But this progress has not been sufficient for the continent to catch up with other world regions. Extreme

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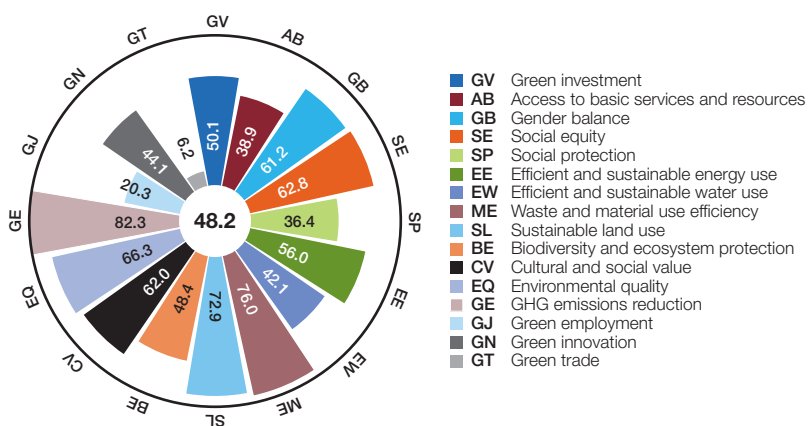
Africa's Green Growth Index score hovered at about 48–50 (on a scale of 0 to 100) over 2010–21, moving from a median of 48 in 2010 to just 50 in 2021, with important cross-country heterogeneity

**FIGURE 2.2** Africa's green growth index and green growth ambitions, average 2010–21



Note: Left panel: Outliers, values below the 5th and above the 95th percentiles, have been ignored. Right panel: The chart shows the median and mean green growth index scores by region with the interquartile range (IQR) in 2010–2021. Scatters represent values outside the IQR.  
 Source: Staff calculations based on the Global Green Growth Institute database.

**FIGURE 2.3** Distance to targets of green growth indicators in Africa, average 2010–21



Source: Staff calculations based on the Global Green Growth Institute database.

poverty, inequality, and undernourishment remain high. And social safety net and social protection schemes continue to exclude a large share of the population, particularly informal workers and other vulnerable people. As a result, Africa displays the lowest social inclusion score globally.

The continent performs relatively well on other dimensions of green growth. On efficient and sustainable resource use, it is almost at par with other world regions (with an average score of 57.5 over 2010–21), attributable to good performance on efficient and sustainable energy and water use due to the increasing investments in these areas. For example, average annual investments in renewable energy increased tenfold from about \$0.5 billion in 2000–09 to \$5 billion in 2010–20, though Africa still accounts for only 2 percent of global annual investments in renewable energy.<sup>17</sup> Despite public efforts to reduce GHG emissions, improve environmental quality, protect national biodiversity and ecosystem and promote cultural and social value, Africa ranks 4th on progress toward natural capital protection (a score of 61.4 over 2010–2021), behind Europe and Central Asia (69.7), Latin American and the Caribbean (66.2), and East Asia and Pacific (62.4), as African countries continue to struggle to curb illicit trade and financial outflows from natural resources (chapter 3).

## Rationale for private sector finance for climate action and green growth in Africa

*The urgency of addressing climate change and transitioning to a greener economy requires the active participation of all actors, including the private sector*

Climate change impacts are increasing in intensity and frequency around the world, particularly in Africa, highlighting the urgency of investing in climate action and green growth. Recent reports such as the African Economic Outlook 2022 and the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) have reiterated that the climate crisis is likely to get worse and that the time for action is now. The global cost of climate inaction has been found to be far greater than the cost of action. The IPCC's 6th Assessment Report indicates that the global economic benefits of limiting warming to 2°C are higher than the investment costs.<sup>18</sup> As a global commons problem, climate change and broader transitions to green growth require active participation of all stakeholders, including the private sector, which can leverage its expertise and resources to invest in achieving net zero and green transitions.

*Public finance alone is insufficient to achieve Africa's green growth agenda*

The United Nations estimates that approximately \$1.3 trillion will be required annually to meet Africa's sustainable development needs by 2030.<sup>19</sup> Similarly, finance needs for sectors and investments necessary for transitions to green economies are too sizable to be borne by the public sector finance alone. The Bank estimates that ensuring continental-wide access to electricity by 2030 will require \$32–40 billion annually,<sup>20</sup> while around \$45 billion are needed per year to achieve Africa's renewable energy goals.<sup>21</sup> Overlaying these targets with those of achieving social development, reducing inequalities, and achieving cross-sectoral environmental sustainability significantly expand the anticipated cost of transitions to green growth.

Finance for climate action and green growth therefore needs to be mobilized in the billions and trillions. Given Africa's already strained fiscal

positions due to a confluence of domestic and international shocks (chapter 1), mobilizing the private sector financing becomes imperative to achieving the continent's green growth ambitions expressed in Nationally Determined Contributions (NDCs) and other national strategies. Already, countries with climate change and green growth strategies have committed towards financing part of these using public resources. For example, about 15 percent of countries' NDC needs are expected to be covered by domestic public sources. However, these alone will be insufficient to meet current and future financing needs. Private finance will therefore be essential for plugging the gap, and for further mobilizing additional resources to meet the growing needs.

*Investment in low-carbon climate-resilient development sectors in Africa offers great opportunities of higher returns for the private sector*

Africa has good potential for generating high returns on private investments, given its natural capital, the composition and size of its population, and its prospects for rapid growth. Climate-smart technologies, already cost-competitive with fossil-fuel alternatives, have the highest potential for investments and returns in Africa. For example, of total investment opportunities of about \$23 trillion through 2030 in energy-efficient buildings, low-carbon transport, and renewable energies in emerging markets, \$1.03 trillion are in Africa.<sup>22</sup> The demand for electric vehicle batteries is projected to grow by about 22 percent a year, from about 8 million units sold in 2022 to 39 million units by 2030. Africa is at the center of this supply chain, as many African countries have at least one of the critical metals—lithium, cobalt, nickel, manganese, graphite, iron, and phosphate—needed to produce lithium-ion batteries for vehicles and electricity storage.

Private investors can contribute to climate adaptation and resilience while also generating attractive returns on investments. For example, investing \$1.8 trillion between 2020 and 2030 in early warning systems, climate-resilient infrastructure, improved dryland agriculture crop production, global mangrove protection, and water resource resilience globally, can generate

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About 15 percent of countries' Nationally Determined Contribution needs are expected to be covered by domestic public sources. However, these alone will be insufficient to meet current and future financing needs

\$7.1 trillion in net benefits for private investors.<sup>23</sup> And upfront private investment potential to adapt to droughts and floods could amount to up to 4.0 percent of Africa's GDP, close to \$100 billion a year through 2040, about \$5 billion a year (figure 2.4).

## THE PRIVATE CLIMATE FINANCING LANDSCAPE IN AFRICA

### Financing flows for climate action and green growth in Africa

*Climate finance flows in Africa are dominated by public finance sources, which are 6 times greater than private finance*

Financing flows for climate action in Africa reached an average of \$29.5 billion in 2019/2020, or 4.5 percent of the total global climate finance of \$652.6 billion.<sup>24</sup> Public finance in Africa (\$25.3 billion, or 86 percent of the total) was on average more than six times the private finance (\$4.2 billion, or 14 percent) in 2019/2020 (figure 2.5). North America, Western Europe, and Latin America and the Caribbean mobilized a greater proportion

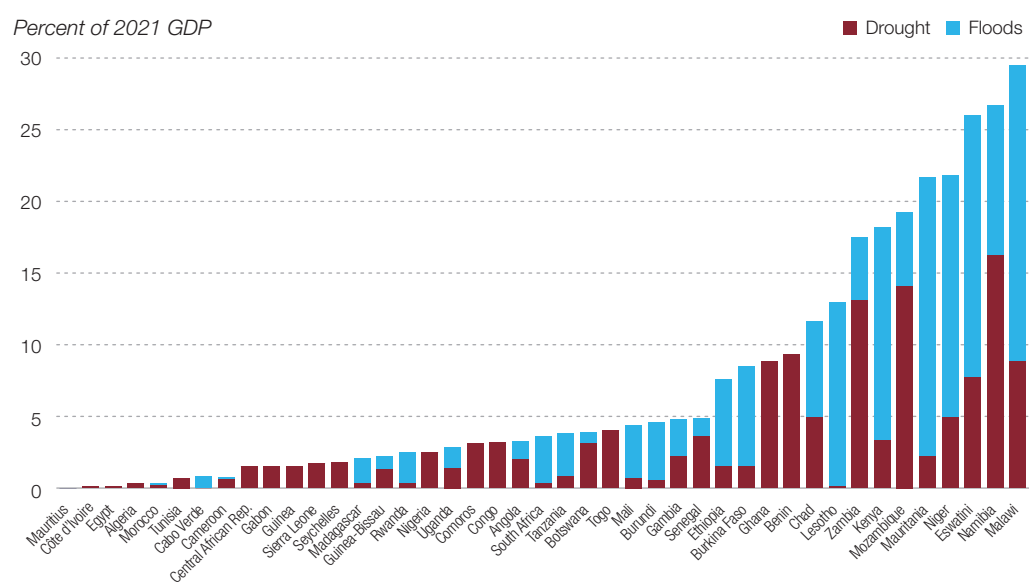
of climate finance from private sources, which respectively accounted for 96 percent, 59 percent and 49 percent of the total climate finance. Africa's leverage ratio (the ratio of private to public climate finance) is, at just 0.16, the lowest among world regions. It implies that for each \$1 of public finance mobilized for climate action, African countries were able to mobilize only \$0.16 of private financing. In North America, the leverage ratio is 18.5, and in South Asia and Latin America, it is at least 0.5.

*Private climate finance is skewed toward a handful of African countries which concentrate more than half of all financing inflows*

More than half of Africa's private climate finance inflows in 2019/2020 (56.2 percent) went to Egypt, Kenya, Morocco, Nigeria, and South Africa, the continent's largest economies with more developed financial markets. At the other extreme, 34 African countries each accounted for less than 1 percent of total climate finance from private sources, with a combined share of just 12.2 percent (figure 2.6). Most of these countries are highly vulnerable to climate change, are less resilient to climate shocks, and lack sufficient climate readiness for adaptation to climate change.

Private climate finance flows in Africa reached an average of \$4.2 billion in 2019/2020, or 14 percent of the total climate finance of \$29.5 billion, and six times lower than public climate finance

**FIGURE 2.4** Upfront private investment opportunities to adapt to droughts and floods in Africa between 2021 and 2040



Source: Bari and Dessus 2022.



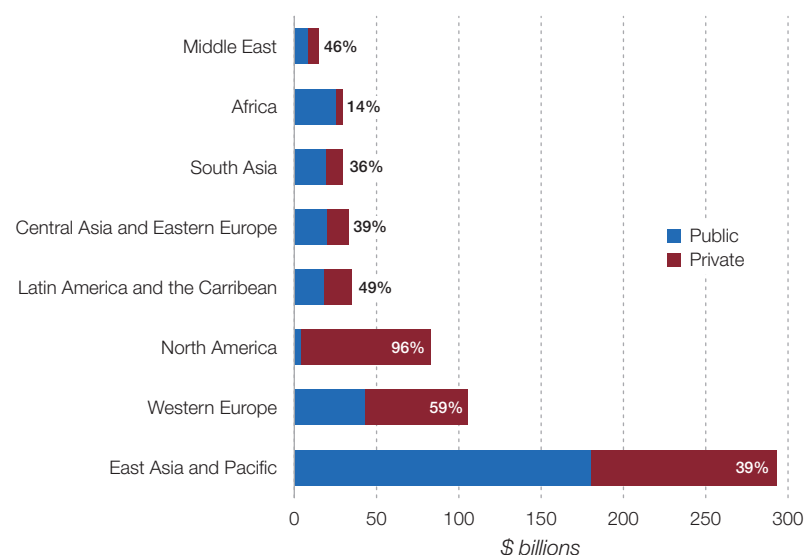
Some countries have attracted more private finance as a share of their total climate flows: Zimbabwe (48 percent), South Africa (40 percent), Djibouti (37 percent), Algeria (30 percent), and Eritrea (29 percent). But in 30 countries, the private sector contribution to total climate finance has been less than 10 percent, with 9 having no private climate financing. So, most African countries are already financing climate action through domestic public resources, with most spending 2–9 percent of their GDP on climate adaptation.<sup>25</sup>

*The largest proportion of private climate finance in Africa has been allocated to mitigation, particularly through the energy sector, leaving other highly vulnerable sectors to climate change with only a quarter of total climate finance flows*

Mitigation projects such as renewable energy, energy efficiency and sustainable transport accounted for about 81 percent of Africa’s private climate finance flows, mostly from corporates and commercial financial institutions. Very little financing from private finance was invested in adaptation, mainly because it is seen as a risky investment due to perceived low and unstable returns. Although investment in energy systems, largely renewables, forms Africa’s biggest share of private climate finance (\$3.1 billion, or 74 percent), it represents just about 13 percent of the \$24 billion invested in African fossil fuel companies annually.<sup>26</sup> Buildings and transport infrastructure received \$0.3 billion (7 percent). Both sectors are critical for green growth, but the high capital required, governance barriers, lengthy construction processes, and lack of incentives hinder these sectors from attracting more private funding.<sup>27</sup>

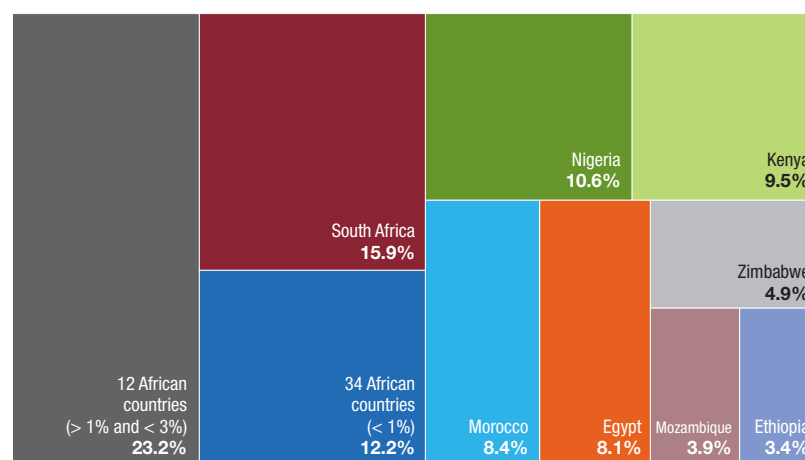
Agriculture, forestry, and other land use (AFOLU) and water are the most vulnerable sectors to climate change. But they respectively received only \$0.3 billion and \$0.4 billion in private investments in 2019–20, with more than 90 percent coming from international public financing sources (figure 2.7). Although private investment in these sectors is not well tracked, it is still relatively low because projects are often small-scale, cross-sectoral, hard to value, and difficult for financiers to invest in.<sup>28</sup> Most AFOLU-related projects that received funding (such as solar irrigation)

**FIGURE 2.5 Private and public financing in total climate finance, by main regions, 2019–20**



Note: Labels show the share of climate finance for each region that is from private sources. Source: Staff calculations based on the Climate Policy Institute’s Landscape of Climate Finance in Africa database.

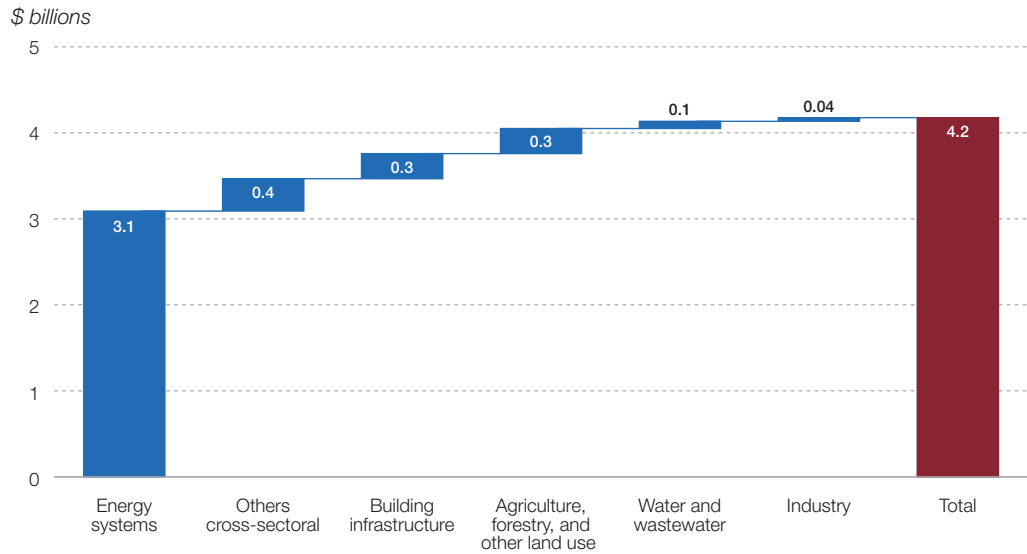
**FIGURE 2.6 Distribution of private climate finance across Africa, average 2019–20**



Source: Staff calculations based on the Climate Policy Institute’s Landscape of Climate Finance in Africa database.

are intertwined with energy systems and water. Other cross-cutting areas such as capacity building, education, health, and food are largely driven by grants and donor funding and received only \$0.4 billion. Investments in industry and ICT buildings remain very low.

**FIGURE 2.7** Sectoral breakdown of private climate finance across Africa, average 2019–20



Source: Staff calculations based on the Climate Policy Institute's Landscape of Climate Finance in Africa database.

Africa's average financing needs to respond adequately to climate change amount to about \$2.7 trillion cumulatively over 2020–30

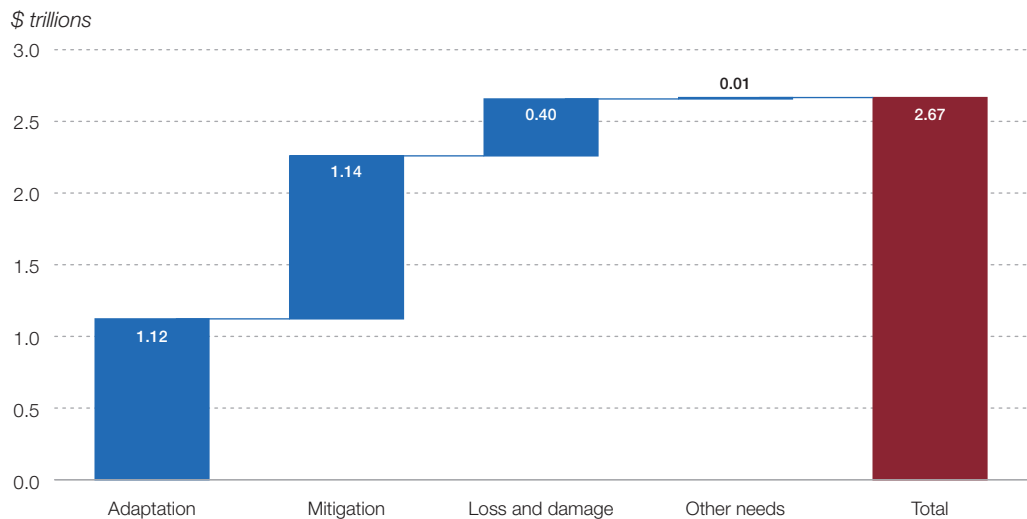
**Africa's climate financing and green growth needs**

*Africa needs about \$242.4 billion annually between 2020 and 2030 to implement its NDCs and at least \$1.3 trillion annually to meet sustainable development needs, and thus green growth objectives*

Using the latest submitted NDCs as of April 2023, the Bank estimates that Africa's average financing

needs to respond adequately to climate change amount to about \$2.7 trillion cumulatively over 2020–30, with a lower bound of \$2.6 trillion and an upper bound of \$2.8 trillion. Put annually, this boils down to \$242.4 billion on average per year, with lower and upper bounds of respectively \$234.5 billion and \$250 billion. The NDC needs are distributed as follows: 42 percent for mitigation, 44 percent for adaptation, 13 percent for loss and damage and less than 1 percent for

**FIGURE 2.8** Updated cumulative climate finance needs in Africa's NDCs, 2020–30



Source: Staff calculations based on submitted Nationally Determined Contributions (NDCs) as of April 2023, various African countries.

other needs (particularly capacity development) (figure 2.8). This is about twice the average financing needs reported in the AEO 2022 (\$1.4 trillion). The increase reflects upward revisions of some countries' initial submissions, while others have provided quantitative estimates of various climate needs that were previously missing when computations in the AEO 2022 report were done.

These updated climate finance needs could still be underestimated due to limited statistical capacity in some countries. Some countries may have underestimated their actual needs by up to 60 percent, mostly in the areas of adaptation and other needs such as capacity building, monitoring, reporting, and verification (MRV),<sup>29</sup> which are rarely quantified. And the data gaps in needs by sector are huge because more than 20 countries do not further disaggregate mitigation and adaptation needs. However, based on reported sector data under mitigation, 41 percent is allocated to transport (solely defined by South Africa), 17 percent to energy, 5 percent to industry, and less than 1 percent to buildings.<sup>30</sup> The data gaps are even higher for adaptation, but the few countries that reported on this allocated most of the adaptation needs to AFOLU and water (including wastewater) sectors.

Estimating financing needs to “grow green” is more challenging than for climate action as

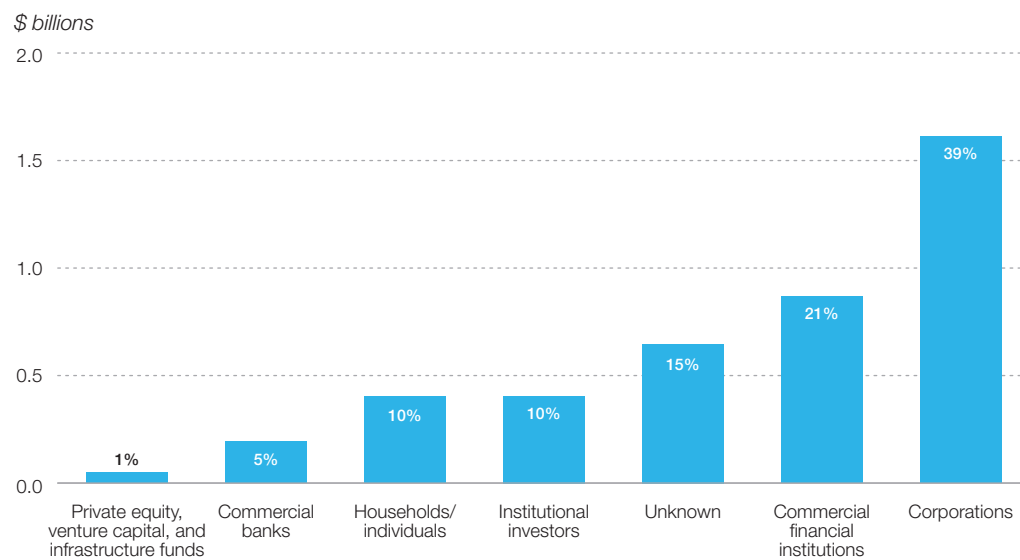
many African countries have yet to develop and cost their Long-Term Strategies. Nor have countries with green growth strategies quantified their financing needs. The United Nations estimates that at least \$1.3 trillion will be needed annually between 2020 and 2030 for reaching the Sustainable Development Goals (SDGs) in Africa, most linked to green growth. Another estimate suggests that making 35 major cities cleaner, compact, and more connected in Ethiopia, Kenya, and South Africa will require investments of \$280 billion by 2050.<sup>31</sup>

### Current sources of private sector finance

*Corporations and commercial financial institutions account for the largest share of private climate finance in Africa, much of it channeled to the energy sector*

Corporations and commercial financial institutions have accounted for the largest share of private climate finance in Africa, but institutional investors, individuals, and funds (private equity, venture capital, and infrastructure funds) are starting to invest more in the climate space (figure 2.9). For example, venture capital investments (some allocated to green growth sectors) increased between 2018 and 2021 (figure 2.10). Although venture capital

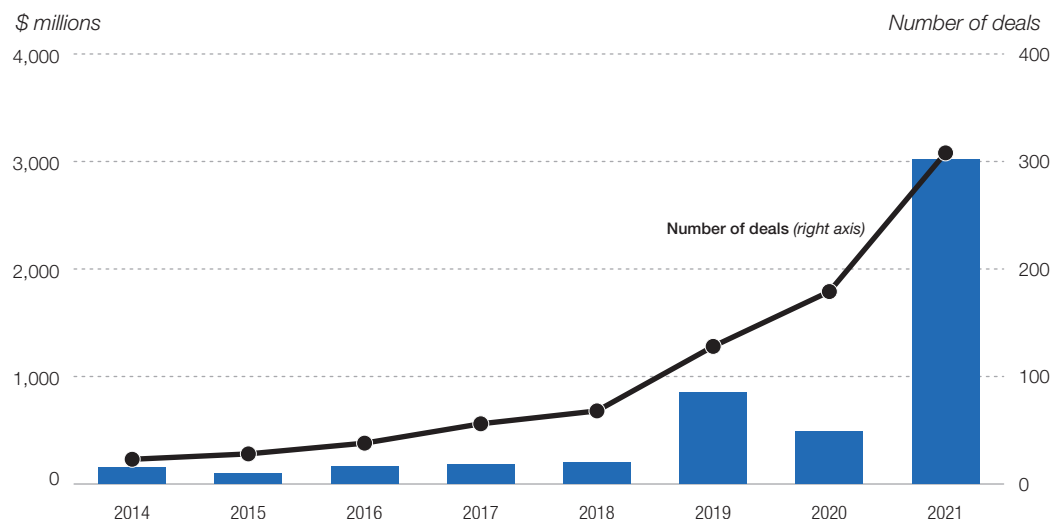
**FIGURE 2.9** Sources of private climate finance flows in Africa, average 2019–20



Note: Percent refers to the share of each type of financing source in total private climate finance.

Source: Staff calculations based on CPI's Landscape of Climate Finance in Africa database.

**FIGURE 2.10 Africa venture capital investments, 2014–21**



Source: Staff calculations based on Katz (2022).

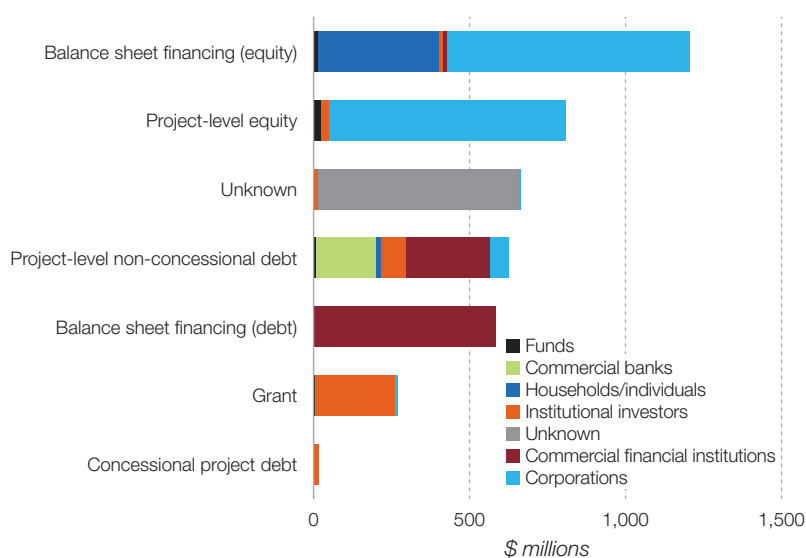
The private sector uses different financing instruments for its climate investments in Africa, with 90 percent through non-concessional debt and equity

investments picked up in 2019 to \$850 million—more than five times the average annual value over 2014–2018—this was disrupted by the COVID-19 pandemic, which reduced the investments in 2020 by about 43 percent. As the African and global economies grow and recover from effects of COVID-19 and other shocks, financing from venture capital rebounded, reaching its highest level in more than eight years in 2021, with \$3 billion

investments and 308 deals. The energy sector was the largest recipient of the private funding in Africa, with corporations, commercial financial institutions, and households directing more than 80 percent of their funding to it. Of private investors, institutional investors channeled the largest share to the AFOLU sector.

*Without substantial policy and market interventions, most private finance for climate action and green growth is likely to be allocated in the form of equity and non-concessional debt*

**FIGURE 2.11 Private climate finance by instruments and sources, 2020**



Note: Funds refer to private equity, venture capital, and infrastructure funds.

Source: Staff calculations based on CPI's Landscape of Climate Finance in Africa database.

The private sector uses different financing instruments for its climate investments in Africa (figure 2.11), with 90 percent through non-concessional debt and equity (balance sheet financing and projects). The other instruments were grants (6 percent) and concessional project debt (1 percent). This is different from public finance, where grants and low-cost project debt account for more than 60 percent of total climate financing in Africa. Half of Africa's top 250 listed firms have set emission targets, and the rest are expected to set theirs within three years.<sup>32</sup> To achieve these targets, many corporates are taking steps to reduce their carbon footprint by directly improving their operations and supply chain in Africa. So far, more than 90 percent of this investment has been in energy systems, mainly renewable energy projects.<sup>33</sup> Creating incentives and conditions to catalyze private investments in

other climate-change limiting and green growth enhancing sectors—such as infrastructure, transport, and agriculture—will be important for Africa's green and inclusive growth agenda.

### **Innovative sources of private finance for climate and green growth in Africa**

*Although the global landscape for private sustainable green finance is expanding, Africa is still struggling to fully leverage this expansion and increase its share*

Private sustainable financial flows to developing economies reached \$250 billion in 2021, 59 percent of it in green bonds.<sup>34</sup> Green loans, sustainability bonds, sustainability-linked loans, sustainability-linked bonds, and social bonds accounted for the rest. Although most of this went to Asia and Latin America, the emergence and growth of this market show the potential of scaling these and other innovative instruments to drive climate action and green growth in Africa (table 2.1).

For green bond issuance in 2022, Africa accounted for just 0.1 percent of the global total, far below its economic size (2.8 percent of global GDP and 17 percent of the world population).<sup>35</sup> Just three countries—Benin, Egypt, and South Africa—dominated the market, accounting for more than 90 percent of total green bonds in 2022, with South Africa alone accounting for more than 66 percent and Egypt and Benin for 25 percent together.<sup>36</sup> In addition to Nigeria and Morocco, which have also issued green bonds, Kenya, Namibia, and Tanzania have recently entered the market, broadening opportunities for improved liquidity and pricing.

Even with this optimistic trend, the deal sizes are much smaller than the global average (less than \$100 million, compared with \$500 million plus).<sup>37</sup> Energy continues to dominate as the preferred sector for green bond investment, though transport, buildings, water, and waste management are gradually receiving more attention. Corporates are also increasingly issuing green bonds in Africa in addition to multilateral lenders such as the AfDB and the World Bank, which have previously been the major issuers. Due to stricter regulations in bank lending, project bonds could allow project developers to get debt from corporate and

institutional investors at potentially lower costs and risk-adjusted returns.<sup>38</sup>

*Although green finance instruments are still nascent in Africa, accounting for less than 1 percent of the total global issuance, there is increasing interest in these instruments on the continent*

The market for other sustainable finance instruments such as sustainability loans and bonds, sustainability-linked loans and bonds, and social bonds remains concentrated in developed countries and led by the corporate sector. But African banks are starting to become more interested in green lending and adopting the accompanying principles, which could foster a broader investor base—institutional investors, philanthropic and impact investors, and international financial institutions—more willing to invest in sustainable finance in Africa. The keys to scaling up green finance in African banks include adopting tools to assess climate risk, sharing best practices, and adapting products for climate action projects and various clients, including micro, small, and medium enterprises.

Debt-for-nature and climate swaps have existed in different forms for decades but in recent years have gained in popularity, especially as the cost of sovereign borrowing has become prohibitive for African countries. These instruments can reduce the fiscal burden of external debt and have been used in countries such as Cameroon, Ghana, and Madagascar. Most of the swaps issued in Africa have been for deals of less than \$10 million a year, much smaller than those in other regions. Since 1987, \$318 million of total face value debt have been transacted through bilateral or multiparty debt-for-nature swaps in Africa.<sup>39</sup> For these instruments to enable significant financial flows into climate action and green growth, more players and bigger deals (\$100–\$500 million) are needed. In addition, improving the financial terms—such as lowering the transaction costs, negotiating times of the debt swaps, and addressing other barriers—can significantly improve a country's external debt profile.

The global voluntary carbon market (VCM) quadrupled in just a year, primarily driven by increased corporate pledges and higher prices, and was valued at \$2 billion in 2021.<sup>40</sup> In Africa, the value of

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Private sustainable financial flows to developing economies reached \$250 billion in 2021, 59 percent of it in green bonds

retired carbon credits that year was \$123 million. And although this is a good contribution to climate finance flowing into the region, it is much lower than the estimated potential (table 2.1).<sup>41</sup> The VCM presents a good economic opportunity for Africa to generate new revenue streams and attract foreign investment for sustainable projects. But it faces integrity challenges such as lack of standardization, difficulties in determining additionality, double counting, and the risk of greenwashing. These challenges can make it difficult for buyers

and sellers to determine the quality and reliability of carbon credits and can limit the scale and impact of the market. Another key challenge is that emission reduction projects are typically financed by carbon project developers from the global North, who pay African project developers relatively small amounts for the credits, which are then aggregated and sold at a significantly higher price. Pre-financing facilities can enable more African project developers to participate in this market and to sell carbon credits at a higher price.

**TABLE 2.1** Emerging innovative finance instruments for private climate finance in Africa

Type of instruments	Green bonds, sustainable debt financing, such as sustainable bonds, sustainability-linked loans/bonds, social bonds	Debt for swaps, such as debt-for climate/nature swaps	Blended financing instruments, such as guarantees, first loss	Carbon markets
Definition	Debt instruments with proceeds allocated to eligible environmental and social projects or a combination of both	Debt forgiveness on the condition that debt repayments are instead invested in climate change adaptation and mitigation	Instruments that use public/donor finance to de-risk and scale up private climate investments	Finance generated through investment in projects that reduce GHG emissions. Purchased by corporates or international actors to reduce or offset their CO <sub>2</sub> footprint
Current performance	<ul style="list-style-type: none"> <li>0.1 percent of global green bond issuance. Issued in 9 countries, with 3 countries accounting for more than 90 percent</li> <li>Other green finance instruments account for less than 1 percent of global issuance</li> </ul>	Few investments in the last 3 decades (typically less than \$10 million per year)	Leading globally (Avg. \$1.5 billion) per year. Most transactions concentrated in just 5 countries	11 percent of total carbon credits generated originate from Africa (global market \$2 billion)
Use case	AfDB Green Bond program ADF-guaranteed Benin SDG Bond	Portugal \$150 million debt-for-nature swap to Cabo Verde	Africa Go Green Fund, Acumen Fund, African Green Bank Initiative	Africa Carbon Markets Initiative
Estimated potential	\$3 trillion over 2020–30 <sup>a</sup>	More than \$500 million for every deal	High leverage ratios (5–10 times public finance)	\$5 to \$30 billion <sup>b</sup>
Challenges to scaling	<ul style="list-style-type: none"> <li>Market conditions, policy</li> <li>Insufficient regulation and governance</li> <li>Smaller ticket project opportunities</li> <li>Limited technical capacity</li> <li>Greenwashing</li> </ul>	<ul style="list-style-type: none"> <li>High transaction costs and lengthy negotiating times</li> <li>Challenges in freeing up national resources</li> <li>Additionality-swaps substituting already planned government expenditure</li> </ul>	<ul style="list-style-type: none"> <li>Several actors, so ineffective coordination and at times unclear impact</li> <li>Dependent on public/donor funding</li> </ul>	<ul style="list-style-type: none"> <li>Unregulated, highly volatile market</li> <li>Integrity of credits</li> <li>Challenges in freeing up national resources</li> <li>High capital intensity for project development and certification</li> </ul>
Key success factors	<ul style="list-style-type: none"> <li>Broader sets of investors</li> <li>Quality climate data/climate tagging</li> <li>Attractive, bankable low-carbon projects</li> <li>Bonus/penalty if sustainable target is achieved/or not</li> <li>Technical assistance to governments, local and national financial institutions and projects</li> </ul>	<ul style="list-style-type: none"> <li>Reduction of complexity and time</li> <li>Need to be significant enough to relieve debt burden</li> <li>An effective monitoring, reporting, and verification (MRV) framework</li> </ul>	<ul style="list-style-type: none"> <li>De-risking/First loss fund, guarantee from public/international actors</li> <li>Technical assistance/capacity building</li> <li>Clear impact and additionality</li> </ul>	<ul style="list-style-type: none"> <li>Increased carbon pricing</li> <li>Integrate social and environmental safeguards</li> <li>Strengthen VCM market strategy and regulations</li> <li>Build capacity and capabilities of developers to scale up projects including technical assistance for MRV</li> </ul>

Notes:

a. <https://allafrica.com/stories/202211170458.html>.

b. McKinsey & Co. 2021a.

Source: Staff calculations based on data from African Development Bank, Climate Bonds Initiative, McKinsey & Co.

## PRIVATE FINANCING GAP FOR CLIMATE ACTION AND GREEN GROWTH

### Data constraints impede precise estimations of the private sector financing gap for climate action and green growth

Estimating the private climate financing gap in Africa faces significant challenges due to important information gaps in countries' NDCs. There is limited information on the disaggregation of climate financing needs from public or private sources. For example, in their NDC submissions, not all African countries distinguished between unconditional needs (to be covered by domestic public sources) and conditional needs (requiring private or international support). The same case applies to financing for green growth, as countries have not yet provided comprehensive estimates of their needs or breakdowns across sectors. Because of these data gaps, estimates of the private climate and green growth financing gap can be obtained only under certain assumptions, leading to potential over or underestimation of the actual gap (annex 2.1).

*Africa's private climate finance gap is estimated to reach approximately \$213.4 billion on average annually until 2030, with important cross-country and cross-regional differences*

Given their enormous climate finance needs and limited public resources, African countries could target a contribution of the private sector of at least 25 percent of the residual of the financing needs—the difference between climate finance needs and public climate finance flows. In this case, four scenarios can be considered:

- A *conservative scenario* where the private sector contributes to closing 25 percent of the residual climate finance needs. This is about 10 percentage points higher than its current level in the financing mix.
- A *moderate scenario* with a 50 percent contribution from private investments, in line with the average current contribution in other regions.
- An *ambitious scenario*, where public actors account for only a quarter of the total climate finance flows.

- A *very ambitious scenario*, where the private sector covers all the existing shortfall in public resources to closing Africa's climate finance needs (annex 2.1).

As a result, the private climate finance gap is estimated to reach approximately \$213.4 billion annually on average for the entire continent if the private sector is expected to cover all the residual of the financing needs (figure 2.12). Under the conservative scenario, the gap is estimated at \$50.6 billion per year, rising to \$104.8 billion if the private sector contributes to close half of the residual finance needs, and \$159.1 billion if its share increases to 75 percent.

Southern Africa has the highest climate finance gap, with South Africa alone accounting for three-quarters of the regional average. In addition to the size of its economy and carbon footprint, South Africa's large climate finance gap might also come from the detailed estimation of costs in its NDC, which relies on a goal-based estimation methodology with low and moderate–high mitigation scenarios, unlike most other African countries. Other countries in this region have much lower financing needs and carbon footprints, with their private financing gaps ranging from 1 percent to 10 percent of GDP (figure 2.13). East Africa has the second highest private financing gap in the continent. While all the other East African countries have a financing gap of up to 14 percent of their GDP, it reaches 39.5 percent, 54.8 percent, and 129.2 percent of GDP in Eritrea, Somalia, and South Sudan, respectively. Central, North, and West Africa have lower financing gaps than other regions in absolute terms. Most countries in these regions also have the lowest financing gaps in relative terms (2–10 percent of GDP). These financing gaps provide significant investment opportunities in specific sectors, such as phasing out fossil fuels such as coal (box 2.1).

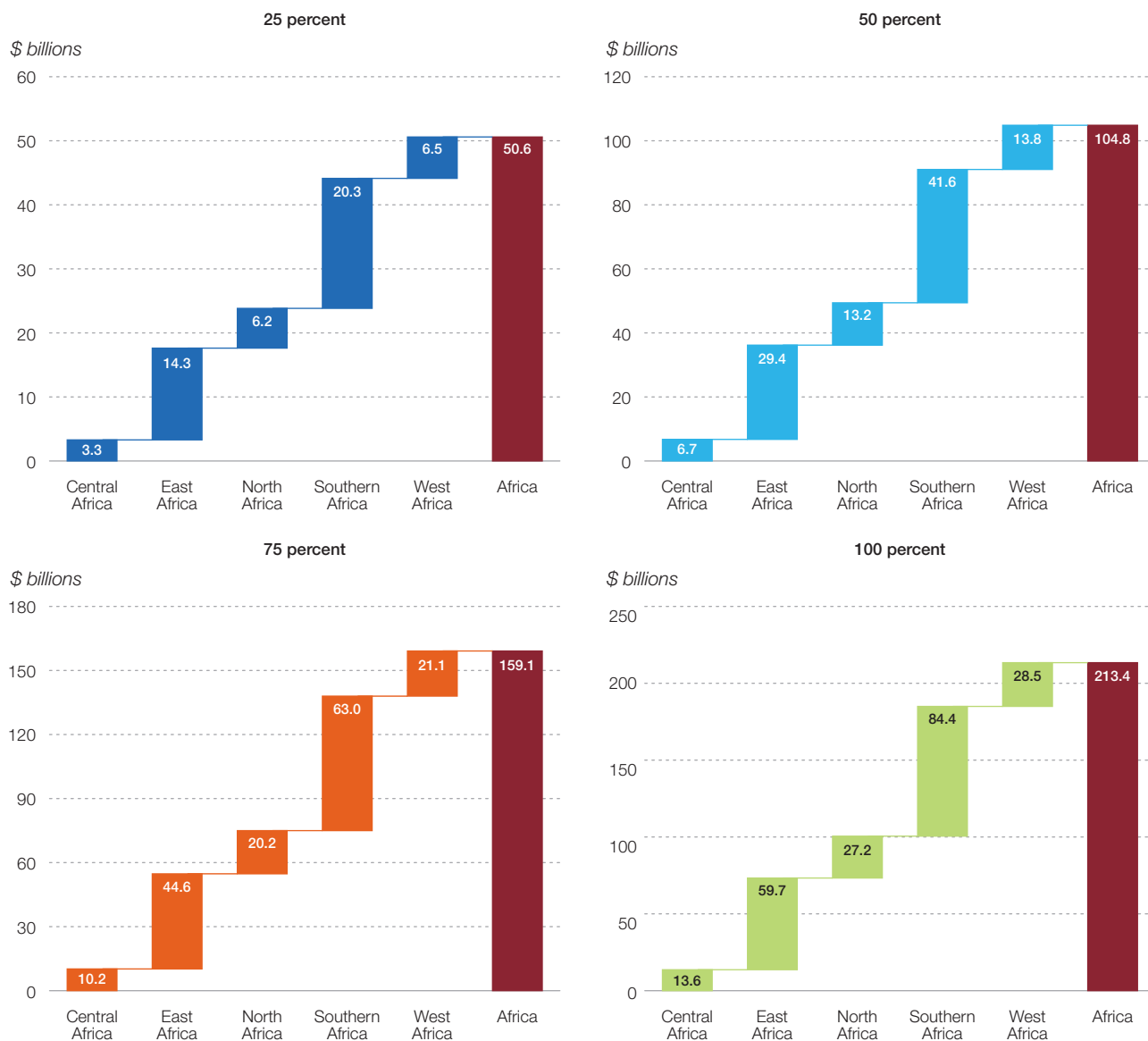
*Private climate finance flows to Africa need to increase by up to 36 percent annually to close the estimated climate finance gap by 2030*

On current trends, private climate finance flows do not keep up with countries' climate needs, jeopardizing the continent's climate action objectives. Efforts to unlock private financing must

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The private climate finance gap is estimated to reach approximately \$213.4 billion annually on average for the entire continent

**FIGURE 2.12** Regional breakdown of estimated annual private climate finance gap for selected rates of the potential contribution of the private sector to the residual climate finance needs



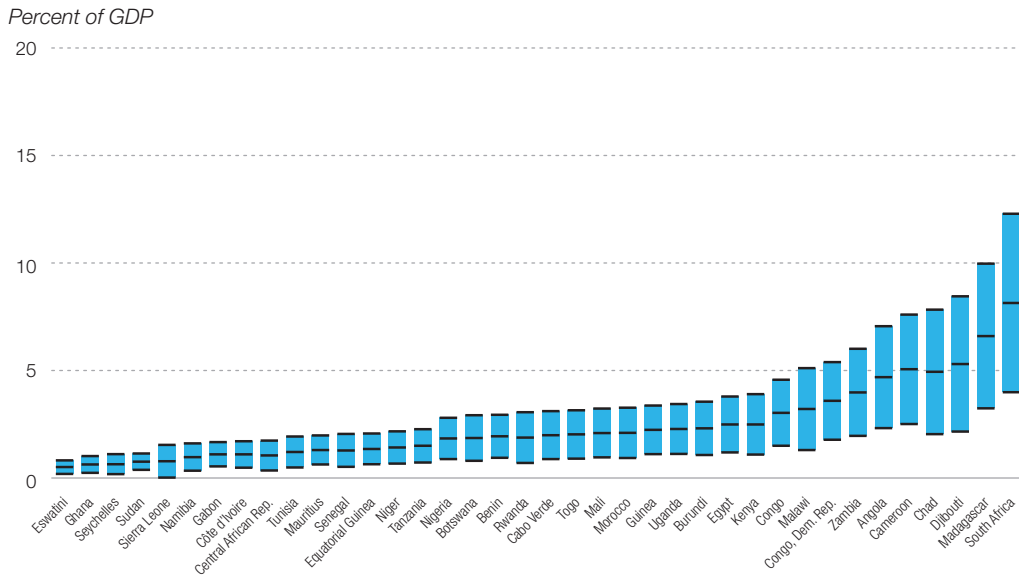
Source: Staff calculations using data from submitted NDCs (as of April 2023) and CPI' Landscape of Climate Finance in Africa database.

therefore be urgently scaled up. This Herculean task is, however, not impossible if the barriers impeding private sector participation in climate and green growth sectors are addressed. To close the climate finance gap, private climate finance flows to Africa would need to increase annually by up to 36 percent during the current NDC implementation period (2020–30) (figure

2.14), on the assumption that public climate finance recorded in 2019–20 stays constant until 2030 and that the private sector covers the entire residual finance needs. The required annual growth rate drops to 21 percent, 28 percent, and 32 percent if the private sector's contribution is reduced to 25 percent, 50 percent, and 75 percent, respectively.<sup>42</sup>



**FIGURE 2.13** Private sector climate financing gap of selected African countries

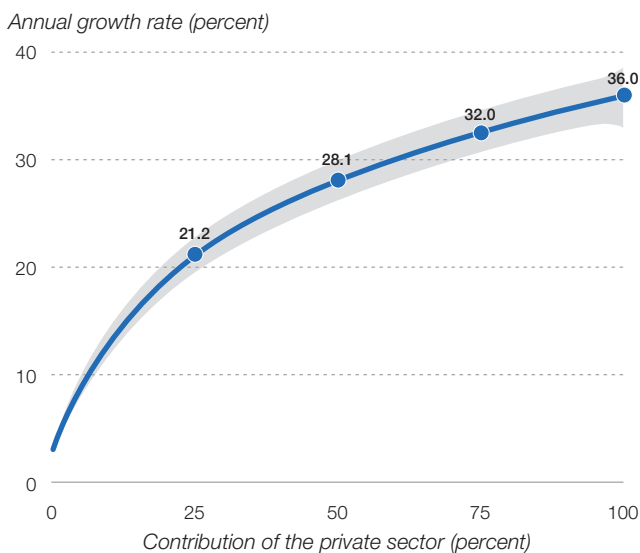


Note: The figures give upper bound (100 percent—very ambitious scenario) and lower bound (25 percent—conservative scenario) private finance gap as a share of GDP. 50 percent—moderate scenario—is reported in the middle. Values are expressed in percentage of 2023 projected GDP.

Source: Staff calculations using African Development Bank Statistics, submitted NDCs (as of April 2023) and CPI Landscape of Climate Finance in Africa database.

Private climate finance flows to Africa need to increase by up to 36 percent annually to close the estimated climate finance gap by 2030

**FIGURE 2.14** Required annual growth rate of private climate finance flows to close Africa’s climate finance gap by 2030



Source: Staff calculations using submitted NDCs and CPI Landscape of Climate Finance in Africa database.

## BOX 2.1 The Great Carbon Arbitrage

### *The world will be better off contributing to pay for the phase-out of coal and replacement with renewables in Africa*

One of the key pillars of green growth transitions is the gradual phasing out of fossil fuels and their replacement with renewable energy. But for a continent still characterized by high levels of energy poverty, it is important to consider the potential economic costs and benefits of green energy transformation. Projections indicate that, factoring in the total annual reductions over the period in which coal should be phased out (2024–2100) across coal mining companies in Africa, the total carbon emission reduction achieved by phasing out coal in Africa would be 120 GtCO<sub>2</sub>.

On the cost side, phasing out coal requires new investments to build sufficient renewable energy capacity to compensate for the reduced coal production in Africa and keep up with projected growth in African energy demand. There are also opportunity costs of coal, consisting at a minimum of the missed cash flows, livelihoods, and incomes from divestments from coal phase outs. The total value of climate financing needs for Africa to replace coal with renewable energy sources is estimated to be around \$2.8 trillion over 2024–2100. Put annually, this cost amounts on average to \$36.4 billion (box figure 2.1.1a).

On the benefit side, phasing out coal avoids climate damages across the world from reducing coal emissions. Using the most conservative estimate by Pindyck (2019) of the average social cost of carbon, at \$80/tCO<sub>2</sub>, and an emission reduction of 120 GtCO<sub>2</sub>, the global benefits of avoided coal emissions in Africa are conservatively estimated to be \$9.6 trillion or \$124.7 billion a year. Subtracting from this the present value of the costs (\$2.8 trillion) gives a net gain to the world of phasing out coal and phasing in renewables in Africa of about \$6.4 trillion or \$83.1 billion annually, further generating \$0.5 trillion in terms of avoided climate damages. So, the world will be better off contributing to pay for Africa's phase-out. Indeed, under a Coasian approach, it is sound economic logic to compensate for the missed revenues from closing coal mines down early and for the capital expenditures required to build replacement renewables in its place, and to link these to the social benefits of avoided emissions.

One way of generating these funds is through striking *blended conditional climate finance deals of non-global*

self-interested coalitions of the willing, with one country or region at a time, to cumulatively add up to the *global deal*. If financing for renewables is offered conditional on the commitment to phase out coal, then carbon leakage (the problem of coal production moving abroad when one country phases out coal) is limited. Conditional climate finance thus ensures that emission reductions are embedded in a country deal.

If Africa were to phase out coal and replace it with renewables, how would it and its financier countries stand to benefit? Africa faces a benefit gap because its costs are bigger than its benefits if it unilaterally phases out coal (box figure 2.1.1a, open red dot), even though in a global deal its benefits would have been bigger than its costs (closed red dot). There are, however, considerable benefits to other regions, such as the United States (green dot,) and Europe (light blue dot), from Africa's coal phase out (see box figure 2.1.1a, left panel). So, advanced economies' offering of climate finance for Africa is not just equitable (given inequalities in wealth and greater historical emissions of advanced economies) or charity, it is in their self-interest! America and Europe, for instance, could benefit around \$3 trillion and \$1.5 trillion from Africa's unilateral phase-out of coal, whereas the financing needs to transition Africa away from coal are only about \$2.8 trillion.

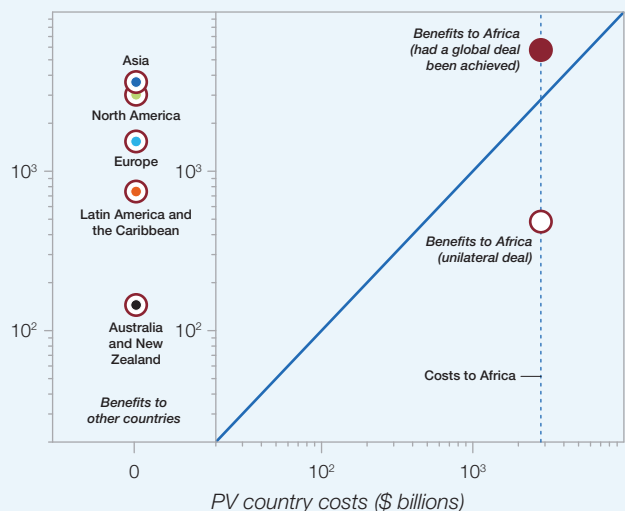
Coase's insight applies that it is a sound economic logic to pay the polluter (pay for part of the investment costs in renewables and opportunity costs of coal) to stop polluting if that makes one (the financier country) better off. Most of the climate finance needs can be drawn from capital markets if governments de-risk investments using blended climate finance arrangements. Capital markets then come in simply because it is good business. It is in the financial incentive of coal communities to partake in such deals if they are compensated at least as much as their opportunity cost of coal. The recently concluded blended conditional climate finance deals (as part of the Just Transition Energy Partnership) in South Africa (November 2021), Indonesia (November 2022), and Vietnam (December 2022) are evidence that phasing out coal in developing countries could be financed by developed countries. Box figure 2.1.1b gives the present value of climate finance needs to replace coal with renewables for the top nine coal mining countries in Africa, as well as for Africa as whole.

**BOX 2.1 The Great Carbon Arbitrage** (continued)

**BOX FIGURE 2.1.1 The arbitrage deal for coal**

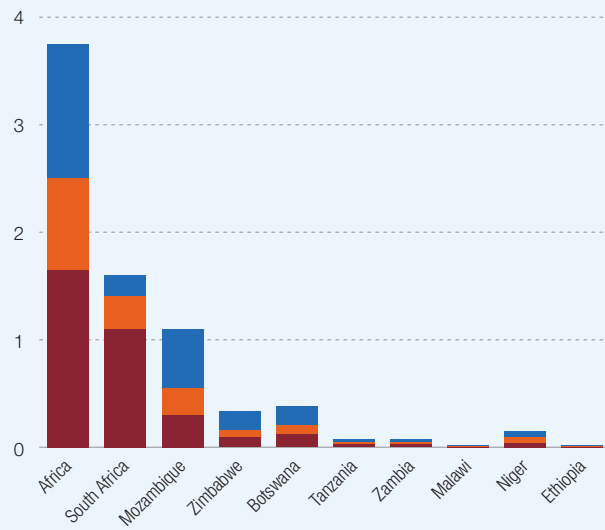
a. Benefits and costs of phasing out coal and replacing it with renewables in Africa, as well as benefits to other regions from Africa's phase-out

PV country benefits (\$ billions)



b. Present value of climate financing needs to phase out coal and replace it with renewables

PV climate financing (\$ trillions)



Note: “PV” stands for the present value of climate financing needs. The solid dot in red in the right panel of box figure 2.1.1 shows the benefits to Africa, in terms of avoided climate damages, had a global deal—and thus global emission reductions from phasing out coal—been achieved.

Source: Adrian et al. 2022; Way et al. 2022; Pindyck et al. 2019; Rauner et al. 2020; Ricke et al. 2018; Coase 1960; and <https://greatcarbonarbitrage.com>.

## BARRIERS AND OPPORTUNITIES FOR LEVERAGING PRIVATE FINANCING FOR GREEN GROWTH IN AFRICA

### Drivers of private climate finance flows to Africa

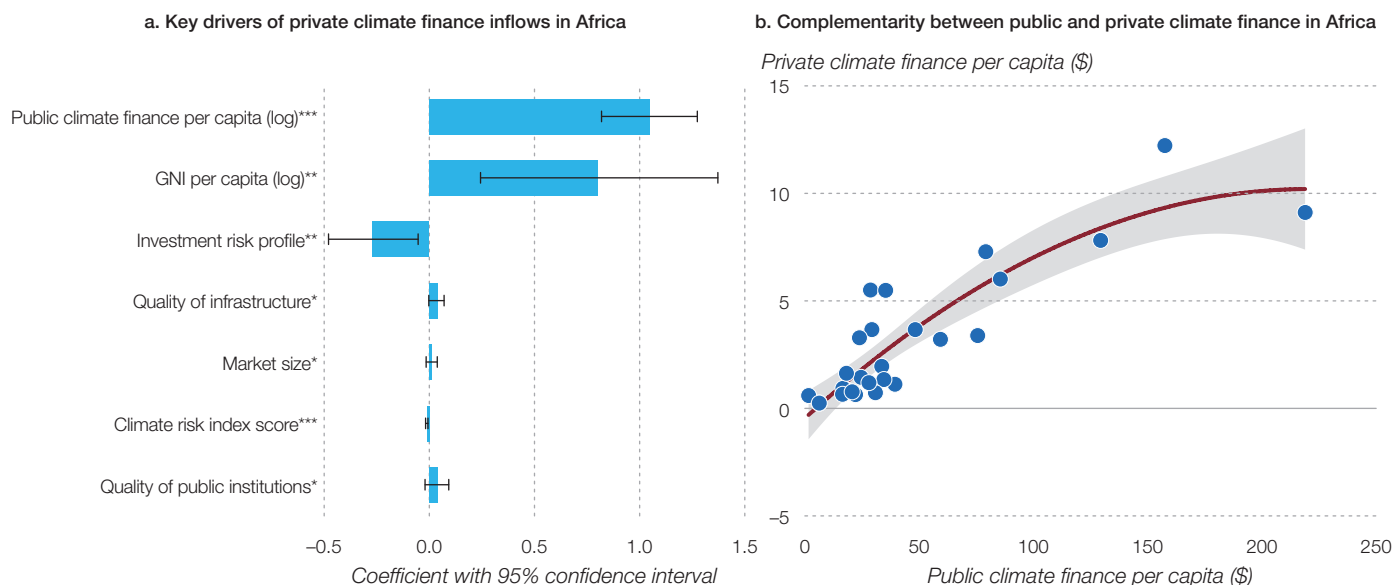
*Private climate finance flows are mainly driven by existing public climate finance, the level of a country’s development and market size, its climate and investment risk profile, and the quality of infrastructure and public institutions*

Overall, private investments in climate action and green growth are driven by macroeconomic and structural factors such as the level of investments in public finance for climate change and green

growth, level of development, levels of political risk, quality of infrastructure, level of income, inflation and interest rates.<sup>43</sup> This report identifies different drivers capturing the development of domestic financial systems, macroeconomic stability, the adoption of ICTs, quality of infrastructure and national public institutions or climate risk score of African countries. These factors are averaged between 2010 and 2018, to estimate how they could have influenced on private climate finance received in 2019/2020.

African countries with higher public climate finance per capita and those with higher income per capita are found to be more likely to crowd in private climate investments (figure 2.15). This highlights the important role of public sector interventions and policies that result in high public climate finance commitments thus sending positive

**FIGURE 2.15** Key drivers of private climate finance flows to Africa and complementarity between public and private climate finance



Note: For panel a, (\*\*\*), (\*\*), and (\*) denote coefficients at 1, 5, and 10 percent significance levels, respectively. The dependent variable is (log) private climate finance per capita. Bars represent the min and max of the confidence interval. Non-significant variables (ICT adoption, financing system development, inflation, and so on) have been omitted from the figure. Ordinary least squares with cluster-robust standard errors were used for the estimation.

Source: Staff calculations based on CPI Landscape of Climate Finance in Africa database, the World Bank’s World Development Indicators and Worldwide Governance Indicators, International Country Risk Guide dataset, GermanWatch’s Global Climate risk index dataset, and others.

**Demand-side barriers limit the ability of African countries to engage with potential private sector investors, while supply-side barriers limit the ability of private sectors to engage with potential markets and recipients of climate change and green growth private finance**

signals to private sector investors about the attractiveness of investments in specific sectors.

The level of development—proxied by GNI per capita—achieved during the preceding decade is also found to be positively associated with current levels of private climate finance per capita insofar as it provides a good signal of buoyancy of the economy. Unsurprisingly, countries with higher investment risk profile—one of the indicators of political risk—are less likely to attract private climate investments. Better quality of infrastructure in a country positively affects the level of private investments in climate and green growth sectors as it decreases the cost of doing business in a country and increases the firm profit and growth potential. The size of a country’s market—both domestic and foreign markets—is yet another driving factor of private climate finance in Africa. Indeed, African countries’ thin markets have regularly been cited by investors as one of the key constraints in mobilizing private finance, leading to a lack of bankable project pipelines and sizable

investment opportunities.<sup>44</sup> Finally, the level of a country’s climate risk index—measured using GermanWatch’s Global Climate Risk Index,<sup>45</sup> averaged over 2000–19, and focusing on the level of exposure and vulnerability to extreme events such as storms, floods and heatwaves—is a push factor for private climate finance flows, due to the cost implications of climate change risks on private sector investments.

**Barriers to mobilizing private sector finance for climate action and green growth in Africa**

Demand-side barriers limit the ability of African countries to engage with potential private sector investors, while supply-side barriers limit the ability of private sectors to engage with potential markets and recipients of climate change and green growth private finance. Some of the underlying drivers to these barriers are structural, embedded within institutions, and affect both green and non-green private sector investments.

### *Demand-side barriers*

Almost all African countries have developed climate change strategies, including the NDCs. But not all have green growth strategies, and most countries lack concrete action plans for mobilizing private sector finance toward specific priority sectors. Although the continent has already made a business case for private investments in climate action and green growth, many countries still lack the tools and strategies to provide long-term policy guidance on green growth investment needs and opportunities. For instance, Long Term Strategies outline long-term visions for climate action and green growth. But as of March 2023, only seven African countries had developed and communicated these strategies. The outcome is a lack of clarity on the needs and gaps in green growth transitions in most countries on the continent, which might increase country investment risk profiles and deter private actors from investing in green growth sectors. And although existing NDCs identify priority adaptation and mitigation activities and pathways, priority projects and costs of actions to meet climate action targets remain either wholly or partially unquantified.<sup>46</sup> So, investors lack clear and consistent signals on the needs and the costs of investments in climate action and green growth sectors.

Another layer of barriers is the lack of standardized regulations at national, regional, and continental levels, a lost opportunity for encouraging cross-border private sector investment. Regulations incentivize private sector investments by signaling stability and political willingness to engage in green growth and an enabling environment for establishing these investments. Some African countries have tried to develop and streamline policies and regulatory structures for private investments, including targeted financial incentives to enable compliance with green growth measures. The lack of robust green growth policies and strategies and an absence of economy-wide and regional standardization in regulations is driven by structural issues such as fragmentation between national institutions and the lack of regional integration.<sup>47</sup> Hence, when one sector prioritizes emission-intensive investments while another prioritizes low emission investments, this fragments available private sector finance and fails to maximize impact of investments.

Between 2010 and 2022, only 18 African countries had policies and regulations on private participation in green growth. Since 2010, there has been a steady increase in the number of policies and regulations issued by African public authorities—including governments, central banks, financial regulators, and public financial institutions—to attract private investments and finance in climate change and green growth sectors. Their objectives range from reallocating and raising of capital to risk management, responsibilities of financial institutions, reporting and disclosure, and strategic resets. The number of regulations and policies in Africa has thus increased from 2 in 2010 to 41 in 2022 (figure 2.16), about 5.2 percent of all 784 policy and regulatory measures taken globally. Only a third of African countries have at least one policy or regulation specifically targeting participation of the private sector in green growth initiatives. And nearly half of these policies and regulations focus on the reallocation of capital, with very few covering risk management, reporting and disclosure, and the responsibilities of institutions in managing private sector investments. The limited coverage of policies and regulations across the continent implies the need for more comprehensive development of policies and regulations that can help address the different private sector investment needs in different contexts.

Needs for green growth in different countries would be expected to vary, with priorities changing over time, depending on success in mobilizing finance and implementing projects to address these needs. However, the absence of clear policies and strategies to provide direction on green growth agenda means that the needs of many countries remain unknown, and financing needs unquantified. Moreover, most low-income African countries and those in fragile contexts (in or emerging from conflicts) are least likely to have green growth policies or regulations, even though they equally need transitions to green growth.

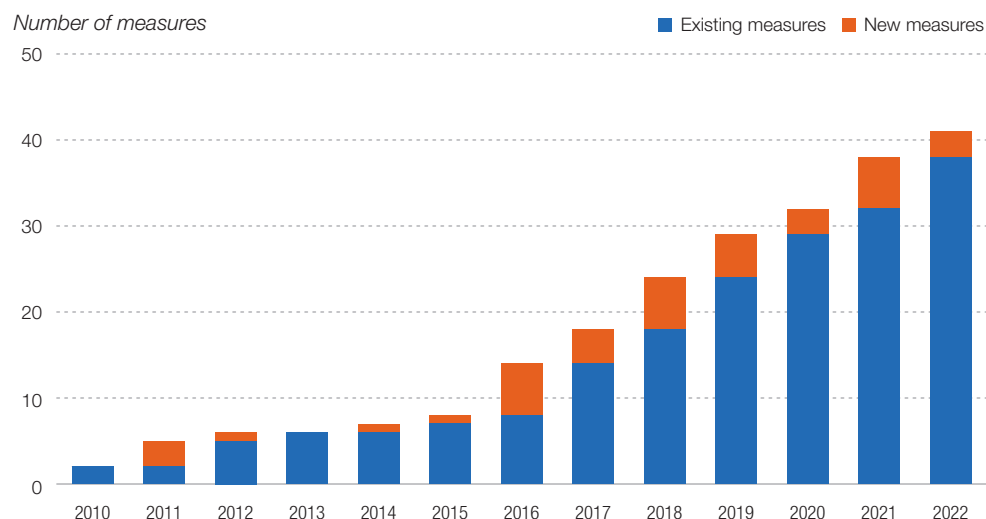
Given the high perceived risk for private investments, the absence of regulations for managing exit risk remains a barrier for new and existing private investors. **Exit risk** emerges when investors have no clear pathways or assurances of easily exiting the markets by selling their stakes in projects and recouping their investments.<sup>48</sup> Overall, the

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Only seven African countries have developed and communicated on their long-term strategies so far. And only a third of African countries have at least one policy or regulation specifically targeting participation of the private sector in green growth initiatives

Despite the growth in African private equity investments and bond markets, Africa has narrow and underdeveloped financial markets, which fail to assure investors of exits when the need arises

**FIGURE 2.16** Trends in regulations and policies for green growth in African countries since 2010



Source: Staff calculations from Green Finance Platform's Green Finance Measures database.

number of exits from the continent between 2014 and 2021 was below 52 deals annually, except in 2019, when 59 exit deals were recorded, and for 2019, when the total value of exits rapidly increased to \$11.6 billion.<sup>49</sup> But by the first half of 2022, 22 exits were recorded, a 29 percent increase over 2021.<sup>50</sup> Even in 2020 and 2021 during the crunch of the COVID-19 pandemic when investors globally experienced liquidity challenges, the continent recorded fewer exits than in 2017.<sup>51</sup>

Exit challenges are linked to several structural factors. Despite the growth in African private equity investments and bond markets, Africa has narrow and underdeveloped financial markets, which fail to assure investors of exits when the need arises. The exit challenges are a result of weak legal, accountability, and transparency frameworks that fail to clarify investors' rights and to provide quick resolutions to issues related to investments such as labor laws and asset ownership. There is also a lack of standardization in regulations, methodologies, and taxonomies across the continent, so it is difficult to determine what counts as green investments in different jurisdictions.

The difference in definitions of green growth or investments that count toward green growth also means that investors consider these definitions project by project, not on a portfolio basis, increasing transaction costs. High transaction costs also emerge from the relatively small and

dispersed securities exchanges. Although there are 27 securities exchanges across the continent, they are fragmented as securities are seen as nationally owned, which increases transaction costs when selling investments,<sup>52</sup> particularly from countries without exchanges. All these are characterized by the nature of legal, regulatory, and institutional frameworks in African countries and at the regional level, most of which are weak and unable to meet the investment requirements of the private sector.

Most African countries have **low technical, human, and institutional capacity**, which limits the continent's overall progress on climate action and green growth. Countries face a variety of gaps that limit the ability to identify and engage with private sector investors across the complete project value chain. A 2020 report found that 80 percent of infrastructure projects in Africa do not get past the feasibility/planning stage because they lack access to the financial resources and capacity required to complete the necessary feasibility and business planning analysis.<sup>53</sup> Even for countries that have made headway in stipulating legal and regulatory reforms to address these challenges, reports indicate the limited institutional and human resource capacity in enforcing them.<sup>54</sup>

The technical, human, and institutional capacity gaps are more acute within the climate action and green growth sectors. For instance, the

limited availability of skilled local personnel (or lack thereof) along the value chain can pose significant challenges to private investors to implement planned renewable energy projects, leading to delays during the project development and construction. Climate-smart agriculture projects often require skills in advanced agricultural and forestry techniques, the lack of which could inhibit the ability of private sectors to increase the quality and quantity of their production and obtain high returns on investment.

An assessment by AfDB and GGGI on green growth readiness found that Morocco, Rwanda, and Tunisia had more advanced soft infrastructure that enabled them to advance their green growth ambitions. But other surveyed countries had insufficient human resources to meet their green growth ambitions and had to implement innovative ways of addressing these gaps, for instance by mobilizing foreign specialists to train local personnel. Some of these countries also lacked the technical capacity to implement monitoring, reporting, and verification systems for green growth. These capacity limitations are present mainly because some African countries, particularly those in fragile contexts, are comparatively new to the implementation of climate action and green growth projects which contribute toward strengthening these capacities. Structurally, capacity gaps are driven by the overall drain in technical capacities toward developed countries. As most large private sector projects in Africa are financed and implemented by foreign investors, expertise for technical tasks has largely been imported into these countries as opposed to being homegrown, since locals have emigrated to developed countries.<sup>55</sup>

**Project preparation costs** are high for many African countries primarily due to the capacity gaps that must be addressed before a project is taken to market. Consequently, too few projects reach financial close, with one of the main reasons being difficulties in agreeing on balanced and bankable risk allocation.<sup>56</sup> The outcome is huge project preparation costs and contracting burdens eventually and disproportionately borne by African public and private institutions, limiting their ability to further engage with the international private sector and mobilize additional resources. Capacity gaps particularly affect women-owned

MSMEs, usually exhibited in the form of constrained access to credit and other forms of finance. For instance, it has been found that more than 37 percent of micro-enterprises in Africa are partly and fully financially constrained compared with 26 percent of SMEs. Additionally, 16 percent and 36 percent of MSMEs owned by women are respectively wholly or partly constrained financially compared with 14 percent and 34 percent of MSMEs owned by men.<sup>57</sup> These capacity gaps also relate to literacy, poor record-keeping (essential for access to finance, particularly affecting micro and small enterprises), limited knowledge of the financing landscape and its requirements, and limited access to advanced technology to enable business operations and risk management.

**Lack of investment-ready project pipelines** is yet another important impediment to unlocking private finance. Many existing green growth project plans or strategies in most countries across Africa are still in the idea stage. They lack concrete short-term milestones and targets as well as costed investment needs necessary for evaluating the impact of investments. So, many of them are still considered by potential investors as lacking investment readiness.<sup>58</sup> The stage of many investments has implications for the countries' track record of delivering the project in key green growth sectors and implications for liquidity.

Most of the private financing, particularly climate finance, has gone to the energy sector. Other critical sectors for green growth such as research and development, water, and agriculture receive lower proportions of finance. The result is that green growth financing opportunities in these sectors largely remain in the early stages, increasing the projects' risks and costs likely to be borne by private financiers. This has implications for the liquidity of such projects, which become unattractive to private investors, particularly those looking to recoup their investments in a very short time. The underlying structural driver for this gap is the lack of human and technical capacity to adequately develop and shepherd projects from idea to maturity.

Another major structural barrier to Africa's mobilization of private sector finance is its **limited access to international capital markets**. Between 2007 and 2020, only 21 African countries

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Project preparation costs are high for many African countries primarily due to the capacity gaps that must be addressed before a project is taken to market

African countries are the lowest beneficiaries of sustainable climate finance, accounting for 0.2 percent (\$4.7 billion) of total global issuances (about \$2.2 trillion) of green bonds for the period 2006–22

gained access to global capital markets, many of them for the first time.<sup>59</sup> Many of these countries issued Eurobonds to raise funding for different, often brown, infrastructure projects. Their access to these markets also unlocked scaled-up lending from bilateral lenders and strengthened their access to finance from multilateral finance institutions. But Eurobond issuances for supporting the green agenda are limited, if not lacking altogether. This means that access to green finance, particularly from the private sector, that is offered through international capital markets, is constrained for African countries. One outcome is the low performance of African continent in the sustainable finance landscape.

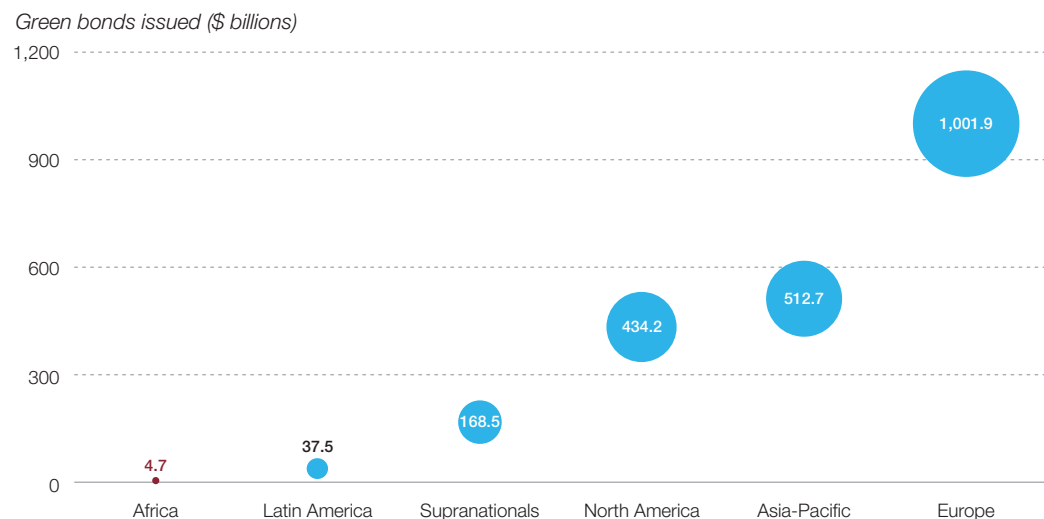
Although the issuance of sustainable climate finance (particularly green loans and bonds) has rapidly increased over the past five years, advanced economies and emerging market economies, which dominate international capital markets, are the largest recipients. African countries are the lowest beneficiaries, accounting for 0.2 percent (\$4.7 billion) of total global issuances (about \$2.2 trillion) of green bonds for the period 2006–22 (figure 2.17). So, African countries looking to mobilize sustainable private finance for green growth from the international private sector through these international platforms will be unable to do so.

**High public debt** faced by many African countries further limits the public finance available for investments in blended financing instruments, which are important for mobilizing additional private finance for climate action and green growth. This is also a structural issue, as debt accumulated for both green and non-green investments affects lending for both types of investment. High levels of debt come with greater responsibility for the servicing of debt, mainly due to the high interest and short-term repayment terms of external debt acquired by these countries.<sup>60</sup>

As discussed in chapter 1, many African countries with a medium to high likelihood of debt distress or already in debt distress have been in this situation for the past decade. This means that these countries face higher borrowing costs from domestic and international lenders, but they are also likely to lose access to financial global markets. Debt restructuring will likely increase tax rates to generate revenue to pay this debt and a reallocation of government revenue toward external debt obligations. Some African countries are spending more than 50 percent of government revenue servicing external debt, while those with unsustainable debt levels have debt servicing taking up more than 90 percent of government revenue.

This diversion of resources away from key sectors, particularly those critical for green growth in

**FIGURE 2.17** Cumulative regional green bond issuances, 2006–22



Note: Bubble size reflects each region's share in total global issuances of green bonds.

Source: Staff calculations based on the Climate Bonds Initiative database.



the long term, as well as reduced rates of economic growth and overall resilience to climate and economic risks, might push away potential investors fearing the risk of debt default for highly indebted countries. And as African countries have committed to unconditionally meeting on average about 15 percent of their NDC financing needs using domestic finance, the high public spending on servicing debt means that countries have limited headroom to invest in climate action identified in their NDCs through blended finance investments. These countries thus have limited capacity to de-risk investments in sectors and projects that are particularly important for climate action and green growth, such as those that provide social development outcomes but are generally too risky or provide low returns on investments for the private sector.

#### *Supply-side barriers*

International private sector investors perceive African markets as high risk, leading to a high cost of capital and high required rates of return. High risk is a structural barrier for most African countries. Most private investors, particularly large international investors, look to invest in portfolio projects that usually spread across national borders—not single projects—to leverage the economies of scale in investments and returns and to limit investment costs. As many countries across Africa still have an emerging pipeline of investments beyond the infrastructure and energy sectors, it is challenging for them to attract these types of investors. And portfolio types of investment require common regulations, standards, and policies, mostly missing across the continent due to the differences in progress in defining green growth pathways. So, investors looking to invest across borders do not see comparable definitions of what counts as green investments, nor do they see monitoring frameworks, increasing project risks.

The **high perceived risks** result in African countries being awarded poor and largely subjective credit ratings in international markets. For instance, most African debt issuers, including those for sustainable and green finance, are rated below investment grade by external rating agencies, leaving issuers almost entirely reliant on

demand from investors willing to take on high risk investments.<sup>61</sup> This in turn leads to high financing costs for investments for African countries, which reduces the returns on potential investments in relation to those in developed countries and emerging markets. Credit ratings are sensitive to even small changes in market conditions, meaning that they cannot be used to make long-term projections on investments.<sup>62</sup>

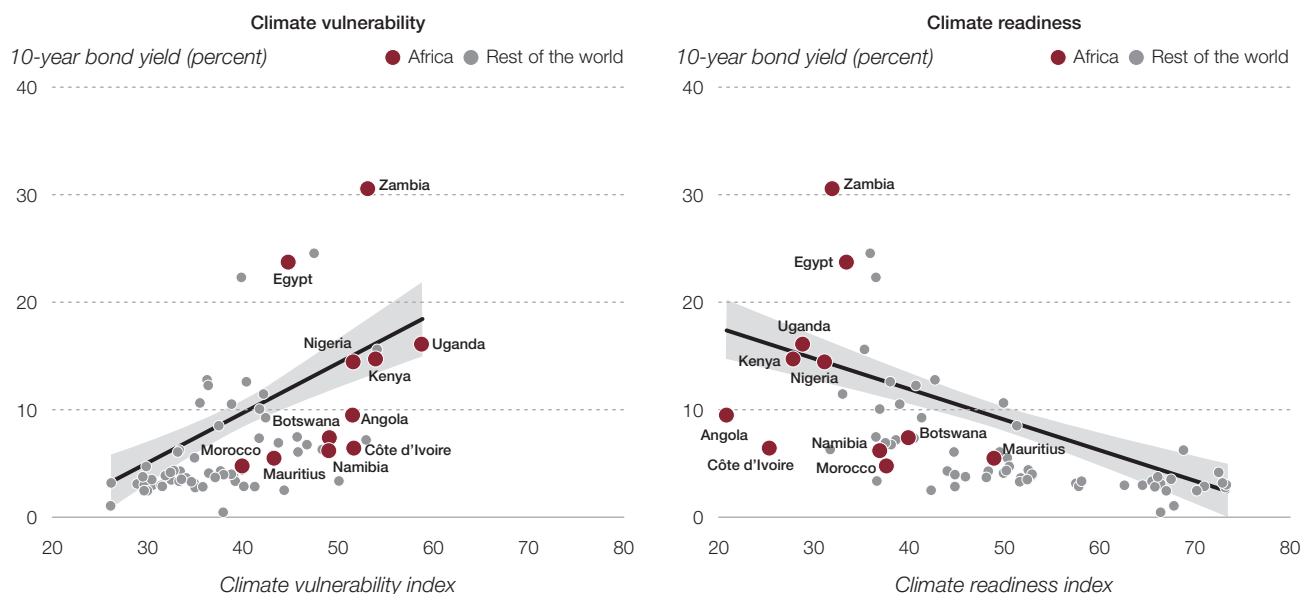
African countries could save nearly \$74.5 billion in excess interest if credit ratings were based on more objective assessments of risk.<sup>63</sup> They could benefit from an autonomous African credit rating agency that engages with international credit rating agencies to ensure that ratings are more informed by Africa's macroeconomic conditions.<sup>64</sup> This could be particularly important to lower the cost of borrowing for African countries, which remains prohibitively higher than in other world regions and is often not synchronized with countries' degree of climate vulnerability and readiness. Indeed, African countries, which have greater vulnerability to climate impacts, tend to have higher sovereign borrowing costs—while countries well prepared to deal with the risks of climate change, mostly developed countries, enjoy low borrowing costs. African countries on the other hand, are often encumbered by high cost of debt (figure 2.18).

Some private actors, particularly those recently committing to greening their investments, have **limited experience in African markets**. Although many private institutions have committed to channeling their investments to sectors that generate low carbon development outcomes, most have limited experience operating in the green growth landscape and particularly in the African market. So, they are likely to be cautious when making investments in green growth in Africa, and will prioritize investments in proven markets, technologies, or sectors while avoiding other markets that potentially have greater impact for green growth on the continent. For investors new to African markets, perceived risks and international credit ratings play a big role in determining whether (or not) to invest in African climate action and green growth markets. For many, this is a hindrance, as these investors fail to gain confidence in market performance.

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African countries could benefit from an autonomous African credit rating agency that engages with international credit rating agencies to ensure that ratings are more informed by Africa's macroeconomic conditions

**FIGURE 2.18** Sovereign borrowing costs, climate vulnerability and readiness



Note: Unlabeled scatter points refer to non-African countries.

Source: Staff calculations based on <http://www.worldgovernmentbonds.com/> (extracted on April 21, 2023) and Notre Dame Global Adaptation Initiative database.

High technical and operational inefficiencies in most African countries increase the costs of investments

An underlying structural driver is asymmetric or limited information about the performance of investments in different African markets. So, international investors looking to invest in Africa rely on credit ratings developed by international rating institutions, which rely on sparse data and subjective assessments to assign these ratings. And when these investors invest in Africa and other developing country markets, they require extremely high rates of return (figure 2.19).

**High technical and operational inefficiencies** in most African countries also increase the costs of investments. High risk is driven partly by the lack of physical infrastructure—poor road and other transport connectivity, limited access to reliable energy and water, and low connectivity to ICT services. These increase the operating costs of potential investors, reducing their likely rate of returns. The levels of development in African markets carry risks of technical difficulties during project development: project construction delays, delayed physical access to technologies due to lengthy import procedures, or inefficient conflict resolution mechanisms. Most cost overruns for projects are likely to be transferred to the investor, those looking to avoid these additional costs.

### Cross-cutting barriers

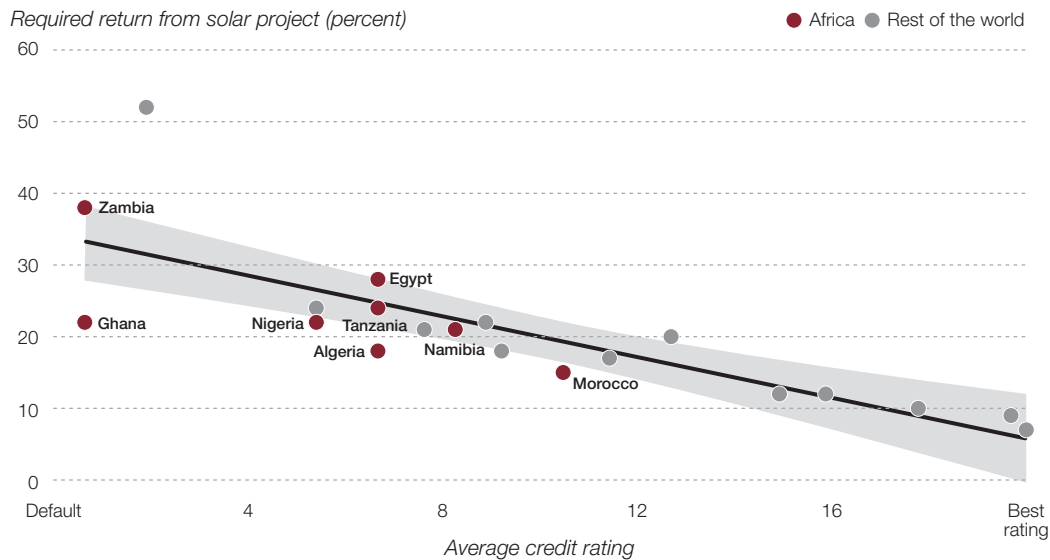
Since most investments in climate change and green growth are new and emerging, they lack data and information about the performance of investments in specific markets, particularly in least developed country contexts. And coupled with the limited availability of comprehensive historical data and information on climate change risks, there is limited understanding on how climate change risks affect different types of investments. So, neither the African stakeholders nor private investors can clearly articulate and implement mechanisms to address these risks.

### Sector-specific opportunities for increasing private investments in climate and green growth sectors

#### Agriculture and water

The agricultural sector is perhaps the greatest lever for generating green growth outcomes from private sector investments. Being the continent's major income generator as well as having the highest potential for transitions to low emissions, it is an opportunity for private sector to be part of this transition. Africa's agricultural sector

**FIGURE 2.19** Sovereign credit ratings and required return from solar projects



Note: Horizontal axis measures average credit rating of three major agencies: S&P, Fitch, and Moody's, with ratings converted to a 0 (default) to 21 (best rating) scale.

Source: Staff calculations based on Trading Economics (2023) and CPI (forthcoming).

and agribusinesses are estimated to be worth \$300 billion (in 2022) and have the potential to transform into a \$1 trillion market by 2030.<sup>65</sup> Other assessments indicate an investment potential of more than \$79 billion in just 13 African countries.<sup>66</sup> Technologies with investment opportunities for climate-smart agriculture include smart and renewable energy-powered irrigation, biocontrol products, They also include precision applicators that increase agricultural input efficiency, renewable energy cold storage and post-harvest handling solutions, and digital platforms that bundle information on climate-smart goods and services and help to minimize transaction costs for consumers and providers while increasing scale of reach. And they include climate-resilient livestock feed, smart systems for pest and weed control, livestock management technologies or different herd sizes, and soil management solutions as well as investments in the water and sanitation sector.

#### Information and communication technologies

The investment in fourth industrial revolution technologies (such as robotic trees, parasitic drones, air-cleaning buses, and air-separation plants) is already growing, but has potential to expand with Africa not just as a technology consumer but also

as a producer. The ICT market in Africa (excluding North Africa) is expected to grow from \$95.4 billion in 2020 to \$104.2 billion by 2023, and its internet economy has the potential to reach \$180 billion by 2025.<sup>67</sup> But it is important to ensure that the continent has the potential to use these technologies, through investments in infrastructure and skills. The intended shift from pure consumption to a mix of production and consumption means that private investments can be used to develop the skills and entrepreneurial systems that drive innovation.

#### Urban development and transport

The African continent is rapidly urbanizing, accompanied by increasing demand for low-carbon transport options and private sector investment opportunities that promote climate resilience in these areas. While there are regional differences in the projected rates of urbanization, it is estimated that 50 percent of the African population will be urban residents by 2030 and 65 percent by 2060.<sup>68</sup> With this increasing urban population comes opportunities for private investments, in the provision of basic services such as access to water, sanitation, housing, climate-resilient transport, and infrastructure to reduce inequalities

Africa's agricultural sector and agribusinesses have the potential to transform into a \$1 trillion market by 2030, while its internet economy could reach \$180 billion by 2025

The projected increase in population on the continent, coupled with projected climate change risks that affect health, means that there are significant opportunities for investments in low carbon climate resilient health systems in Africa

and contribute to green growth. For example, the investment opportunities across 35 major cities in Ethiopia, Kenya, and South Africa for the generation of more compact and connected cities could generate more than \$1.1 trillion in benefits for the private sector by 2050.<sup>69</sup>

### *Energy*

Private investments can also be directed to the generation and provision of low-emissions energy source to achieve universal energy access and meet the increasing energy demand from industry. This provides an opportunity for the private sector in solar energy technologies that reduce dependence on biomass. Already, these technologies are cost-competitive across many parts of Africa, meaning that they provide very attractive returns. Africa has 44.8 percent of the total global technical potential of renewable energy, more than any other continent (chapter 3), so private investments in this sector can supply the rest of the world. This, coupled with the continental gap in access to energy, presents a significant opportunity for private sector along the entire energy value chain from generation, to storage, and to consumption.

### *Education*

Meeting the green industrialization needs of the continent will require skills, particularly among the African youth who form the greatest proportion of the population and the backbone of the African economy. Green skills are needed for meeting the innovation and technology demands that come with the transition to green growth, and private finance will be important in establishing centers for innovation and in providing skill training. Equipping the labor force with green skills can be integrated into the education system, as can acquiring skills and expertise outside the classroom.

### *Health*

Africa's pharmaceutical industry reached \$28.6 billion in 2017, from \$5.5 billion a decade earlier, and is predicted to be worth \$56–\$70 billion by 2030.<sup>70</sup> However, as much as 70 to 90 percent of drugs consumed in most African countries are imported.<sup>71</sup> The projected increase in population on the continent, coupled with projected climate change risks that affect health, means that

there are significant opportunities for investments in low carbon climate resilient health systems in Africa. This potential is an opportunity for the private sector to invest in the production of pharmaceuticals and health service provision so as to be cost-efficient and generate maximum returns. Investment opportunities in the health sector lie in providing smart technologies for screening and treating illness and disease, creating services that increase wellness, producing pharmaceuticals using locally sourced products, and training healthcare workers that to meet the growing demand for healthcare.

## **Pathways to leverage existing investment opportunities and increase private finance for climate action and green growth in Africa**

### *Policies, regulatory structures, and fiscal incentives for climate and green growth*

Developing regulations, standards, and policies for climate and green growth investments and pursuing cross-continental standardization of policies, metrics, and taxonomies will provide positive signals to private investors. First, African countries need robust green growth frameworks for shaping narratives and progress on climate action and green growth. These frameworks are made up of legal, regulatory, and institutional frameworks that leverage the synergies between climate action and green growth. They should ensure transparency, stability, and predictability, and are useful for building investor confidence in domestic and regional markets.<sup>72</sup> They should also be developed for all sectors of the economy that contribute toward green growth, not just the energy sector.

Second, African countries need to develop roadmaps for investments in climate action and green growth by articulating and costing their Long-Term Strategies to provide guidance to private investors on priority green growth sectors and areas for investments. These roadmaps and strategies should be based on good practice recommendations. They should be developed in consultation with diverse national and international stakeholders, have clarity on financing and other resource needs for its implementation, be

embedded into national and sectoral planning systems so that it can inform resource allocation, and demonstrate strong country and institutional ownership.<sup>73</sup> Besides developing green growth strategies and climate action plans, countries need to develop comparable regulations across different green growth sectors. That will make it easier for investors to determine what count as investments that contribute to climate and green growth across the continent. Taxonomies are essential for defining terms, outlining expectations, and developing more comprehensive classification systems.<sup>74</sup>

Although green taxonomies have been under consideration for some time across the continent, only South Africa has so far developed a taxonomy for green investments. Countries should develop national green taxonomies, green and sustainable finance standards and frameworks that complement those developed by international organizations to align with international best practice. In doing so, countries can ensure that the governance of private finance is streamlined, while also demonstrating transparency and accountability in mobilizing and using private investments and attributing impacts.

Although many African countries have still not implemented comprehensive fiscal incentives for private finance, some show that there is still an opportunity for others to do so. Ghana, Kenya, Mauritius, Morocco, Rwanda, and Tunisia have devised policies and mechanisms to offer fiscal incentives to attract external private investments. For example, Kenya, Morocco, Rwanda, and Tunisia have duty and value added tax (VAT) exemptions for renewable energy and energy efficiency-related investments. Ghana, Mauritius, South Africa, Uganda, and Zambia have used auctions to enhance renewable energy generation. Kenya and Morocco have removed pre-existing incentives for activities that disincentivize green growth, such as subsidies on petroleum products.

In some cases, fiscal incentives could have greater costs than benefits. For example, they may be made available to investors that would have invested anyway or whose investment decisions are influenced by other factors, such as geographical location, and not whether (or not) they receive these incentives.<sup>75</sup> African countries thus need to think carefully about how these incentives

should be designed and offered. Tax incentives to firms are one and often not the determining factor for private investment decisions. Some investors (such as those that are efficiency-seeking) may be more sensitive to incentives than others (such as market-seeking or natural resource-seeking). But that the effect of these incentives on investments in low-income countries is smaller than that in high-income countries, and most firms would invest even without incentives.<sup>76</sup> Tax incentives targeted at sectors producing for domestic markets or extractive industries generally have little impact, while those geared toward export-oriented sectors and mobile capital appear more effective.<sup>77</sup> Mainly, this is because private sector investments in general, and in green growth in particular, depend more on the quality of institutional and policy frameworks and on other factors of production such as infrastructure and labor.

The common narrative is that African countries need to eliminate harmful subsidies, but this should instead be framed as the need to align fiscal reforms with green growth objectives in both the short and long terms. These strategies should identify clear roles for different energy sources and the mechanisms for phasing them in or out. Other types of incentives have also been offered in some countries. For example, some African countries have been offering R&D incentives to private sector investors in sectors or industries that have strong links to green growth or that are conditional on achieving specific outcomes. South Sudan provides a 100 percent R&D tax reduction for private investments. Tunisia gives a 50 percent bonus for companies investing in R&D in sectors central to its green growth objectives.

Managing exit risk and overall private sector confidence in African green growth markets will require stronger governance mechanisms based on accountability and transparency to ensure that the needs of both African countries and private investors are met. Many African countries lack strong transparency and accountability systems, and thus fail to provide clarity on rights and responsibilities of different groups of stakeholders involved in private finance for green growth. Achieving stronger accountability and transparency will require improving the capacity and efficiency of commercial court systems to disputes,

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Managing exit risk and overall private sector confidence in African green growth markets will require stronger governance mechanisms based on accountability and transparency to ensure that the needs of both African countries and private investors are met

Sub-Saharan Africa alone mobilized more than \$4.5 billion from climate-blended finance vehicles in 2019–21

streamlining the business environment ensure efficiency, generating clear policies on areas such as labor markets and ownership of foreign assets, as well as promoting transparency in procedures for both investors and governments.

**Increasing the use of blended finance**

Overall, climate and green growth investments can be too risky for private investors mainly because they leverage new technologies and business models. In such cases, singly relying on markets to eliminate or reduce these risks is suboptimal. Blended finance can reduce these risks and ensure that they achieve the desired outcomes. Blended financing instruments typically combine concessional public finance resources with other forms of private finance. Between 2016 and 2021, Africa accounted for more than 41 percent of all blended finance deals globally, indicating the potential for scaling up these instruments. Over the past seven years, Africa has registered the most deals in blended finance for climate change. Sub-Saharan Africa accounts for 41 percent of total deals, followed by Latin America and the Caribbean at 28 percent (figure 2.20). So, the volume of blended finance has also been higher. Sub-Saharan Africa alone mobilized more than \$4.5 billion from climate-blended finance vehicles in 2019–21 (figure 2.21), just behind transactions with a global focus

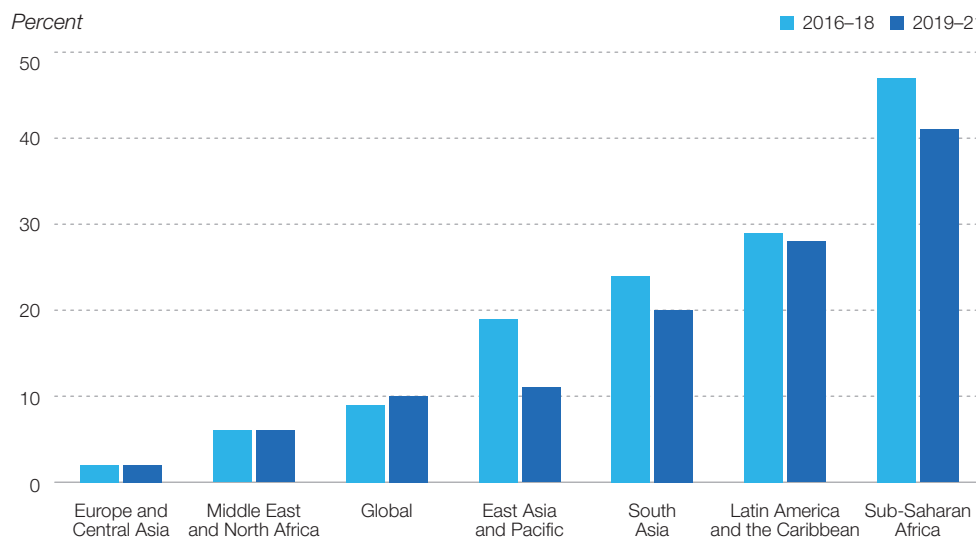
(\$5 billion). Kenya, Rwanda, Nigeria, South Africa, Ghana, and Côte d’Ivoire, in that order, rank among the top 10 in mobilizing blended finance globally.

**Increasing leverage ratios of blended finance, alongside the impact of investments, to unlock billions and trillions of private climate finance**

One of the main challenges in blended finance is the low leverage ratio: public finance investments in projects do not generate a higher proportion of private finance. Blended financing instruments have a key role in growing private climate finance. These instruments have allowed public actors such as MDBs and DFIs to leverage more private financing by taking on some of the political, governance, and economic risks associated with climate projects. Of the \$4.5 billion of climate blended finance in Sub-Saharan Africa over 2019–21, more than three-quarters went to renewable energy projects. But even at this scale, the leverage ratio of private-to-public finance is still very low.

In addition to increasing leverage ratios, countries need to ensure that blended climate finance is impact-informed, important since the global private sector landscape is transitioning into impact-oriented investments. The African continent, as a geographic frontier, offers great opportunities for generating impact, which can be the basis for engagement with the private sector. As

**FIGURE 2.20** Proportion of climate blended finance deals by region



Source: Convergence 2022.

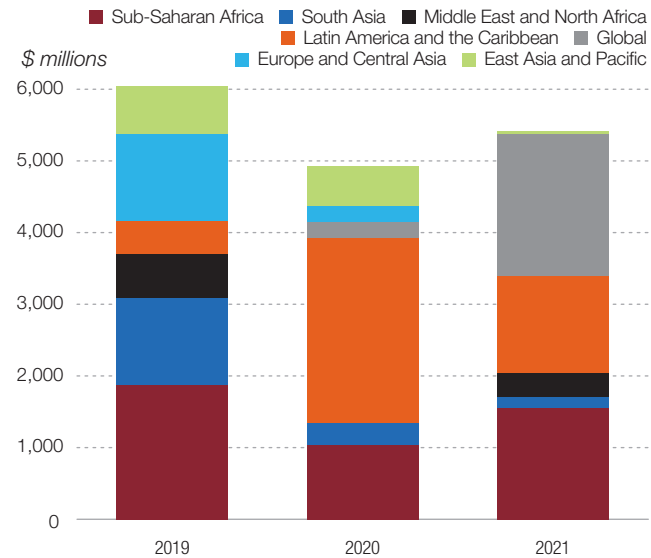
countries have already committed to unconditionally meet 15 percent of their NDC costs through public finance, they can direct part of this finance to blended finance instruments to mobilize private finance toward key sectors for climate and green growth. Because this committed finance is scarce, it will need to be used effectively. One way to advance the effectiveness of public finance used for blending instruments is ensuring that both needs (desired impact for climate action and green growth) and markets (private sector risk appetite) inform the allocation of finance.

Maximizing opportunities from blended finance requires that countries ensure that this finance generates additionality and proportionality through developing robust country tools and methodologies to allocate public finance to different blended finance instruments and deals.<sup>78</sup> Globally, blended finance through projects, funds, and facilities accounts for 95 percent of blended finance mobilized between 2016 and 2021.<sup>79</sup> African countries can tap into this trend to generate much-needed private finance.

**Blended finance can increase private participation in infrastructure for green growth**

Blended finance can particularly be useful in increasing the private participation in infrastructure projects in Africa, which are one of the lowest

**FIGURE 2.21 Climate blended finance by region, 2019–21**

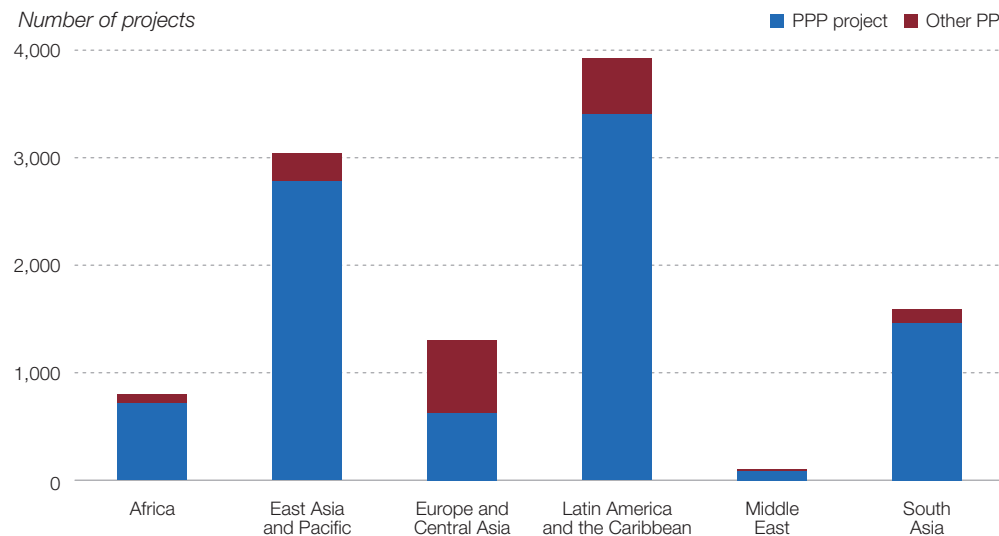


Source: Convergence 2022.

regions globally (figure 2.22) and has been on a downward trend. Existing private participation is now mostly focused on financing energy infrastructure, with limited investments in social infrastructure and other hard infrastructure in sectors such as agriculture, which are equally important for green growth (figure 2.23). In addition, although most private participation in infrastructure (PPI) projects in Africa are greenfield, the total volume

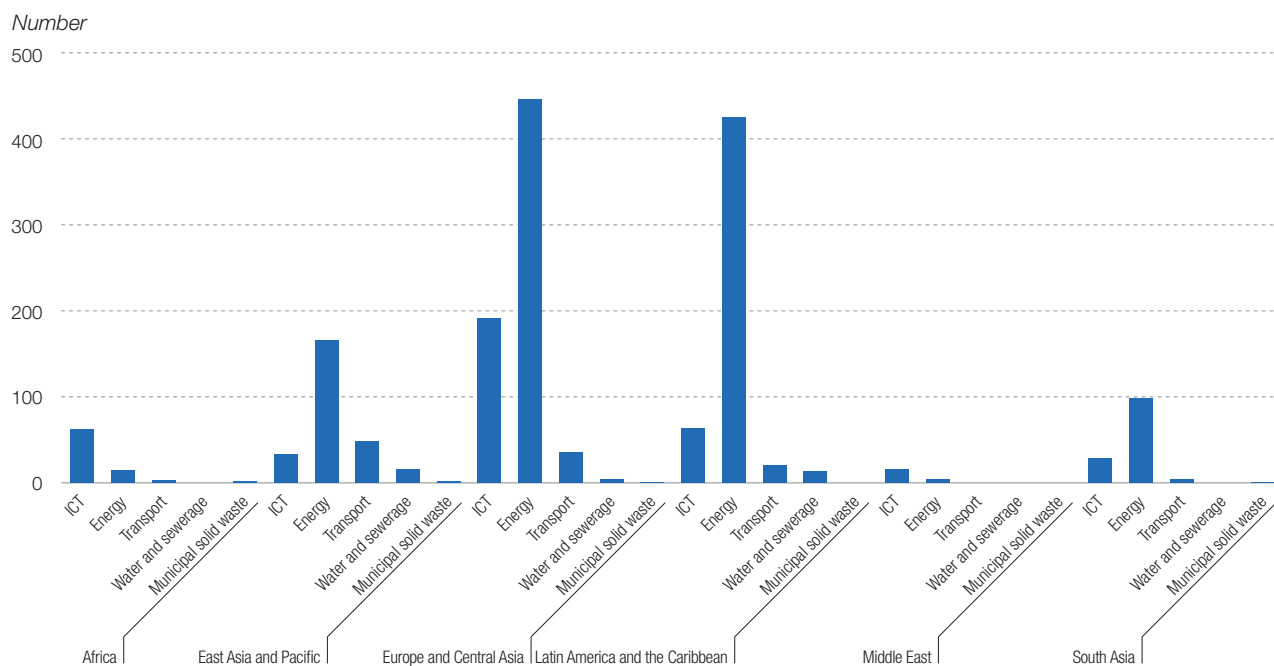
Blended finance can particularly be useful in increasing the private participation in infrastructure projects in Africa, which are one of the lowest regions globally

**FIGURE 2.22 Number of public-private partnership projects by region, 1990–2022**



Source: Staff calculations based on World Bank's Private Participation in Infrastructure (PPI) Project Database.

**FIGURE 2.23** Number of private participation in infrastructure projects by sector, 1990–2022



Source: Staff calculations based on World Bank’s Private Participation in Infrastructure (PPI) Project Database.

Although infrastructure receives the largest proportion of climate-blended finance, particularly in developing countries, allocations need to be diversified to other social sectors important for green growth, such as agriculture, fisheries, and health

of investments is lower than in other developing regions. PPI projects require strong national legal structures that define the relationship between governments and private investors in these projects. Public-private partnership frameworks should be anchored on local contexts and needs, targeting sectors and regions with the greatest need and private actors with the greatest potential to contribute to the projects. Good frameworks provide information on how projects will be initiated, procured, implemented, managed, and operated. They also communicate how risk will be shared and demonstrate the presence of financial mechanisms and institutions to ensure that investors have access to the capital they need to invest in these projects. Attracting private investments to local green projects first requires legislation to allow fund managers to set up infrastructure funds. These infrastructure funds should have low entry thresholds for subscribers, enabling low- or middle-income subscribers to invest in them.

**Diversify public investments to other types of sectors and use different types of resources**

Although infrastructure receives the largest proportion of climate-blended finance, particularly in

developing countries, allocations need to be diversified to other social sectors important for green growth, such as agriculture, fisheries, and health. According to the World Bank’s PPI database, of the 495 greenfield PPPs either concluded or ongoing in Africa (between 2019 and 2022) for a total value of \$113 billion, 371 were in the energy sector (\$78 billion), more than ports and roads and railways. And the investments were in the form of equity not debt, even though the global debt markets are the deepest globally for infrastructure financing. African infrastructure is attracting equity financing because most of the projects are greenfield financing, where upfront financing is required to get the project operationalized and which discourages debt investors because the risk is too high (due to construction and political risk).

**African governments should strategically deploy public finance while leveraging multistakeholder platforms for generating blended finance**

Scaling up private finance for climate action and green growth through blended instruments requires that governments strategically deploy available climate finance. This in turn requires governance and accountability systems that enable



the allocation and use of public finance for pre-identified climate action and green growth objectives. Central to this deployment is a need for African countries to strengthen their public finance management systems through strengthening tax bases and legislative oversight of budget allocation and spending.<sup>80</sup> Another important layer is the need to mainstream climate action and green growth into public finance management across the public finance cycle—from strategic planning all the way through to budget preparation and approval, budget execution, accounting and monitoring, evaluation and audit, policy review, and other policy interfaces such as through climate-responsive fiscal decentralization.<sup>81</sup>

Many countries are implementing some of these measures. Benin, Cabo Verde, and Uganda have climate change policies and plans, and Ethiopia, Mozambique, and Rwanda have plans that communicate the financial implications of their implementation. Mozambique is reported to have developed climate-informed macroeconomic forecasts, while Cabo Verde implements climate budget tagging. Countries should develop or leverage existing multistakeholder platforms for blending finance for climate action and green growth. Investment platforms create a marketplace for public and private investors, accelerating

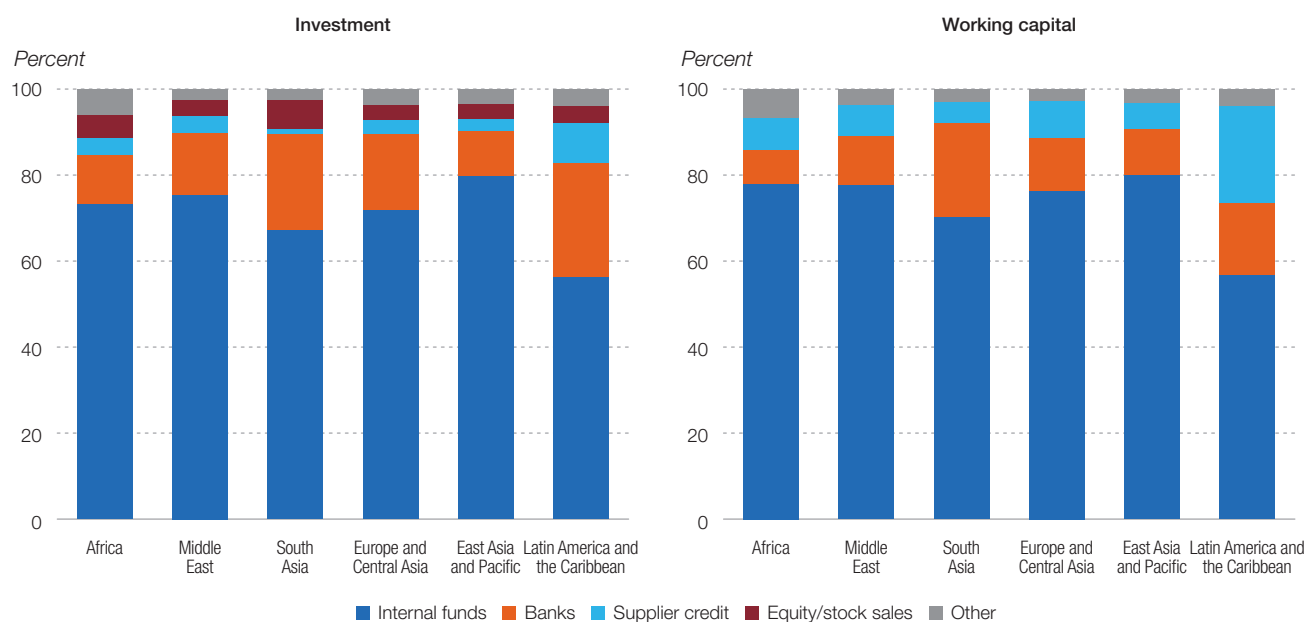
the blending process. Such platforms should be designed to enable the development of commercially viable projects, while ensuring that financial allocations reduce the country and currency risk of investments while also promoting portfolio investments and not just single project investments.

**Strengthening domestic financial institutions to address the financing gap for climate action and green growth**

African firms, regardless of their size and sector, rely most on internal funds, such as retained earnings and informal sources to finance both their investment and working capital. Africa has the lowest share of firms that obtain financing from private commercial banks for their working capital (7.7 percent), just over half the average of 14.6 percent in other world regions (figure 2.24). Between 2010 and 2021, about 32 percent of African firms identified access to finance as a major obstacle for their business, against 21.8 percent in Latin America and the Caribbean, 17.5 percent in South Asia, 15.5 percent in Europe and Central Asia, and 11.1 percent in East Asia and Pacific. Addressing this constraint will require African public sector institutions to create favorable conditions to incentivize private sector financiers to serve domestic firms, particularly those in climate and green growth sectors.

Africa has the lowest share of firms that obtain financing from private commercial banks for their working capital (7.7 percent), just over half the average of 14.6 percent in other world regions

**FIGURE 2.24** Financing sources of investment and working capital of firms by region, average 2010–21



Source: Staff calculations using World Bank’s Enterprise Surveys.

De-risking mechanisms for green finance such as guarantees by public actors, could leverage more green financing at better terms for different actors

The domestic banking sector can be developed to address the financing gap for climate action and green growth. Most domestic private finance in Africa is obtained from banks, so strengthening the domestic private sector's contribution to green growth will need to leverage this opportunity. Retail and corporate banking in Africa holds more than 90 percent of financial sector assets.<sup>82</sup> Taking advantage of this potential for green growth will require that countries work on expanding the breadth of financing instruments, enhancing financial inclusion and encouraging banking innovations.

Commercial financial institutions, mostly banks, are investing more in energy systems and cross-cutting sectors. But due to their responsibility to seek market or even higher-than-market returns for investments, they are very risk averse, requiring that they invest in bigger ticket projects with high returns. And most banks have limited (due diligence and technical) capacity and no formal mandate to embed climate and green growth into their investment decisions.<sup>83</sup> The potential recipients of this finance, especially MSMEs, often cannot afford the high cost of these loans. Moreover, MSMEs in the AFOLU sector often cannot provide financial records and collateral to access them in the first place. The informal sector is likely to be overlooked by financial institutions, so there is a need to strengthen the provision of private finance to these actors.

De-risking mechanisms for green finance such as guarantees by public actors, could leverage more green financing at better terms for different actors. In 2020, 44 percent of private flows to least developed countries were mobilized by guarantees issued by DFIs.<sup>84</sup> This shows the potential that exists for public actors to use guarantees to catalyze more private climate finance for green growth that is affordable and inclusive. And due to the long-term nature of some climate-related and green growth projects, patient capital is critical to realize their benefits.

Just as central banks are responsible for monitoring and managing climate change risks in the financial systems, they can also strengthen sustainable finance systems by creating more ESG-friendly financial systems and regulations. For example, central banks also determine countries' monetary

policies and incentives to ensure that they favor investments in climate action and green growth.

Institutions for supporting innovations will be essential for identifying areas where private sector investments can have the greatest benefit. Green industry facilities and green banks are an option for advancing access to finance for climate action and green growth on the continent. The Kenya Climate Innovation Center and Nigeria Climate Innovation Center show how countries are generating investment opportunities for the private sector and promoting start-ups and MSME investment in climate action. There is interest in these institutions, but more needs to be done to ensure that they are spread across different parts of the continent depending on climate action and green growth needs.

#### *Expanding sustainable finance instruments, such as green finance*

Institutional investors provided more than 90 percent of grants and all of the project debt and channeled most of it to energy and AFOLU sectors. But pension funds, insurance companies and sovereign wealth funds (SWFs) see Africa as one of the least attractive investment markets. Ticket sizes tend to range from \$10–\$100 million (quite large), making it difficult to invest in smaller ticket sizes (less than \$1 million) climate finance opportunities that currently exist in Africa.<sup>85</sup> For the Bank, the average ticket size of approved projects with at least 30 percent of climate finance content averaged \$18 million over 2018–22, with a median of \$6.5 million and a maximum of \$268.5 million (figure 2.25).

Unlocking more capital from institutional investors remains a critical part of financing not just climate action and green growth but also the SDGs. But finance from SWFs should be based on sound macroeconomic and political safeguards to ensure that the financial reserves are allocated toward green growth. Institutional investors will be very important for mobilizing domestic private sector finance through domestic capital markets. Institutional investor interest is increasing in alternative assets—those that fall outside of traditional asset classes, and include private equity, venture capital, securities, and other vehicles that have designated proceeds for infrastructure financing.<sup>86</sup> Although alternative assets made up

an even smaller share of assets under management in African markets, the proportion has been increasing over the past few years. Their growth is mostly driven by national initiatives to direct institutional investors into these alternative assets. But enhancing these investments—particularly in asset classes directly linked to climate action and green growth—will require conducive regulatory environments and macroeconomic conditions. And these investors will need to have solid information to be able to evaluate the risks and potential returns from these asset classes.<sup>87</sup>

International and domestic capital markets offer an opportunity for African countries to expand their use of domestic green bonds while addressing the currency risk that comes with bonds offered in foreign currency. Many countries are already offering bonds in domestic currency while targeting the domestic private sector. Capital markets in Africa are mainly stock exchanges and bond markets, with bond issuances mostly by governments and only a few large corporations listed on domestic stock exchanges.<sup>88</sup> There are now 28 stock exchanges with listed equity and bonds in Africa, which have raised over \$1 trillion in finance through bonds.<sup>89</sup> But these exchanges are smaller than other frontier markets in developing countries: other than the Johannesburg and Casablanca stock exchanges, the other exchanges have very small listings.

The continent already has some good experiences in engaging with innovative climate finance mechanisms, and these can inform future directions of innovative finance for climate action and green growth. Examples this include the issuances of green bonds in Kenya, Namibia, Nigeria, and South Africa,<sup>90</sup> the first initial public offering on the Blu-X sustainable finance platform in Cabo Verde (first blue bond at the Ocean Summit) in January 2023, and the utility financing for energy efficiency and access in Kenya, through auctions to finance renewables. Other examples are local currency green bonds in Nigeria and South Africa. In both cases, the governments created regulatory and institutional frameworks to enable the use of these innovative mechanisms.

#### *Tapping into private equity and venture capital*

Although small, Africa's private equity and venture actors are a critical source of financing for young

**FIGURE 2.25** Ticket size of the Bank's approved projects with at least 30 percent of climate finance content, 2018–22



Note: Values above the 95th percentile (\$75 million) have been omitted.  
Source: Staff calculations.

and innovative firms.<sup>91</sup> African venture capital is still small but has grown over the past decade. Specifically, the number of venture capital transactions in Africa reached a record 308 deals in 2021, a 34 percent increase from 2020 (see figure 2.10). However, given Africa's growing demand for green and innovative technologies, accompanied by the demonstrated venture private and equity capital investor interest in Africa, there is scope to expand the volume of finance. A more diversified investor base would bridge the existing MSME finance gap and accelerate green growth in sectors that contribute to social development. The design of private equity and venture capital enables the provision of patient risk-agnostic finance, essential for supporting renewable energy and the digital economy.

Besides private equity and venture capital, there is need to create opportunities for MSMEs to engage with other types of investors, such as angel investors and enabling their access to other financing mechanisms such as guarantee instruments, revenue-based financing etc. Unlocking private sector finance on the continent requires provision of non-financial technical support that is essential for further developing the capacity of these institutions to become competitive in the expanding climate action and green growth

International and domestic capital markets offer an opportunity for African countries to expand their use of domestic green bonds while addressing the currency risk that comes with bonds offered in foreign currency

Africa's past experiences from participation in carbon markets have not generated the expected results, so there is a need for a step change if the continent is to fully capitalize on the emerging potential for carbon markets

landscape. This can be through mentorship, coaching, knowledge and experience sharing, developing frameworks that promote local and regional businesses and investors and the development of networks for partnership development. This can be achieved through mechanisms that support networking between different types of institutions that could potentially benefit from one another, such as through incubators and accelerators to catalyze the growth of the African private sector ecosystem. African countries, through their governments, can also spearhead support for MSMEs through acquiring a deeper understanding of the national and regional private sector and risk landscape to inform policy and action.

#### *Cautiously engaging with the emerging carbon markets*

The Africa Carbon Markets Initiative is an opportunity for countries to direct investments into the protection and growth of their natural capital. Africa's carbon sink stock can be leveraged to generate finance and enable investments in sectors such as natural resources and biodiversity conservation, which have both environmental and social development outcomes. With existing methodologies, Africa could generate about 2,000 MtCO<sub>2</sub>eq, worth \$40 billion annually by 2030.<sup>92</sup> With new or nascent methodologies, it could generate an additional 400 MtCO<sub>2</sub>eq across the continent, worth more than \$7 billion annually by 2030, with the greatest benefits obtained from livestock management and agricultural and soil carbon sequestration. When fully developed, the carbon markets could provide significant opportunities for African countries to mobilize climate finance for development and improve their risk ratings by re-basing their GDP in the light of the positive externalities associated with the carbon sequestration value of forest ecosystems.

However, Africa's past experiences from participation in carbon markets have not generated the expected results, so there is a need for a step change if the continent is to fully capitalize on the emerging potential for carbon markets. Africa accounted for only 10 percent of all Clean Development Mechanism (CDM) projects issued in developing globally between 2010 and 2021.<sup>93</sup> The private finance generated from the

growing carbon markets ultimately depends on the global price of carbon. But African countries can increase their benefits from current markets by expanding the scope of production of credits, increasing regulatory structures for credits and ensuring that credits meet the social and environmental quality needed for the global market. In addition, the development of country plans for carbon markets will support the production and sale of carbon credits by identifying and assigning responsibilities to different national and local institutions, identifying the different sets of incentives for participation in the carbon markets, and identifying conditions for participation in the carbon market space.

#### *Leveraging intra-African collaboration to enhance continental private investments*

Africa needs regional project preparation facilities to tap into continental private investment opportunities for climate and green growth. As many domestic and international investors are looking to invest at the regional scale to take advantage of the market scale, regional project pipelines will be important. One way to advance pan-African collaboration is through the development of dedicated regional funding, project preparation, and capacity development mechanisms. The mechanism should have specialized units for supporting low-income countries and those emerging from conflicts, as they will have much more nuanced barriers and needs.

Africa's strongest regional collaborations present an opportunity for countries to work together to generate a more nuanced understanding of the barriers and opportunities for private investments within states and across common markets. This would involve leveraging regional economic and research institutions to develop stronger links between research and governance and the private sector. For instance, the Alliance for Green Infrastructure in Africa, a partnership between the African Union, African Development Bank Group, and Africa50, launched in 2022, aims to raise up to \$500 million in project development and preparation funds to generate up to \$10 billion in sustainable green infrastructure.<sup>94</sup> The Africa Investment Forum (AIF)—a multistakeholder transactional platform and investment marketplace—is

dedicated to advancing projects to bankable stages, raising capital, mobilizing private sector, and accelerating the financial closure of deals.<sup>95</sup> And through the AU, African countries are working to develop the African Credit Rating Agency, a pan-African partnership which could enable countries to access private sector finance and strengthen links between the continent's and global financial markets.<sup>96</sup>

As countries recover from the economic effects of the COVID-19 pandemic and the 2022 energy and food crisis, these regional facilities can leverage the FDI outflows from African countries. Although Africa is a net recipient of FDI flows, some African countries have, over the past decade, proven themselves as potential sources of FDI outflows. And even though recent economic crises have shrunk the total volume of FDI outflows within the continent, countries are showing signs of recovery (figure 2.26). Before COVID-19, Togo, South Africa, Egypt, Morocco, and Ghana were the highest sources of FDI outflows in the continent. But their outflows fell by two-thirds in 2020 to \$1.6 billion from \$4.9 trillion in 2019.<sup>97</sup> Outflows from Togo, the highest source of outflows for this period, were directed at other African countries.

As countries recover from the pandemic and private sector actors' balance sheets begin to demonstrate improving liquidity, it is expected

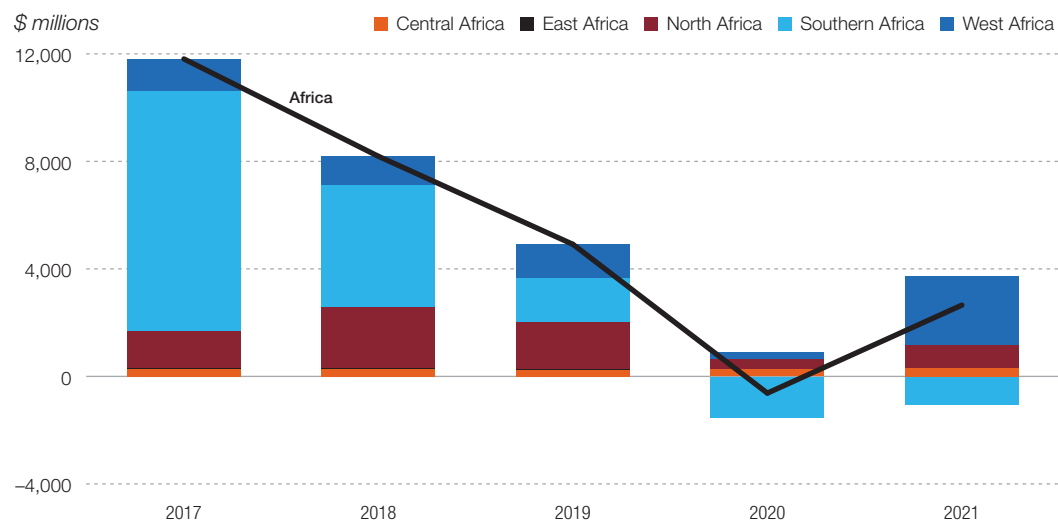
that FDI outflows will begin to increase too. African investors can be encouraged to invest on the continent through special trade agreements. Strengthened regional integration through the AfCFTA is a good starting point for advancing these trade agreements.

African countries should commit to supporting cross-border programming, particularly in green growth sectors, to increase the market size for small countries and further attract private sector investments. The top-5 destination countries—South Africa, Nigeria, Kenya, Morocco, and Egypt—concentrated about 56 percent of all inflows received on the continent on average in 2019/20 (considering only country inflows). So, multi-country projects could be a promising avenue for African countries with thin local markets to explore. But multiple-country private climate finance is still nascent in Africa, accounting for only about 8 percent of overall private climate finance in 2019/2020. The African Continental Free Trade Area (AfCFTA) will be a game changer, creating the world's largest free trade area and a single market for goods and services worth \$3.4 trillion for more than 1.3 billion Africans.

Technical support for policy and project development will also be important if African countries are to further mobilize private sector finance for climate action and green growth. This requires that funds be set aside to support policy development

African countries should commit to supporting cross-border programming, particularly in green growth sectors, to increase the market size for small countries and further attract private sector investments

**FIGURE 2.26** FDI outflows from Africa, 2017–21



Source: Staff calculations based on UNCTADStat data.

and project origination. MDBs are planning to create a facility of around \$250 million to support the preparation of Long-Term Strategies. When this is operational, it will provide an opportunity for African countries to leverage these funds for capacity development to accelerate the development of their strategies.

## THE ROLE OF MDBs AND DFIs IN MOBILIZING PRIVATE FINANCE

### DFIs and MDBs are key players in unlocking international and development finance

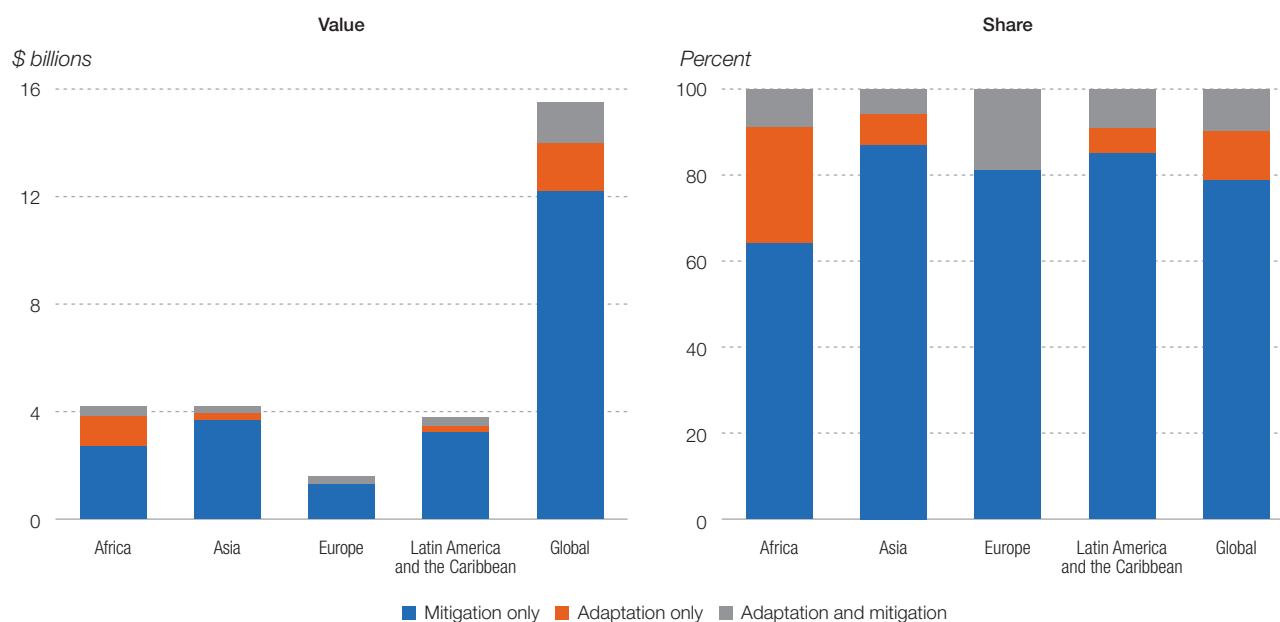
*Around one-third of private finance mobilized by DFIs and MDBs targeted climate action in 2018–20, with Africa among the main recipients* Of \$48.6 billion of annual private finance mobilized by official development finance institutions on average over 2018–20, about \$15.5 billion (32 percent) targeted climate actions—with \$12.2 billion (25 percent) for mitigation only, \$1.8 billion (4 percent) for adaptation only, and \$1.5 billion

(3 percent) for mitigation and adaptation (figure 2.27). It was distributed almost evenly across the world’s main regions, with Africa, Asia, and Latin America and the Caribbean receiving the largest shares. Africa received about \$4.2 billion annually (the same as Asia), while Latin America and the Caribbean benefited from \$3.8 billion. Official development assistance-eligible European countries got \$1.6 billion a year on average, and the remaining \$1.7 billion was unallocated. The top-5 African recipients were Mozambique with \$839 million (20 percent of Africa’s total), South Africa \$365 million (8.7 percent), Egypt \$331 million (7.9 percent), Kenya \$314 million (7.5 percent), and Nigeria \$274 million (6.5 percent). The concentration in those countries could be primarily the result of local market dynamics, the availability of investment opportunities, and the development of large-scale industrial projects.

Despite increased official development finance for climate-related projects, the total mobilized appears modest—and falls far short of Africa’s climate finance needs. So, it is essential to develop and implement policies and instruments that improve the redistribution of private climate finance both geographically and sectorally. These

Of \$48.6 billion of annual private finance mobilized by official development finance institutions on average over 2018–20, about \$15.5 billion (32 percent) targeted climate actions

**FIGURE 2.27** Geographical distribution of private climate finance mobilized by official development finance institutions, average 2018–20



Source: Staff calculations based on OECD (2023).

instruments could provide soft commercial loans to African carbon project developers to generate and sell their emission reductions at the market price. They could be guarantees to facilitate lending to carbon project developers by de-risking climate projects. Non-market instruments, such as the Adaptation Benefits Mechanism being piloted by the Bank, could also channel private sector finance into adaptation. Risk-sharing remains critical to encourage private sector investment; therefore, policies that help identify and manage risk are relevant. For example, concessional loans, guarantees, first loss equity, and grants are all important, and MDBs and DFIs could facilitate their implementation.

In addition to private sector finance, are potential sources of increased public finance from official development finance institutions. Some have been highlighted in the recent Bridgetown Initiative, put forward by the government of Barbados, and are being further considered in the light of the calls to reform the World Bank and by implication other MDBs. Paragraphs 40 and 41 of the Sharm-El Sheikh Implementation Plan call on MDBs and their shareholders to reform and improve the efficiency of the provision of climate finance. Specific examples include access to Special Drawing Rights, which could finance debt-for-nature or debt-for-climate swaps. And there is a significant call to introduce climate disaster debt clauses into loan agreements, to delay interest payments on loans in the event of a climate or other disaster. These could be NPV-neutral if repayment terms are extended, or public funds could make them so. The Bridgetown agenda team estimated that disaster risk debt clauses could have freed up \$1 trillion of liquidity in developing countries during the COVID-19 outbreak, and MDBs are being encouraged to deploy such clauses.

### **Five actions and policies to enable DFIs and MDBs crowd-in more private climate finance**

The Bridgetown Initiative, unveiled at COP27 in Egypt, proposes a three-step process for MDBs (and DFIs) to step up and address the financing requirements of developing countries: First, provide emergency liquidity to developing countries to stop the debt crisis. Second, expand multilateral lending to governments. And third,

mobilize private savings for climate action and green growth.<sup>98</sup> Five actions and policies will be needed to meet these objectives.

#### ***Becoming less risk averse***

MDBs and DFIs should become less risk averse as donors and the international financial community take the necessary steps to enable the financial institutions to maintain their credit ratings and continue to source climate finance at the cheapest rates. Needed first is a review of MDBs' capital adequacy ratios, an indicator of MDB risk aversion. An independent expert review found that these ratios are too conservative and could be reduced without affecting the credit ratings of these institutions.<sup>99</sup> That would increase the amount of capital available for lending to developing countries, particularly for climate action and green growth. Linked to this is the need for donor countries to set realistic and achievable DFI profitability targets, which determine cost of capital to developing countries.<sup>100</sup>

Second, as highlighted in the Report of the Independent High-Level Expert Group on Climate Finance,<sup>101</sup> MDBs also need to shift from project-based finance to financing the system-wide sustainable transition. They should do this mainly through leveraging the largely untapped potential to pool and diversify risks across the development finance system to create new asset classes for private institutional investors. This should involve the use of more innovative financing mechanisms, such as mobilizing non-voting capital and risk transfers to the private sector, to increase available capital from MDBs.<sup>102</sup>

Overall, reducing risk aversion requires tailor-made capital and liquidity frameworks to reassess regulatory capital and other prudential norms for MDBs and DFIs. For example, shareholders should encourage MDBs and DFIs to leverage their own resources with ambitious targets for mobilizing private capital through a range of de-risking measures. They should also agree on a timebound plan to implement the recommendations of the G20 Capital Adequacy Review,<sup>103</sup> including greater use of shareholder guarantees to enable them to lend more with the existing capital without threatening their long-term financial integrity.

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Multilateral development banks and development finance institutions should become less risk averse as donors and the international financial community take the necessary steps to enable the financial institutions to maintain their credit ratings and continue to source climate finance at the cheapest rates

Multilateral development banks and development finance institutions should agree on a timebound plan to implement the recommendations of the G20 Capital Adequacy Review, including greater use of shareholder guarantees to enable them to lend more with the existing capital without threatening their long-term financial integrity

Last, donor countries should reduce the profitability targets of DFIs. British International Investment (BII, formerly CDC) lowered its profitability target from 10.6 percent to 3.5 percent for its main portfolio—the Growth Portfolio and to at least break-even for its entire portfolio, enabling it to invest in areas with higher risks and the likelihood of losses.<sup>104</sup> Financing system-wide transformations by MDBs also requires identifying areas for national priority for green growth and targeting them for financing from origination, planning, development, and operations.

Alternative financing mechanisms—say, through voluntary carbon markets, adaptation benefit mechanisms, and financing debt-for-nature swaps—can also be a way for MDBs and DFIs to become more risk averse. To engage in voluntary and Article 6 market and non-market mechanisms, DFIs and MDBs will need to recognize and value cash flows from the sale of nonconventional assets, including voluntary emission reductions, mitigation outcomes, and certified adaptation benefits. Similar flexibility will be required if these financial institutions are to finance debt-for-nature swaps and value biodiversity. In 2016, Seychelles' \$21 million debt-for-nature conversion directed the debt relief achieved on debt service to fund climate change adaptation, sustainable fisheries, and marine conservation projects. The recent success of the US Development Finance Corporation's guarantee to close debt-for-nature swaps in Barbados and Belize increased calls for other MDBs like the AfDB to scale up this financing tool for countries such as Gabon and Kenya. The Bank is evaluating how to deploy its partial credit guarantee to backstop the sovereign issuance.

MDB and DFI member countries need to strengthen their Paris Agreement participation and documentation, specifically their LTSS, NDCs, and National Adaptation Plans. This suite of documents will communicate to the international community which green growth and low emission climate resilient pathways countries will rely on in the future. The information will also make planning and investing much easier for the private sector. Shareholders should encourage MDBs and DFIs to leverage their own resources with ambitious targets for mobilizing private capital through a range of de-risking measures. MDBs and DFIs should

also agree on a timebound plan to implement the recommendations of the G20 Capital Adequacy Review,<sup>105</sup> including greater use of shareholder guarantees to enable them to lend more with the existing capital without threatening their long-term financial integrity.

#### *Increasing the use of results-based payment instruments*

As highlighted in the *AEO 2022*, the global climate finance architecture is simply too complicated and bureaucratic, seriously limiting its effectiveness, particularly in low-income, climate-vulnerable countries. International climate funds typically do not give grants to private operators. Most women and youth in Africa are unbankable, lacking assets to serve as collateral or technical project preparation skills. And many adaptation projects are perceived as not economically feasible, either because they contribute to the global good and do not generate any or sufficient revenues or because they target the most poor and vulnerable communities living at subsistence level and cannot invest or pay back commercial loans. There is renewed interest in using results-based payment instruments where the private sector shoulders all the implementation risk and gets paid on delivery of the agreed results. Voluntary carbon markets, the Sustainable Development Mechanism under the Paris Agreement, and the Adaptation Benefits Mechanism are examples of results-based payment instruments. As noted, projects under these mechanisms still need short-term project finance, and this is something the MDBs and DFIs should be able to provide.

#### *Building capacity in integrating low-carbon, climate-resilient perspectives into policymaking*

Climate finance is becoming increasingly important in mobilizing and committing finance. MDBs, DFIs, and other public and private financial institutions need to build capacity to include low-carbon and climate-resilient metrics in investment and policymaking decisions. This calls for training and awareness raising across the entire sector, strengthening of tertiary education to ensure that new graduates are well equipped to deal with the new reality of investment decision-making. And MDB and DFI decision-making processes need to be reviewed to ensure that the right kinds of



projects are appraised and supported. Putting in place the enabling factors for MDBs to respond to the need for climate finance has implications for staffing and organizational structure. To participate in the Article 6 market and non-market approaches, Regional Member Countries need support to build their internal capacity. Establishing local financial institutions such as national green banks and national development banks (with mandates for financing climate action and green growth) can help create an investment ecosystem fit for purpose in a climate-constrained future.

#### ***Strengthening mandates, incentives, and internal capacity***

MDB and DFI activities are often dependent on and strongly influenced by their shareholder and client governments through, for instance, the provision of capital and the review of policies and projects.<sup>106</sup> To enable these institutions to attract more climate co-finance, particularly from the private sector, their shareholder governments must give them stronger and more coherent mandates to deliver transformative climate action and green growth outcomes. This can be achieved by systematically integrating climate and green growth goals with underlying development objectives, reflecting this in their corporate KPIs, and putting in place supportive internal incentive systems to encourage staff to scale up climate action. MDBs and DFIs must have the adequate internal capacity and staff skillsets to move beyond traditional projects in infrastructure, transport, and energy when assessing investment opportunities. And they must also be able to dedicate efforts to other areas of intervention centered on climate change and green growth.

#### ***Working closely with governments to develop enabling policies and regulations to scale up private climate investment.***

Given the existing large climate finance needs, there is an urgent need for MDBs and DFIs to focus more on new investors and sources of climate finance. This will require that they work in tandem with African governments to develop enabling policies and regulations to scale up private investments, propose risk-mitigation instruments such as guarantees, and prioritize

concessional finance through blended finance. Such collaboration will also help to easily aggregate small-scale climate investment projects into large-scale bankable projects that could attract the private sector through, say, blended finance vehicles. And by working more closely with their shareholder governments, MDBs and DFIs could facilitate the standardization of the terms and conditions related to low-carbon and green growth projects to unlock private investment, including those with different instruments, approaches, and contractual agreements.

Achieving these action points will require that MDBs and DFIs to integrate the six building blocks of the Joint MDB Paris Alignment Framework<sup>107</sup> into their operations. The principles underscore ensuring that developing countries' transition to low-carbon development through an equal emphasis on mitigation, adaptation, and resilience. They also acknowledge that climate finance, engagement, and policy development support and reporting are integrated into the operations of MDBs and DFIs. But for them to achieve these goals, African countries will first need to develop their LTSs to guide these institutions on priority areas for investments.

### **The transformative role of the African Development Bank in unlocking private climate finance**

#### ***The African Development Bank is already heavily involved in climate change and green growth***

The Bank has committed to align its operations with the Paris Agreement, and in November 2021, it approved its climate change and green growth policy strategy and framework. In addition, the Bank has targets for climate finance and several flagship initiatives designed to deliver on those targets. Significant initiatives include:

- The use of the climate safeguard screening system to ensure that all projects are aligned with the goals of the Paris agreement.
- The African Adaptation Acceleration Program to double adaptation finance in Africa to \$25 billion by 2025.
- The Bank's own target to mobilize \$25 billion by 2025 with equal shares to mitigation and adaptation.

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To enable multilateral development banks and development finance institutions to attract more climate co-finance, particularly from the private sector, their shareholder governments must give them stronger and more coherent mandates to deliver transformative climate action and green growth outcomes

Through its 2021–25 Private Sector Development Strategy, the Bank aims to address the barriers to private sector involvement in green growth financing through policy support, infrastructure development, and support to private enterprises across value chains, small and medium enterprises, entrepreneurs, and multinationals

- The climate action window within ADF 16, which will mobilize significant amounts of new and additional climate finance.
- Other flagship initiatives such as The Alliance for Green Infrastructure in Africa, the Sustainable Energy Fund for Africa, the African Financial Alliance on Climate Change, Desert to Power, Great Green Wall, and many others.

Through its 2021–25 Private Sector Development Strategy, the Bank aims to address the barriers to private sector involvement in green growth financing through policy support, infrastructure development, and support to private enterprises across value chains, SMEs, entrepreneurs, and multinationals. In addition, the Bank is working toward “greening” the financial sector through lending and the creation of a dedicated credit facility to support African financial institutions and SMEs to access climate finance and promote green investments in the continent. It is also supporting the African financial sector to identify and manage climate related risks in their portfolio and new lending. And it has mobilized African sovereign investors, pension funds, and insurance investment pools by signing a Letter of Intent with Africa50 (Africa’s premier infrastructure investment platform) and the Africa Sovereign Investors Forum to cooperate on developing and financing green(er) and climate resilient infrastructure across the continent.

*The Bank has several innovative financing mechanisms to scale up climate co-financing across the continent*

Over the past decade, the Bank has increasingly sought to leverage its equity and balance sheet to assist African countries with climate financing through several key mechanisms/initiatives, including blended finance, rechanneling SDRs through MDBs, issuing hybrid capital, balance sheet optimization initiatives, the ADF-16 Replenishment, and ADF market leveraging to allow the Fund to tap capital markets directly. For instance, through its BSO initiatives, the Bank seeks to crowd in private partners to finance development, including climate projects. Using this approach, the Bank in 2018 executed the Room 2 Run Program,<sup>108</sup> the first structure between a multilateral and the private investor market. The program provided a \$1 billion synthetic securitization transaction (SST)

covering about 45 private sector loans from the Bank’s existing portfolio. The SST involved private investors assuming emerging market risks on a portfolio of infrastructure projects in Africa, creating at least \$650 million in additional lending headroom for the Bank to specifically target, on a best-effort basis, renewable energy transactions using the unlocked risk capital.

Building on the initial success, the Bank has since launched two additional Room 2 Run Program rounds. With the second offering, the Bank, in collaboration with institutional investors, created credit insurance structured to cover a portion of the Bank’s portfolio of non-sovereign operations in Africa. This transaction released sufficient capital to make almost \$500 million in additional lending headroom for the Bank through rating substitution effects. In addition, the other lending facility has afforded the Bank and institutional investors to lengthen insurance terms and lower insurance and financing costs, leading to more trade and investment in and among the private sector and the African region.

With the third and latest offering, the Bank, the government of the United Kingdom, and three globally recognized insurance companies have initiated a new and innovative risk-sharing transaction known as the Room to Run Sovereign. This transaction is structured to allow the Bank to reduce the risk capital currently consumed by its sovereign operations, thus creating headroom to enable up to \$1.8 billion in additional lending operations in priority sectors, particularly climate finance, to support the Bank’s commitments to scaling up mitigation and adaptation projects across the continent.

Beyond BSO initiatives, the Bank has sought to mobilize additional resources for climate finance by strategically deploying its Partial Credit Guarantee (PCG) to help sovereigns and corporates access the international capital markets under newly adopted Environmental, Social, and Governance (ESG) Frameworks through green bonds. Several countries ranging from Angola to Benin to Egypt, are already adopting ESG Frameworks with the goal of mobilizing resources specifically for climate-resilient and sustainable investment projects. The Bank’s PCG helps sovereigns crowd in commercial bank liquidity into such projects at longer tenors and much-improved interest rates.

All financing under this proposed structure will be exclusively earmarked for eligible expenditures in sectors aligned with their country's green framework. Moreover, by working with MDBs like the Bank on an unfunded basis, the client and other stakeholders often benefit from the Bank's support in showcasing Environment and Social best practices in such operations. The Bank is also pioneering the development of green banks across the continent to attract private sector financing for climate and green growth (box 2.2).

Several options are in the making to re-channel SDRs through the IMF's existing Poverty Reduction and Growth Trust for low-income countries as well as the Resilience and Sustainability Trust, the Bank is actively advocating a third mechanism, the re-channeling of a new general allocation through the MDB route, providing a unique opportunity for the Bank to leverage the resources and channel them to programs aimed at mobilizing

development finance for projects geared to climate change and green growth. The advantages of the MDB re-channeling option are numerous and compelling, as MDBs present the best value proposition and most efficient vehicle for the SDR reallocation to developing countries.

#### *Collaboration between different MDBs and DFIs to generate common frameworks for allocation of funds*

The Bank works closely with other regional and multilateral development banks to share knowledge and experience on Paris alignment and mobilize resources for climate change. For example, the banks are working to create a long-term strategy facility designed to mobilize resources to enable the MDBs to work together to develop long-term strategies in many developing countries. The MDBs work together to improve access to international climate finance, from the green climate fund

#### **BOX 2.2 The African Green Bank Initiative**

Among the chief hindrances to climate financing in Africa are the lack of tailored investments to suit country-specific conditions, limited capacity of local financial institutions and insufficient trust from private investors in green investments. In that regard, green bank models have shown great promise in helping African countries access and mobilize climate finance, especially from private sources. The green bank model, initially developed in the UK and the US, has since spread to other parts of the world such as Asia and South America. With the GCF-Development Bank of Southern Africa Climate Finance Facility and the Rwanda Green Investment Facility, Africa is also creating regional/national Green Finance Facilities.

As part of its new strategic framework on climate change and green growth adopted in October 2021, the Bank is committed to provide concrete, innovative solutions that will increase the share of global climate finance benefiting the African continent. To accelerate the development of local Green Finance Facilities throughout the continent, it launched the African Green Bank Initiative at COP27.

Supported by the African Green Finance Facility Fund (AG3F), the Initiative is fully integrated within AfDB's architecture as a pillar of African Financial Alliance on Climate Change (AFAC), which aims at engaging with African financial institutions to promote investments in climate transition throughout the continent. Pursuant to AFAC's key objectives, The Initiative will contribute to deepen the current policy dialogue with key counterparts regarding climate change, help in building adequate capacities of African financial Institutions to mainstream green investments, and address climate risks in their decision-making processes.

The African Green Bank Initiative is dedicated to structuring an enabling policy environment and conducive ecosystem of local Green Finance Facilities (GFFs). Based on a blended finance approach on both uses and sources of funds, this network of GFFs will help by customizing investments to local needs and creating a pipeline of bankable projects to enable more climate finance mobilization toward a climate-resilient, Paris-aligned, green, and sustainable growth.

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The Bank has sought to mobilize additional resources for climate finance by strategically deploying its Partial Credit Guarantee to help sovereigns and corporates access the international capital markets under newly adopted Environmental, Social, and Governance Frameworks through green bonds

In the short term, African governments should develop and cost Long Term Strategies to provide strong signals to domestic and international stakeholders on countries' climate action and green growth priorities, and translate these into sectoral strategies, plans and regulations

and climate investment funds to the adaptation fund. The Bank collaborates on the preparation of investment plans and country platforms. Information sharing will become important, especially as pressure builds to develop Long Term Strategies. MDBs and DFIs can also work together to crowd in commercial banks, which generally avoid investing in climate and green growth sectors. These banks are often aware of new opportunities brought about by green growth transitions but face barriers relating to weak customer demand for climate-risk-related products, the lack of data, tools, and models for understanding and assessing climate risks, and the lack of technical skills in the commercial banking sector.

## POLICY RECOMMENDATIONS

Different stakeholders can take a range of actions both in the short, medium, and long terms to collectively contribute to the mobilization of private finance for climate action and green growth.

### African national governments

*Develop country architecture to mobilize private financing for climate action and green growth, including domestic financial institutions*

- In the short term, they should develop and cost—in line with the recommendations of the Independent High-Level Expert Group on Climate Finance,<sup>109</sup> Long Term Strategies to provide strong signals to domestic and international stakeholders on countries' climate action and green growth priorities, and translate these into sectoral strategies, plans and regulations. Strategies should be comprehensive and cover all sectors and be fully mainstreamed into the whole economy, not developed and implemented in silos.
- They should also strengthen governance and accountability systems to ensure that proceeds from private finance generate the expected and maximum impact for green growth, as through impact monitoring and evaluation frameworks that have clear metrics and transparency and accountability systems for institutions managing this finance. As highlighted in the Sharm

El-Sheikh Guidebook for Just Financing, these enabling policy and regulatory reforms will create incentives for the private sector to invest in adaptation, a sector often neglected.<sup>110</sup>

- They further need to implement public financial management systems to ensure that adequate public finance is allocated and deployed toward climate action and green growth.
- In the medium term, they should enhance the expansion of domestic financial and non-financial institutions within countries and at the regional level, including green innovation centers, to provide specialized and targeted financial products to enable and enhance green investments to different groups of private actors, including large enterprises and formal and informal MSMEs.

*Advance the use of blended finance instruments to leverage additional private finance*

- In the short term, African countries should develop a deep and contextual understanding of different types of private sector investors (present and potential), specific barriers, and private sector risk profiles and return thresholds.
- A medium-term strategy could be to establish national standardized blended finance vehicles that offer attractive returns, and use these vehicles effectively by ensuring that financial allocations demonstrate additionality and proportionality. The potential impact of these investments should inform the allocation of finance for blending, particularly by ensuring a balance between infrastructure financing and social development and environmental management projects.

### MDBs and DFIs (including the AfDB)

*Support country efforts to address debt sustainability and create an enabling environment for climate investment*

- In the short term, they need to commit to aligning operations with the Bridgetown Initiative agenda, through reorienting balance sheets toward funding climate and development finance while supporting innovative financing

mechanisms that can unlock additional affordable capital from the private sector for African countries.

- They should also, in the short-to-medium term, expand issuance of concessional finance for climate action and green growth projects to avoid pushing countries into further debt while also enhancing the roll-out of sustainable debt mechanisms to countries at risk of debt distress, for instance through domestic capital markets based on local currency.
- They should further, in the medium-to-long term, lead global efforts to support African countries in creating a conducive environment for climate investment and in advancing their transition to a low-carbon pathway. This will require constant interactions by MDBs and DFIs with African countries and complementary engagements of all stakeholders to objectively assess country climate and investment risk profiles over time, develop mechanisms and tools to address them, and identify opportunities to enhance resilience.

*Provide risk-agnostic catalytic capital that can demonstrate the potential of the African green growth landscape for private investments*

- MDBs and DFIs should increase, in the short-to-medium term, the use of risk-agnostic instruments, such as guarantee instruments, to reduce the level of risk borne by private investors and provide affordable capital, particularly in early-stage investments, and develop and roll out finance mechanisms for project development to unlock the project development gap—as through grants, guarantees, and concessional financing to support capacity development.
- And they should invest, in the medium-to-long term, in plugging data gaps, such as data on climate risks and capacity building, to enable more effective policymaking.

## **Domestic and international private sector**

*Exercise stewardship that drives accurate identification of barriers, investment risks, and opportunities for green growth in different African contexts to inform decisions on investments.*

- Over the short-to-medium term, they need to identify and articulate barriers and opportunities to investments to African country governments and other stakeholders, and work with MDBs and country governments to manage, reduce, and share risks to investments.
- Credit rating agencies need to expand their framework to better reflect the potential for the African market. In the medium-to-long term, this could involve reforming rating procedures to ensure that risk or credit ratings include the true potential of African green growth markets. The increasing calls for the reform of rating agencies and ongoing progress toward the establishment of an autonomous African Rating Agency are steps in the right direction.

## **Developed country governments**

*Meet international climate finance commitments and increase investments toward green growth*

- Developed countries should, without delay, meet the \$100 billion global climate finance target identified in the Paris Agreement, and take steps to balance investment in adaptation and mitigation. Prepare to commit to a higher post-2025 climate finance target that is sufficient to meet the needs in developing countries.
- With developed country governments making up majority of the shareholders of MDBs and DFIs, they should urgently champion discussions and actions that enable reducing the risk aversion of MDBs and DFIs through allocating more callable capital to MDBs, lowering MDB capital adequacy ratios, and reducing the profitability targets of DFIs.

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Multilateral development banks and development finance institutions should increase, in the short-to-medium term, the use of risk-agnostic instruments, such as guarantee instruments, to reduce the level of risk borne by private investors and provide affordable capital, particularly in early-stage investments

## ANNEX 2.1 METHODOLOGY FOR CALCULATING THE PRIVATE SECTOR FINANCING GAP

In this report, private climate financing is assumed to be a complementary option to public climate finance, with public actors (such as national, bilateral, and multilateral DFIs, MDBs, governments, and national and multilateral Climate Funds) taking the primary responsibility for driving and implementing national climate actions. To estimate the contribution by the private sector, climate finance mobilized by public entities was first subtracted from each country's climate finance needs to determine the residual required to be covered by non-public resources, including the private sector and other actors such as philanthropic foundations or any other types of international support. In the two extreme cases, we considered that respectively 0 percent and 100 percent of the residual needs—the difference between climate finance needs and public climate finance flows—would be financed by the private sector. The intermediate cases refer to a mix of private and non-private resources. The assumptions for main cases are as follows.

**Conservative scenario.** The contribution from the private sector is 25 percent of the residual finance needs, and public actors cover 75 percent. In this case, the private contribution is projected to grow by about 10 percentage points from current levels to reach close to its pre-pandemic level in Sub-Saharan Africa (22.5 percent on average between 2018 and 2019).

**Moderate scenario.** The contribution from the private sector to financing Africa's climate needs is at par with public actors (50 percent each). This is in line with the current private climate finance contribution globally, which was 49 percent on average in 2019/2020.<sup>111</sup>

**Ambitious scenario.** The contribution from the private sector is set at 75 percent of the total finance needs, and public actors account for only a quarter of the total climate finance needs. This is in line with African countries' financial conditionalities to fulfil their NDCs: while African countries committed to mobilize on average 15 percent of climate finance needs from the public sources, the remaining 85 percent should come from international support, and it is estimated that 75 percent of the financial conditionality should come from the private sector.<sup>112</sup>

**Very ambitious scenario.** 100 percent of the residual climate finance needs is covered by the private sector. This scenario considers that private investors take full advantage of all existing investment opportunities across all climate and green growth sectors in the continent and that African countries put in place a conducive business environment that address existing barriers to private investments.

## NOTES

1. IRP 2019.
2. <https://www.ipcc.ch/sr15/faq/faq-chapter-5/>.
3. AfDB 2016.
4. de Serres et al. 2010.
5. OECD 2013.
6. Based on Our World In Data database.
7. UN DESA (2022).
8. IRENA and AfDB 2022.
9. IEA 2022.
10. Moody's Investors Service 2022.
11. AfDB and GGGI 2022.
12. The 4 dimensions are, with each with several sub-indicators: i) efficient and sustainable resource use, related to efficient and sustainable energy, water and land use as well as material use efficiency; ii) Natural capital protection, comprising indicators capturing environmental quality, GHG emission reductions, biodiversity and ecosystem protection, and cultural and social value; iii) green economic opportunities, referring to green investment, trade, employment, and innovation; and iv) Social inclusion, encompassing indicators reflecting access to basic services and resources, gender balance, social equity and social protection. For more discussions on the index, see Acosta et al. (2022).
13. UNEP 2021.
14. Moll de Alba and Todorov 2022.
15. Schiederig et al. 2011.
16. Eugenio and Sabado Jr. 2021.
17. IRENA and AfDB 2022.
18. IPCC 2022.
19. UNECA 2020.
20. AfDB 2022a.
21. IEA 2022.
22. IFC 2016.
23. GCA 2019.
24. CPI 2022a.
25. AAI 2022.
26. Geuskens and Butijn 2022.
27. Wodajo 2021.
28. <https://businessfightspoverty.org/africa-farmers-climate-finance/>.
29. <https://unfccc.int/annualreport>.
30. CPI 2022c.
31. Coalition for Urban Transitions 2021.
32. Net Zero Climate 2022.
33. Net Zero Climate 2022.
34. Ehlers et al. 2022.
35. Climate Bonds Initiative 2022.
36. Climate Bonds Initiative 2022.
37. Climate Bonds Initiative 2022.
38. <https://www2.deloitte.com/za/en/pages/finance/articles/project-bonds-an-alternative-to-financing-infrastructure-projects.html>.
39. African Natural Resources Management and Investment Centre 2022.
40. <https://climatetrade.com/voluntary-carbon-market-value-tops-us2b/>.
41. ACMI 2022.
42. If only the 2023–30 period is considered, then the required annual growth rate would become 30.9 percent, 41 percent, 48 percent and 53 percent if the private sector's contribution is 25, 50, 75 percent, 100 percent, respectively.
43. For a detailed literature review on the macro-economic determinants of private sector investment, refer among others to Suhendra and Anwar (2014), Groh et al. (2018) and Osei-Kyei and Chan (2017).
44. OECD 2023.
45. Eckstein et al. 2021.
46. CPI 2022e.
47. Oloyede et al. 2021.
48. Eyraud et al. 2021.
49. Katz 2022.
50. AVCA 2022.
51. AVCA 2022.
52. Katz 2022.
53. McKinsey & Co. 2021b.
54. AfDB and GGGI 2022.
55. Cha'ngom 2020.
56. The Africa CEO Forum 2022.
57. IFC (2017).
58. Eyraud 2022.
59. <https://www.imf.org/en/Publications/fandd/issues/2021/12/Africa-Hard-won-market-access>.
60. United Nations Inter-agency Taskforce on Financing for Development 2021.
61. EIB 2022.
62. EIB 2022.
63. UNDP 2023a.
64. UNDP 2023b.
65. AUDA-NEPAD (2022).
66. These are Ethiopia, Nigeria, Kenya, Madagascar, Ghana, Rwanda, Senegal, Cameroon, Mozambique, Ivory Coast, Tanzania, Congo and Zambia. Mungai et al. (2021).
67. IFC and Google (2020)

68. AfDB (2022c)
69. Coalition for Urban Transitions (2021)
70. <https://www.goldsteinresearch.com/report/africa-pharmaceutical-industry-market-size-forecast>.
71. Hottz (2021).
72. Aydos et al. 2022.
73. Waisman et al. 2021; Carval et al. 2022.
74. OECD 2020a.
75. Johnson and Toledano 2022.
76. IMF et al. 2015.
77. IMF et al. 2015.
78. One Planet Lab 2021.
79. Convergence 2022.
80. Opalo 2021.
81. Allan 2022.
82. UNECA 2020.
83. GCA and CPI 2021.
84. OECD 2020b.
85. <https://www.bcg.com/publications/2022/institutional-investors-should-embrace-social-impact-investment>.
86. AfDB et al. 2022.
87. AfDB et al. 2022.
88. Soumaré et al. 2021.
89. Tyson 2021.
90. Marbuah 2020.
91. EIB 2021.
92. ACMI 2022.
93. AfDB 2022b.
94. AfDB 2022e.
95. <https://www.africainvestmentforum.com>.
96. <https://au.int/en/pressreleases/20220720/ghana-supports-establishment-african-credit-rating-agency>.
97. UNCTAD 2021.
98. The Bridgetown Initiative 2022.
99. Boosting MDBs' Investing Capacity 2022.
100. Kaufman et al. 2021.
101. Songwe et al. 2022.
102. Kaufman et al. 2021.
103. Boosting MDBs' Investment Capacity 2022.
104. Independent Commission for Aid Impact 2019.
105. Boosting MDBs' Investment Capacity 2022.
106. OECD et al. 2018.
107. World Bank n.d.
108. AfDB 2018.
109. Songwe et al. 2022.
110. Egyptian Ministry of International Cooperation 2022.
111. AfDB 2018.
112. AfDB 2021.

## REFERENCES

- AAI (Africa Adaptation Initiative). 2022. *State of Adaptation in Africa Report 2022: Summary of the Key Findings*.
- ACMI (Africa Carbon Market Initiative). 2022. *The Africa Carbon Market Initiative (ACMI) Roadmap Report: Harnessing Carbon Markets in Africa*.
- Acosta, L., I. Nzimenyera, R. Sabado Jr., R. Munezero, A. Nantulya, K. Shula, S. Quiñones, H. Luchtenbelt, T. Czvetkó, S. Lee, and G. Adams. 2022. "Green Growth Index 2022: Measuring performance in achieving SDG targets." Technical Report 27, Green Growth Performance Measurement Program, Global Green Growth Institute, Seoul, South Korea.
- Adrian, T., P. Bolton, and A. Kleinnijenhuis. 2022. "The Great Carbon Arbitrage." Working Paper 2022/107, International Monetary Fund, Washington, DC.
- AfDB (African Development Bank). 2016. *Transitioning the African Continent Toward Green Growth: An Introductory Guide to Understanding AfDB's Green Growth Framework*. Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank). 2017. "Africa Infrastructure Fund Secures US\$100 Million Loan from African Development Bank." Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank). 2018. "African Development Bank and Partners' Innovative Room2Run Securitization Will Be a Model for Global Lenders." Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank). 2019. *African Economic Outlook 2019: Integration for Africa's Economic Prosperity*. Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank). 2021. *NDC Implementation in Africa through Green Investments by Private Sector: A Scoping Study*. Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank). 2022a. *African Economic Outlook 2022: Supporting Climate Resilience and A Just Energy Transition in Africa*. Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank). 2022b. *East Africa Economic Outlook 2022: Supporting Climate Resilience and A Just Energy Transition*. Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank). 2022c. *Africa's Urbanisation Dynamics 2022: The Economic Power of*



- Africa's Cities*. Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank). 2022d. *Project Summary Note: Emerging Africa Infrastructure Fund Project (EAIF3)*. Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank). 2022e. *COP27: African and Global Partners Launch Multi-billion Alliance for Green Infrastructure*. Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank). 2023. *Africa's Macroeconomic Performance and Outlook*. January 2023 Edition. Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank) and GGGI (Global Green Growth Initiative). 2021. *Africa Green Growth Readiness Assessment*. Abidjan, Côte d'Ivoire: African Development Bank; Seoul, South Korea: Global Green Growth Institute.
- AfDB (African Development Bank), MFW4A (Making Finance Work for Africa), and IFC (International Finance Corporation). 2022. *Gauging Appetite for African Institutional Investors for New Asset Classes*. Abidjan, Côte d'Ivoire: African Development Bank.
- African Natural Resources Management and Investment Centre. 2022. *Debt for Nature Swaps: Feasibility and Policy Significance in Africa's Natural Resources Sector*. Abidjan, Côte d'Ivoire: African Development Bank.
- Allan, S. 2022. "Inclusive Budgeting and Financing for Climate Change in Africa." CABRI Secretariat.
- Arimoro, A.E. 2021. "Private Sector Investment in Infrastructure in Sub-Saharan Africa Post-COVID-19: The Role of Law." *Public Works Management & Policy* 0 (0): 1–19. DOI:
- AUDA-NEPAD (African Union Development Agency–New Economic Partnership for Africa's Development). 2022. "The Need for a Private Sector Coalition on Agriculture." Press release, September 8.
- AVCA (African Private Equity and Venture Capital Association). 2022. *2022 H1 Africa Private Capital Activity Report*. September. London: African Private Equity and Venture Capital Association.
- Aydos, M., P. Toledano, M. Dietrich Brauch, L. Mehranvar, T.G. Iliopoulos, and S. Sasmal. 2022. "Scaling Investment in Renewable Energy Generation to Achieve Sustainable Development Goals 7 (Affordable and Clean Energy) and 13 (Climate Action) and the Paris Agreement: Roadblocks and Drivers."
- Barbier, E.B. 2015. "Is Green Growth Relevant for Poor Economies?" Working Paper 44, FERDI, Clermont-Ferrand, France.
- Bari, M., and S. Dessus. 2022. "Adapting to Natural Disasters in Africa: What's in it for the Private Sector?" Working Paper, International Finance Corporation, Washington, DC.
- BloombergNEF. 2021. *The Cost of Producing Battery Precursors in the DRC*. New York: Bloomberg.
- Boosting MDBs' Investing Capacity. 2022. *An Independent Review of Multilateral Development Banks' Capital Adequacy Frameworks*.
- Bowel, A., S. Cochrane, and S. Fankhauser. 2012. "Climate Change, Adaptation and Economic Growth." *Climate Change* 113: 95–106.
- Carvajal, P., A. Miketa, N. Goussous, and P. Fulcheri. 2022. "Best Practice in Government Use and Development of Long-term Energy Transition Scenarios." *Energies* 15 (6): 2180.
- Casey, J., A. Bisaro, A. Valverde, M. Martinez, and M. Rokitzki. 2021. "Private Finance Investment Opportunities in Climate-smart Agriculture Technologies." Commercial Agriculture for Smallholders and Business.
- Cassim, A., J. Radmore, N. Dinham, and S. McCallum. 2021. *South African Climate Finance Landscape 2020*.
- CDC Group. 2021. *What's the Impact of Investing in Urban Infrastructure in Africa?* London.
- Cha'ngom, N. 2020. "African Countries and the Brain Drain: Winners or Losers? Beyond Remittances." Africa Economic Research Consortium.
- Climate Bonds Initiative. 2022. "Interactive Data Platform." <https://climatebonds.net/market/data/>.
- Coalition for Urban Transitions. 2021. "Financing Africa's Urban Opportunity The 'Why, What and How' of Financing Africa's Green Cities." London: Coalition for Urban Transitions.
- Coase, R. 1960. "The Problem of Social Cost." *The Journal of Law & Economics* 3 (October): 1–44.
- Convergence. 2022. *State of Blended Finance 2022: Climate Edition*. Toronto, Canada.
- CPI (Climate Policy Initiative). 2022a. *Global Landscape of Climate Finance: A Decade of Data: 2011–2020*. San Francisco, CA: CPI.
- CPI (Climate Policy Initiative). 2022b. *Landscape of Climate Finance in Africa*. San Francisco, CA: CPI.
- CPI (Climate Policy Initiative). 2022c. *The State of Climate Finance in Africa: Climate Finance Needs of African Countries*. San Francisco, CA: CPI.

- CPI (Climate Policy Initiative). 2022d. *Climate Finance Innovation for Africa*. San Francisco, CA: CPI.
- CPI (Climate Policy Initiative). 2022e. *Climate Finance Needs in African Countries*. San Francisco, CA: CPI.
- CPI (Climate Policy Initiative). 2023. *Managing Cost of Capital for Climate/Green Investments*. San Francisco, CA: CPI.
- de Serres, A., F. Murtin, and G. Nicoletti. 2010. "A Framework for Assessing Green Growth Policies." OECD Economics Department Working Papers 774, Organisation for Economic Co-operation and Development, Paris.
- Deloitte. 2022. *The Turning Point: A Global Summary*. Deloitte.
- Eckstein, D., V. Künzel, and L. Schäfer. 2021. "Global Climate Risk Index 2021: Who Suffered the Most from Extreme Weather Events? Weather-related Loss Events in 2019 and 2000–2019." Germanwatch Briefing Paper.
- Egyptian Ministry of International Cooperation. 2022. *Sharm el-Sheikh Guidebook on Just Financing*. New Cairo, Egypt.
- Ehlers, T., C. Gardes-Landolfini, E. Kemp, P. Lindner, and Y. Xiao. 2022. "Scaling Up Private Climate Finance in Emerging Market and Developing Economies: Challenges and Opportunities." In *Global Financial Stability Report 2022*. Washington, DC: International Monetary Fund.
- EIB (European Investment Bank). 2021. *Finance in Africa: For Green, Smart and Inclusive Private Sector Development*. Luxembourg: European Investment Bank, Luxembourg.
- Eugenio, J., and R. Sabado. 2021. *Metadata—Green Growth Index 2021: Measuring Performance in Achieving SDG Targets*. Seoul: Green Growth Performance Measurement, Global Green Growth Institute.
- Eyraud, L., C. Pattillo, and A. Selassie. 2021. "How to Attract Private Finance to Africa's Development." IMF Blog. <https://www.imf.org/en/Blogs/Articles/2021/06/14/blog-how-to-attract-private-finance-to-africa-s-development>.
- Fadly, D. 2019. "Low-carbon Transition: Private Sector Investment in Renewable Energy Projects in Developing Countries." *World Development* 122 (October): 552–569.
- GCA (Global Center on Adaptation). 2019. "Adapt Now: A Global Call for Leadership on Climate Resilience."
- GCA (Global Center on Adaptation) and CPI (Climate Policy Initiative). 2021. *Financing Innovation for Climate Adaptation in Africa*. <https://gca.org/wp-content/uploads/2021/10/GCA-CPI-Financial-Innovation-for-Climate-Adaptation-in-Africa.pdf>.
- Geuskens, I., and H. Butijn. 2022. *Locked Out of a Just Transition: Fossil Fuel Financing in Africa*. BankTrack, Milieudefensie, and Oil Change International.
- Goel, R., D. Gautam, and F. Natalucci. 2022. "Sustainable Finance in Emerging Markets: Evolution, Challenges, and Policy Priorities." Working Papers 182, International Monetary Fund, Washington, DC.
- Groh, A., H. Liechtenstein, K. Lieser, and M. Biesinger. 2018. *The Venture Capital and Private Equity Country Attractiveness Index 2018*. 9th edition. <https://blog.iiese.edu/vcpeindex/files/2018/02/report2018.pdf>.
- Hailu, D. B., and F. Debele. 2015. "The Effect of Monetary Policy on the Private Sector Investment in Ethiopia: ARDL Co-Integration Approach." *Economics* 4 (2): 22–33.
- Holtz, L. 2021. "Figure of the week: Africa's trade in pharmaceuticals". Africa in Focus. Brookings Institution. <https://www.brookings.edu/blog/africa-in-focus/2021/12/09/figure-of-the-week-africas-trade-in-pharmaceuticals/>.
- IEA (International Energy Agency). 2021. *World Energy Investment 2021 Special Report: Financing Clean Energy Transitions in Emerging and Developing Economies*. Paris: IEA.
- IEA (International Energy Agency). 2022. *Africa Energy Outlook 2022*. Paris: IEA.
- IFC (International Finance Corporation). 2016. *Climate Investment Opportunities in Emerging Markets: An IFC Analysis 2016*. Washington, DC: World Bank.
- IFC (International Finance Corporation). 2017. *MSME Finance Gap Report, 2017: Assessment of the Shortfalls and Opportunities in Financing Micro, Small and Medium Enterprises in Emerging Markets*. Washington, DC: World Bank.
- IFC and Google (2020). *E-Conomy Africa 2020: Africa's \$180 billion internet economy future*. Washington, DC: World Bank.
- IMF (International Monetary Fund). 2022a. *Regional Economic Outlook, Sub-Saharan Africa: Living on the Edge*. October edition. Washington, DC: International Monetary Fund.
- IMF (International Monetary Fund), OECD (Organisation for Economic Co-operation and Development), UN (United Nations) and World Bank. 2015. *Options for Low Income Countries' Effective and Efficient Use of Tax Incentives for Investment: A Report to the G-20 Development Working Group*.

- Independent Commission for Aid Impact. 2019. *Report: CDC's Investments in Low-Income and Fragile States*. <https://icai.independent.gov.uk/html-version/cdc/>.
- IPCC (Intergovernmental Panel for Climate Change). 2022. "Summary for Policymakers." In *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK: Cambridge University Press.
- IRENA (International Renewable Energy Agency) and AfDB (African Development Bank). 2022. *Renewable Energy Market Analysis: Africa and Its Regions*. Abu Dhabi, United Arab Emirates: International Renewable Energy Agency.
- IRP (International Resource Panel). 2019. *Global Resources Outlook 2019: Natural Resources for the Future We Want*. Nairobi, Kenya: International Resource Panel, United Nations Environment Programme.
- Johnson, L., and P. Toledano. 2022. *Investment Incentives: A Survey of Policies and Approaches for Sustainable Investment*. Columbia Center on Sustainable Investment.
- Katz, S. 2022. "2022 Africa Data Insight." GPCA (Global Private Capital Association). <https://www.globalprivatecapital.org/app/uploads/2022/03/2022-Africa-Data-Insight.pdf>.
- Kaufman, J., J. Keller, and R. Silverman. 2021. "Exploring How the US International Development Finance Corporation Can Support Health Sector Investments: Is the Glass Half Full or Half Empty?" <https://www.cgdev.org/sites/default/files/exploring-how-us-international-development-finance-corporation-can-support-health-sector.pdf>.
- Kumar, R. 2017. "Targeted Financing for SME's and Employment Effects: What Do We Know and What Could Be Done Differently?" Jobs Working Paper 3, World Bank, Washington, DC.
- Lee, N., and A. Sami. 2019. "Trends in Private Capital Flows to Low-Income Countries: Good and Not-So-Good News." Policy Paper 151, Center for Global Development, Washington, DC.
- Marbuah, G. 2020. "Scoping the Sustainable Finance Landscape in Africa: The Case of Green Bonds." Stockholm Environment Institute. [https://www.stockholmsustainablefinance.com/wp-content/uploads/2022/05/SSFC\\_greenbonds\\_africa\\_report\\_updated.pdf](https://www.stockholmsustainablefinance.com/wp-content/uploads/2022/05/SSFC_greenbonds_africa_report_updated.pdf).
- McKinsey & Company. 2021a. *Putting Carbon Markets to Work on the Path to Net Zero*. <https://www.mckinsey.com/capabilities/sustainability/our-insights/putting-carbon-markets-to-work-on-the-path-to-net-zero/>
- McKinsey & Co. 2021b. *Solving Africa's Infrastructure Paradox*. <https://www.mckinsey.com/capabilities/operations/our-insights/solving-africas-infrastructure-paradox>.
- McKinsey & Co. 2022. *Nature and Financial Institutions in Africa: A First Assessment of Opportunities and Risks*. <https://www.mckinsey.com/capabilities/sustainability/our-insights/nature-and-financial-institutions-in-africa-a-first-assessment-of-opportunities-and-risks/>.
- McKinsey and Vivid Economics. 2022. Carbon Credit Database, drawing on Verra, Gold Standard, ACR, CAR, Plan Vivo. New York.
- Moll de Alba, J., and V. Todorov. 2022. "Measuring Green Industrial Performance: A Regional Outlook of Eastern Asia and Europe." *Economic Change and Restructuring*. <https://link.springer.com/article/10.1007/s10644-022-09436-x>.
- Mumsen Y. 2022. "Bold Action Is Needed for a Water-secure Africa." The Water Blog, World Bank, 17 March. <https://blogs.worldbank.org/water/bold-action-needed-water-secure-africa>.
- Mungai, E., S. Ndiritu, and I. Da Silva. 2021. "Unlocking Climate Finance Potential for Climate Adaptation: Case of Climate Smart Agricultural Financing in Sub Saharan Africa." In *African Handbook of Climate Change Adaptation*. Cham, Switzerland: Springer International Publishing.
- NEPAD (New Economic Partnership for Africa's Development). 2022. "Unlocking The Potential Of Africa's SME's Using Emerging Technologies In Africa." NEPAD Blog, 1 August. <https://www.nepad.org/blog/unlocking-potential-of-africas-smes-using-emerging-technologies-africa>.
- Net Zero Climate. 2022. "New ONZ Report on Net Zero Commitments by Businesses in Africa." <https://netzeroclimate.org/new-onz-report-on-net-zero-commitments-by-businesses-in-africa/>.
- OECD (Organisation for Economic Co-operation and Development). 2011. *Towards Green Growth: Monitoring Progress. OECD Indicators*. Paris: OECD Publishing.
- OECD (Organisation for Economic Co-operation and Development). 2020a. *Developing Sustainable Finance Definitions and Taxonomies*. Paris: OECD Publishing.
- OECD (Organisation for Economic Co-operation and Development). 2020b. *Blended Finance in the Least Developed Countries 2020 Supporting a Resilient COVID-19 Recovery*. Paris: OECD Publishing.

- OECD (Organisation for Economic Co-operation and Development). 2021a. *Middle East and North Africa Investment Policy Perspectives*. Paris: OECD Publishing. <https://doi.org/10.1787/6d84ee94-en>.
- OECD (Organisation for Economic Co-operation and Development). 2021b. *Scaling up Green, Social, Sustainability and Sustainability-linked Bond Issuances in Developing Countries*. Paris: OECD Publishing.
- OECD (Organisation for Economic Co-operation and Development). 2023. *Private Finance Mobilised by Official Development Finance Interventions*. Development Co-operation Directorate. Paris: OECD Publishing. <https://www.oecd.org/dac/2023-private-finance-odfi.pdf>.
- OECD (Organisation for Economic Co-operation and Development), World Bank and UN Environment. 2018. *Financing Climate Futures: Rethinking Infrastructure*. Paris: OECD Publishing.
- Ofosu-Mensah Ababio, J., E. Kumankoma, and K. Osei. 2018. "Financing Cost and Private Investment in Ghana." *Advances in Economics and Business* 6 (2): 99–113.
- Oloyede, B., E. Osabuohien, and J. Ejemeyowwi. 2021. "Trade Openness and Economic Growth in Africa's Regional Economic Communities: Empirical Evidence from ECOWAS and SADC." *Heliyon* 7 (5).
- One Planet Lab. 2021. *Blended Finance for Scaling up Climate and Nature Investments*. <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/11/Blended-Finance-for-Scaling-Up-Climate-and-Nature-Investments-1.pdf>.
- Opalo K. 2021. "It's Time to Democratize Public Finance Management Systems in African States." Finance and Development Special Feature, International Monetary Fund, Washington, DC.
- Osei-Kyei, R., and A. Chan. 2017. "Factors Attracting Private Sector Investments in Public-private Partnerships in Developing Countries: A Survey of International Experts." *Journal of Financial Management of Property and Construction* 22 (1): 92–111.
- Pindyck, R. 2019. "The Social Cost of Carbon Revisited." *Journal of Environmental Economics and Management* 94 (2019): 140–160.
- Rauner, S., N. Bauer, A. Dirnacher, R. Dingenen, C. Mutel, and G. Luderer. 2020. "Coal-exit Health and Environmental Damage Reductions Outweigh Economic Impacts." *Nature Climate Change* 10 (4): 308–312.
- Republic of Senegal. 2014. "The Sovereign Wealth Fund of Senegal For Strategic Investments Capability Statement 'Fonsis' —An Overview." [https://afdb-org.jp/wp-content/themes/meteo/pdf/50.%20Mr.%20HOTT\\_FONSIS.pdf](https://afdb-org.jp/wp-content/themes/meteo/pdf/50.%20Mr.%20HOTT_FONSIS.pdf).
- Ricke, K., L. Drouet, K. Caldeira, and M. Tavoni. 2018. "Country-level Social Cost of Carbon." *Nature Climate Change* 8 (10): 895–900.
- Schiederig, T., F. Tietze, and C. Herstatt. 2011. "What Is Green Innovation? A Quantitative Literature Review." Working Paper 63, Hamburg University of Technology (TUHH), Institute for Technology and Innovation Management (TIM), Hamburg.
- Smith, G. 2021. "Africa's Hard-won Market Access." Washington, DC: International Monetary Fund.
- Songwe, V., N. Stern, and A. Bhattacharya. 2022. "Finance for Climate Action: Scaling up Investment for Climate and Development." London: Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science.
- Soumaré, I., D. Kanga, J. Tyson, and S. Raga. 2021. "Capital Market Development in Sub-Saharan Africa: Progress, Challenges and Innovations." ODI Research Series Working Paper 2, Overseas Development Institute, London.
- Suhendra, I., and C. Anwar. 2014. "Determinants of Private Investment and the Effects on Economic Growth in Indonesia." *GSTF Journal on Business Review* 3 (3).
- Tearfund. 2022. *Dying to Adapt: A Comparison of African Healthcare Spending and Climate Adaptation Costs*. London.
- Technopolis, Research ICT Africa, and Tambourine Innovation Ventures. 2019. *Potential of the Fourth Industrial Revolution in Africa*. <https://www.technopolis-group.com/wp-content/uploads/2020/02/Potential-of-the-fourth-industrial-revolution-in-Africa.pdf>.
- The Africa CEO Forum. 2022. *Six Key Recommendations on Climate Finance for African Growth: What Can Public and Private Decision-makers Do to Move Faster?* [https://www.theafricaceoforum.com/wp-content/uploads/2022/09/2022\\_RAPPORT\\_FINANCE\\_CLIMAT\\_En.pdf](https://www.theafricaceoforum.com/wp-content/uploads/2022/09/2022_RAPPORT_FINANCE_CLIMAT_En.pdf).
- The Bridgetown Initiative. 2022. "Urgent and Decisive Action Required for an Unprecedented Combination of Crises The 2022 Bridgetown Agenda for the Reform of the Global Financial Architecture." <https://pmo.gov.bb/wp-content/uploads/2022/10/The-2022-Bridgetown-Initiative.pdf>.
- Tideline. 2019. *Catalytic Capital: Unlocking More Investment and Impact*. Tideline. [https://tideline.com/wp-content/uploads/2020/11/Tideline\\_Catalytic-Capital](https://tideline.com/wp-content/uploads/2020/11/Tideline_Catalytic-Capital)

- \_Unlocking-More-Investment-and-Impact\_March-2019.pdf.
- Tyson, J. 2021. "Capital Market Development in Sub-Saharan Africa." Policy Brief 2, Overseas Development Institute, London.
- UNCTAD (United Nations Conference on Trade and Development). 2021. *World Investment Report 2021: Investing in Sustainable Recovery*. New York: UNCTAD.
- UN DESA (United Nations Department of Economic and Social Affairs, Population Division). 2022. *World Population Prospects 2022: Summary of Results*. UN DESA/POP/2022/TR/NO. 3.
- UNDP (United Nations Development Programme). 2023a. *Lowering the Cost of Borrowing in Africa: The Role of Sovereign Credit Ratings*. New York: UNDP.
- UNDP (United Nations Development Programme). 2023b. "More Objective Credit Ratings Could Save Billions for African Countries' Development." Press Release, 17 April. <https://www.undp.org/africa/press-releases/more-objective-credit-ratings-could-save-billions-african-countries-development#:~:text=The%20event%20was%20centered%20around,based%20on%20less%20subjective%20assessments>.
- UNECA (United Nations Economic Commission for Africa). 2020. *Economic Report on Africa 2020: Innovative Finance for Private Sector Development in Africa Development in Africa*. Addis Ababa: UNECA.
- UNEP (United Nations Environment Programme). 2021. *Green Economy Progress Measurement Framework*. Second Edition. Nairobi, Kenya: UNEP.
- United Nations Inter-agency Task Force on Financing for Development. 2021. *Financing for Sustainable Development Report 2021*. <https://developmentfinance.un.org/fsdr2021>.
- Waisman H., M. Gunfaus, and A. Catala. 2021. "What Is a "Good" Long-term Low Emission Development Strategy? Six Key Features to Assess Current and Future Submissions." Blog post, IDRRI, 24 June. <https://www.iddri.org/en/publications-and-events/blog-post/what-good-long-term-low-emission-development-strategy-six-key>.
- Way, R., M. Ives, P. Mealy, and J. Farmer. 2022. "Empirically Grounded Technology Forecasts and the Energy Transition." *Joule* 6 (9): 2057–2082. <https://doi.org/10.1016/j.joule.2022.08.009>.
- Wodajo, B. 2021. "Decarbonisation of Transport in Africa: A Transport Planning Perspective." Summary Report of IAP-NASAC Workshop, 15–17 November.
- World Bank. 2012. *Inclusive Green Growth the Pathway to Sustainable Development*, Washington, DC: World Bank.
- World Bank. 2019. *The Role of the Public Sector in Mobilizing Commercial Finance for Grid-Connected Solar Projects: Lessons Learned and Case Studies*. Washington, DC: World Bank.
- World Bank. 2022. *Off-Grid Solar Market Trends Report 2022: State of the Sector*. Washington, DC: World Bank.
- World Bank. n.d. "The MDBs' Alignment Approach to the Objectives of the Paris Agreement: Working Together to Catalyse Low-emissions and Climate-resilient Development." <https://thedocs.worldbank.org/en/doc/784141543806348331-0020022018/original/JointDeclarationMDBsAlignmentApproachtoParisAgreementCOP24Final.pdf>.



# NATURAL CAPITAL FOR CLIMATE FINANCE AND GREEN GROWTH IN AFRICA

## KEY MESSAGES

- **Africa is blessed with enormous natural resources—such as oil and gas, minerals, land, sunshine, wind, and biodiversity—but their value is poorly measured and they remain largely untapped.** The continent has 65 percent of the world's uncultivated arable land, the second longest and second largest rivers (the Nile and the Congo), the second largest tropical forest (the Congo basin), and an estimated 44.8 percent of the total global technical potential of renewable energy.
- **Africa's measured natural capital was estimated to be \$6.2 trillion in 2018, with its mineral and fossil fuel resources respectively estimated at \$290 billion and \$1.05 trillion.** The continent also earned \$38.5 billion in ecotourism revenues in 2019. With an estimated 60 percent of its GDP coming from natural resources and essential ecosystem services, Africa still has huge potential to benefit further from its natural resources to finance its development goals.
- **International multilateral agreements, such as the Paris Agreement and the Convention on Biological Diversity, provide new opportunities for African countries to tap into climate resources and carbon markets and those for genetic materials and biodiversity.** Global trade in emission permits could amount to \$1 trillion a year in 2050, with estimated cumulative sales proceeds of up to \$1.5 trillion for Africa. Similarly, the Convention on Biological Diversity, agreed at COP15 in Montreal, to raise international financial flows of \$20 billion by 2025 and \$30 billion by 2030 from developed to developing countries.
- **Harnessing Africa's enormous natural capital to complement its climate finance needs and sustainable and green economic growth requires the following policies and actions by different stakeholders and at various levels:**
  - African governments need to use appropriate natural resource policies and instruments to finance sustainable and green economic growth. These include fiscal instruments to increase resource revenues and linkages with industrialization; increase local content and value addition to natural resources and utilization along value chains; in-country value creation and retention; controlling illegal, unreported, and unregulated fishing and curbing the high rate of deforestation; investing in human capital across the value chain and build international negotiation capacity; and building transparent and accountable institutions to govern their resources and guard against illicit trade, illicit financial flows and corruption. It also is important to ensure that returns are used to build inclusive

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While the share of Africa's agricultural and forest land in the world is considerable, the value of these resources is small or not measured appropriately

and sustainable development. Sovereign wealth funds can be useful, but also need good governance.

- African countries should also invest in data collection for better valuation and measurement of natural capital, including implementing and integrating natural capital and ecosystem services into the standard system of national accounts; implementing appropriate fiscal and market instruments for optimal utilization of both renewable and non-renewable natural resources that take climate change and green growth into account; investing in the capacity, technology, approaches and tools needed to benefit from best practices in exploration and licensing initiatives, and international agreements; and reforming institutions to improve transparency and implement best practices for the governance of natural resource.
- The global community should honor pledges and commitments in international agreements such as the agreement on a Loss and Damage Fund, the post-2020 Global Biodiversity Framework, and the Paris climate agreement. It should increase collaboration and coordination among stakeholders—including international and regional multilateral organizations, national governments, and the private sector—to invest in the sustainable management of Africa's natural resources while ensuring equity in the distribution of rents despite competitive advantages between investors and investment destinations.
- Multilateral development banks, bilateral donors, and corporations have a role in promoting transparency in contractual negotiations and operations to ensure that African countries get good deals from natural resource investments. Efficient use of natural resources involves improving regional integration and for trade, sharing information, and learning from each other. Furthermore, although natural capital is becoming relevant in the environmental sustainability leg of the Environmental, Social, and Governance rating by credit

risk and rating agencies, more needs to be done to adequately reflect the value of natural capital assets in the credit risk profiles of African countries. They should also support Regional Member Countries in enhancing their credit risk profiles by integrating the true value of natural capital to help them boost their creditworthiness and mobilize foreign capital and bond issuance as part of their climate finance in the international market.

## INTRODUCTION

Africa has abundant renewable and non-renewable natural resources, including 30 percent of the world's mineral resources and 65 percent of the world's uncultivated arable land. It has a huge stock of fertile agricultural land and some of the world's most productive forests both in timber and carbon retention. It is also blessed with ample solar, wind, and hydropower. However, the returns from these resources have persistently been below their potential. While the share of Africa's agricultural and forest land in the world is considerable, the value of these resources, which reflects the use to which they put, is small or not measured appropriately. Also, Africa has below-average agricultural land productivity and has developed its solar energy only to a very limited extent. The trend over the past quarter century also shows a decline in the value of natural capital per capita—a strong indication that development has not been sustainable. Although the average natural capital sustainability is not encouraging, not all indicators show a lack of progress as some countries have recorded an increase in the value and efficiency of utilizing renewable and non-renewable resources.

Considering the significant challenge Africa faces due to climate change and the gap in climate finances, this chapter discusses how Africa—a continent well-endowed with enormous natural resources—can leverage its natural capital to finance a green transition. It starts by defining the concept of natural capital and discusses changes in natural capital stock over time, efficiency, and performance. It analyzes the



past performance of rents from natural capital to identify a wedge for improvement and resource conservation benefits. It also connects relevant international agreements with Africa's natural resource base, considering the meager gains for African countries from flexible mechanisms since the Kyoto protocol in 1992. Next, it discusses the opportunities from new agreements, such as forest carbon sequestration in accordance with the Paris Agreement Article 6, and other nature-related opportunities, such as debt-for-nature swaps, the preservation of biodiversity hotspots related to the Convention on Biological Diversity, and the potential to negotiate natural resource-based compensation from the "loss and damage" fund.

The chapter also discusses challenges for leveraging Africa's natural capital for sustainable development, probing why Africa has not been able to benefit fully from its enormous natural capital. Finally, it provides actionable recommendations for the global community, developing countries, African countries, bilateral and regional institutions, multilateral development banks (MDBs), and other development partners. The recommendations are articulated as a mix of short, medium, and long-term measures required to harness natural capital and to contribute to the estimated private climate finance gap of more than \$200 billion annually by 2030 in Africa.

In its focus on how Africa's natural capital can be used to leverage finance for a green transition, the chapter supplements the role of finance of chapter 2. But it is important to point out that Africa's natural capital already is the bedrock for the livelihoods of a majority of the continent's people. While the emphasis is on how its natural capital could be used to raise more funds for investments, it is essential to ensure that the resources are managed sustainably and that important ecosystem services are maintained. Africa's natural capital is challenged by climate change, biodiversity loss, land degradation, exports of unprocessed raw materials, and overutilization and other forms of mismanagement. Future reports are needed to deal with these important challenges to sustain the role of Africa's natural capital in contributing to the future well-being of Africa's growing population.

## AFRICA'S NATURAL WEALTH

Natural wealth is that part of nature that generates well-being for people. In economic terms, natural wealth is referred to as natural capital. The United Kingdom (UK) Natural Capital Committee defines natural capital as "that part of nature which directly or indirectly underpins value to people, including ecosystems, species, freshwater, soils, minerals, oil and gas, the air, and oceans, as well as natural processes and functions."<sup>1</sup> The Convention on Biological Diversity defines the term as the stock of natural assets, which include geology, soil, air, water, and all living things.<sup>2</sup> Natural capital is part of a country's wealth, which includes other forms of capital—physical, human, and social. The World Bank defines the value of a particular natural capital asset as the discounted sum of the value of the rents generated over its lifetime.<sup>3</sup> For a renewable resource, the lifetime may be unlimited. A similar approach is taken in the United Nations Environment Programme "Inclusive Wealth" study to obtain estimates of natural capital.<sup>4</sup> This chapter has adopted the World Bank's narrow definition of measured natural capital derived from Africa's most abundant natural resources, noting its limitations when carried out in practice. When using rents to value natural capital, it is important to recognize that these may undervalue the benefits of the resources, especially to the poor.

### Evolution of Africa's natural capital

Reliable, comprehensive, and harmonized data on natural capital are generally lacking due in part to the difficulty and complexity of precisely quantifying and valuing natural wealth on Earth. Concerted global efforts spearheaded by the United Nations and partner organizations are underway to integrate natural capital and ecosystem services in standard systems of National Accounts through new frameworks such as the System of Environmental Economic Accounting (SEEA) and the SEEA Ecosystem Accounting (SEEA EA). But challenges remain.<sup>5</sup> Without reliable data, the analysis here uses the most recent and comprehensive estimates of natural capital produced by the World Bank, covering 1995–2018.<sup>6</sup> The report classifies natural capital into renewable and non-renewable asset classes. While renewable assets

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Africa's natural capital already is the bedrock for the livelihoods of a majority of the continent's people. It is essential to ensure that the resources are managed sustainably and that important ecosystem services are maintained

The distribution of natural wealth varies significantly across regions within Africa. North Africa is the richest in natural capital, accounting for 27.1 percent of the continent's value in 2018

include forest timber, forest non-timber, mangroves, fisheries, protected areas, cropland, and pastureland, non-renewable assets are separated into oil, natural gas, coal, and minerals. It should be noted, however, that these categories do not cover a range of non-marketed benefits of ecosystems.<sup>7</sup>

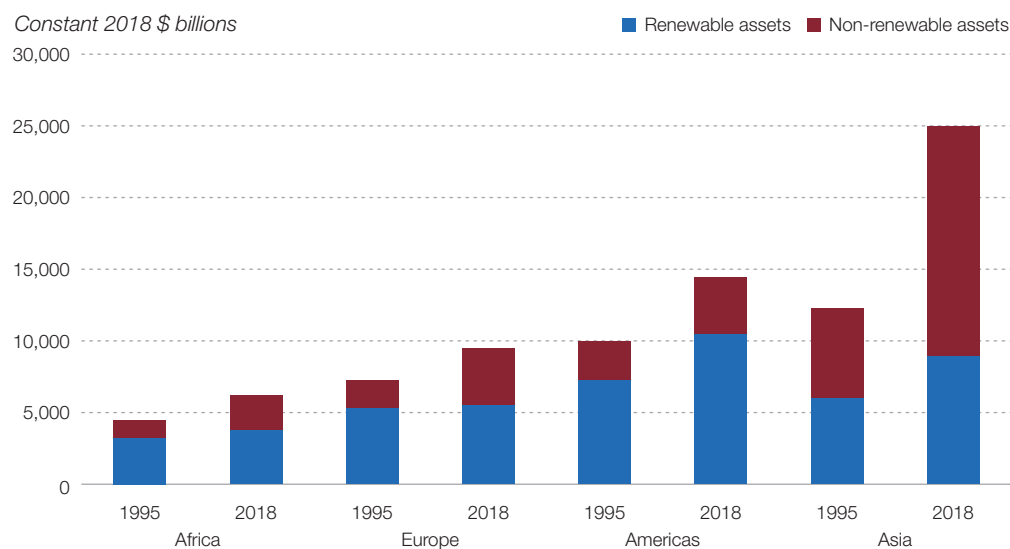
The value of measured global natural capital increased by about 50 percent between 1995 and 2018, although there are significant variations across world regions. The increase in total natural capital is primarily driven by the appreciation of the value of non-renewable natural capital, which increased by 80 percent, while the value of renewable natural capital increased by 28 percent. This change can be decomposed into increases in volume, increase in unit value and the lifetime of the asset. Globally, the biggest share of the increase (58 percent) was due to an increase in volume, while the increase in unit value was only 14 percent on average, with that for cropland declining, and the lifetime effect was negative (there was a decline in the life of renewable assets). Africa's natural capital was estimated at \$6.2 trillion in 2018. The actual value of Africa's natural capital could be much higher if reliable data on recent minerals and other extractive resource discoveries were available.

Asia is by far the wealthiest region, with the estimated value of its natural capital at \$25 trillion,

followed by the Americas, which cover North America and Latin America and the Caribbean (\$14.4 trillion) and Europe (\$9.5 trillion). The largest increase in the value of natural capital between 1995 and 2018 was in Asia, at 71.5 percent, followed by the Americas (36.5 percent), Africa (31.9 percent), and Europe (23.6 percent). Except in the Asia region, the total value of natural capital is dominated by renewable natural assets (figure 3.1). Note that due to challenges of measurement and valuation, the estimated values of natural capital do not consider several resources, which could mean the true value of natural wealth in Africa—both renewables and non-renewables—is largely underestimated. Examples include resources such as ecosystem services in the form of land-based sequestered carbon stocks, solar, wind, and several other types of natural resources not accounted for in the data sets for this analysis.

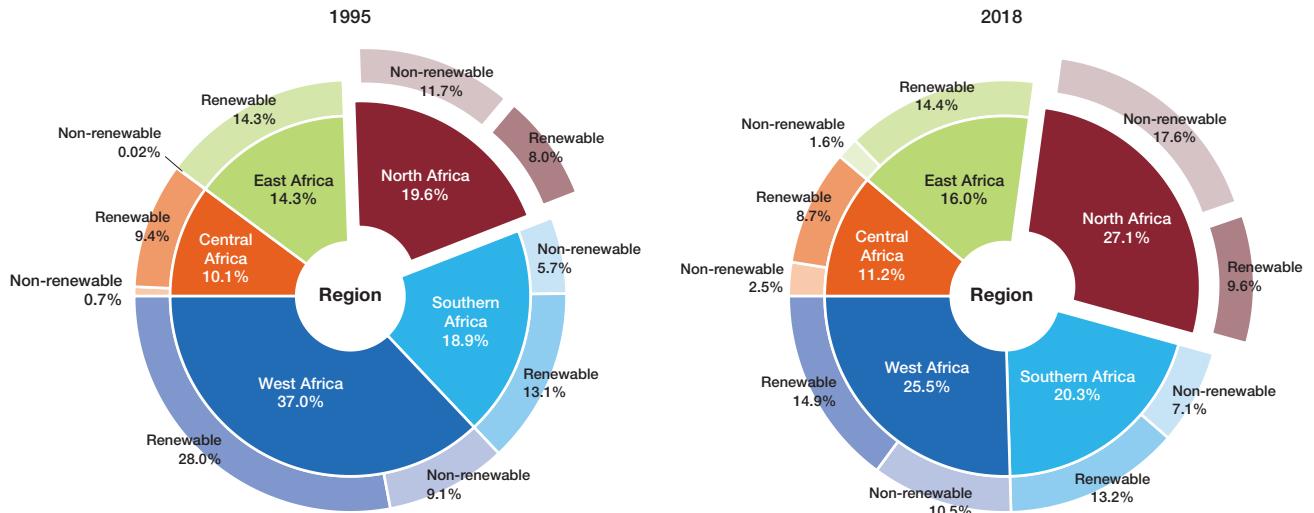
The distribution of natural wealth varies significantly across regions within Africa. North Africa is the richest in natural capital, accounting for 27.1 percent of the continent's value in 2018, which increased from 19.6 percent in 1995 (figure 3.2). This is largely due to the increase in the value of non-renewable resources such as oil and gas. The second richest is West Africa, with 25.5 percent of the continent's natural capital. But compared with 1995, this region's share declined by

**FIGURE 3.1** The value of natural capital by regions



Source: AfDB staff calculations using data from World Bank (2021).

**FIGURE 3.2** The distribution of value of natural capital in Africa between 1995 and 2018 by regions



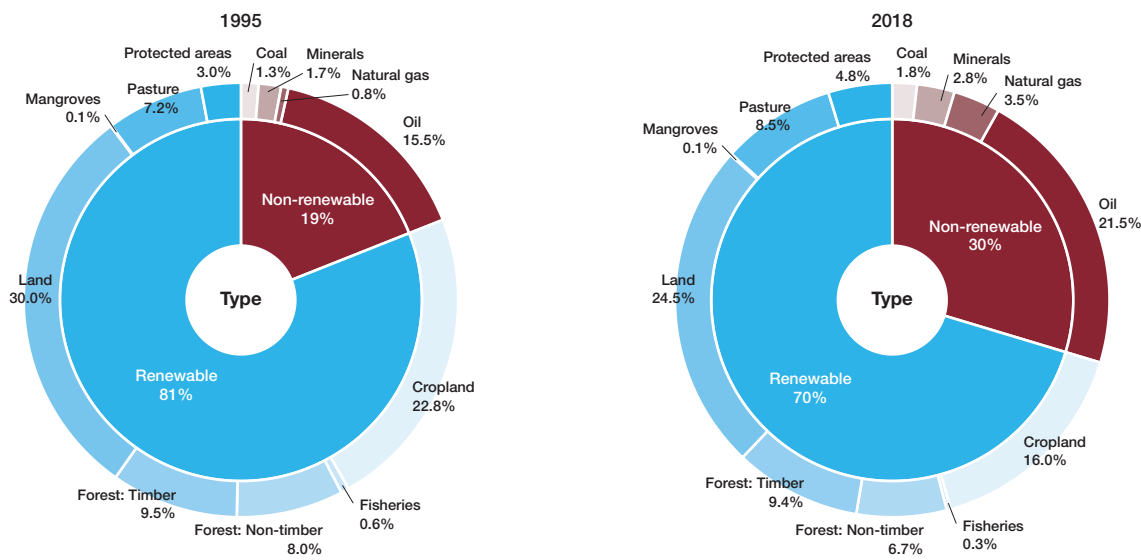
Source: AfDB staff calculations using data from World Bank (2021).

12 percentage points, largely due to a large fall in the share of renewable resources from 28 percent in 1995 to 15 percent in 2018. With 20 percent of the continent’s natural capital, Southern Africa is the third richest region, followed by East Africa (16 percent) and Central Africa (11 percent). Renewable assets dominate the total natural capital of East Africa and Central Africa, accounting,

respectively, for about 90 percent and 78 percent of each region’s total in 2018.

Africa’s predominant types of natural capital are renewables, primarily land, forest, cropland, pasture, and protected areas. Consider a snapshot of the estimated shares of the value of Africa’s natural capital by broad and narrow classifications in 1995 and 2018 (figure 3.3). Renewable

**FIGURE 3.3** Value of natural capital in Africa by type



Source: AfDB Staff calculations using data from World Bank (2021).

Natural capital on a per capita basis in Africa fell from \$4,374 in 1995 to \$2,877 in 2018

natural capital—such as timber, non-timber forest, cropland, pasture, and protected land, mangroves—accounted for about 73 percent of the continent’s total natural capital in 2018, an 11 percentage point decline from 1995. Shares of the individual components in 2018 were cropland (26 percent), timber (19 percent), pasture (12 percent), non-timber forest (9 percent), and protected areas (7 percent). The share of non-renewables—such as fossil fuel energy (oil, natural gas, and coal) and minerals (metals and non-metals)—increased from just 19 percent in 1995 to 27 percent in 2018. That increase could be driven by the increase in the share of oil, which accounted for 16 percent of the total value of natural capital of the continent in 2018 compared with 11 percent in 1995. The share of natural gas and minerals also increased. Fossil fuel wealth benefited from unit price increases, and mineral wealth from increases in stocks.

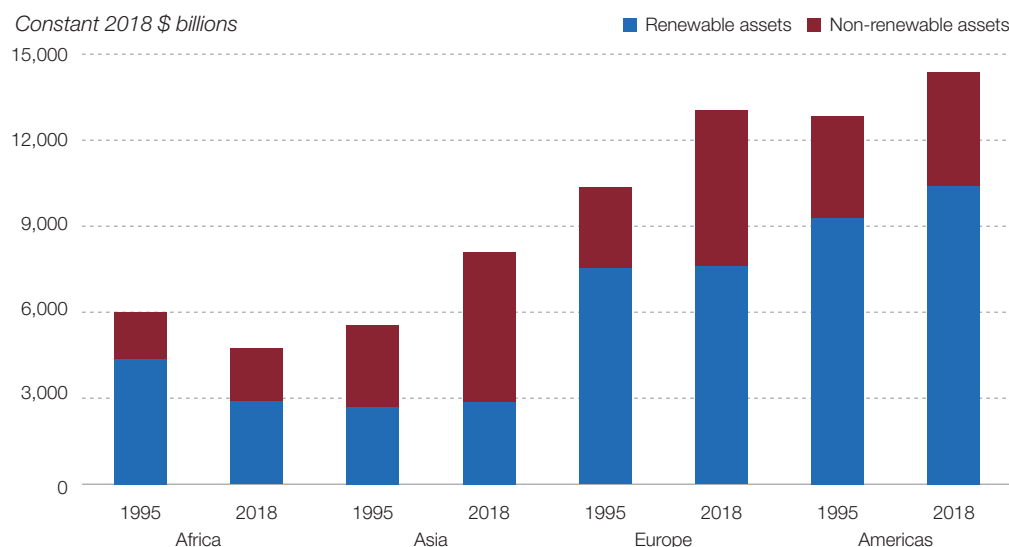
The evolution of the value of natural capital per capita is a better indicator of the sustainability of growth and provides a different picture of a country’s wealth accruing to its citizens. While the strong sustainability concept demands that the stock of natural capital not decline physically, the weak sustainability concept as applied by the World Bank requires that the per capita value of all capital not decline.<sup>8</sup> The World Bank review

shows that this was achieved in all regions, except Africa. But the increase in Africa was the lowest at 18.5 percent for the period, but highest in East Asia at 139 percent. This could be the result of much greater accumulation of physical capital in Asia relative to its population growth, or of better valuation and pricing of natural assets.

In addition to tracking weak sustainability, it is argued that the sustainability of growth needs the value of natural capital to not decline over time. Now consider the estimated values of renewable and non-renewable natural capital in 1995 and 2018 on a per capita basis (figure 3.5). Although as noted above weak sustainability has been achieved in all regions over the last near quarter century,<sup>9</sup> in per capita terms, Africa is the only region that has not experienced sustainable growth over this period. The estimated total per capita natural capital declined by 21 percent to \$4,739 in 2018 compared with \$6,001 in 1995.

Natural capital on a per capita basis in Africa fell from \$4,374 in 1995 to \$2,877 in 2018 (figure 3.4). One factor behind the decline in the per capita value is rapid population growth, increasing from 737 million in 1995 to 1.31 billion in 2018, an increase of nearly 78 percent—much more considerable than in other world regions, such as 33.3 percent in Asia, 25.6 percent in Americas, and 2.3 percent in Europe. Other factors include

**FIGURE 3.4** Per capita value of natural capital



Source: AfDB staff calculations using data from World Bank (2021).

illegal activities, lack of tenure, and poor natural capital governance and management, which led to the depletion of resources, discussed in detail below. Markets for natural resources are also a significant factor. In Sub-Saharan Africa, all land assets showed a decline in per capita terms. Except cropland, which grew in total wealth, other resources did not grow fast enough to overcome the growth in population. While most non-renewable resources are tradable commodities in well-developed global markets, albeit volatile, such as oil, gas, and minerals, most non-renewables are not tradable, since markets could be missing or underdeveloped. A time series plot of the per capita value of natural capital for Africa depicts the decline in the value of renewable natural capital as approximately linear, whereas that of non-renewables shows cyclical trends, reflecting volatility in market conditions among other factors (figure 3.5).

Some countries have abundant natural capital, and others do not. Figure 3.6 shows the level and change in the value of natural capital for African countries between 1995 and 2018 and by type. The Democratic Republic of Congo is the wealthiest country in Africa in renewable resources, with an estimated value of \$282.9 billion in 2018, followed by Nigeria (\$260.1 billion), South Africa (\$213.8 billion) and Ethiopia (\$195.8 billion). While most African countries experienced an increase in the aggregate

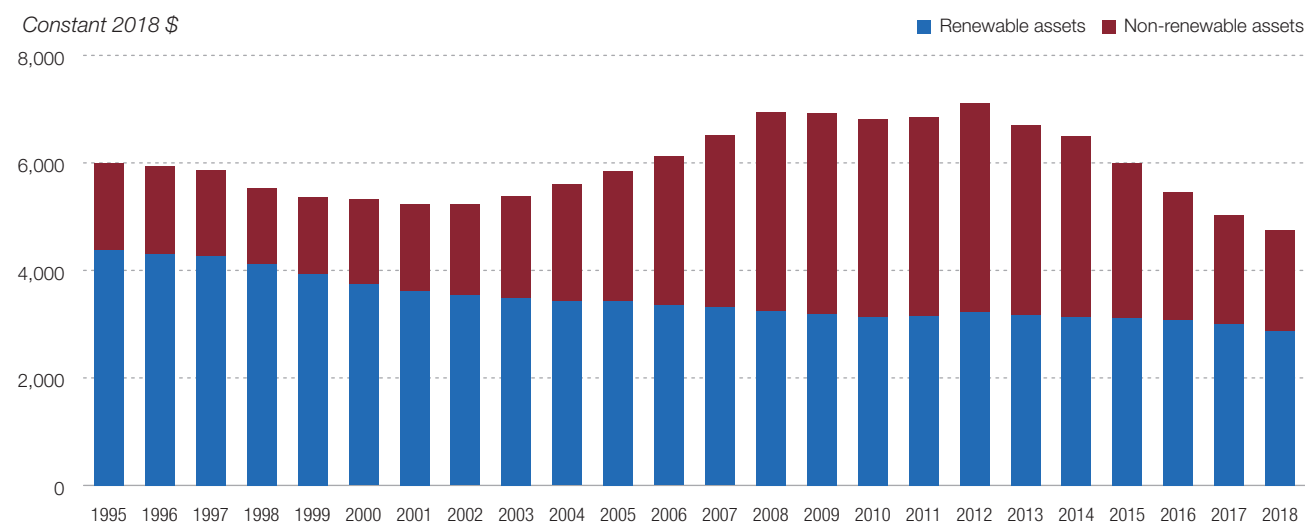
value of natural capital between 1995 and 2018, six countries saw a decline. The most notable was in Nigeria, with a 67 percent decline in the value of its renewable resources between 1995 and 2018 (primarily due to deforestation). Other African countries experiencing a decline include Burundi, Namibia, Mauritius, Tanzania, and Somalia. The increase in aggregate renewable capital is largely the result of an increase in the area of cropland and pastureland. The rest of the countries had an increase in both forms of natural capital.

Nigeria remains the wealthiest nation in the value of non-renewable resources—thanks to its large reserves of fossil fuel (oil and gas), with an estimated total value of \$582.4 billion in 2018, followed by Algeria (\$485.4 billion), Libya (\$372.3 billion), Angola (\$205.8 billion), and South Africa (\$186.1 billion). However, while some resource-rich countries experienced an increase in the value of their non-renewable resources, others registered a decline. Overall, of 53 African countries with data, the value of non-renewable natural capital declined for 14, potentially indicating the depletion of some minerals—diamonds and gold, for example, as in Botswana.

In per capita terms, however, the evolution of natural capital is much less encouraging. Between 1995 and 2018, 36 of the 53 countries had a decline in per capita renewable natural capital (figure 3.7).<sup>10</sup> And 25 countries had a decline in per

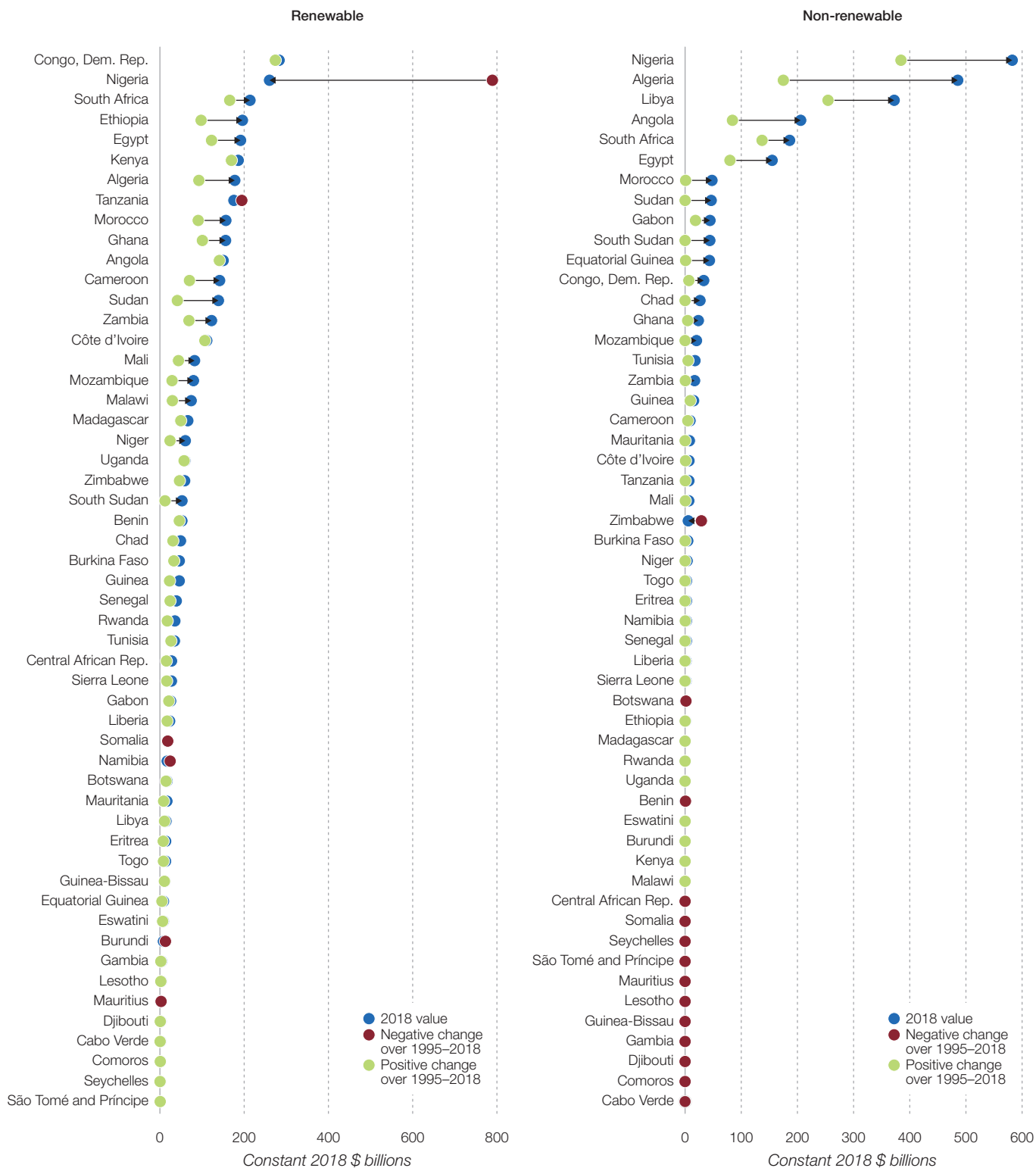
The per capita value of renewable natural capital for Africa depicts an approximately linear decline, whereas that of non-renewables shows cyclical trends, reflecting volatility in market conditions among other factors

**FIGURE 3.5 Trends in per capita values of natural capital**



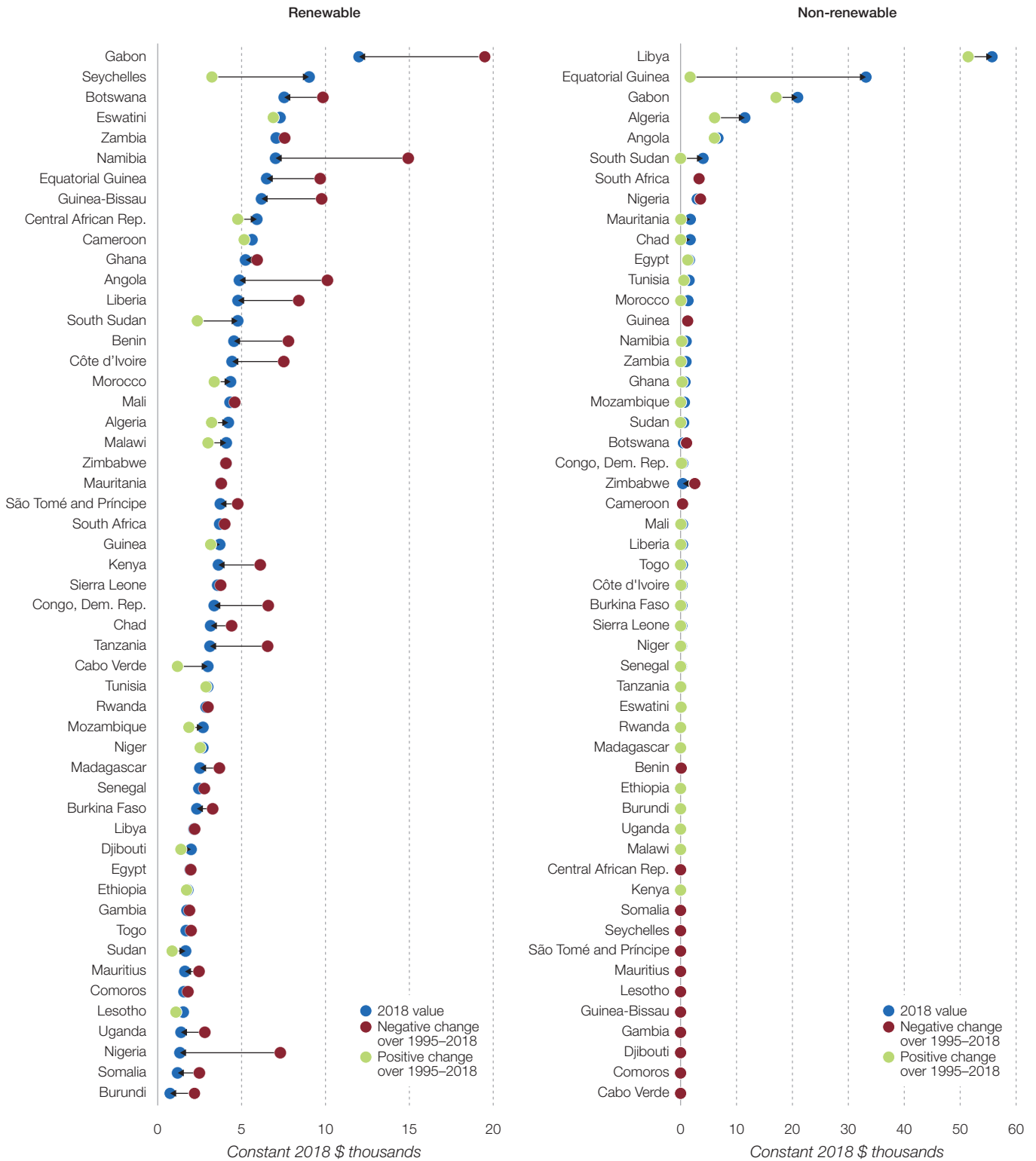
Source: AfDB staff calculations using data from World Bank (2021).

**FIGURE 3.6** Changes in the value of natural capital for African countries, 1995–2018



Source: AfDB staff calculations using data from World Bank (2021).

**FIGURE 3.7** Changes in per capita value of natural capital for African countries, 1995–2018



Source: AfDB Staff calculations using data from World Bank (2021).

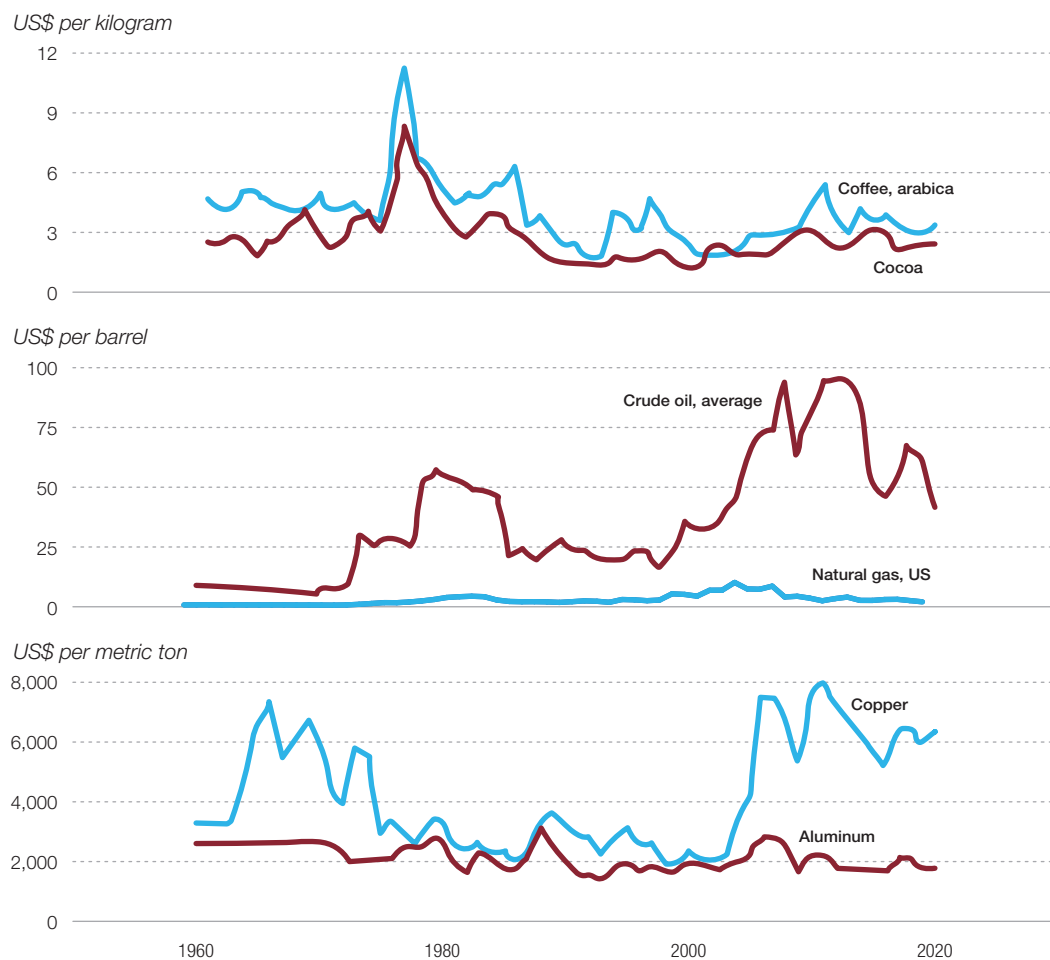
With most African countries overreliant on primary commodities and unprocessed raw materials exports, low and volatile global commodity prices have eroded their export revenues

capita natural capital for both types. Some countries have experienced quite large declines in both forms, notably in Nigeria (82 percent), Burundi (66 percent), Namibia (53 percent), Angola (52 percent), Somalia (52 percent), Tanzania (52 percent), and Uganda (51 percent). In addition to population increase, several factors are at play, including high population growth, declines in unit rents from some forms of natural capital, lack of tenure, and mismanagement, discussed below. Although 18 of 53 countries experienced a decline in the value of their non-renewable resources, the majority registered a significant increase between 1995 and 2018.

The decline in per capita value is a concern for sustainability and green growth in developing countries where a large part of the population depends on natural resources for their livelihood.

A decline in the value of that capital both in physical quantity and unit value will result in poverty, exacerbate inequality, and increase vulnerability to climate risks. With most African countries overreliant on primary commodities and unprocessed raw materials exports, low and volatile global commodity prices have eroded their export revenues. Prices of agricultural commodities such as coffee and cocoa had been declining since the 1970s, whereas prices of crude oil and natural gas and minerals exhibit volatility (figure 3.8). In addition to boosting efficient use and better measurement of natural capital, sustainable growth necessitates increasing the revenue per unit through various policies. This includes adding value to the raw minerals and commodities including market form of franchising, discussed further below.

**FIGURE 3.8** Real prices of selected commodities, 1960–2020



Source: AfDB staff calculations using World Bank Commodity Price Data (The Pink Sheet).



### **Africa's unmeasured natural wealth**

Africa has enormous potential in unmeasured and largely untapped natural wealth, such as water, land, minerals, oil, gas, sunshine, wind, biodiversity, and the ecosystem services they provide. But the accounting of natural capital covered by the World Bank and the UN does not cover the implicit value of natural resources essential to well-being, such as water, air, and sunshine. Freshwater and air are regarded as unlimited inputs and thus may assume a zero value. When they are inputs into producing a good or services, however, such as drinking water or electricity, their value can be obtained by using the residual value method. This can be estimated as the difference between the annual revenues earned from the sale of renewable electricity and the annual cost of its production, including wages and return on produced capital.<sup>11</sup> With the global conversation around long-term, low-carbon, green transformation, and the energy transition taking hold now more than ever, the values of sunshine, wind, and water for hydropower should be considered renewable energy sources and valued as such.

Africa is by far the world's richest region for low-cost renewable energy potential, approaching half (44.8 percent) of the total global technical potential of renewable energy.<sup>12</sup> Given its abundant solar and wind resources, the continent has the world's best potential to produce cheap hydrogen, though it is yet to benefit from this potential. So far, clean hydrogen projects and investments have grown quickly, almost all outside Africa, despite its competitive advantage in several areas. The story on untapped potential also holds for hydropower. Of its total exploitable hydropower capacity, Africa harnessed only 11 percent, compared with 53 percent in Europe, 39 percent in North America, 26 percent in South America, and 20 percent in Asia.<sup>13</sup> Central, East, Southern, and parts of West Africa have many permanent water bodies—rivers, streams, and river basins—providing nature-based opportunities for hydropower development. For instance, the installed capacity of the Grand Inga Hydropower project in Democratic Republic of Congo is estimated at more than 42,000 MW.<sup>14</sup>

Landscape is also a form of natural capital not fully measured and valued as part of the

continent's natural wealth, generating services such as tourism. Although it is already making some contributions, the potential is hugely underdeveloped: Africa's share of global tourism is only 5 percent.<sup>15</sup> Tourism on the continent could be enhanced through investments in natural capital-driven subsectors. The 2019 Tourism and Travel Competitiveness Report shows that the regional score for Africa for natural resources was 2.9 of 7, declining to 2.6 in 2022. The report also shows that during the same period, North Africa (clustered with the Middle East) recorded scores of 2.2 and 2.0 in 2019 and 2022. Despite the decline, Africa has an enormous opportunity to take advantage of its abundant natural resources for tourism. It should build its competitiveness through increased connectivity and investments to enhance the value and attraction of tourism, including investments to stop the declining performance of natural and cultural resources. As highlighted by the 2019 report, core challenges include an unfriendly business environment, poor health and hygiene, and weak human resources. The region has well-developed enablers to support tourism based on natural capital, such as digital connectivity and operationalization of the African Continental Free Trade Area (AfCFTA) clauses that enable the free movement of people across the continent.

There could be other opportunities for updating the measures of sustainability of green growth, by further expanding the 12 indicator categories of the Green Growth Index. The 2019 GGI report stated that the four dimensions of green growth—efficient and sustainable resource use, natural capital protection, green economic opportunities, and social inclusion—are closely interlinked. Efficient and sustainable resource use entails more productive use of natural capital and more cumulative economic value with fewer resources to also capture unmeasured natural wealth and their relative contribution to climate or green finance. This may provide a basis for a joint methodology to track natural capital-based financing and their relative contribution to climate finance in the future.

### **Efficiency in natural capital use**

There is vast potential to increase the productivity of renewable natural capital while sustaining natural resources. With the right human capital

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Africa is by far the world's richest region for low-cost renewable energy potential, approaching half (44.8 percent) of the total global technical potential of renewable energy

The value added per hectare of agricultural land for Africa is only 37 percent of the world average

and industrial policies, physical assets and ecosystems could provide a higher value of output without compromising environmental quality. But across world regions, the gap is widening between the actual and potential value of goods and services from natural resources—such as carbon sequestration, crop, grazing, and forestry outputs. And Africa has the widest gap between the actual efficiency in natural resource use and the potential efficiency.<sup>16</sup>

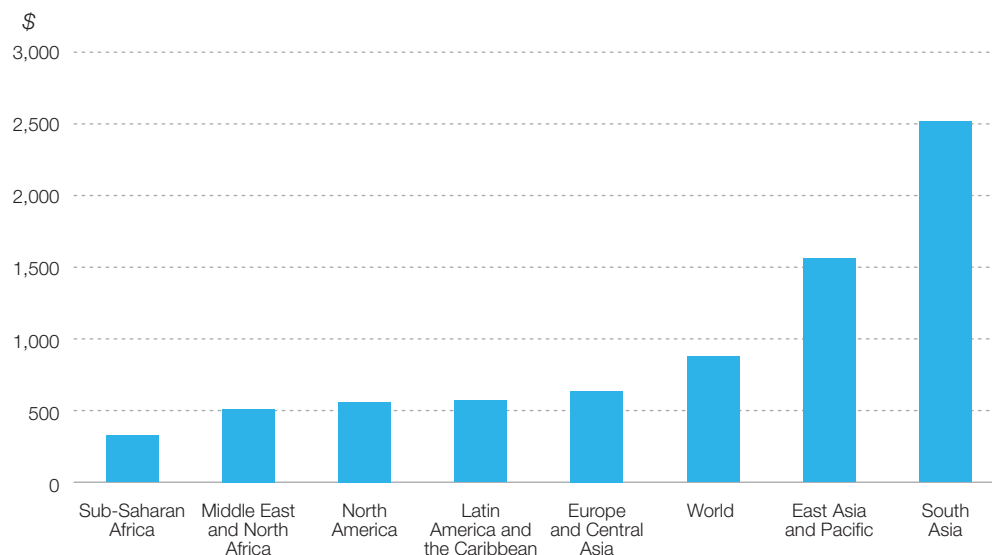
There is also great variation in actual efficiency across African countries and sectors, with some scoring higher in efficiency and others performing poorly, such as agricultural land resources. For instance, agricultural productivity is the lowest in Africa. The value added per hectare of agricultural land for Africa is only 37 percent of the world average (figure 3.9). Regions in Asia (mainly developing countries) have productivity between five and eight times greater. Moreover, a large amount of land in many parts of Africa can be used for agriculture without causing deforestation. In Congo, only 2 percent of the land is used for agriculture, with rudimentary techniques.<sup>17</sup> Similar observations apply to many other countries.

The application of circular economy principles—which involves recycling and recovering materials when possible—has the potential to increase the productivity of natural capital. The extraction

of resources and production accounts for about 50 percent of global greenhouse gas (GHG) emissions and more than 90 percent of impacts on water stress and biodiversity loss owing to land use.<sup>18</sup> Between 30 percent and 50 percent of copper, gold, iron ore, and zinc production are concentrated in areas where water stress is already high.<sup>19</sup> Promoting mineral stewardship to responsibly guide the environmental, social, and governance aspects of green minerals, together with increasing material reuse and recycling in the mineral and water sectors, can provide significant win-win opportunities for the investment in and productivity of nature-based solutions and the overall sustainability of both renewable and non-renewable natural capital.

The efficiency of sequestering carbon in terrestrial ecosystems can be further increased. Globally, GHG storage capacity was 429 billion metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) stored in terrestrial vegetation for 2017 for all lands.<sup>20</sup> By choosing land use and land management to increase GHG storage without compromising the use for productive purposes, this amount can be increased by 86 billion MTCO<sub>2</sub>e, or by around 20 percent. Much of this gain is in a few countries, some of them in Africa.<sup>21</sup> The ones with the biggest gap between the actual and potential sequestration are Burundi, Gambia, and Uganda.

**FIGURE 3.9** Value added per hectare of agricultural land 2021



Source: AfDB staff calculations using data from World Bank (2021).

## Using non-renewable resources for low-carbon transition

Africa possesses significant mineral resources that are key to the global transition to a net-zero carbon future. According to the United States Geological Survey (USGS) data on global mineral reserves, Africa is abundantly endowed with cobalt (52.4 percent), bauxite (24.7 percent), graphite (21.2 percent), manganese (46 percent), and vanadium (16 percent). And more than half of African countries have at least one of the metals critical for the energy transition, placing the continent in a strategic position to influence the global net-zero transition. For instance, with its enormous endowment in strategic minerals that are components of lithium-ion batteries, Democratic Republic of Congo is at the heart of the battery value chain. It accounts for 70 percent of the world's cobalt production and at least 51 percent of global reserves.<sup>22</sup>

Despite its vast resource endowment, Africa participates only in the small value components of the total global value chain and has not invested adequately in green minerals. It is estimated to account for only about 10 percent of the total global value of such minerals, primarily exporting raw materials with little or no local value addition. Also insufficient is investment in green minerals and emerging energy storage using electrolysis to produce green hydrogen. Deepening Africa's critical minerals value chain calls for investments in infrastructure, new explorations, skills, and digitalization, among others.<sup>23</sup> That makes it important for African countries to break the vicious cycle of excessive dependence on exporting natural resources by creating more value on the continent, strengthening productive capabilities, and expanding exports and intra-African trade through the African Continental Free Trade Area (AfCFTA).

Africa can also promote green growth as part of the transition to a low-carbon future through the increased exploitation of its natural gas. The energy transition to net-zero carbon emissions will not be immediate. A pragmatic transition process should be carefully managed to reduce emissions while allowing communities to use their natural resources sustainably. Due to its lower carbon emissions, natural gas is widely considered a transition fuel. Today, more than half the people

in Africa have no access to electricity. To eliminate energy poverty in Africa by 2030, the continent needs to expand the electricity generation capacity using reliable and clean sources by more than 6 percent a year to support industrialization and improve the quality of life for the people.<sup>24</sup> Natural gas can be a key instrument in fighting energy poverty, but for this to happen, African countries need to develop robust energy transition plans to attract private capital investment in the sector.

Africa's estimated 600 trillion cubic feet (tcf) of natural gas reserves, estimated at \$210 billion in 2018, can fast-track the continent's energy access. Due to natural gas accessibility, gas-to-power generation can help phase out more polluting fuels and integrate green energy, supporting the energy transition.<sup>25</sup> Increased use of natural gas would also contribute to phasing out Africa's reliance on biomass for cooking, thus stemming deforestation and bringing about health and economic benefits. Countries with new discoveries of natural gas, including Egypt, Mauritania, Mozambique, Senegal, and Tanzania, are making strides to commercialize gas resources. Both the demand for and the production of gas have grown consistently over the last decade, a trend expected to continue as global decarbonization efforts intensify.

However, much natural gas is still flared (leaked) by all global oil producers. African oil producers do not show up as the largest in gas flaring by volume (except for Nigeria, which ranks seventh),<sup>26</sup> and the amount of flared gas per barrel of oil produced has been falling for the rest of Africa since 1995. Even so, flaring per barrel in Africa is nearly double the world average (figure 3.10). Recovering this gas would increase the use of gas as a transition fuel and reduce GHG emissions. It would also make a major contribution to development in the countries that undertake the recovery, which are often short of energy (as with Nigeria).

## Natural capital accounting to track sustainable green growth

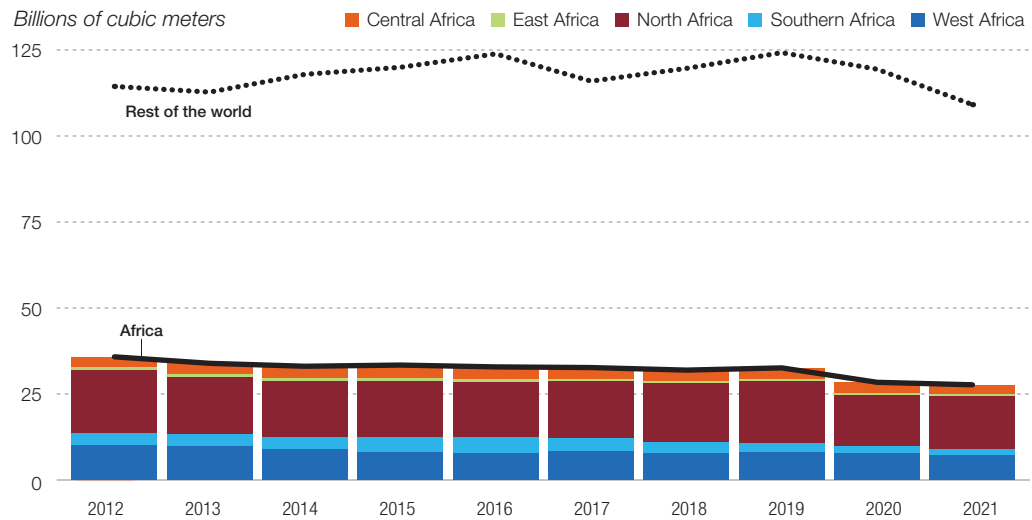
Data on natural capital has a key role in helping governments ensure that this form of wealth is fully accounted for in its contribution to national well-being. Rents from natural resources need to be measured accurately to ensure transparency

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Africa's estimated 600 trillion cubic feet of natural gas reserves, estimated at \$210 billion in 2018, can fast-track the continent's energy access

Gas flaring per barrel in Africa is nearly double the world average

**FIGURE 3.10 Annual gas flaring, 2012–21**



Source: AfDB staff calculations using data from Earth Observatory Group (Zhizhin et al. 2021; Elvige et al. 2016; Elvige 2013). [https://eogdata.mines.edu/products/vnf/global\\_gas\\_flare.html](https://eogdata.mines.edu/products/vnf/global_gas_flare.html).

and accountability and evaluate actions to improve resource use and efficiency. For renewable resources, a lack of data on the contribution of ecosystems that form the basis of such natural capital for income generation—and an area where data are a huge challenge—can result in their degradation. Oftentimes, key components of ecosystem services provided by natural capital, such as pollination, disaster risk management, protection of land against extreme events, assessment of the blue economy, wildlife, and parks, are lost because they were not recorded, and care was not taken to conserve them. In the UN System of Environmental–Economic Accounting (SEEA) now being upgraded, guidelines are provided on extending wealth accounting to include natural capital. This will help record changes in the value of assets as well as the value of the services provided now and expected to be provided in the future under existing or alternative management regimes. Only on this basis can policies to increase the sustainable use of such natural capital be implemented and tracked.

There are enough data to track the sustainability of economies in Africa. This review has made use of information on changes in total wealth per capita as an indicator of weak sustainability—and natural capital per capita as an indicator of sustainable growth. The World Bank’s

analysis of trends also includes data on the physical and unit value components of natural capital that help further track progress (or lack of it) along a sustainable path.

The use of environmental accounts that include natural capital has already been carried out for several African countries, with some success. Environmental accounts bring together economic and environmental information in a common framework to measure the contribution of the environment to the economy and the impact of the economy on the environment. They enable governments to set priorities, monitor economic policies more precisely, enact more effective environmental regulations and resource management strategies, and design more efficient market instruments for environmental policies. A review of work in this area includes examples from the regional environmental accounting program in Southern Africa. They address issues such as the economic importance of non-market forest goods and services in South Africa; and the socio-economic impact of current water allocation and pricing policies in Botswana, Namibia, and South Africa.<sup>27</sup>

One use of capital accounting is to track the extent to which the liquidation of natural capital has been used to increase other forms of capital (in Namibia and Botswana). Studies have also

been conducted on the value of specific forms of natural capital, such as wild animals and fisheries, to be able to better evaluate measures to conserve and/or enhance these stocks.<sup>28</sup> These kinds of studies are, however, often hampered by a lack of data, something being addressed in the work reported in this chapter, but there is still a lot to be done. For non-renewable resources, a key issue has been the availability of information to estimate the stock of mineral resources and total wealth. Except for Botswana, there is a lack of comprehensive data or statistics on wealth accounting in Africa.<sup>29</sup> The data assembled by the World Bank and UN at the country level is a major exercise in attempting to collect such data, but it is only a beginning and needs to be developed further for details, accuracy, and reliability. Even so, the full or even partial implementation of the UN SEEA System by all countries would be an important first step toward preserving, protecting, and enhancing their national wealth, thus building the foundation for the prosperity of all generations.

### **Approaches to boost the value of natural capital**

Africa's abundant renewable and non-renewable resources and essential ecosystem services account for approximately 62 percent of its GDP and have the potential to drive much-needed economic growth.<sup>30,31</sup> The continent has the world's largest arable landmass, the second largest and longest rivers (the Nile and the Congo), and the second largest tropical forest. In addition, Africa contributes significantly to the world's capture fish production, and is also home to about 30 percent of global mineral reserves. For oil and natural gas reserves, Africa had estimated proven reserves of 125.3 billion barrels of oil in 2021<sup>32</sup> and natural gas accounting for around 7 percent of the world's total reserves.<sup>33</sup> Despite this abundance, the continent's natural capital is not effectively harnessed for sustainable economic development.

### **Opportunities in non-renewable resources**

The extractive sector contributes much to public and private finance in many African countries, with some heavily reliant on these resources for public revenue. Africa's extractive resources will

contribute more than \$30 billion annually to government revenue by 2040.<sup>34</sup> The continent's value of non-renewable natural capital was estimated at \$2.4 trillion in 2018, with mineral and fossil fuel wealth estimated at \$215 billion and \$1.06 trillion, respectively.<sup>35</sup> The North African countries, including Egypt, Morocco, and Tunisia, contributed approximately 26 percent and 15 percent to the continent's mineral and fossil fuel wealth, respectively. Southern Africa and West Africa contributed the highest to the continent's mineral wealth (32 percent) and fossil fuels (51 percent), respectively. East Africa contributed the least of the two natural resources.

In resource-rich African countries, oil and mining, on average, account for more than a quarter of gross domestic product (GDP) and more than three-quarters of export earnings.<sup>36</sup> The value of minerals as non-renewable natural capital increased sharply between 2005 and 2012 before declining but remaining above the 1995 value (figure 3.11). In contrast, the value of fossil fuels rose from 1998 through 2014 before declining (figure 3.12). Comparing the maximum recorded value of natural wealth from minerals in 2012 with the latest estimated value in 2018, there was a 44.5 percent difference (\$173 billion, in constant \$ 2018). The corresponding difference in the value of fossil fuels was \$675 billion, equivalent to about 37 percent of the continent's GDP in 2018.

For natural resource wealth to drive economic development, African countries must ensure they receive a fair share of resource rents and effectively manage revenues. Tax policies should be designed to internalize environmental opportunity costs associated with exploiting non-renewable resources. The fiscal instruments used most are royalties, income taxes, and corporate taxes. Income taxes may be neutral, corporate taxes are generally progressive, while royalties (an ad valorem tax) are regressive and may lead to a higher cut-off grade of minerals (table 3.1).

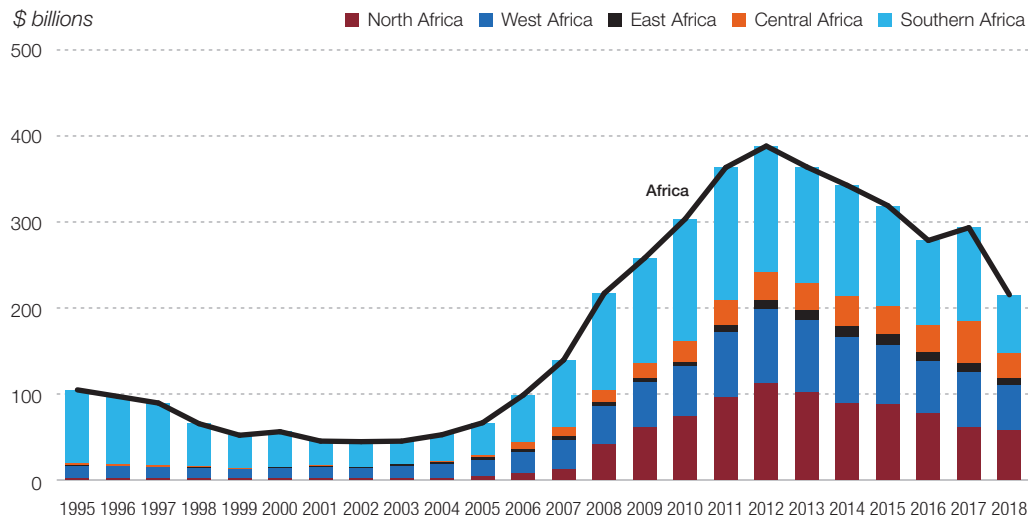
When the extraction of a natural resource generates a negative externality, such as environmental damage, or when the costs of mining are private information, governments can deploy royalties (ad valorem taxes) to steer extraction paths toward the optimal.<sup>37</sup> Revenues generated from corporate taxes are typically low across the

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Africa's abundant renewable and non-renewable resources and essential ecosystem services account for approximately 62 percent of its GDP and have the potential to drive much-needed economic growth

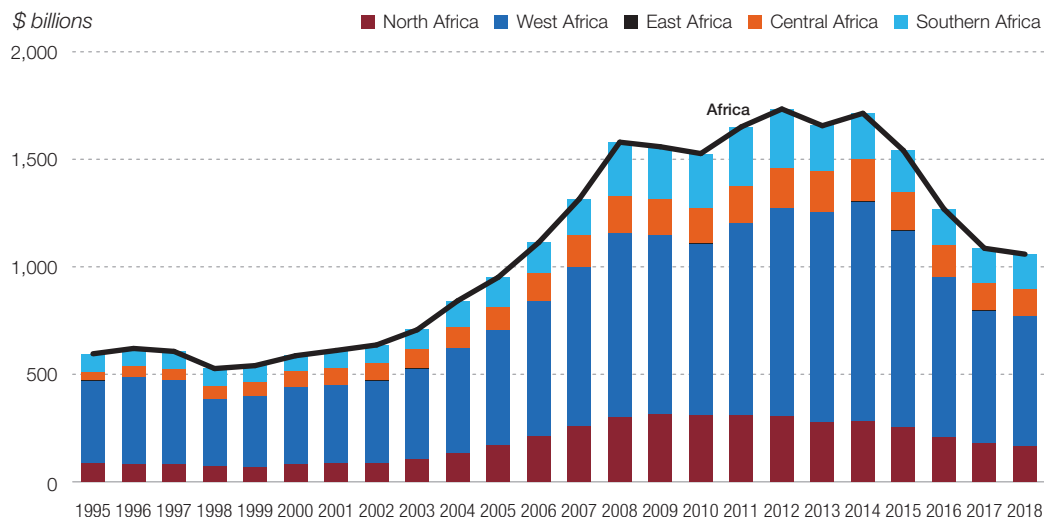
The value of minerals as non-renewable natural capital increased sharply between 2005 and 2012 before declining but remaining above the 1995 value

**FIGURE 3.11** The value of mineral wealth of Africa, 1995–2018



Source: AfDB staff calculations using data from World Bank (2021).

**FIGURE 3.12** Africa's fossil fuel wealth, 1995–2018



Source: AfDB staff calculations using data from World Bank (2021).

continent due to asymmetric information on production costs, which are often overstated despite the high economic returns from oil and mineral extraction. In 2020, the top four oil producing countries in Sub-Saharan Africa had the following rent to GDP ratios: Nigeria 4.4 percent, Angola 24 percent, Congo 31.9 percent, and Equatoria Guinea 15.6 percent. Mineral rent to GDP ratios were, on average, even lower, ranging from 7.2 percent in Mali to 0.1 percent in Botswana and Central African Republic. The average pre- and

post-tax internal economic rate of return on petroleum extraction in Chad, Ghana, and Nigeria were between 41 percent and 34 percent, far above the common hurdle rate of 12–14 percent that companies aim to surpass for investment approval.<sup>38</sup>

Moreover, the negotiated royalty taxes are often low in many African countries.<sup>39</sup> In the Democratic Republic of Congo, the rates range from 2.5 percent to 10 percent, depending on the mineral. The royalty rate for gold in Ghana ranges from 3 percent to 5 percent, depending on the price of

**TABLE 3.1** Fiscal instruments for natural resource revenue extraction

<b>Royalties</b>	Royalties are commonly set at a fixed percentage of production or gross revenues. Royalties are normally regarded as easier to administer, as production and natural resource prices are easier for the host state to determine and monitor than costs of production. Royalties are normally regressive, as they increase with revenues and not net cash flows. In some fiscal regimes, royalty rates vary with cumulative or daily production or other factors.
<b>Bonuses</b>	Bonuses can be paid by investors to the host state when the contract is signed, a discovery is made or production commences. The amount of the bonus can be negotiated, set by law or the result of a bidding process. Bonuses are relatively easy to administer, but they are also likely to be regressive, as in most cases they do not increase with net cash flows.
<b>Additional profits/resource rent taxes</b>	Additional profits taxes aim to tax excess profits. The tax is therefore levied, or its rate increased, when the project exceeds some predefined internal economic rate of return. Additional profits taxes are progressive, with government revenue increasing as a percentage of net cash flows as net cash flows increase.
<b>Corporate income tax</b>	Corporate income tax is charged as percentage of profits on sale of natural resource production at the level of the corporation. It is a neutral and easy to administer by revenue agencies.
<b>Import duty</b>	Investors often need to import expensive equipment when exploring and developing natural resources. Levying import duty on such imports would result in a significant early revenue stream for the government, but would also discourage companies from exploring and developing natural resources. In some countries, there are also concerns that foreign companies with significant import duty needs will be targets of rent-seeking behaviour.
<b>Rentals</b>	Rentals are paid by the investor per period for the right to explore, produce or mine in a specific area. The amount of the rental is often legislated, but can sometimes be negotiated or determined by bidding. Rentals are easy to administer, but they are also regressive, as they do not increase with net cash flows.
<b>State participation</b>	In some countries, states hold equity positions in natural resource projects to enable the government share in any post-tax economic rent which accrue from the project.

Source: Wilde 2016.

gold; that of Zimbabwe and South Africa ranges from 4 percent to 6 percent and 0.05 percent and 7 percent depending on the type and price of the mineral. For most countries on the continent, the average royalty rate charged is 3 percent, as mining companies argue that a higher rate will impair the profitability and investment in mines. And the unfair concession agreements signed with foreign mining companies restrict the use of fiscal instruments, thus limiting the share of resource revenue that remains within countries.

African governments should deploy different fiscal instruments to obtain a fair share of revenues from non-renewable resources. Royalty rates may be used and set at higher levels than currently if the overall fiscal system is progressive or the extraction generates environmental damages. A study found only a marginal (2 percent) reduction in the internal financial rate of return of mining operations when the royalty rate was increased from 0 to 3 percent.<sup>40</sup> In addition, since international prices of minerals and oil are volatile, governments should implement windfall taxes.

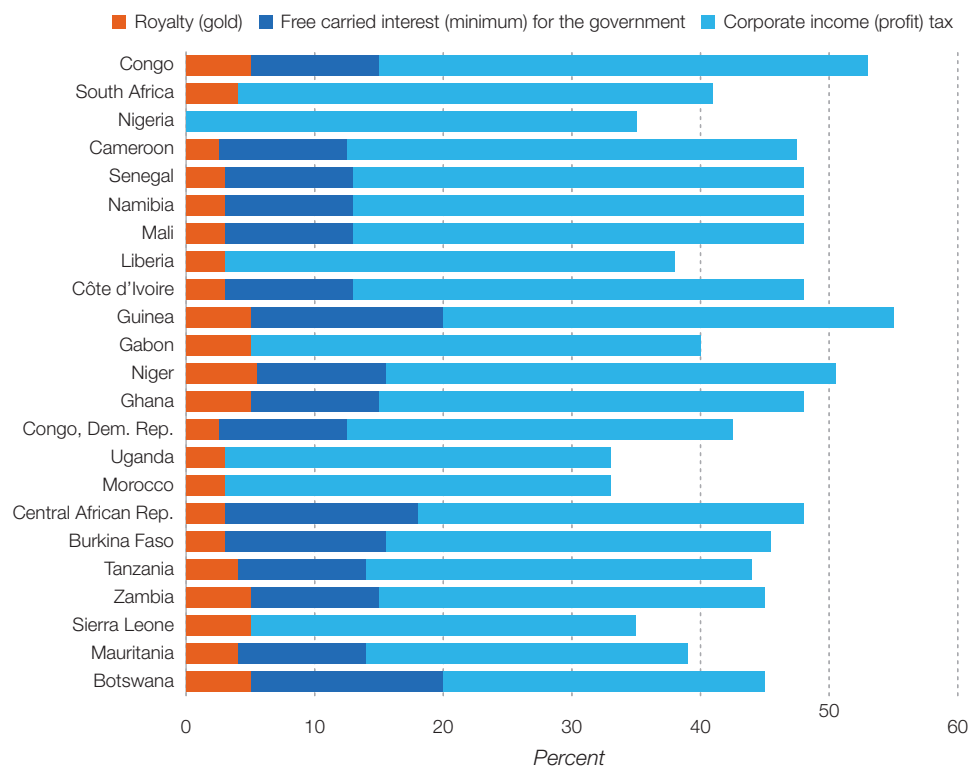
When there are excess profits due to high prices of a natural resource, governments should be able to intervene and capture some of the rents.

Despite the potential benefits of windfall taxes, their design can be complex, requiring technical and administrative capacity which is lacking in many resource-rich countries in Africa. Until African countries develop the capacity in the long term, some experts have recommended that flat rate regimes, which are easier to administer, are adopted rather than the tiered system. The progressive R-factor-based production sharing employed by Ghana and other countries is desirable, while rate-of-return-based fiscal instruments in Angola and elsewhere are considered too complex for some countries to adopt. The R-factor mechanism is a standard procedure to calculate royalties based on the ratio of cumulative revenue to cumulative expenditure.

However, obtaining a “fair share” of the revenue from non-renewable resources does not guarantee economic development. Corruption in countries bedeviled with weak institutions has

African governments should deploy different fiscal instruments to obtain a fair share of revenues from non-renewable resources

**FIGURE 3.13** Fiscal instruments in the African mining sector and year of enactment



Source: Gajigo et al. 2012.

Botswana developed a reputation for prudent fiscal management of its mineral wealth, and other African countries can learn from it

been noted as the source of Africa's resource curse, with resource-rich countries in Africa and elsewhere in the developing world experiencing low economic growth and high poverty.<sup>41</sup> For instance, annual illicit financial flows are mostly tied to Africa's natural resources.<sup>42</sup> So, in addition to ensuring that revenue taxation accounts for the cost of depleting non-renewable natural resources, including environmental damages, revenues generated should be reinvested in productive capital to deepen economic diversification and build strong and transparent institutions for natural resource governance.

Resource-rich nations on the continent should take proper account of how rents obtained from non-renewable resources are used. Adjusted Net Savings (ANS) or Genuine Savings is often recommended as a guiding indicator. It is calculated as the difference between gross savings and consumption of fixed capital (depreciation) and adjusting for changes in natural resource and environmental degradation such as the cost of air pollution damage to human health. A positive

value of ANS implies that the nation's wealth is increasing while a negative value denotes depletion of the nation's capital stock and future material well-being.<sup>43</sup> Recent estimates show that Guinea, Mozambique, Sierra Leone, and South Sudan registered a negative average ANS over 2015–19,<sup>44</sup> while Nigeria had zero ANS, and Ghana, Sudan, and Zambia registered positive values.

Botswana developed a reputation for prudent fiscal management of its mineral wealth, and other African countries can learn from it. As part of its efforts for sustainable development and economic stability, it implemented a Sustainable Budget Index (SBI), which is the ratio of recurrent (non-investment) spending to non-mineral revenues.<sup>45</sup> If the index equals 1, recurrent spending is financed partly by mineral revenues. A value less than one implies sustainability since non-recurrent revenue (mineral revenue) is being saved or spent on public investment in education.

As the world transitions toward a low carbon and green economy, Africa's fossil fuel reserves may risk becoming unusable or uneconomical.



This could result in a substantial loss of value and potential revenue. Stranding such assets due to the expected sharp decline in the demand for fossil fuels over the next three decades will reduce the viability of fossil fuel-rich countries' economies.<sup>46,47</sup> The extent of the effect will depend on how the risks associated with the transition are managed. It has been estimated that, depending on the global climate policy pathways, global fossil fuel wealth could decline by 13 to 18 percent over 2018–50.<sup>48</sup> Since low-income fossil fuel-rich economies are likely to face the brunt of the impact, African countries may have to convert their underground energy wealth to alternative assets such as human and produced capital and seek assistance to transition effectively.<sup>49</sup>

### **Opportunities in renewable resources**

Renewable resources replenish themselves over time and can generate benefits in perpetuity if the extraction rate does not exceed the reproduction rate. If the resources are extracted sustainably, their flow generates revenue streams (livelihoods, profits, and foreign exchange earnings) and is not capital depleting. So, it is important in supporting the livelihoods of several communities and Africa's economic development. There are two main reasons why such resources may generate less revenue than their potential: if the resources are not extracted at a level that generates the maximum economic rents, and if the resource-rich nation does not receive a fair share of the resource rents, especially when foreign capital is invested in the extraction of the resources. In nearly all African countries, renewable resources have excessive extractive capacity (over-capitalization) and are overexploited, with foreign direct investment contributing significantly to the problem. The overextraction is typically due to open access or common pool resource management practices.<sup>50</sup>

#### *Capture fisheries*

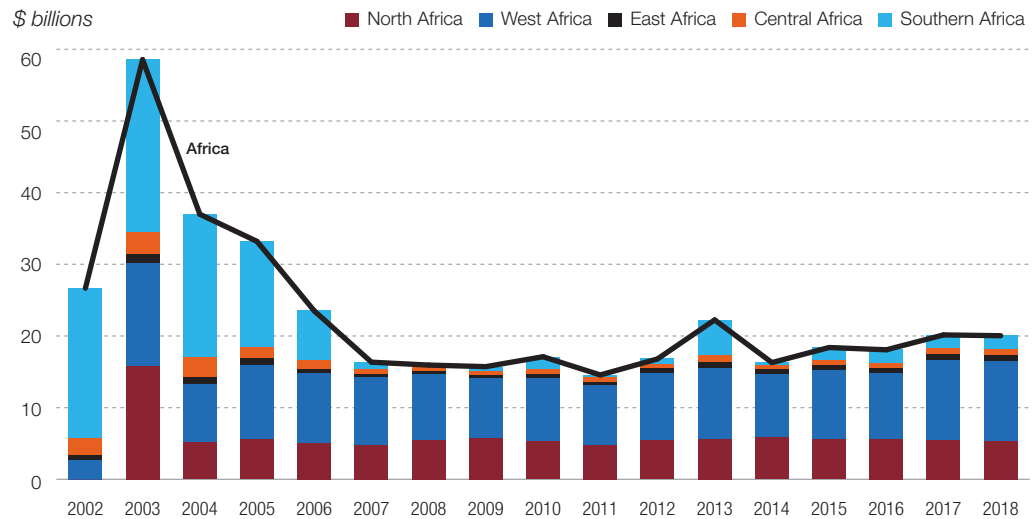
Africa's annual capture fish production is estimated at 10 million tons—about 7 million tons from marine fisheries and 3 million tons from inland fisheries.<sup>51</sup> Fish provides much-needed protein, minerals, and micronutrients for more than 400 million people on the continent. In Gambia, Ghana, and Sierra Leone, more than 60 percent of animal

protein comes from fish, and in Senegal, about 47 percent. Domestic fish protein consumption comes mainly (about 90 percent) from the landings of artisanal fleets. Approximately 13 million people are engaged in fishing, fish processing, and trading on the continent, with roughly 46 percent of them women.<sup>52</sup> Despite the potential of capture fisheries to generate these substantial benefits in perpetuity, it has been reported that 60 percent of wild fish stocks in Africa are fully exploited, while 30 percent are overexploited.<sup>53</sup> The three categories of fishing fleets are local small-scale fleets, which provide 90 percent of employment in the sector, industrial fleets with local and foreign ownership, and distant water fleets, are organized through access agreements with the coastal nation to fish within its exclusive economic zones.

Africa's fish stocks are, however, shrinking. The estimated value of fish stock fell from \$59 billion in 2003 to \$20 billion in 2008, during which Africa lost more than \$38 billion worth of its fishery's capital (figure 3.14). This is attributable to the low capture fish stocks due to biological overfishing. Key factors contributing to overfishing in Africa are overcapacity; illegal, unreported, and unregulated (IUU) fishing activities; poor resource governance; insufficient knowledge and misperception of biophysical dynamics; and climate conditions such as salinity, coastal upwellings, and sea level rise. Assessing the economic impacts of IUU activities is difficult. In West Africa, for example, despite the declining fish population, fishing capacity has increased by 50 percent since the 1970s,<sup>54</sup> and the annual cost of IUU fishing activities is as high as \$2.3 billion.<sup>55</sup> A recent study estimates a loss of between 2 and 3 million tons of fish per year (about 20 percent of total reported production) for all African countries, with a gross value of \$3–5 billion.<sup>56</sup> It estimates revenue losses for the industry at \$2 billion and tax losses for governments at a further \$1.5 billion.

A composite index recently developed to characterize the state of IUU fishing practices in global coastal African countries showed that Africa's coastal countries made just a marginal improvement from 2.39 to 2.32 between 2019 and 2021 on a score ranging from 1 to 5, where one is the best and five is the worst.<sup>57</sup> There are, however,

**FIGURE 3.14** The value of capture fisheries in Africa



Source: AfDB staff calculations using data from World Bank (2021).

The estimated value of fish stock fell from \$59 billion in 2003 to \$20 billion in 2008, during which Africa lost more than \$38 billion worth of its fishery's capital

variations across countries (figure 3.15). Mozambique made the best progress, while Eritrea regressed. Over the past decade, several bilateral and multilateral development partners have supported African states and their regional fisheries organizations in building capacity to combat IUU fishing. For instance, in 2014, the African Development Bank stressed the importance of increasing its commitment to protecting coastal waters from IUU fishing. Between 2016 and 2018, the Bank also supported several Central and West African countries in adopting and implementing the Port State Measures Agreement and has supported the Fisheries Transparency Initiative since its inception in 2017.

In addition to IUU fishing, access agreements tend to favor distant water fleets. By allowing foreign fishing fleets to access their waters, African countries could generate revenue that can be used to fund important social and economic programs. Fisheries access agreements typically apply to the contractual framework that allows industrial fishing vessels belonging to distant water fishing nations to fish in the waters of resource-rich third countries. In reality, most African nations are short-changed. Access agreements make foreign fleets prioritize short-term economic gains over long-term sustainability, hurting coastal communities' livelihoods. Distant water fleets also engage in IUU practices due to political corruption in resource-rich countries and their lack of

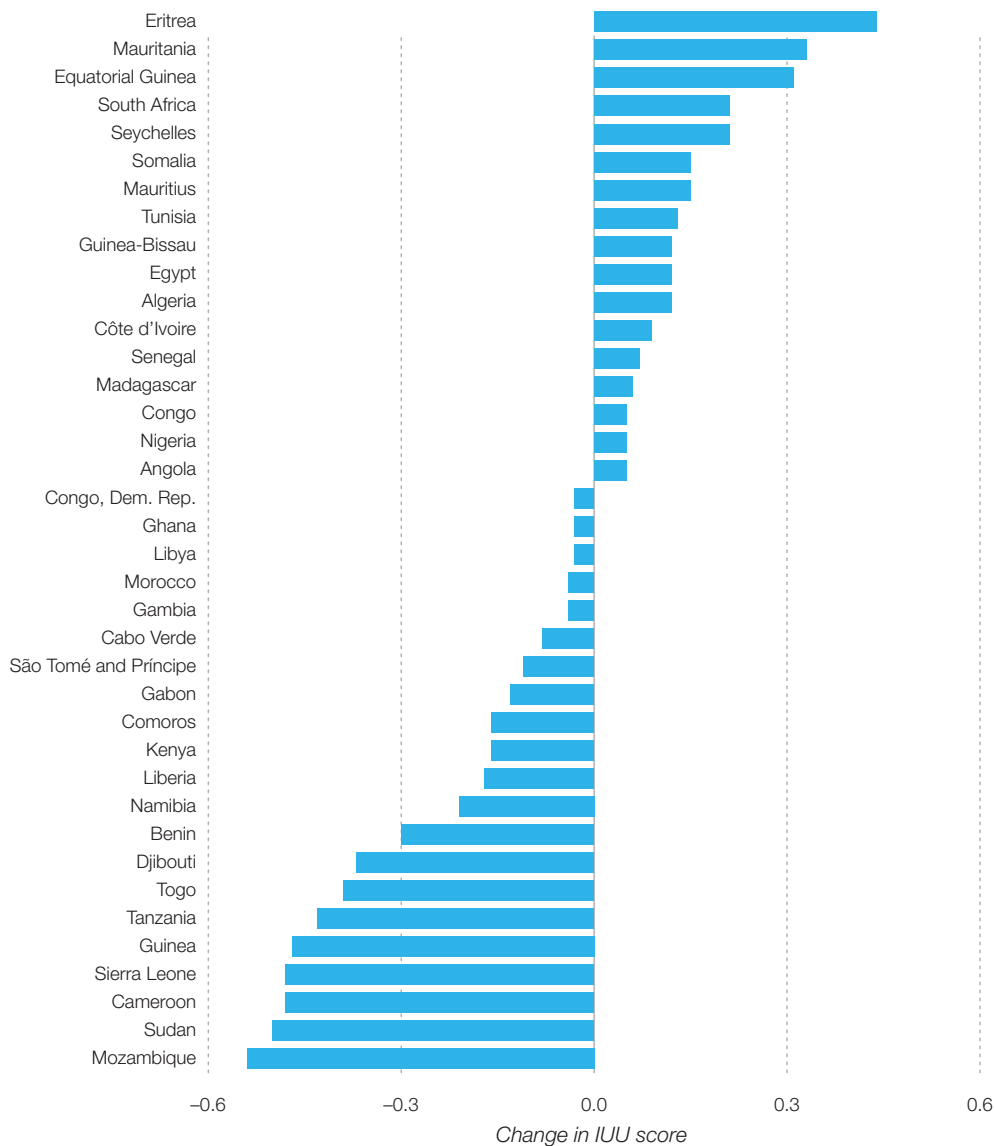
capacity and financial resources for monitoring, control, and surveillance.<sup>58</sup>

For fisheries access agreements to benefit African countries by generating more revenue and employment while also promoting sustainable fisheries management practices and protecting marine biodiversity, they should be structured in a way that the African countries receive a fair share of the economic benefits. They should include provisions for technology transfer and capacity building to enable African countries to develop their own fisheries sector and create jobs, which can consist of training in modern fishing techniques, equipment, and infrastructure development. They should prioritize sustainable fishing practices to ensure the long-term viability of fish stocks. They should include measures to monitor and enforce compliance with fishing regulations, including satellite tracking of fishing vessels, onboard observers, and penalties for non-compliance. And they should foster regional cooperation among African countries to address common challenges and develop a coordinated approach to fisheries management. This can include sharing data and best practices, joint research, and joint enforcement efforts.

#### Mangroves

In tropical and subtropical regions, coastal mangroves provide several economic and ecosystem benefits including carbon sequestration, flood protection, biodiversity conservation, and timber

**FIGURE 3.15** Changes in IUU scores between 2019 and 2021



Africa's coastal countries made just a marginal improvement in illegal, unreported, and unregulated fishing activities between 2019 and 2021

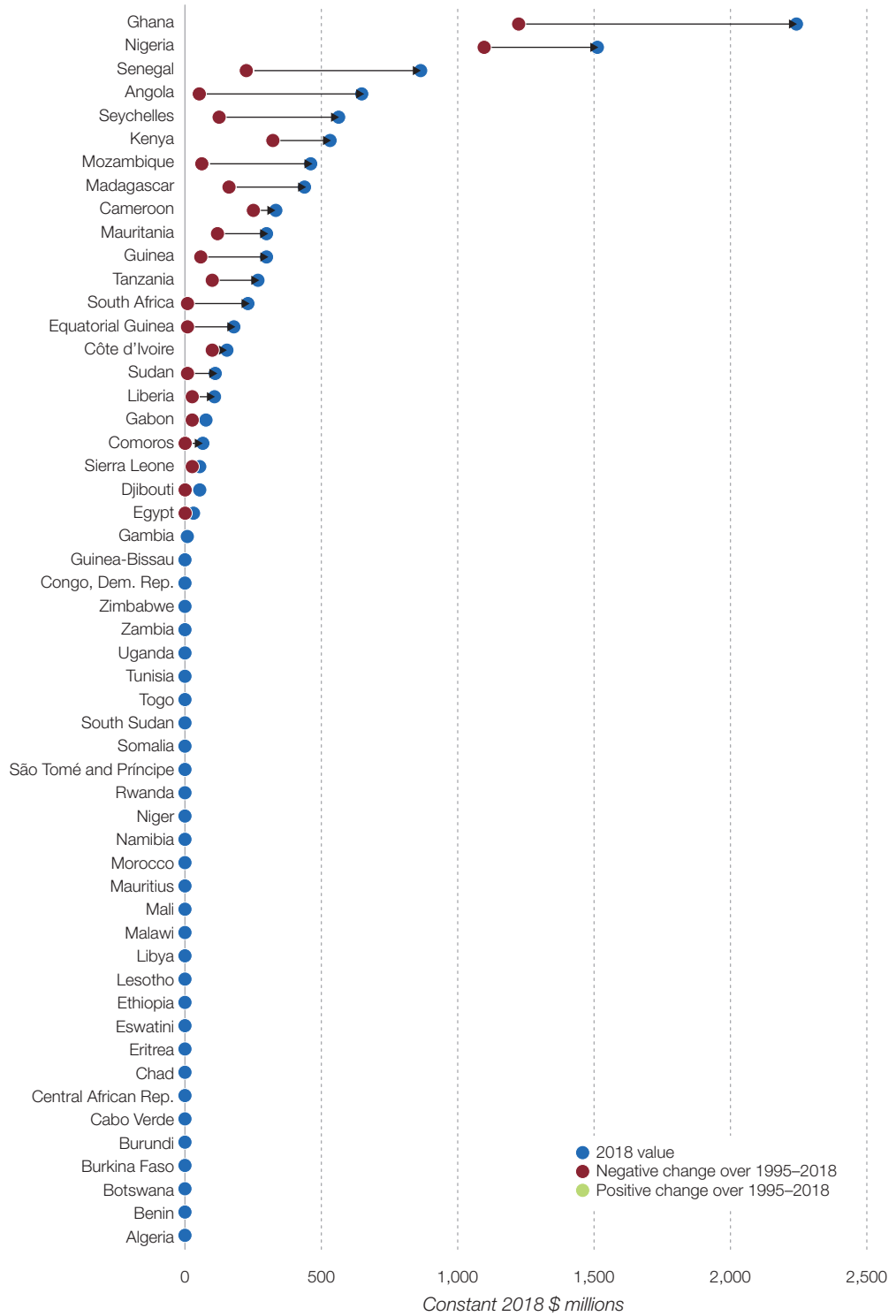
Source: Global Initiative against Transnational Organized Crime (<https://iuufishingindex.net/>).

and non-timber goods. The total mangrove wealth of Sub-Saharan Africa increased from \$3.7 billion to \$7.6 billion between 1995 and 2018. For African countries with consistent data from 1995 and 2018, Ghana registered the highest gain in mangrove value of \$975 million within the period (1995 to 2018) (figure 3.16). This is followed by Senegal (\$609 million) and Nigeria (\$386 million), while Egypt registered the lowest gain of \$28.7 million. These values are based on the size or extent of mangroves, its flood risk protection capacity, and the value of produced capital that could be damaged in the absence of mangroves<sup>59</sup> Although the

total mangrove area or extent decreased by about 2 percent over the period between 1995 and 2018 and less than 1 percent after 2010, its flood protection value increased by 150 percent within the period, generating a net increase in mangrove wealth.<sup>60</sup>

Mangroves are under threat of habitat loss and degradation from coastal development, pollution, and overexploitation as well as climate change and sea-level rise. The sea-level rise coupled with land-use changes and coastal development can impede the flow of freshwater and sediments, threatening mangroves. Strategies to protect them

**FIGURE 3.16** Changes in the value of mangrove wealth for African countries, 1995–2018



Source: AfDB staff calculations using data from World Bank (2021).

include establishing protected areas from fishing, logging, and any destructive practices, promoting sustainable forest management practices, promoting community-based management of the resource and providing alternative and supplementary livelihood options for local communities.

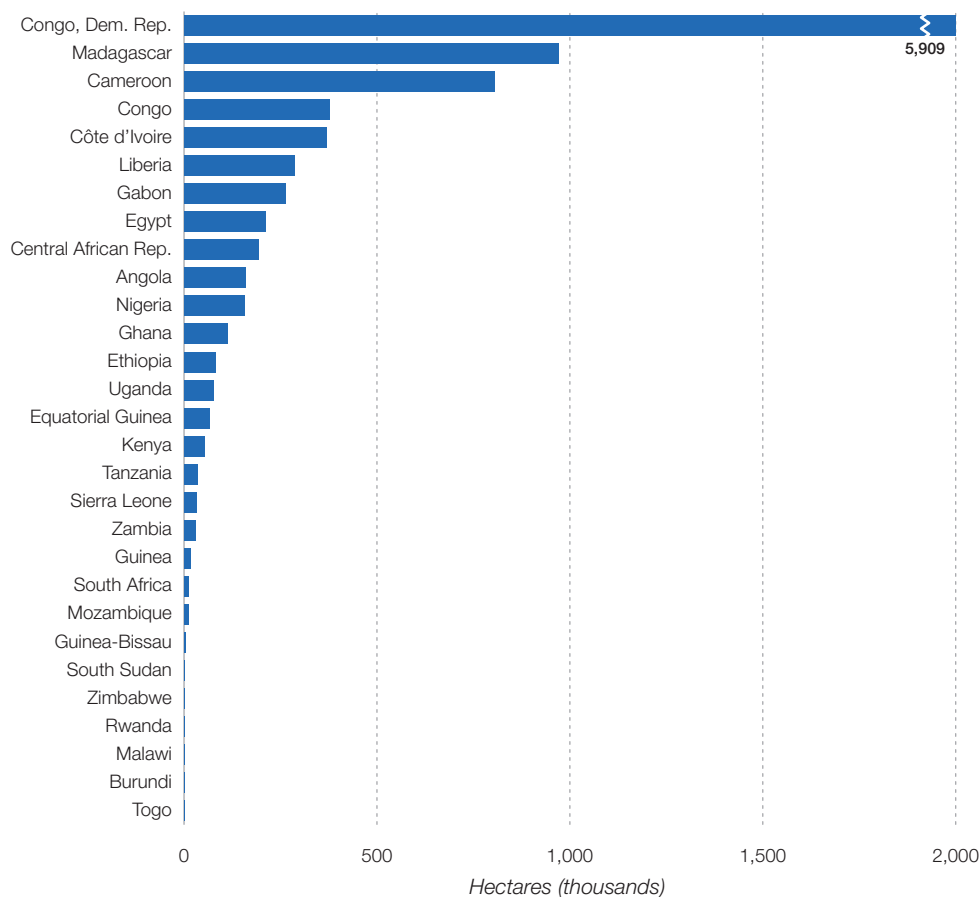
### Forests

Africa's forest cover is estimated at 637 million hectares or 23 percent of the continent's land area, and wooded landscapes and trees outside forests are estimated at 13 percent of land area or 350 million hectares.<sup>61</sup> Central Africa and Southern Africa are more endowed regions in forests than other parts of the continent. At the continental level, while forest products (timber and non-timber) contribute about 6 percent annually to GDP, the natural capital value of Africa's timber was about \$725.5 billion in 2018, up from

\$582.2 billion in 1995.<sup>62</sup> In addition to the forest timber wealth, the continent's forest ecosystem wealth increased from \$338.5 billion to \$374.1 billion between 1995 and 2018. As of 2018, Africa's total forest capital value (timber and ecosystem services) was about \$1.1 trillion. The Democratic Republic of Congo has the highest forest timber and forest ecosystem capital, valued at \$126.8 billion and \$51.1 billion, respectively. The gain in forest timber value—despite Africa's recording the highest forest loss in the world, estimated at 7.9 million hectares between 2001 and 2018—is likely due to rising timber prices.<sup>63</sup> The forest loss is equivalent to about \$9.0 billion in natural capital (timber value), using 2018 estimates. Between 2001 and 2021, the Democratic Republic of Congo recorded the highest forest cover loss, more than 5.9 million hectares due to illegal logging (figure 3.17).

Africa's forest cover is estimated at 637 million hectares or 23 percent of the continent's land area, and wooded landscapes and trees outside forests are estimated at 13 percent of land area or 350 million hectares

**FIGURE 3.17** Forest cover loss in Africa between 2001 and 2021



Source: AfDB staff calculations using data from World Bank (2021).

### BOX 3.1 Debt-for-nature swaps

Forest, biodiversity, and ecosystem services are derived from natural assets, and have the potential to finance climate change and green growth and support debt sustainability through innovative financing mechanisms like debt-for-nature swaps. A debt-for-nature swap (DNS) is a type of financial transaction in which a portion of a developing country's sovereign debt is forgiven in exchange for the country's commitment to conserve its natural resources. This type of arrangement is designed to encourage sustainable development and conservation efforts, while also helping countries to reduce their debt burden.

With Africa's rising debt stock coupled with the intense pressure to service its debts, DNSs presents an opportunity for marginal relief. Currently less than \$3 billion is spent on biodiversity conservation in Africa, while it is estimated that the continent needs about \$1.2 billion yearly to protect wildlife alone.<sup>1</sup> It is noteworthy that from 1989 to 2015, Africa was able to secure just about \$135 million in DNSs through bilateral and multilateral arrangements. Africa's total external debt in 2021 was estimated at \$1.09 trillion, which is about 39.5 percent of the continent's GDP. It is estimated that debt service payment in 16 African countries with data will be \$22.3 billion in 2023, \$25 billion in 2024, and \$26.8 billion in 2025. Although funds allocated to DNSs so far are very small, there are some benefits to the arrangement. If the environmental allocations are deployed to capitalize conservation funds, it could grow over time and lead to better environmental protection. And countries receiving such funds could have some budget flexibility owing to maturity extensions and reductions in interest on sovereign debts. The flexibility will enable the countries to borrow more for socioeconomic development.

While DNSs can be a powerful tool for promoting sustainable development and conservation in Africa, they are not without challenges. For example, there may be difficulties in ensuring that the conservation efforts are effective and that the benefits are distributed equitably among local communities. Additionally, there may be concerns about the potential impact of debt forgiveness on a country's credit rating and ability to access future financing.

#### Notes:

1. African Natural Resources Management and Investment Centre 2022.
2. African Natural Resources Management and Investment Centre 2022.

Protecting Africa's forests requires a multifaceted approach involving government policies, community engagement, and public education and awareness. Governments should promote and enforce policies and regulations, protecting reserve areas and preventing illegal logging, increasing enforcement and setting penalties for illegal logging. Sustainable forestry practices, such as selective logging practices and reforestation should be promoted to reduce deforestation. And promoting sustainable agricultural practices can reduce the need for farmers to clear new land for farming. Deforestation can also be slowed by raising public awareness through education campaigns, outreach programs, and media

campaigns about the negative impacts of deforestation and engaging local communities in managing protected forests.

One way to regulate excessive extraction and promote environmental compliance is through performance guarantee bonds, which give long-term cutting rights and the responsibility for sustainable forest management rest to a lessee through competitive bidding.<sup>64</sup> The schemes can be designed to enforce compliance with technology or performance standards. An alternative is to have a deposit refund (tax subsidy) mechanism where an individual pays the up-front bond but receives a bond repayment as a subsidy if actions are taken that result in an improvement above a

reference level. Performance bonds can effectively change the incentive structure and behavior of loggers,<sup>65</sup> making them an enforcer with stronger sanctions than just withdrawing concession. They can also reduce the burden and cost of monitoring. The benefit-cost ratio of protecting the African forests 3:1.<sup>66</sup>

Beyond generating revenue, Africa's forests and woods provide ecosystem services such as watersheds and stream-flow protection, controlling erosion, enhancing soil fertility, regulating the climate, and protecting biodiversity.<sup>67</sup> Tropical forests host at least two-thirds of the world's flora and fauna diversity and store 25 percent of the terrestrial carbon above and below ground.<sup>68</sup> So, sustaining this natural capital is critical. The natural capital value of Africa's forest ecosystems was estimated at \$374 billion in 2018, with Cameroon, Democratic Republic of Congo, South Africa, Tanzania, and Zambia accounting for 40 percent.

### *Ecotourism*

Ecotourism is growing in Africa, and many countries are promoting it as a means of sustainable development. The continent's unique natural assets—its iconic wildlife, mountains, waterfalls, rapids, majestic forests, unique bird populations, pristine beaches, and coral reefs—are a tremendous value that can be exploited to develop the tourism sector and contribute to job creation and livelihoods.

Its many biodiverse wildlife reserves and national parks offer nature enthusiasts an ideal destination. With a range of landscapes, from the expansive savannas of East Africa and Southern Africa to the lush rainforests of Central Africa and the deserts of North Africa, the continent is home to impressive scenery. Visitors observe exotic species, such as the Big Five (lions, elephants, leopards, rhinoceroses, and buffalo), in their natural habitat through game drives, hiking, and bird-watching safaris, as well as whale watching on the coasts and underwater observation and recreational fishing in the Red Sea and the Mediterranean. East and Southern Africa are the main destinations for nature-based tourism. For example, a fifth of employment in Namibia is linked to nature-based tourism. In Tanzania, mostly nature-based tourism is the largest foreign exchange

earner, competing with gold. Ecotourism has the potential to encourage economic growth and generate employment in rural areas and nature conservation communities. It can promote cultural exchanges between visitors and their host communities, leading to a greater appreciation of cultural differences. Revenue earned from ecotourism could be reinvested to enhance provisional ecosystem services derived from ornamental resources and wildlife tourism.

### **Opportunities in international agreements**

The limited benefits for Africa from past international agreements are in part attributable to countries' limited capacity to negotiate better positions,<sup>69</sup> to take stock of its resources, or to identify and communicate gaps for assistance. African countries also fail to negotiate for optimal benefits from their natural resources with private investors, partly due to the inability to carry out surveys to ascertain the value of resource reserves. In some cases, countries have imposed local content requirements without accompanying investments in local capacity to contribute to value addition. The Marrakesh Accords in 2001 were partly a response to the realization that while Africa needs international support, many countries cannot identify and communicate their capacity needs, hence the need for special treatment. Other institutions have also come on board to support capacity building among African countries to improve the continent's capacity to participate effectively in international agreements. As a result, many African countries are now calling for enhanced capacity that would support improved negotiations in international agreements.<sup>70</sup>

There is a great need for capacity development to implement the Convention on Biological Diversity. This was a key point on the agenda at the 15th Conference of Parties in Montreal in December 2022 and led to the decision to implement a long-term strategic framework for capacity-building and development. African governments have much to benefit from engaging in the implementation of this strategic framework.<sup>71</sup> Other initiatives include the Green Climate Fund (GCF), which, through the Readiness and Preparatory Support Programme, has been providing funding

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The limited benefits for Africa from past international agreements are in part attributable to countries' limited capacity to negotiate better positions, to take stock of its resources, or to identify and communicate gaps for assistance

Prices on emission reductions in compliance markets are much higher than in voluntary markets—a compelling reason for African countries to focus on compliance carbon markets under the Paris Agreement

to support developing countries in building their capacity to access GCF funding. Africa continues to be the leading beneficiary of this fund.<sup>72</sup>

#### Trade in carbon credits under the Paris Agreement

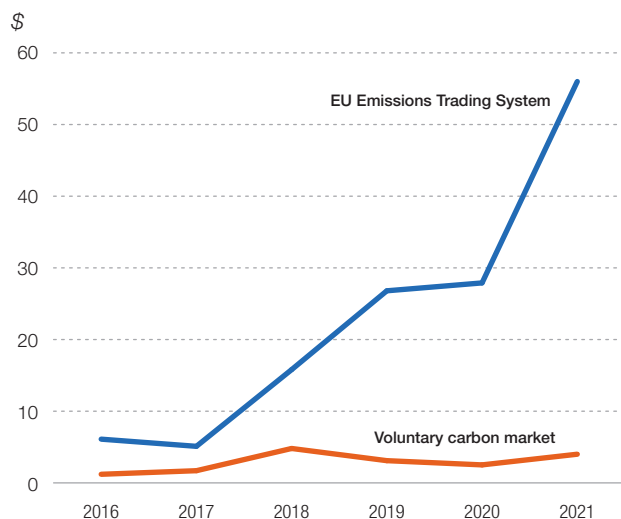
Prices on emission reductions in compliance markets are much higher than in voluntary markets—a compelling reason for African countries to focus on compliance carbon markets under the Paris Agreement (figure 3.18). The wedge between compliance and voluntary markets is widening. In 2017 it was just \$3.41 per metric ton of emissions, but in 2021 it was \$52 per metric ton. So, there is much to gain for African governments to invest in proper MRV procedures under the Paris Rulebook and develop mechanisms to benefit from trade under the Paris Agreement’s Article 6.

The potential cost reductions through trade in carbon credits instead of each country implementing its NDCs on its own are about \$250 billion annually in 2030 and \$1 trillion annually in 2050.<sup>73</sup> Thus, creating “internationally transferred mitigation outcomes” (ITMOs) could be a huge gain for African countries.<sup>74</sup> Southern Africa region

has the lowest expected marginal cost for abatement, and South Africa has the highest marginal abatement cost, so the potential to trade in ITMOs is not evenly distributed across African regions and countries (figure 3.19, panel a). But Africa as a whole could be a net seller of emission credits (figure 3.19, panel b).<sup>75</sup> Sales could amount to 881 MtCO<sub>2</sub>e per year by 2030 and a cumulative 18,124 MtCO<sub>2</sub>e by 2050, estimated at a total value of \$1.5 trillion. Countries in North Africa and South Africa would buy emission credits. But a more realistic outcome would be for these countries to negotiate international agreements to support their mitigation efforts, as with the International Just Energy Transition Partnership with South Africa at COP 26 in Glasgow that mobilized an initial \$8.5 billion to support the decarbonization of the South African economy.<sup>76</sup> The negative financial volumes, estimated to be \$411 billion cumulatively by 2050, should thus be interpreted as the international financial support needed for mitigation in these countries (figure 3.19, panel c). Africa could be a major actor in the early period, particularly for sales, but this would ebb over time. The early potential is primarily in land use, land use change, and forestry, while various forms of technical sequestration, such as carbon capture and storage, are expected to increase in the future (figure 3.19, panel d).

The Great Green Wall Initiative also provides funding opportunities for carbon sequestration through tree plantation. This initiative, started more than a decade ago by GEF and the World Bank primarily as a tree planting project, is now supported by international conventions (UNCCF, UNCCD, CBD) and initiatives (Bonn Challenge and AFR100 for landscape restoration). The initial vision has been updated to now focus on “integrated approaches to natural resource management for transforming livelihoods and landscapes.”<sup>77</sup> In January 2021, during the One Planet Summit, President Emmanuel Macron of France and other world leaders announced the launch of the Great Green Wall Accelerator, which has since raised more than \$19 billion.<sup>78</sup> The objectives are to restore 100 million hectares of currently degraded land, sequester 250 million tons of carbon, and create 10 million green jobs by 2030.<sup>79</sup> The initiative benefits 11 countries in the Sahel (figure 3.20).

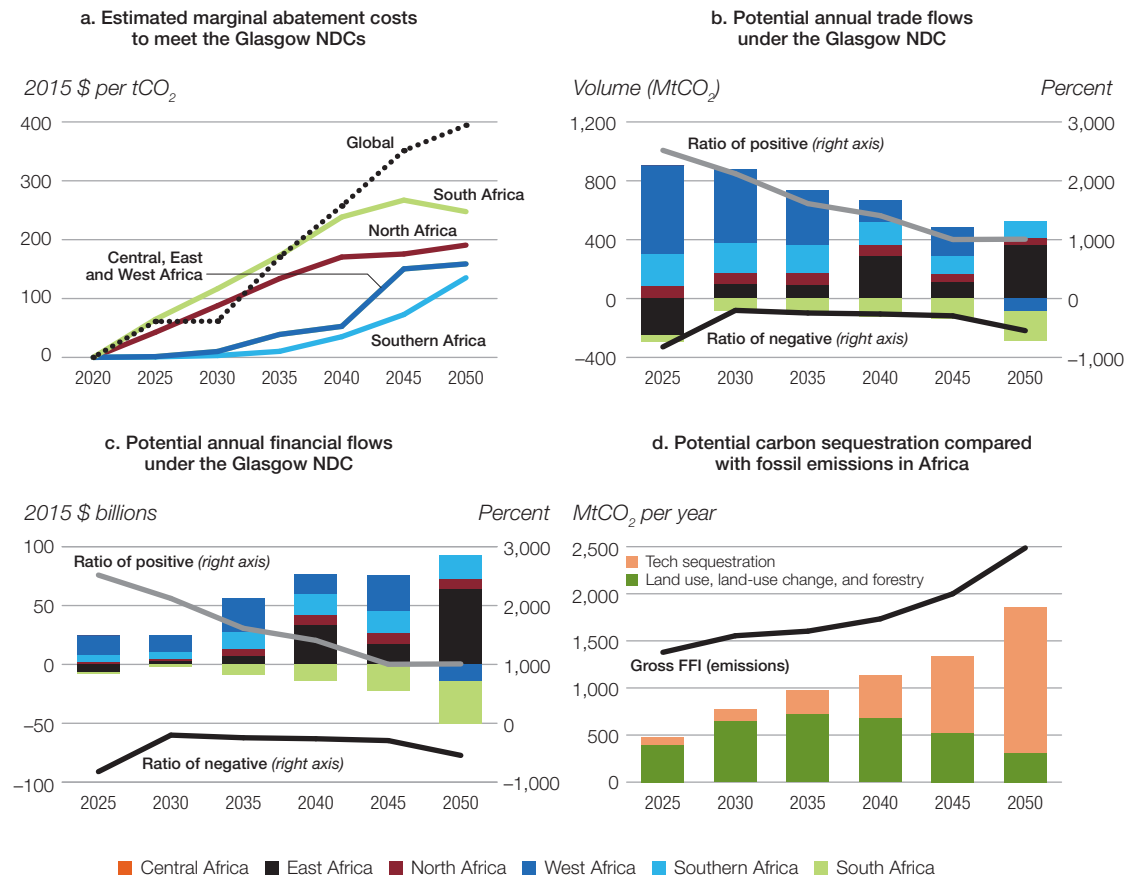
**FIGURE 3.18** Prices per ton of emission reductions in the EU Emissions Trading System and in voluntary markets, 2016–21



Source: EU Emissions Trading System mid-year values are from <https://carboncredits.com/carbon-prices-today>; voluntary carbon market values are from Ecosystem Marketplace annual reports (<https://www.ecosystemmarketplace.com>).



**FIGURE 3.19** Potential emission and financial transfers based on the cooperative implementation of universal net-zero CO<sub>2</sub> emission pathways



Note: Estimated marginal abatement cost for East Africa, West Africa and Central Africa are identical (averaged). FFI is CO<sub>2</sub> emissions from fossil-fuel combustion and industry.

Source: Data from International Emissions Trading Association (IETA) and the University of Maryland related to IETA (2021).

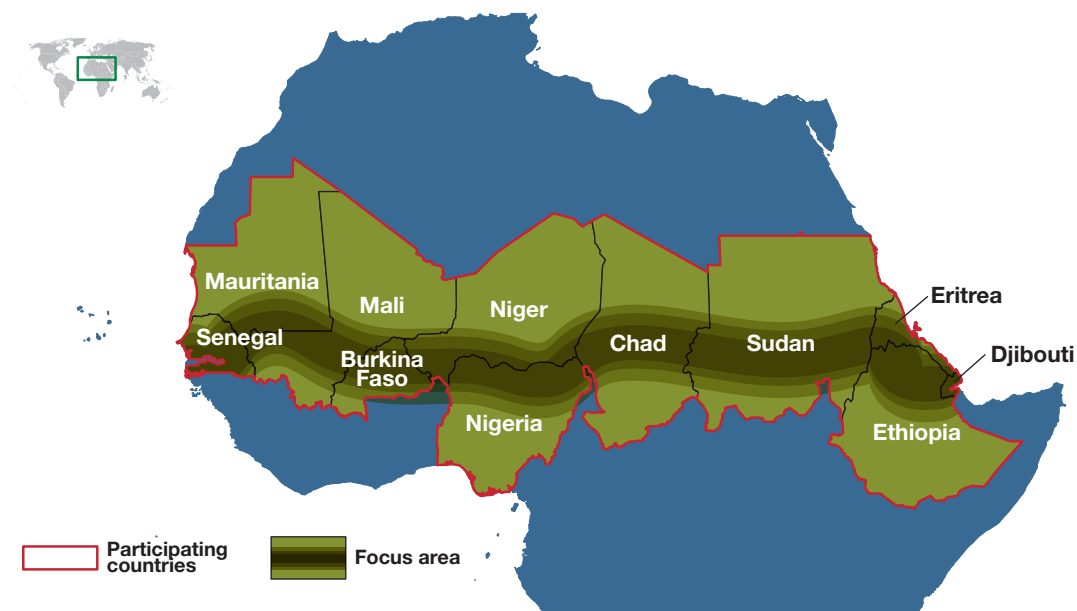
**Opportunities from the European Union Carbon Border Adjustment Mechanism (CBAM)**

A closely related issue to trade in carbon emission permits is trade in goods produced emitting CO<sub>2</sub>. The European Union has committed to a low-carbon transition by cutting emissions by 55 percent by 2030 and to net-zero by 2050. To make this happen, the European Union has, among other measures, an emissions trading system (EU-ETS) that makes it increasingly expensive for European industries to emit CO<sub>2</sub>. But cleaner European goods could be replaced by imported goods from highly emitting economies. To restrict this, the European Commission in June 2021 proposed that the carbon content of imports be taxed through a Carbon Border Adjustment

Mechanism (CBAM). This was confirmed in a high-level agreement by the European Council of States in March 2022, and the European Parliament amended the proposal before adopting it in June 2022.<sup>80</sup> The CBAM will be limited to aluminum, cement, electricity, fertilizers, iron and steel, hydrogen, plastics, and organic chemicals. Importers need to present third-party verifiable emission factors. Otherwise, a default emission factor will be applied, equivalent to the emission intensity of the dirtiest 10 percent of producers in the EU. The price of the embedded carbon will be the same as for carbon emission permits bought at the EU-ETS.<sup>81</sup>

The European Parliament’s Amendment 40 states that “the Union should finance least

**FIGURE 3.20** Country coverage of the Great Green Wall Acceleration



Source: Global Environment Facility 2022.

The Great Green Wall Initiative provides funding opportunities for carbon sequestration through tree plantation in 11 countries in the Sahel

developed countries' efforts toward the decarbonization of their manufacturing industries with an annual amount corresponding at least to the level of revenues generated by the sale of CBAM certificates."<sup>82</sup> This implies that Africa has the potential to benefit from the CBAM if its industries in the relevant sectors adopt the third-party verification of emission factors at the same time as the continent benefits from European Union climate finance. One promising avenue is through investment in green hydrogen (box 3.2).

#### *The COP27 Loss and Damage Fund*

COP 27 in Sharm El-Sheikh, Egypt in 2022 agreed on the creation of a Loss and Damage Fund for vulnerable countries. The Fund aims to provide financial assistance to developing countries that are most affected by the losses and damages of climate change, such as rising sea levels, higher temperatures, and extreme weather events. It will complement mitigation efforts to avert impacts from climate change and adaptation measures to minimize the adverse effects of climate change. Vulnerable countries face significant economic and social costs associated with climate change, such as crop failures, loss of biodiversity, and displacement of communities (figure 3.21). The

expectation is that principles of solidarity and common-but-differentiated responsibility will guide the Fund's operation. The way the Fund distributes funds should be guided by vulnerability criteria, and projects should be locally driven. To ensure that the Fund supports the most vulnerable countries and communities, it needs to be managed transparently and accountably.

#### *The Convention on Biological Diversity*

Another international agreement closely related to the African natural resource base is the Convention on Biological Diversity (CBD). The most prominent funding mechanism for CBD that African countries can benefit from is managed by the Global Environment Facility. For example, GEF-6 programming for the biodiversity focal area was about \$1 billion over a period of four years, 2014–18. Findings from the GEF-6 and GEF-7 programming cycles indicate that programs addressing the drivers of environmental degradation using an integrated framework result in more impact per unit of investment than comparable GEF investments and create the conditions for transitions towards lasting systems transformation.

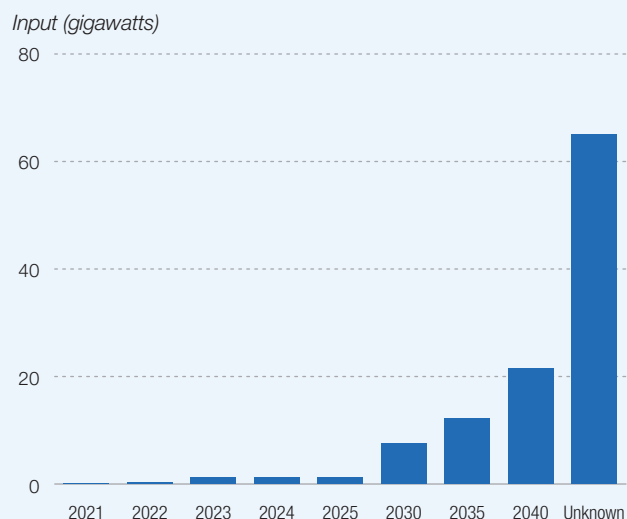
Recently, the GEF-8 Integrated Programming was set in motion to invest in projects designed

### BOX 3.2 Can Africa become the new green hydrogen El Dorado?

Can Africa become an El Dorado in the new green economy?<sup>1</sup> The global transition to lower-carbon energy sources places renewables and green hydrogen as alternatives to fossil fuels. Green hydrogen consumption is expected to grow significantly over the next decades as transport (such as aviation and shipping) and heavy industry (such as steel, aluminum, cement, and chemicals) decarbonize. Box figure 3.2.1 shows the expected cumulative power-to-X capacity of green projects in Africa and the Middle East per year.

Considering the renewable energy potential of many African countries, green hydrogen presents a great opportunity for the continent to transform its energy and economic sectors. And as a source of green hydrogen, Africa has the potential to emerge as a cost-effective worldwide supplier. Africa has a large land mass of sunlight for green power production. Egypt, Mauritania, Morocco, Namibia, Niger, and South Africa are planning large-scale hydrogen projects, and the momentum is building (box figure 3.2.2). Collaboration between the European Union and interested African parties would facilitate progress toward country and company-specific plans aligned with 2050 net-zero emissions targets.

BOX FIGURE 3.2.1 Cumulative power-to-X capacity



Note: The chart presents the annual expected cumulative capacity of green hydrogen projects in Africa and the Middle East. The Unknown category refers to projects with no disclosed commissioning date. The African projects with a disclosed capacity represent 37 percent of the Unknown cumulative capacity.

Source: IHS Markit 2022.

BOX FIGURE 3.2.2 African green hydrogen projects and renewable power plants

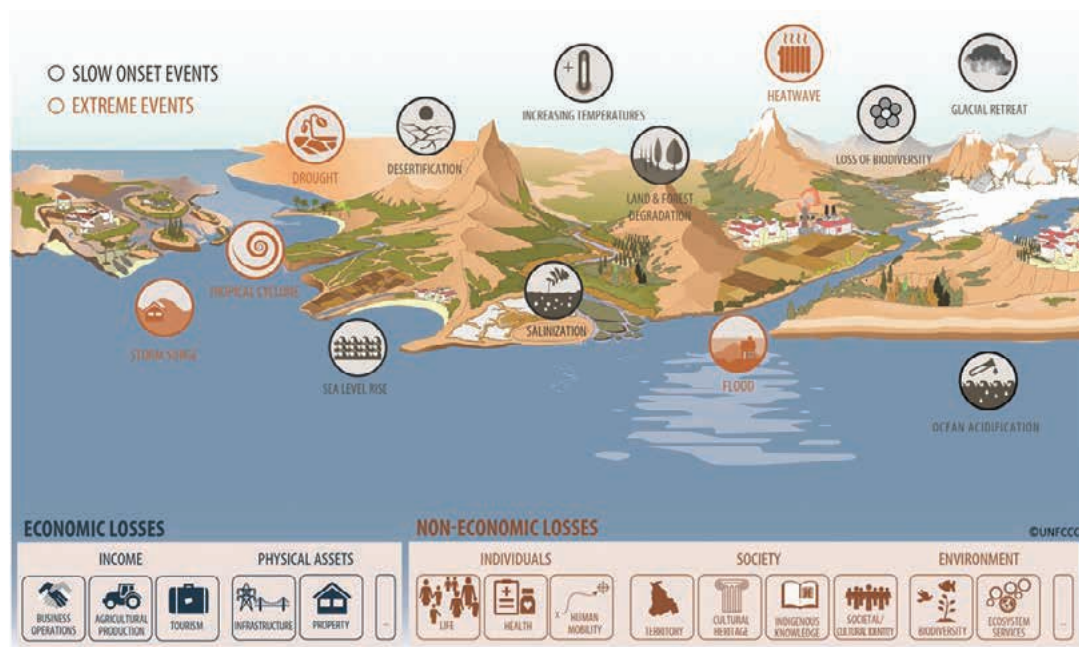


Source: IHS Markit 2022.

Note:

1. An El Dorado is a place where advanced science can be applied and contribute to improving the environment.

**FIGURE 3.21** Losses and damages associated with climate change



Source: UNFCCC (<https://www.climateforesight.eu/seeds/loss-and-damage/>).

Vulnerable countries face significant economic and social costs associated with climate change, such as crop failures, loss of biodiversity, and displacement of communities

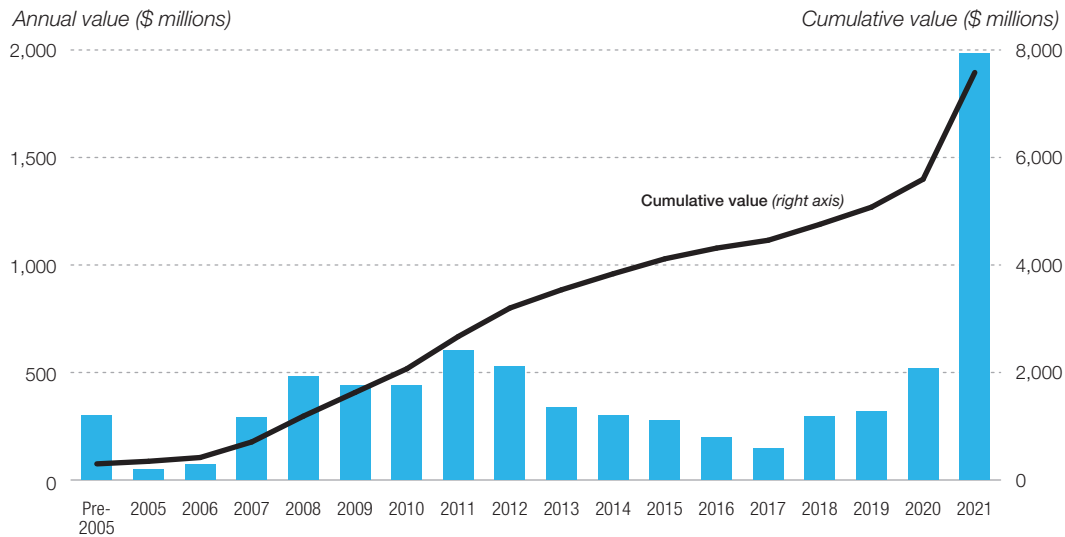
by countries to address specific objectives and integration across sectors, thematic areas, and drivers. Strategic partnerships, with specialized organizations, such as inter-agency collaboration under a proposed GEF-8 Greening Transportation Infrastructure Development Integrated Program, are required to leverage the expected resources to support integrated planning for nature-positive and climate-resilient systems. The CBD's 15th COP in Montreal in December 2022 adopted the Post-2020 Global Biodiversity Framework (GBF), with an ambition to mobilize at least \$200 billion per year by 2030. To increase international biodiversity financial flows to developing countries and economies in transition will require at least \$20 billion per year by 2025 and at least \$30 billion per year by 2030. For Africa to realize benefit from such arrangements, there may be a need to establish an Africa Biodiversity Fund to attract private capital.

#### *Voluntary carbon markets*

While carbon trade under the Paris Agreement's Article 6 is linked to countries' NDC compliance, other actors—such as large corporations are also pledging to compensate for their CO<sub>2</sub> emissions—opted for the Post-2020 Global Biodiversity

Framework (GBF), with an ambition to mobilize financial resources for implementation. In addition to the current \$150 billion, an extra \$800 billion from private investment (about 0.7 percent of global GDP), plus at least \$60 billion from public finance is required, per year, to implement the GBF, to scale up ecosystem restoration, reduce the extinction risk of species, and protect 30 percent of land, freshwater and marine areas by 2030. For Africa to benefit from such arrangements, it may be to establish an Africa Biodiversity Fund to attract private capital. To service this demand, many project developers that offer a range of greenhouse gas emission offsets have emerged, many of them nature-based solutions (NbS) related to forestry and land use, agriculture and soil sequestration, and blue carbon. While African voluntary carbon markets are growing slightly faster than global markets,<sup>83</sup> their combined market share is only about 15 percent of the global voluntary carbon market in 2021.<sup>84</sup> This could change. According to the African Carbon Markets Initiative (ACMI), the potential for African carbon credits is estimated at about 2,400 MtCO<sub>2</sub> in 2030, with a value of up to \$50 billion.<sup>85</sup> The ACMI was launched at COP27 with the ambition to produce 300 million carbon

**FIGURE 3.22** Market size by traded value of voluntary carbon offsets



Source: Ecosystem Marketplace 2022.

credits annually by 2030 and 1.5 billion credits annually by 2050, unlock \$6 billion in revenue by 2030 and more than \$120 billion by 2050, and support 30 million jobs by 2030 and more than 110 million jobs by 2050.<sup>86</sup>

As with MRV for compliance markets, it is important to ensure the integrity of certification of voluntary carbon markets. Certification standards have been criticized for being too generous in their calculations of the additional sequestration from carbon project implementation. There are also concerns about leakages and the impermanence of sequestration. All these concerns can be addressed if state-of-the-art methods are used for certification.<sup>87</sup>

Managed by the African Development Bank, the Adaptation Benefits Mechanism (ABM) is an innovative mechanism for mobilizing new and additional public and private sector finance for enhanced climate change adaptation action. It is a results-based, nonmarket finance mechanism that channels resources to projects enabling communities, economies, and ecosystems to adapt and build resilience to the negative impacts of climate change. Climate finance needs for adaptation are estimated between \$249 and \$407 billion in 2020–30.<sup>88</sup> But adaptation finance flows to the continent are well below what is desired, with an average of \$19 billion in total climate finance in 2017–18,

and only a small portion allocated to adaptation. So, leveraging untapped private sector resources is crucial to filling the adaptation financing. To this end, the ABM has been piloted by the African Development Bank since 2019–23 (box 3.3).

The ABM creates an incentive for private sector investments in adaptation projects by facilitating payments upon delivery of certified adaptation benefits, thereby generating a new and additional source of revenue for adaptation. ABM de-risks and incentivizes investments by certifying the social, economic, and environmental benefits of adaptation activities. The value of adaptation action captured in these certificates, including the incremental costs of generating the benefits, is promoted to potential investors and lenders. A major ABM contribution is that it verifies certificates of the benefits of specific adaptation activities based on sound methodologies. Since this is done in consultation with stakeholders and with the approval of the host government, it can increase the credibility of the adaptation activities and their attractiveness to potential investors and lenders.

### Governance of natural resources in Africa

Despite substantial natural resource endowments, many African countries have been unable to fully harness their potential for economic

Managed by the African Development Bank, the Adaptation Benefits Mechanism is an innovative mechanism for mobilizing new and additional public and private sector finance for enhanced climate change adaptation action

One of the challenges to good governance in natural resources in Africa is that the ruling political elites, and other domestic actors with influence, have control over who has access to resource rents

### BOX 3.3 Recent green initiatives of the African Development Bank

The African Development Bank (AfDB) established the Africa Financial Alliance on Climate Change (AFAC) in 2018 as a platform to engage Africa's financial sector to de-risk and direct capital flows toward low-carbon and climate-resilient investments. AFAC is a network of African financial institutions whose mission is to mobilize and direct private capital flows toward Africa's continent-wide low-carbon and climate-resilient development. It is designed to promote climate action through knowledge sharing, climate risk-mitigating financial instruments, climate risk disclosure, and mobilizing climate finance. This mission is envisioned by ensuring that current and future financial risks and opportunities are integrated into investment decision making.

Current global efforts to address climate vulnerability and debt distress in developing countries and the lessons from COVID-19 have reinforced the case for a strengthened AFAC to crowd in the resources to transition Africa to a sustainable future. The finance sector stakeholder consultations at COP27 in November 2022 provided a unique opportunity to advocate for enhanced support for the African financial sector to enable it to play its full part in the transition to green growth and to have its voice heard in the global discourse on climate risk management and climate finance.

The African Green Bank Initiative (AG3F) launched at the COP27 supports the Bank's objective of increasing the climate finance available for the continent from the 3 percent to 10 percent and turn the \$2.8 trillion in NDC implementation needs by 2030 into investments opportunities. The initiative is built on the model of local specialized financing vehicles deploying blended financing using small portion of public resources for large private capital mobilization. It is supported by strategic partners such as the Climate Investment Funds, one of the major global climate finance mechanism, Canada Climate Action Africa, the Green Bank Network, and the European asset management firm Amundi. Amundi backs the initiative through technical assistance activities. It will also mobilize its investment vehicles dedicated to sustainable development in emerging markets and developing economies to support green facilities' capitalization and thus participate in developing green investments across the continent.

A pilot phase to provide technical assistance to governments and financial institutions to design and set up Africa's first Green Finance Facilities is planned, with initial discussions held with Banque Nationale d'Investissement de Côte d'Ivoire and Caisse des Dépôts et Consignations du Bénin. For its pilot phase, the AG3F aims to mobilize \$10 million for the technical assistance and \$90 million to support capitalization.

In 2020, the AfDB and the Green Growth Knowledge Partnership joined forces with the World Wide Fund for Nature and the Economics for Nature team to launch the Natural Capital for African Development Finance initiative to lay the foundation for mainstreaming natural capital in African development finance. Throughout the last few years, we have worked through key activities, including generating evidence for integrating natural capital into AfDB's development finance operations, prioritizing the role of natural capital in Africa's post-COVID-19 recovery, and convening peer signatory MDBs to develop a common vision for mainstreaming nature-based solutions in support of the MDB Joint Nature Statement released at COP26 in 2021.

transformation and sustainable development. Using natural resources that allow sustainable revenue flows and promote development while safeguarding the environment will spur sustained, inclusive, and green growth, thus strengthening economic resilience and regional integration. The

flow and amount of natural resource rents are affected by the bargaining between host countries and multinational companies. But many African governments are not well equipped to negotiate with large foreign private investors because of weak bargaining and institutional capacity. So,

deals between host countries and companies are often opaque. This lack of transparency can lead to agreements that ultimately reduce the rents available for development.

In many resource-rich countries, including those in Africa, resource rents have resulted in fierce contests between ruling elite factions in creating, capturing, allocating, and distributing the rents. This contestation has fueled a web of patronage networks competing for rents, leading to inefficient and unproductive use of natural resource rents.<sup>89</sup> One of the challenges to good governance in natural resources in Africa is that the ruling political elites, and other domestic actors with influence, have control over who has access to resource rents. This can marginalize others from resource revenue distribution and sometimes lead to a narrow nationalistic agenda—and at times ethnic and civil strife. There has also been a trend for natural resource rents to be externalized, with illicit flows perpetrated by powerful local elites collaborating with foreign companies.

Proper management of natural resources does not automatically reduce poverty or sustain development. It needs conducive political, institutional, and governance environment that empowers the poor, women, and marginalized groups to share the rents. For countries to maximize the capture and use of rents from natural resources, they have to establish the necessary laws and regulations, strengthen knowledge and information sharing, ensure functional institutions, and have transparent decision making to govern natural resource extraction.

#### *Manifestations of the resource curse*

Extractable resources are not only blessings—they can also be a curse depending on their governance.<sup>90</sup> Many resource-rich nations experience slow growth, are caught in a resource dependency trap, and struggle to diversify their economies. Resource extraction can create enclave economies and fail to link the resource sector with the rest of the economy. This leads to poor economic performance, debt crises, and high poverty, which can foster authoritarian regimes.<sup>91</sup>

The political aspects of poor management of natural resource rents are associated with weak governance and state intervention. Rents are

captured by a small section of the ruling class and their associates, fueling corruption and conflict.<sup>92</sup> Increased natural resource rents can also provide governments with opportunities and incentives to pay off political supporters to stay in power. Since being in power means having access to resource rents, politicians are willing to spend more today to stay in power tomorrow. By paying off their constituency—or investing in “security”—instead of delivering reforms, natural resource rents may weaken the accountability of governments to their citizens.<sup>93</sup> Countries that have avoided the resource curse managed to do so because of successive governments with a long-term vision that puts the national interest at the heart of natural resource extraction.<sup>94</sup>

#### *Taxonomy of leakages*

Africa has lost more than \$1 trillion in illicit flows over the last 50 years,<sup>95</sup> and it will likely still lose about \$89 billion annually.<sup>96</sup> The money lost through various leakages is more than the total of foreign direct investments and overseas development assistance in Africa. Mining, oil, and gas remain particularly prone to leakages: of \$1.2 trillion accrued from selling oil, gas, and minerals, only 22 percent of the proceeds end up in national treasuries.<sup>97</sup>

Africa also loses significant revenue from its natural resources from tax avoidance. The Tax Justice Network<sup>98</sup> estimated that Africa lost \$17.1 billion in 2021 due to tax evasion alone. This amount represented the equivalent of a third of public health budgets in the midst of the COVID-19 pandemic. Similarly, an IMF study shows that tax avoidance by multinational extractive companies costs African countries up to \$750 million a year.<sup>99</sup>

#### **Increasing the contribution of natural capital to green growth transitions**

In many African countries, the governance of natural resources is impaired by the conflicting mandate of various government institutions and departments. Some of these institutions are involved in multiple and often conflicting functions such as policymaking, regulation, licensing, and commercial aspects that need to be separated. This separation would create special authorities

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In many African countries, the governance of natural resources is impaired by the conflicting mandate of various government institutions and departments

For African countries to make the most of local content policies in natural resources, the policies should be integrated with national industrial and economic policies to facilitate linkages with other sectors of the economy

to regulate and monitor various natural resources and special departments responsible for policy matters, leaving state-owned enterprises to focus on commercial aspects across the natural resource value chain.

However, the process of separating policy, regulation, and commercial functions of institutions will play out differently in various countries and may lead to mixed results depending on the technocratic capacity. Building up new regulatory authorities, commercial entities, and policy divisions requires a lot of capacity, may take time, and investment in human capital and high-level political backing. While the separation of the government's policy, regulatory and commercial functions is critical, context matters.<sup>100</sup> For such reforms to succeed, it is crucial to understand the political conditions that make well-delineated institutions thrive.

#### *Natural capital and sovereign credit risk factors*

In addition to the high perceived risks in African markets, the dependence on natural resource wealth in Africa makes an easy case for the integration of natural capital in credit risk profiles to earn higher scores by rating agencies. African countries should earn a better rating on account of the rich natural capital on the continent. Today, the rich natural capital of the African countries is not reflected in their creditworthiness by rating agencies and thus do not influence their borrowing costs. Instead, credit rating methodologies consistently overemphasize political risk, at about 50 percent of the composite rating.<sup>101</sup> And while the qualitative factors are judged purely based on the ideology of the credit analysts, their perception of the political institutions in Africa is generally negative.<sup>102</sup>

Credit ratings assigned by the world's three dominant credit rating agencies—Moody's, Standard & Poor's, and Fitch—determine the government's access to international capital markets.<sup>103</sup> Decades ago, sovereign credit risk factors had included the rule of law, control of corruption, government effectiveness, regulatory quality, voice, and accountability, political stability, transparency, and ease of doing business.<sup>104</sup> However, recently, Environmental, Social, and Governance (ESG) factors have become a part of the risk mitigation process, and credit rating agencies have adapted their methodologies to explicitly include

ESG factors, which predominantly reflect long-term issues, in their rating. Indicators reflecting environmental issues have become very relevant in sovereign credit ratings. So, there is scope for the current rating approach to reflect natural capital in sovereign credit rating methodologies.

Many factors related to a country's long-term sustainability—such as mineral wealth, natural gas, and forest capital—should be mainstreamed in sovereign credit assessments. Integrating natural capital in sovereign credit ratings is still at its nascent stage, with a focus on qualitative assessments, and can be further enhanced with a more quantitative assessment.

#### *Local content, value addition, capacity needs and regional integration*

To capture more value and maximize benefits from natural resources, many African countries have local content regulations. Their popularity is based on the premise that once these regulations are in place, countries will be able to foster linkages, create direct and indirect local jobs and capture more revenues across the natural resource value chain. But existing local content policies have not been realistic enough about local capacity. As a result, many countries struggle to engage with foreign investors and fail to adopt frontier technologies from multinational companies.

For African countries to make the most of local content policies in natural resources, the policies should be integrated with national industrial and economic policies to facilitate linkages with other sectors of the economy. African countries must embrace green industrial policies to encourage structural transformations toward opportunities from natural resource booms, energy transitions, and global decarbonization efforts. For example, the projected rise in demand for critical minerals (cobalt, copper, lithium, nickel, graphite, and manganese) and green hydrogen and associated value chains could be integrated into the design of medium to long-term development and industrial policy planning. A Pan-African vision will be needed to coordinate such efforts. Realistic policies would allow strategic partnerships with state-owned enterprises and foreign investors, foster innovation, and create a conducive environment for African-owned firms to emerge and thrive.



Countries should also explore franchising agreements with foreign firms to complement local content policies and requirements, especially where capacity (both technical and financial) is lacking, as in many local firms and state-owned enterprises. The potential for franchising is huge, but many countries have overlooked it. So, negotiations under the AfCFTA should include opportunities offered by franchising to boost continental trade. To maximize the benefits of franchising, countries must identify specific capacity gaps and opt for franchising models that suit their contexts.

Regional integration will help countries to trade and learn from each other to build sustainable battery and electric vehicle value chains.<sup>105</sup> The geographical spread of minerals needed in the battery value chain limits what individual governments can do without regional cooperation. Cobalt-rich Democratic Republic of Congo does not have all the resources needed to add value and develop an effective battery value chain. It will require a range of minerals from other African countries, including copper from Zambia (which also produces cobalt), graphite from Mozambique or Tanzania, lithium from Zimbabwe, and manganese from Madagascar or South Africa. The recent memorandum of understanding among the United States of America, the Democratic Republic of Congo, and Zambia on support for the development of an open and transparent electric vehicle supply chain exemplifies such collaborations and needs to be expanded.<sup>106</sup> Leveraging AfCFTA to build and support the regional value chain in green development minerals is paramount.

As African countries prepare to use their natural resources, especially critical minerals, to attract foreign investment and build up a domestic battery and electric vehicle manufacturing value chain, capacity assessments will be important given the previous low levels of investments in research and development. The capacity to conduct resource assessments and geological surveys across the continent will be paramount to obtaining significant knowledge of available resources. There are great expectations about Africa's richness of critical minerals, but very little is known about the exact amount of proven reserves of these minerals. Establishing proven reserves can also help countries to strengthen their credit ratings if good

governance can be ensured. Capacity will also need to be built in areas such as fiscal and financial modeling and legal aspects to enable regulatory officials to engage well with foreign investors during contract negotiations. Mapping the battery value chain will be needed to guide areas of the value chain where capacity is available or lacking. As African countries strive to develop their geological, fiscal, and legal capacities, capacity-building efforts will hinge on regional collaboration. Many countries face similar challenges, and it will be crucial to pull resources to co-develop solutions across countries and sub-regions.

However, African countries must strive to create an enabling environment to attract foreign and private capital. In some cases, public spending will be required to show responsibility and ownership, hence private public partnerships (PPPs) may offer respite. Many African governments lack the resources to finance natural resources projects, and so will have to rethink and in some cases reform policies to make African state-owned enterprises an attractive destination for foreign and private investments. Policy uncertainty will likely lock out private capital, which will be a missed opportunity for the continent. In building capacity, African-owned firms and African champions must be incentivized to invest in various parts of the natural resource value chain. This will strengthen local content and foster linkages.

#### *Environmental and social safeguards*

Almost all countries in Africa have enacted legislation on Environmental Impact Assessment (EIA) for projects, and an increasing number of countries have developed regulations also on Strategic Environmental Assessment (SEA) for sector-wide plans and programs to ensure appropriate environmental and social safeguards.<sup>107</sup> But the performance of these assessments has generally been below expectations. There is great potential to improve practice by improving public participation in the assessment process and by making the assessments publicly available so that they can also contribute to improved accountability.<sup>108</sup> Foreign and African-based companies extracting natural resources must strive to secure social licenses to operate together with the Free Prior Informed Consent of communities likely to be affected by

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Subjecting the natural resource licensing process to beneficial ownership standards will help many African countries to tackle illicit financial flows, prevent tax evasion and detect loopholes for corruption, especially in state-owned enterprises, which face bigger risks

their operations.<sup>109</sup> The focus should be not only on how to increase the natural resources sector's economic contribution but also on how to reduce negative environmental and social impacts from resource extraction.

#### ***Sovereign wealth funds***

Sovereign wealth funds (SWFs) can act as a buffer during economic downturns. The main source to capitalize SWFs is revenue from natural resources. According to data from the International Forum of Sovereign Wealth Funds, there are more than 20 SWFs currently operating in Africa, and plans are under way in various countries to create more.

Existing natural resource-linked SWFs in Africa are expected to help countries manage their resource wealth well. However, if not well governed, a SWF can become a political tool for a few ruling elites and their cronies to benefit through corruption and patronage at the expense of citizens. To be an effective tool, transparency is key to preventing SWFs from elite capture and corruption. Robust oversight measures must be in place, including proper due diligence and regular reporting of key transactions, including deposits, withdrawals, and investments. Auditing and parliamentary oversight are especially crucial.

#### **Dealing with illicit financial flows and corruption**

The Extractive Industries Transparency Initiative (EITI) process has proven useful in many countries so far; African states must leverage the opportunities offered by EITI to maximize transparency and accountability and reduce corruption risks. In addition, best practices such as open contracting must be adopted.<sup>110</sup> Blockchain technology is also increasingly seen as a tool to minimize corruption and transparency challenges in various natural resources value chain stages. From processing to the sale of natural resources, blockchain technologies can help to track transactions along the value chain.<sup>111</sup> But implementing them in Africa will require a strong grasp of the technology, its strengths, and its weaknesses. It is thus a critical area for capacity building.

Beneficial ownership, championed by EITI, will help provide key information about companies (foreign and state-owned, plus their joint-venture

partners and subsidiaries) involved in natural resource extraction.<sup>112</sup> Subjecting the natural resource licensing process to beneficial ownership standards will help many African countries to tackle illicit financial flows, prevent tax evasion and detect loopholes for corruption, especially in state-owned enterprises (SOEs), which face bigger risks. Beneficial ownership is also one of the requirements of the Fisheries Transparency Initiative standard to discourage African countries from setting up joint ventures or flagging international fishing vessels.

With the projected rise in demand for critical minerals, it is envisaged that SOEs will play a bigger role in natural resource extraction. However, many of these companies remain inefficient, more indebted, and less profitable than their privately-owned counterparts. They suffer from political interference, are highly vulnerable to corruption and state capture, and are often poorly governed. Reforming SOEs is important to ensure that African countries secure good resource deals. Strategic areas for reforming African SOEs include corporate governance, transparency, regulation, and de-politicizing their management.

## **CONCLUSION AND POLICY CONSIDERATIONS**

Africa is a continent of abundant natural resources. If adequately and sustainably exploited, it can generate revenues and wealth to complement climate finance for adaptation and mitigation and to invest in its green growth efforts. Proper valuation, prudent management, and effective governance of Africa's natural capital can contribute to increased climate adaptation financing and green growth.

Several policy levers can be deployed to increase returns from natural resources to finance sustainable green growth and climate-resilient economic transformation. For Africa to truly change, its path to natural capital-driven development will need something akin to shock treatment of hyperinflation in the 1980s. This would entail a combination of policy recommendations encompassing:

- Investments in data collection for improved valuation.

- Implementation of natural capital accounting to keep track of the most important stocks of natural capital.
- Implementation of a range of fiscal instruments for both renewable and non-renewable resources.
- Investments in the capacity, technology, approaches, and tools to benefit from best practices in exploration and licensing initiatives and from international agreements.
- Deep institutional reforms to reduce illicit financial flows and corruption, improve transparency and implement best practices when it comes to governance of natural resources.
- Enhanced credit risk profiles integrating the actual value of natural capital to increase financial volatility for foreign capital mobilization and bond issuance as climate finance in the international market.

### Major policy recommendations for the global community

- Honor pledges and commitments in international agreements such as the agreement on a Loss and Damage Fund, the post-2020 Global Biodiversity Framework, and the Paris Climate Agreement. Developed countries need to establish a global fund for nature that incorporates and incentivizes the preservation of nature and sustainable natural resource management. This includes funding the Global Biodiversity Framework and raising its ambition to meet the \$200 billion per year financial requirement by 2030.
- Increase collaboration and coordination among stakeholders, including international and regional multilateral organizations, national governments, and the private sector, to invest in sustainable management of Africa's natural resources. For improved governance of natural resources, there must be deliberate efforts to safeguard biodiversity and ensure that resource extraction is sustainable and equitable, inclusive of communities, indigenous people, and human rights, especially in ecologically sensitive areas where threats to biodiversity and habitat destruction are very high.
- Develop long-term policy options to establish markets for innovative financing mechanisms

such as bio-credits—and increase investments in non-recourse (collateralized loan) sustainable bonds, carbon bonds, resource-backed loans, certified adaptation benefits, debt-for-nature swaps, and natural capital funds. It is crucial to consider the nature and origin of the entities financing debt-for-nature swaps, as some may have interests other than development or environmental conservation. These swaps can be done in both voluntary and intergovernmental sectors but should avoid depleting renewable natural resources and promote responsible extraction and use of non-renewable natural resources.

- Promoting a circular economy in nature-sensitive investments could responsibly guide the environmental, social, and governance aspects of natural capital, together with increasing material reuse and recycling in non-renewables (such as green minerals) and renewables (sustainable fishing and forestry management). This can provide significant win-win opportunities for investment in nature-based solutions and the overall protection of biodiversity.
- Multilateral development partners could support African countries by supporting the design of appropriate fiscal instruments and policies to add more value to natural resources to increase beneficiation, revenues, and utilization of natural capital and ecosystem services, invest in human capital, and build capacity in international negotiations. To increase international financing for climate adaptation, mitigation, and nature, MDBs should play a role in de-risking climate and nature-related investments, as in the Adaptation Benefits Mechanism.

### Major policy recommendations for Regional Member Countries

- African countries need a strong and sustained commitment to carry out public policy reforms to ensure that natural resource wealth drives economic development. This will trigger actions to resolve myriad other management and governance issues, including internalizing environmental opportunity costs associated with the exploitation of natural resources and investment in natural capital. They should

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The global community needs to develop long-term policy options to establish markets for innovative financing mechanisms such as bio-credits—and increase investments in non-recourse sustainable bonds, carbon bonds, resource-backed loans, certified adaptation benefits, debt-for-nature swaps, and natural capital funds

develop Natural Capital Investment Plans that complement National Biodiversity Action Plans (NBAPs). They should mainstream natural capital in development planning and finance. They should integrate natural capital accounting in national systems of accounts. They should develop specific fiscal instruments to improve renegotiations of royalty rates and windfall taxes to generate more revenue from Africa's natural resources. They should develop natural resource utilization policies and instruments that link with industrialization and sustainable development planning. They should reform state owned enterprises to promote beneficial ownership and work with global credit rating institutions to feature natural capital more prominently in fairer credit ratings so that they can have better access to international capital markets. And they should formulate strategies that will give them the impetus to process at least 50 percent of their primary commodities into consumable goods by 2030. Implementing these set of recommendations could fast-track development in Africa, acknowledging that no country develops exporting raw materials.

- Africa's natural capital accounts need to be transparent, and open to the public to build investor confidence in the role of natural capital in financing economic growth. This would be a first step toward generating

appropriate macroeconomic management and sustainability indicators as part of the regular system of national accounts. This could also help generate geological and geospatial data by investing part of their natural resource rents to support regional exploration, carry out required environmental assessments, and strengthen their negotiation power with investors.

- Re-basing countries' GDP in light of the positive externalities associated with the carbon sequestration value of forest ecosystems could further expand their economic base, and will align it with the inclusive growth agenda. The benefits of carbon sequestration to overall GDP and as value for the purpose of Credit Rating is an area where Risk Rating Agencies and African scholars could explore more using growing opportunities of big data and innovative models that will incorporate the pricing of these positive externalities as global public goods.
- Africa's endowments of green development needed in the battery value chain will require regional approaches, cooperation, and capacity building to ensure effective value addition. In addition, producing lithium-ion batteries from its substantial mineral resources will be necessary to decarbonize the supply chains while creating employment. However, such investments need conducive and stable policies and institutions to foster regional collaborations.

## NOTES

1. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/909202/ncc-terminology.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/909202/ncc-terminology.pdf).
2. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/909202/ncc-terminology.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/909202/ncc-terminology.pdf).
3. Lange et al. 2018.
4. Managi and Kumar 2018.
5. <https://seea.un.org/ecosystem-accounting>.
6. World Bank 2021. The study covers 146 countries. It excludes those with no data, mainly small island states. In Africa, Djibouti is excluded from the list.
7. Barbier, 2019.
8. Pearce et al. 1989.
9. It would be almost impossible to meet the conditions of strong sustainability, and data at that level of granularity are not available.
10. No per capita data are available for Eritrea.
11. In the case of freshwater that is non-renewable and has a scarcity value it should be included in the wealth accounts. This is done in some national wealth estimates but not in the global assessment. See NCAVES and MAIA, 2022 for examples from the Netherlands and the UK.
12. AfDB 2022a.
13. <https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/sustainable-energy-fund-for-africa>.
14. <https://www.au-pida.org/view-project/324>.
15. <https://www.unwto.org/tourism-data/global-and-regional-tourism-performance>.
16. Damania 2022.
17. République du Congo 2021.
18. <https://www.un.org/en/actnow/facts-and-figures>.
19. Africa Natural Resources Management and Investment Center 2022.
20. IPCC 2000.
21. Damania 2022.
22. USGS 2021.
23. AfDB 2022b.
24. AfDB 2022a.
25. Africa Energy Chamber. [https://www.africa-energy-portal.org/sites/default/files/2022-01/AEC-Outlook-2022\\_b.pdf](https://www.africa-energy-portal.org/sites/default/files/2022-01/AEC-Outlook-2022_b.pdf)
26. <https://www.worldbank.org/en/programs/gasflaring-reduction/global-flaring-data>.
27. Lange et al. 2003.
28. Hassan and Mungatana 2012.
29. Sopp and Leiman 2017.
30. ACBF 2013.
31. OECD 2011.
32. <https://www.statista.com/statistics/1178138/crude-oil-reserves-in-africa/>.
33. <https://www.eia.gov/international/regions-africa/>.
34. AfDB 2016.
35. World Bank, 2021.
36. Porter and Anderson 2021.
37. Akpalu and Parks 2007
38. Wilde 2016.
39. Gajigo et al. 2012.
40. Otto et al. 2006.
41. Barbier 2011.
42. Thiao 2021.
43. World Bank 2021.
44. World Bank 2021.
45. Khama 2016.
46. BP Energy Outlook 2020 (<https://www.bp.com/en/global/corporate/energy-economics/energy-outlook.html>).
47. World Bank 2021.
48. World Bank 2021.
49. World Bank 2021.
50. Hassan et al. 2019.
51. FAO 2022b.
52. AfDB 2022a.
53. FAO 2022b.
54. FAO 2002.
55. ODI 2016.
56. Sumaila et al. 2020.
57. [www.iuufishingindex.net](http://www.iuufishingindex.net).
58. AfDB 2022.
59. World Bank 2021.
60. World Bank 2021.
61. Bromhead 2012.
62. World Bank 2021.
63. FAOSTAT-Forestry database. <https://www.fao.org/faostat/en/#data/FO>.
64. Leruth et al. 2001.
65. Macpherson et al. 2010.
66. AfDB 2022a.
67. Jax 2005; MEA 2005.
68. Mulatu et al. 2017.
69. AfDB 2016.
70. AfDB 2016.
71. UNEP 2022.
72. GCF 2022.

73. IETA 2021.
74. The scenarios presented in this section come from an Integrated Assessment Model, Global Change Analysis Model, developed by the Joint Global Change Research Institute of the University of Maryland and the Pacific Northwest National Laboratory. It is a 5-yr time step, dynamic-recursive market equilibrium model which represents the global economy by disaggregating the world into 32 geopolitical regions, 235 river basins and 384 agro-ecological land-use regions. Central to the scenarios presented here is the price necessary to reach the commitments under the Paris Agreement. This drives the scenario outcomes presented. See also IETA 2021 and the following links for model description and documentation: <https://github.com/JGCRI/gcam-core>, <http://jgcri.github.io/gcam-doc/overview.html>.
75. IETA has modelled several scenarios. We are here presenting results based on a scenario where there is global cooperative implementation of the Paris Agreement to reach net-zero by 2050 (IETA 2021).
76. [https://ec.europa.eu/commission/presscorner/detail/cs/ip\\_21\\_5768](https://ec.europa.eu/commission/presscorner/detail/cs/ip_21_5768).
77. Global Environment Facility 2022.
78. <https://www.unccd.int/our-work/ggwi/great-green-wall-accelerator>.
79. <https://www.unccd.int/our-work/ggwi>.
80. Ambec 2022.
81. Ambec 2022.
82. European Parliament 2022.
83. ACMI 2022.
84. EM 2021.
85. ACMI 2022.
86. ACMI 2022.
87. Balmford et al 2023.
88. AfDB 2022a.
89. Auty 2002; Stevens 2005; Stevens and Dietsche 2008.
90. Sachs and Warner 2001.
91. Sachs and Warner 1997.
92. Auty 2002; Stevens 2005; Stevens and Dietsche 2008.
93. Kolstad et al. 2008.
94. Poteete 2009.
95. AU 2021.
96. UNCTAD 2020.
97. Porter and Anderson 2021.
98. <https://taxjustice.net/reports/the-state-of-tax-justice-2021/>
99. Albertin et al. 2021.
100. Thurber et al. 2011.
101. <https://www.moody's.com/Pages/HowMoody'sRatesSovereigns.aspx>.
102. Mutize 2019.
103. Brogan 2022.
104. <https://www.moody's.com/Pages/HowMoody'sRatesSovereigns.aspx>.
105. BNEF 2021.
106. <https://www.state.gov/wp-content/uploads/2023/01/2023.01.13-E-4-Release-MOU-USA-DRC-ZAMBIA-Tripartite-Agreement-Tab-1-MOU-for-U.S.-Assistance-to-Support-DRC-Zambia-EV-Value-Chain-Cooperation-Instrument.pdf>.
107. Kolhoff, 2016.
108. World Bank 2010; Slunge and Loayza 2012.
109. Free, prior, and informed consent is all about obtaining consent from local communities or Indigenous Peoples before any activity takes place in their land. It emphasizes prior consultation and consent from those likely to be affected.
110. NRGi 2018.
111. NRGi 2020.
112. NRGi 2021.

## REFERENCES

ACBF (African Capacity Building Foundation). 2013. *Africa Capacity Indicators 2013: Capacity Development for Natural Resources Management*. Harare, Zimbabwe: ACBF.

ACMI (Africa Carbon Markets Initiative) 2022. Africa Carbon Markets Initiative, Roadmap report: Harnessing carbon markets for Africa. ACMI. [https://www.seforall.org/system/files/2022-11/ACMI\\_Roadmap\\_Report\\_Nov\\_16.pdf](https://www.seforall.org/system/files/2022-11/ACMI_Roadmap_Report_Nov_16.pdf).

AfDB (African Development Bank). 2016. "Africa Natural Resources Center Progress Brief 2014–2016: The First 2 Years." Abidjan, Côte d'Ivoire: African Development Bank. [https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/anrc/AfDB\\_ANRC\\_2YEARSPROGRESSBROCHURE\\_ENGLISH.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/anrc/AfDB_ANRC_2YEARSPROGRESSBROCHURE_ENGLISH.pdf).

AfDB (African Development Bank). 2018. "GAP Analysis Report: African Nationally Determined Contributions (NDCs)." Abidjan, Côte d'Ivoire: African Development Bank. [https://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/Cop24/african\\_ndcs\\_gap\\_analysis\\_report.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/Cop24/african_ndcs_gap_analysis_report.pdf).

- AfDB (African Development Bank). 2022a. *African Economic Outlook 2022: Supporting Climate Resilience and a Just Energy Transition in Africa*. Abidjan, Côte d'Ivoire: African Development Bank.
- AfDB (African Development Bank) 2022b. African Green Minerals Strategy Approach Paper. Africa Natural Management and Investment Center (ANRC), African Development Bank.
- African Natural Resources Management and Investment Centre. 2022. Debt for Nature Swaps – Feasibility and Policy Significance in Africa's Natural Resources Sector. African Development Bank. Abidjan, Côte d'Ivoire.
- AfDB (African Development Bank). 2023. "East Africa Regional Overview." <https://www.afdb.org/en/countries/east-africa/east-africa-overview>.
- Afreximbank (African Export-Import Bank). 2020. *Africa Franchise Report: A Study of Franchising in Africa*. Cairo: African Export-Import Bank.
- Africa Natural Resources Management and Investment Center. 2022. "Approach Paper to Guide Preparation of an African Green Minerals Strategy." Abidjan, Côte d'Ivoire: African Development Bank.
- Akpalu, W., and P. Parks. 2007. "Natural Resource Use Conflict: Gold Mining in Tropical Rainforest in Ghana." *Environment and Development Economics* 12 (1): 55–72.
- Albertin, G., B. Yontcheva, D. Devlin, H. Devine, M. Gerard, S. Beer, I. Suljagic, and V. Thakoor. 2021. "Tax Avoidance in Sub-Saharan Africa's Mining Sector." Departmental Paper 2021/22, International Monetary Fund, Washington, DC.
- Ambec, S. 2022. "The European Union Carbon Border Adjustment Mechanism: Challenges and Perspectives." Toulouse School of Economics Working Paper 1365. <https://www.tse-fr.eu/publications/european-unions-carbon-border-adjustment-mechanism-challenges-and-perspectives>
- AU (African Union). 2021. *Illicit Financial Flows: Report of the High Level Panel on Illicit Financial Flows from Africa*. Addis Ababa: AU.
- Auty, R. 2002. "How Natural Resources Can Generate Civil Strife: A Two-stage Process." *Geopolitics* 9 (1).
- Balmford, A., P. Brancalion, D. Coomes, B. Filewod, B. Groom, A. Guizar-Coutiño, J. Jones, S. Keshav, A. Kontoleon, A. Madhavapeddy, Y. Malhi, E. Sills, B. Strassburg, F. Venmans, T. West, C. Wheeler, and T. Swinfield. 2023. "Credit Credibility Threatens Forests." *Science* 380: 6643.
- Balmford, A., A. Bruner, P. Cooper, R. Costanza, S. Farber, R. Green, M. Jenkins, P. Jefferiss, V. Jessamy, J. Madden, K. Munro, N. Myers, S. Naeem, J. Paavola, M. Rayment, S. Rosendo, J. Roughgarden, K. Trumper, and R. Turner. 2002. "Economic Reasons for Conserving Wild Nature." *Science* 297: 950–3.
- Barbier, E. 2011. *Scarcity and Frontiers: How Economies Have Developed through Natural Resource Exploitation*. Cambridge, UK: Cambridge University Press.
- Barbier, E. 2019. The Concept of Natural Capital. *Oxford Review of Economic Policy*, Oxford University Press, vol. 35(1), pages 14–36.
- Baunsgaard, M., and N. Vernon. 2022. "Taxing Windfall Profits in the Energy Sector." Washington, DC: International Monetary Fund.
- Blejer, M., and C. Cheasty. 1988. "Some Lessons from "Heterodox" Stabilization Programs: The Experience of Argentina, Brazil, and Israel." *Finance & Development* 25 (3). <https://doi.org/10.5089/9781616353742.022>.
- BNEF (BloombergNEF). 2021. "Producing Battery Materials in the DRC Could Lower Supply-Chain Emissions and Add Value to the Country's Cobalt." <https://about.bnef.com/blog/producing-battery-materials-in-the-drc-could-lower-supply-chain-emissions-and-add-value-to-the-countrys-cobalt/>.
- Broghan, D. 2022. "GGKP Explainers: Sovereign Credit Ratings and Natural Capital." *Green Policy Platform*, 1 September. <https://www.greengrowthknowledge.org/blog/sovereign-credit-ratings-and-natural-capital-explainer>.
- Bromhead, M. 2012. "Forest, Trees, and Woodlands in Africa: An Action Plan for World Bank Engagement." Washington, DC: World Bank.
- Carmody, P. 2009 Cruciform Sovereignty, Matrix Governance and the Scramble for Africa's Oil: Insights from Chad and Sudan." *Political Geography* 28: 353–361.
- Collier, P. 2010. *The Plundered Planet: Why We Must—And How We Can—Manage Nature for Global Prosperity*. Oxford, UK: Oxford University Press.
- Costanza, R., R. d'Arge, R. De Groot, S. Farber, M. Grasso, B. Hannon, and M. Van Den Belt. 1997. "The Value of the World's Ecosystem Services and Natural Capital." *Nature* 387 (6630): 253–260.
- Damania, R. 2022. "A Balancing Act: Efficiency, Sustainability, Prosperity." Unpublished Report. Washington, DC: World Bank.
- de Oliveira, R. 2015. *Magnificent and Beggar Land: Angola since the Civil War*. London: Hurst.

- De Oliveira, R. 2007a. "Business Success, Angola-style: Postcolonial Politics and the Rise and Rise of So-nangol." *Journal of Modern African Studies* 45 (4): 595–619.
- de Oliveira, R.S. 2007b. *Oil and Politics in the Gulf of Guinea*. New York: Columbia University Press.
- Eicke, L., S. Weko, M. Apergi, and A. Marian. 2021. "Pulling up the Carbon Ladder? Decarbonization, Dependence, and Third-country Risks from the European Carbon Border Adjustment Mechanism." *Energy Research & Social Science* 80: 102240.
- Elvidge, C., M. Zhizhin, K. Baugh, F. Hsu, and T. Ghosh. 2016. "Methods for Global Survey of Natural Gas Flaring from Visible Infrared Imaging Radiometer Suite Data." *Energies* 9: 14. <https://doi.org/10.3390/en9010014>.
- Elvidge, C., M. Zhizhin, F. Hsu, and K. Baugh. 2013. "VIIRS Nightfire: Satellite Pyrometry at Night." *Remote Sensing* 5: 4423–4449. <https://doi.org/10.3390/rs5094423>.
- EM (Ecosystem Marketplace) 2021. *Ecosystem Marketplace Insights Report: Markets in Motion: State of the Voluntary Carbon Markets 2021*. Ecosystem Marketplace. <https://www.ecosystemmarketplace.com/publications/state-of-the-voluntary-carbon-markets-2022/>.
- European Parliament. 2022. "Amendments Adopted by the European Parliament on 22 June 2022 on the Proposal for a Regulation of the European Parliament and of the Council Establishing a Carbon Border Adjustment Mechanism. P9\_TA(2022)0248. Brussels: European Parliament. [https://www.europarl.europa.eu/doceo/document/TA-9-2022-0248\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2022-0248_EN.html).
- FAO (Food and Agriculture Organization of the United Nations). 2001. *International Plan of Action to Prevent, Deter and Eliminate IUU Fishing*. Rome: FAO. <https://www.fao.org/3/y1224e/y1224e.pdf>.
- FAO (Food and Agriculture Organization of the United Nations). 2002. "FISHSTAT+. Databases and Statistics." Rome: FAO. <http://www.fao.org/fi/statist/statist.asp>.
- FAO (Food and Agriculture Organization of the United Nations). 2009. *The Code of Conduct for Responsible Fisheries and Indigenous Peoples: An Operational Guide*. Rome: FAO. <https://www.fao.org/3/i0840e/i0840e.pdf>.
- FAO (Food and Agriculture Organization of the United Nations). 2015. *Voluntary Guidelines on Flag State Performance*. Rome: FAO. <https://www.fao.org/3/i4577t/i4577t.pdf>.
- FAO (Food and Agriculture Organization of the United Nations). 2022. "Mapping Distant-water Fisheries Access Arrangements." Fisheries and Aquaculture Circular 1252, FAO, Rome. <https://doi.org/10.4060/cc2545en>.
- FAO (Food and Agriculture Organization of the United Nations). 2022b. *The State of World Fisheries and Aquaculture 2022. Towards Blue Transformation*. Rome: FAO.
- Frynas, J., and L. Buur, L. 2020. "The Resource Curse in Africa: Economic and Political Effects of Anticipating Natural Resource Revenues." *The Extractive Industries and Society* 74: 1257–1270.
- Gajigo, O., Mutambatsere, E., Ndiaye, G. 2012. *Royalty Rates in African Mining Revisited: Evidence from Gold Mining*. African, Development Bank, Africa Economic Brief, Vol. 3, Issue 6, June 2012.
- GCF (Green Climate Fund) 2022. *2021 Annual Results Report: Raising Ambition, Empowering Action*. <https://www.greenclimate.fund/annual-results-report-2021>.
- GFI (Global Financial Integrity). 2015. *Illicit Financial Flows from Developing Countries: 2004–2013*. Washington, DC: Global Financial Integrity. [http://www.gfintegrity.org/wp-content/uploads/2015/12/IFF-Update\\_2015-Final-1.pdf](http://www.gfintegrity.org/wp-content/uploads/2015/12/IFF-Update_2015-Final-1.pdf).
- Global Environment Facility. 2022. "The Great Green Wall Initiative: Supporting Resilient Livelihoods and Landscapes in the Sahel." Global Environment Facility. [https://www.thegef.org/sites/default/files/documents/2022-05/gef\\_great\\_green\\_wall\\_initiative\\_2022\\_05.pdf](https://www.thegef.org/sites/default/files/documents/2022-05/gef_great_green_wall_initiative_2022_05.pdf).
- Gutiérrez, M., A. Daniels, G. Jobbins, G. Gutiérrez-Almazor, and C. Montenegro. 2020. *China's Distant Water Fishing Fleet: Scale, Impact, and Governance*. London: ODI. [https://cdn.odi.org/media/documents/chinesedistantwaterfishing\\_web.pdf](https://cdn.odi.org/media/documents/chinesedistantwaterfishing_web.pdf).
- Hassan, R., and E. Mungatana. (eds.). 2012. *Implementing Environmental Accounts: Case Studies from Eastern and Southern Africa (Vol. 28)*. Springer Science & Business Media.
- Hassan, R., E. Mungatana, and W. Akpalu. 2019. "Strategies for Managing Common Pool Natural Resources in Sub-Saharan Africa: A Review of Past Experience and Future Challenges." *Review of Environmental Economics and Policy* 13 (2): 207–226.
- IETA (International Emissions Trading Association). 2021. "The Potential Role of Article 6 Compatible Carbon Markets in Reaching Net-Zero." IETA Working Paper. [https://www.ieta.org/resources/Resources/Net-Zero/Final\\_Net-zero\\_A6\\_working\\_paper.pdf](https://www.ieta.org/resources/Resources/Net-Zero/Final_Net-zero_A6_working_paper.pdf).



- IFSWF (International Forum of Sovereign Wealth Funds). 2020. *Investing for Growth and Prosperity: In Africa Sovereign Wealth Funds Focus on G, S and E*. IFSWF. [https://www.ifswf.org/sites/default/files/IFSWF\\_Africa\\_Paper\\_v2.pdf](https://www.ifswf.org/sites/default/files/IFSWF_Africa_Paper_v2.pdf).
- Interpol. 2014. "Study on Illegal Fishing off the West African Coast." Lyon, France: Interpol Sub-Directorate for Environmental Safety. <https://www.interpol.int/en/Crimes/Environmental-crime/Fisheries-crime>.
- IPCC (Intergovernmental Panel on Climate Change). 2000. *Land Use, Land-Use Change, and Forestry*. Cambridge, UK: Cambridge University Press.
- IPCC (Intergovernmental Panel on Climate Change). 2022. *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK: Cambridge University Press.
- Jacob, T., and R. Pedersen. 2018. "New Resource Nationalism? Continuity and Change in Tanzania's Extractive Industries." *The Extractive Industries and Society* 52: 287–292.
- Jax, K. 2005. "Function and 'Functioning' in Ecology: What Does It Mean?" *Oikos* 111 (3): 641–648.
- Khama, S. 2016. "Botswana's Mineral Revenues, Expenditure and Savings Policy." Africa Natural Resources Center, African Development Bank.
- Kolhoff, A. 2016. *Capacity Development for Environmental Protection: Towards Better Performing Environmental Impact Assessment Systems in Low and Middle Income Countries*. Doctoral dissertation, Utrecht University.
- Kolstad, I., T. Søreide, and A. Williams. 2008. "Corruption in Natural Resource Management: An Introduction." *U4 Brief* 20082.
- Lange, G., R. Hassan, and A. Alfieri. 2003. "Using Environmental Accounts to Promote Sustainable Development: Experience in Southern Africa." *Natural Resources Forum* 27 (1): 19–31.
- Lange, G., Q. Wodon, and K. Carey (eds.). 2018. *The Changing Wealth of Nations 2018: Building a Sustainable Future*. Washington, DC: World Bank.
- Leruth, L., R. Paris, and I. Ruzicka. 2001. "Complier Pays Principle: The Limits of Fiscal Approaches toward Sustainable Forest Management." *IMF Staff Papers* 48 (2).
- Macpherson, A., D. Carter, M. Lentini, and M. Schulze. 2010. "Following the Rules: Brazilian Logging Concessions under Imperfect Enforcement and Royalties." *Land Economics* 86 (3): 493–513.
- Managi, S., and P. Kumar (eds.). 2018. *Inclusive Wealth Report 2018*. New York: UN Environment Programme. <https://www.unenvironment.org/resources/report/inclusive-wealth-report-2018>.
- MEA (Millennium Ecosystem Assessment). 2005. *Ecosystems and Human Well-being: Synthesis*. Washington, DC: Island Press.
- Mulatu, K., B. Mora, L. Kooistra, and M. Herold. 2017. "Biodiversity Monitoring in Changing Tropical Forests: A Review of Approaches and New Opportunities." *Remote Sensing* 9 (10): 1059. <https://doi.org/10.3390/rs9101059>.
- Mutize, M. 2019. "African Countries Need to Manage the Rising Power of Credit Rating Agencies." *The Conversation*, 22 January. <https://theconversation.com/african-countries-need-to-manage-the-rising-power-of-credit-rating-agencies-109594>.
- NCAVES (National Capital Accounting and Valuation of Ecosystem Services) and MAIA (Mapping and Assessment for Integrated Ecosystem Accounting). 2022. "Monetary Valuation of Ecosystem Services and Ecosystem Assets for Ecosystem Accounting: Interim Version 1st edition." United Nations Department of Economic and Social Affairs, Statistics Division, New York. <https://seea.un.org/content/monetary-valuation-ecosystem-services-and-assets-ecosystem-accounting-interim-version-first>.
- Ndikumana, L. 2016. *Trade Misinvoicing in Primary Commodities in Developing Countries: The Cases of Chile, Côte d'Ivoire, Nigeria, South Africa, and Zambia*. Geneva: UNCTAD.
- NRGI (Natural Resource Governance Institute). 2018. *Open Contracting for Oil, Gas and Mineral Rights: Shining a Light on Good Practice*. <https://resourcegovernance.org/analysis-tools/publications/open-contracting-oil-gas-and-mineral-rights>.
- NRGI (Natural Resource Governance Institute). 2020. *The Practice and Potential of Blockchain Technologies for Extractive Sector Governance*. New York: NRGi.
- NRGI (Natural Resource Governance Institute). 2021. "Leading Companies Issue Commitments on Beneficial Ownership: Will It Help Prevent Corruption?" Blog post, 10 September. <https://resourcegovernance.org/blog/leading-companies-issue-commitments-beneficial-ownership-will-it-help-prevent-corruption>.
- OCCRP (Organized Crime and Corruption Reporting Project). 2019. "Angola Recovers More Than US\$5bn in Stolen Assets." Press release, 19 December. <https://>

- www.occrp.org/en/daily/11334-angola-recovers-more-than-us-5bn-in-stolen-assets.
- ODI (Overseas Development Institute). 2016. *Western Africa's Missing Fish: The Impacts of Illegal, Unreported and Unregulated Fishing and Under-reporting Catches by Foreign Fleets*. London: ODI.
- OECD (Organisation for Economic Co-operation and Development). 2008. *DAC Guidelines and Reference Series: Natural Resources and Pro-Poor Growth—The Economics and Politics*. Paris: OECD Publishing.
- OECD (Organisation for Economic Co-operation and Development). 2011. *Towards Green Growth: A Summary for Policy Makers*. Paris: OECD Publishing.
- Otto, J., C. Andrews, F. Carwood, M. Doggett, P. Guj, F. Stermole, and J. Stermole. 2006. *Mining Royalties: A Global Study on Their Impact on Investors, Government, and Civil Society*. Directions in Development: Energy and Mining. Washington, DC: World Bank.
- Pearce, D., A. Markandya, and E. Barbier. 1989. *Blueprint for a Green Economy*. London: Earthscan Publications.
- Phillips, G. 2022. "Mobilising Climate Finance for Adaptation through the Adaptation Benefits Mechanism." In A. Michaelowa and A.-K. Sacherer (eds.), *Handbook of International Climate Finance*. Cheltenham: Edward Elgar Publishing.
- Porter, D., and C. Anderson 2021. *Illicit Financial Flows in Oil and Gas Commodity Trade: Experience, Lessons and Proposals*. Paris: OECD Publishing.
- Poteete, A. 2009. "Is Development Path Dependent or Political? A Reinterpretation of Mineral-Dependent Development in Botswana." *The Journal of Development Studies* 45(4): 544–571.
- République du Congo. 2021. "Contribution déterminée au niveau national (CDN) de la République du Congo. Ministère de l'Environnement, du Développement Durable et du Bassin Du Congo." Brazzaville. [https://unfccc.int/sites/default/files/NDC/2022-06/CDN\\_Congo.pdf](https://unfccc.int/sites/default/files/NDC/2022-06/CDN_Congo.pdf).
- Ross, M., 2001. "Does Oil Hinder Democracy?" *World Politics* 53: 325–361.
- Sachs, J., and A. Warner. 1997. "Sources of Slow Growth in African Economies." *Journal of African Economies* 63: 335–376.
- Sachs, J., and A. Warner. 2001. "The Curse of Natural Resources." *European Economic Review* 45 (4–6): 827–838.
- Saunders, R., and A. Caramento. 2018. "An Extractive Developmental State in Southern Africa? The Cases of Zambia and Zimbabwe." *Third World Quarterly* 39(6): 1166–1190.
- Slunge, D., and F. Loayza. 2012. "Greening Growth through Strategic Environmental Assessment of Sector Reforms." *Public Administration and Development* 32(3): 245–261.
- Sopp, L., and A. Leiman. 2017. "Mineral Resource Accounting Measures in Africa." Working Paper 283, African Development Bank, Abidjan, Côte d'Ivoire.
- Stevens, P. 2005. "'Resource curse' and How to Avoid It." *The Journal of Energy and Development* 31(1): 1–20.
- Stevens, P., and E. Dietsche. 2008. "Resource Curse: An Analysis of Causes, Experiences and Possible Ways Forward." *Energy Policy* 36(1): 56–65.
- Sumaila, U., D. Zeller, L. Hood, M. Palomares, Y. Li, and D. Pauly. 2020. "Illicit Trade in Marine Fish Catch and Its Effects on Ecosystems and People Worldwide." *Science Advance* 6 (9): eaaz3801.
- Thiao, A. 2021. "The Effect of Illicit Financial Flows on Government Revenues in the West African Economic and Monetary Union Countries." *Cogent Social Sciences* 7 (1): 1972558.
- Thurber, M., D. Hults, and P. Heller. 2011. "Exporting the 'Norwegian Model': The Effect of Administrative Design on Oil Sector Performance." *Energy Policy* 39(9): 5366–5378.
- UNCTAD (United Nations Conference on Trade and Development). 2020. *Economic Development in Africa Report 2020: Tackling Illicit Financial Flows for Sustainable Development in Africa*. Geneva: UNCTAD. [https://unctad.org/system/files/official-document/aldcafrica2020\\_en.pdf](https://unctad.org/system/files/official-document/aldcafrica2020_en.pdf).
- UNECA (United Nations Economic Commission for Africa). 2015. *Illicit Financial Flows: Report of the High Level Panel on Illicit Financial Flows from Africa*. Addis Ababa: UNECA. <https://repository.uneca.org/handle/10855/22695>.
- UNEP (United Nations Environment Programme). 2022. "Convention on Biological Diversity: Capacity-building and Development and Technical and Scientific Cooperation." CBD/COP/DEC/15/8. New York: UNEP. <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-08-en.pdf>.
- UNWTO (World Tourism Organization). 2019. *Global Report on Women in Tourism: Second Edition*. Madrid: UNWTO.
- USGS (U.S. Geological Survey) 2021. Mineral commodity summaries 2021. U.S. Geological Survey, 200 p., <https://doi.org/10.3133/mcs2021>.

- Watts, M. 2004. "Resource Curse? Governmentality, Oil, and Power in the Niger Delta, Nigeria." *Geopolitics* 9 (1): 50–80.
- Wilde, D. 2016. "Key Issues in Natural Resource Taxation and Revenue Management in the Commonwealth." Economic Paper 96, Commonwealth Secretariat, London.
- World Bank. 2010. *Strategic Environmental Assessment in Policy and Sector Reform: Conceptual Model and Operational Guidance*. Washington, DC: World Bank.
- World Bank. 2021. *The Changing Wealth of Nations 2021: Managing Assets for the Future*. Washington, DC: World Bank.
- World Fish Center. 2009. *Aquaculture Options for Alternative Livelihoods: The Experience of the Advasi Fisheries Project in Bangladesh*. Penang, Malaysia: World Fish Center.
- Zhizhin, M., A. Matveev, T. Ghosh, F. Hsu, M. Howells, and C. Elvidge. 2021. "Measuring Gas Flaring in Russia with Multispectral VIIRS Nightfire." *Remote Sensing* 13: 3078. <https://doi.org/10.3390/rs13163078>.



# COUNTRY NOTES

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# CENTRAL AFRICA

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# Cameroon

## Recent macroeconomic and financial developments

Real GDP growth slipped to 3.4% in 2022 from 3.6% in 2021 due mostly to continued investment and higher nonoil activity. Inflation rose to 6.2% in 2022 from 2.3% in 2021, above the Central African Economic and Monetary Community (CEMAC) target of 3%. The increase can be attributed largely to higher import costs. Control of persistent inflation pressures in the CEMAC area led to tighter monetary policy by the Bank of Central African States. The tender interest rate was raised twice, from 3.5% to 4.0% in March 2022 and to 4.5% in September 2022.

The budget deficit narrowed from 2.4% of GDP in 2021 to 1.9% in 2022. The current account deficit narrowed to 1.7% of GDP from 4.0% in 2021. The risk of overindebtedness is high. The banking and financial system is weakening due primarily to the nonperforming loans ratio (nearly 15%), as well as strong exposure to the outstanding debts of public enterprises, estimated at 478 billion Central African CFA francs in 2021. Poverty was estimated at 37.5% in 2014, down slightly from 39.9% in 2007.

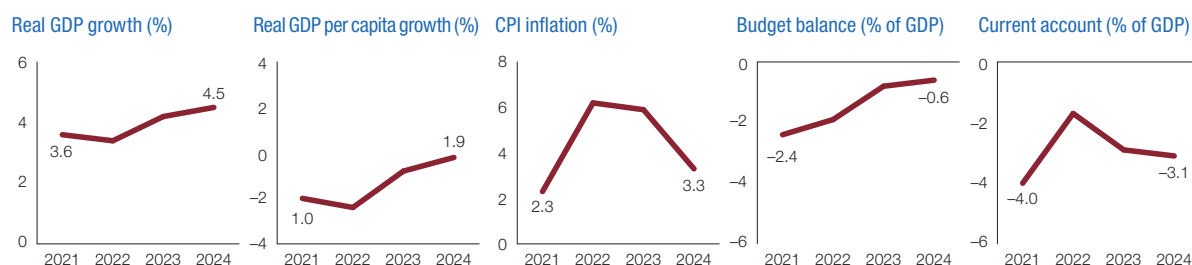
## Outlook and risks

Real GDP is projected to grow 4.2% in 2023 and 4.5% in 2024 thanks to the gradual improvement in the international economic context and higher national gas production and global commodity prices. Inflation is projected to decline gradually, to 5.9% in 2023 and

3.3% in 2024, thanks to continued tightening of monetary policy by the Bank of Central African States. The budget deficit is projected to further narrow to 0.8% of GDP in 2023 and 0.6% in 2024, though the current account deficit is projected to widen to 2.9% of GDP in 2023 and 3.1% in 2024. Public debt is projected to reach 45.8% of GDP in 2023. Possible headwinds include the effects of geopolitical tensions—notably Russia's invasion of Ukraine, which has increased uncertainty around supply chains, most notably in the energy sector.

## Climate change issues and policy options

The private sector's contribution to green growth finance is vital. An estimated \$57.6 billion in climate finance is needed to achieve the objectives set for 2030. But over 2015–20, Cameroon mobilized only \$162.4 million a year as part of its commitments under the Paris Agreement. Of the \$380 million committed to climate finance, only 3% is from the private sector. The sector's participation is thus one of the main challenges to implementing climate actions through climate finance instruments, such as green bonds and green climate funds. Cameroon could take advantage of its substantial natural capital to finance green growth. Reducing illicit trade and flows linked to the exploitation of natural resources as well as improved management could lead to higher revenue to finance green growth.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# Central African Republic

## Recent macroeconomic and financial developments

Real GDP grew 0.5% in 2022, down from 1% in 2021 and 2020, due to the prolonged shortage of oil products and the effects of Russia's invasion of Ukraine. Inflation rose to 7.9% in 2022 from 4.3% in 2021, driven by higher oil and food prices. Monetary policy was accommodative in 2022, with a 4.5% prime rate, facilitating a 29.7% increase in domestic credit. External assets contracted 102% from 2021 to 2022, which correlated with a drop in external financing and a rise in import costs.

The primary budget deficit narrowed to 4.6% of GDP in 2022 from 6% in 2021 on a markedly weak tax base and undiversified revenue. The current account deficit widened to 13.8% of GDP in 2022 from 10.8% in 2021 on undiversified and low exports. Public debt was an estimated 49.0% of GDP in 2022, up from 47.8% in 2021 and 44.1% in 2020. Risk of both external and overall debt distress remains high. The financial position is exemplified by higher bank balance sheets (up 14.7% in 2022) and lower outstanding receivables due to the resumption of economic activity after the COVID-19 pandemic. The Central African Republic ranked 188th of 191 countries on the Human Development Index in 2021. Almost 80% of the population are vulnerable to chronic poverty, 68.8% of them live below the national poverty line (€1.10 a day), and 10.1% are vulnerable to poverty in case of a shock.

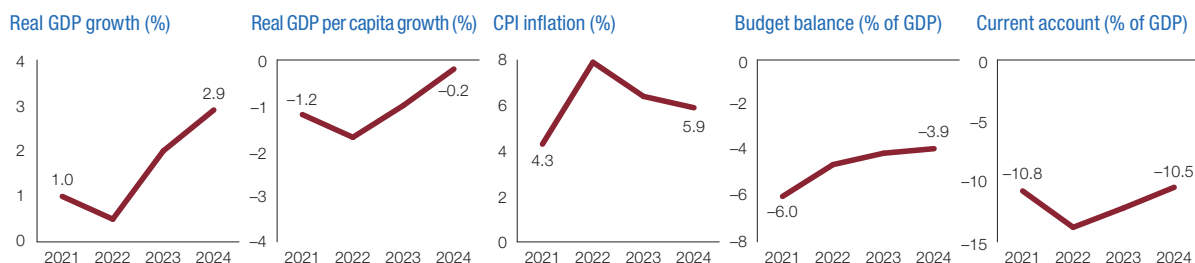
## Outlook and risks

Real GDP is projected to grow 2.0% in 2023 and 2.9% in 2024 due mainly to encouraging prospects in the primary sector (which is projected to grow 4.1% in 2023 and 5.3% in 2024) and the tertiary sector (which is projected to grow 3.2% in 2023 and 3.9% in 2024). The engines of this growth are expected to be export agriculture, extractives, manufacturing and food industries, trade, and telecommunications. Inflation is projected to remain high, at 6.4% in 2023, driven by rising oil prices

and rigidity in food prices. The primary budget deficit is projected to narrow to 4.1% of GDP in 2023 and 3.9% in 2024, driven by budget savings from lower government subsidies and substantially higher nontax revenue, especially public service revenue. The current account deficit is projected to narrow to 12.2% of GDP in 2023 and 10.5% in 2024 due to revitalized logging and better governance in extractives. Prospects depend strongly on security in the country and in the corridor with Cameroon, public budget financing, and fuel supplies.

## Climate change issues and policy options

The Central African Republic benefits from rich and diverse natural capital (arable land, crude oil, natural gas, diamonds, gold, and the like), with exceptional forest density of more than 87 million cubic meters of exploitable mixed species. However, average need over 2020–30 for mitigation, adaptation, and loss and damage is \$393.8 million a year. The private sector should be encouraged to become an alternative to the public sector in order to boost green finance. Between 2010 and 2020, despite a small carbon footprint, the country mobilized only \$715 million, or 10% of the resources mobilized by Central African Economic and Monetary Community countries and 50% of the resources mobilized by Chad. Between 2019 and 2020, an average of \$101 million was mobilized, 97% of it from public sources and only 3% from private ones. These results are due to a sluggish and embryonic private sector, specifically the banking sector (with four commercial banks), as well as the lack of suitable and advantageous instruments (green bonds, carbon credit pledges, lines of credit and guarantees with secondary banks, targeted refinancing lines with the Central Bank, and so on). Supported by an incentivizing regulatory framework, such instruments would allow companies to invest in agricultural and forest projects, legal extractives, the renewable energy sector, and the like.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.



## Recent macroeconomic and financial developments

Real GDP grew 2.4% in 2022, up from 1.1% growth in 2021 and a 2.2% contraction in 2020, due mainly to the resumption of oil production driven by higher global prices and Russia's invasion of Ukraine. On the demand side, growth was driven mainly by exports and, to a lesser extent, household consumption. Inflation rose to 5.3% in 2022 after deflation of 0.8% in 2021 due to global inflation, particularly for food prices (including 18.4% for cereals at the end of December 2022). The budget balance turned to a surplus of 0.5% of GDP in 2022 from a deficit of 2.4% in 2021 thanks to substantial oil revenue.

Public debt was 55.9% of GDP in 2021, with external debt of 25.5% of GDP and internal debt of 30.4%, resulting in high risk of debt distress. Chad was among the first countries to benefit from the Debt Service Suspension Initiative, which shifted the composition of external public debt considerably toward commercial debt. The current account balance turned to a surplus of 0.5% of GDP in 2022 from a deficit of 4.5% in 2021. Global inflation also led to deteriorating living standards for poor households, aggravated by the 2022 floods, which affected more than 340,000 people.

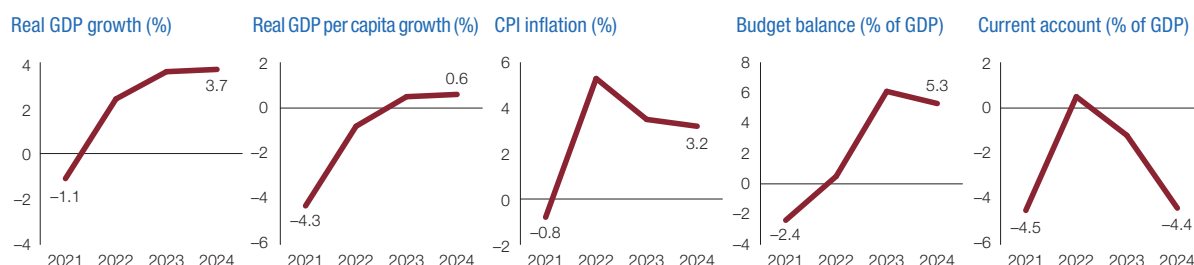
## Outlook and risks

Real GDP is projected to grow 3.6% in 2023 and 3.7% in 2024, fueled by strong momentum in the oil sector. Since 2020, the budgetary position has been stable, with a deficit of less than 3% of GDP. The fiscal surplus is projected to widen to 6.1% of GDP in 2023 and 5.3% in 2024. Following the second round of debt renegotiations in 2022, the country is expected to return to moderate risk of debt distress by 2024. Inflation is

projected to decline to 3.5% in 2023 and 3.2% in 2024, close to the Economic Community of Central African States target of 3%. The current account is projected to return to a deficit, of 1.2% of GDP in 2023 and 4.4% in 2024, due to increased imports of high-cost food products. In January 2023, the International Monetary Fund approved the first and second reviews of the extended credit facility approved in December 2021, worth \$570 million. Possible headwinds include deteriorating living conditions among poor households due to global inflation and high exposure to the impacts of climate change, oil price volatility, and political and security shocks.

## Climate change issues and policy options

Climate change is a major problem for a country such as Chad, which is highly exposed to the resulting adverse effects. The estimated financing needed to adequately respond to climate change is \$16.4 billion over 2020–30, or \$1.5 billion a year. Chad has set up a Special Fund for the Environment, but private climate finance remains very low despite substantial potential. Beyond corporate social responsibility, the extractive sector, the economy's main driver, has huge potential for green financing. Extractive companies could contribute to financing green infrastructure to offset the huge shortfall in electricity supply. Strengthening governance in the extractive sector could increase public revenue to fund the green economy. Chad has substantial natural resources and thus a large stock of environmental capital, including oil and gas deposits, minerals, and solar and wind energy potential, as well as Lake Chad, which constitutes an important regional ecosystem for the survival of the neighboring population.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

## Recent macroeconomic and financial developments

Real GDP grew 3.2% in 2022, up from 1.5% in 2021, thanks to strong performance in both the oil and nonoil sectors, which grew 45.3% and 3.4%, respectively. The main sources of nonoil growth were agriculture (with 4.9% growth) and lumber (with 6.5% growth), the clearing of domestic arrears, and public investment spending. In response to risks linked to low foreign exchange reserves and concerns raised by inflationary pressures, the Bank of Central African States raised the benchmark rate to 4% in 2022, following a 25 basis point increase to 3.5% in 2021. Overall inflation was 3% in 2022, with food inflation, at 6.3%, due to rising food prices and the effects of Russia's invasion of Ukraine. Credit to the economy rose 6.2% in 2022, up from 1.6% in 2021, buoyed by the economic recovery and household and business consumption. The nonperforming loans ratio fell, reducing banking system vulnerability.

The budget surplus reached 6.5% of GDP in 2022, up from 1.5% in 2021, driven by higher oil revenue and greater mobilization of nonoil revenue due to tax administration reforms. Debt fell to 109.7% of GDP from 114.4% in 2021. Higher export revenue and a strong exchange rate against the US dollar led to an external current account surplus of 19.2% of GDP, up from 11.9% in 2021. Foreign exchange reserves were 2.6 months of import cover in 2022, up from 1.5 months in 2021.

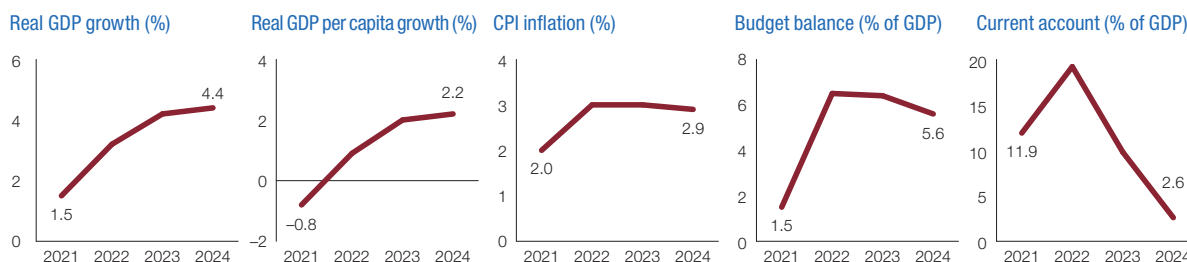
## Outlook and risks

Real GDP is projected to grow 4.2% in 2023 and 4.4% in 2024, driven by consumption, investment, and exports on the demand side and by growth in the oil and nonoil sectors (projected at 3.8% and 4.2% a year, respectively) on the supply side. Inflation is projected to

be 3% in 2023 and 2.9% in 2024, linked to increased economic activity and the effects of Russia's invasion of Ukraine on the price of imported commodities. The budget surplus is projected to slip to 6.4% of GDP in 2023 and 5.6% in 2024, and the current account surplus is projected to narrow to 9.8% of GDP in 2023 and 2.6% in 2024. Rising domestic demand and a 5% increase in the pump price of oil products, coupled with adverse weather conditions exacerbated by climate change, could affect the availability of agricultural products or lead to food insecurity and additional inflationary pressures.

## Climate change issues and policy options

Estimated climate finance need is \$13.0 billion over 2020–30, or \$1.2 billion a year. If Congo receives the same \$62.4 million a year that it received over 2010–20, it will face a deficit of \$1.1 billion a year. With no sovereign fund, no pension fund, and no investment capital to contribute to this deficit, Congo has started to mobilize private investment. The government signed partnership agreements with Total Nature Based Solutions (for a 150 billion CFA franc investment in 40,000 hectares of forests for carbon sinks) and with Renco Green Sarlu (for a 53 billion CFA franc investment in a 30 million ton carbon garden). The country's bogs and 23.5 million hectares of forest form a stock of natural capital capable of supporting climate finance. Alongside a green bond market, Congo could mobilize substantial private finance by selling carbon offsets to private companies. To increase private finance, legislation is needed on the carbon market and tax incentives promoting climate change adaptation and mitigation. National capacities and technical skills on innovative climate finance also need to be strengthened.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# Democratic Republic of Congo

## Recent macroeconomic and financial developments

Real GDP grew 8.5% in 2022, up from 6.2% in 2021, thanks to momentum in the extractive sector (which grew 20.8%) and recovery in the nonextractive sector (which grew 3.2%), driven by services despite a deteriorating security situation in the east of the country. Economic growth was driven on the demand side by robust exports (which grew 23.8%) and investment (which grew 18.6%), despite a global energy crisis. Inflation reached 9.1% in 2022 due to high food and imported energy prices. The budget deficit widened to 2.8% of GDP in 2022 from 0.9% in 2021 due to exceptional spending (security, elections) and despite the exceptional increase in revenue and aid, which rose to 17.2% of GDP from 13.7% in 2021.

The risk of overindebtedness remains moderate despite a 1 percentage point increase in public debt from 2021 to 2022, to 24.7% of GDP. To mobilize local savings and finance the economy, the African Development Bank is supporting the country in developing financial markets and local currency bonds. The Central Bank of the Congo is also supporting this initiative, which is compatible with its monetary policy goals. Despite the increase in the prime rate from 7.5% in January 2022 to 8.25% in November 2022, credit to the private sector more than doubled from 17.8% in 2021 to 39.6% in 2022 due to economic dynamism. International reserves rose 54%, to 1.7 months of import cover, in 2022, due to increased mining exports. But the current account deficit widened from 1% of GDP in 2021 to 6.4% in 2022. Income poverty was estimated at 56.2% in 2020.

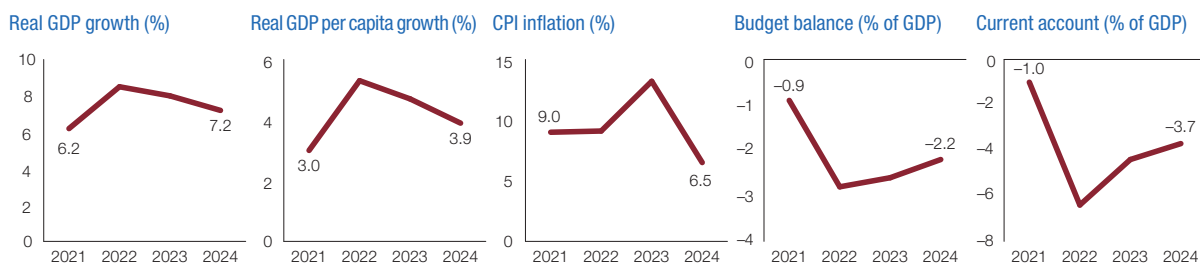
## Outlook and risks

Real GDP is projected to grow 8% in 2023 and 7.2% in 2024, driven by the extractive sector, which is expected to grow at least 12% between 2023 and 2024. Priority investment by the agricultural transformation program could boost growth even further. Inflation is projected to rise to 13.2% in 2023 before falling to 6.5% in 2024, below the central bank's 7% target. To fight inflation,

the bank is expected to adopt a restrictive monetary policy in 2023. The budget deficit is projected to narrow to 2.6% of GDP in 2023 and 2.2% in 2024, with average debt stabilizing at 24.1% of GDP between 2023 and 2024. The current account deficit is projected to narrow to 4% of GDP on average between 2023 and 2024. The extractive sector has the potential to boost climate finance, and foreign exchange reserves could reach \$6.4 billion (1.9 months of import cover) on average over 2023–24. Possible headwinds include uncertainties linked to Russia's invasion of Ukraine, a drop in raw materials prices, high imported inflation, and insecurity in the east of the country.

## Climate change issues and policy options

The private sector accounted for only 1.9% of the \$424 million in climate finance between 2019 and 2020. Overall finance has been earmarked for infrastructure (24%) and agriculture (13%) and has benefited adaptation (66%), mitigation (25%), and various other goals (9%). The National Adaptation to Climate Change Plan (2022–2026) calls for developing public–private partnerships to mobilize private finance. The experience of the World Wide Fund for Nature in the Democratic Republic of Congo with the carbon market is imperfect and has yielded \$1.3 million to the North Kivu province. The estimated cost of adaptation and mitigation through 2030 is \$48.7 billion, but government revenue was only \$11.7 billion in 2022. The estimated finance needed to sustain green growth for 2021–30 totals \$66.0 billion, or \$7 billion a year, leaving a climate finance deficit of \$6.2 billion a year. The mining sector, which dominates the economy (accounting for 98.9% of exports), could finance this deficit. Good governance is a priority for exploiting natural capital (wood, copper, cobalt, oil, gas, water resources, and the like) to fulfill ecological, economic, social, and cultural goals. Natural capital per capita fell more than 5% between 1995 and 2018. Meanwhile, the African Development Bank has mobilized a \$2 million multinational, climate finance project.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# Equatorial Guinea

## Recent macroeconomic and financial developments

Real GDP grew 3.1% in 2022, after contracting 0.9% in 2021, driven by the strength of the nonoil sector. Growth was also boosted by household demand. The budget surplus widened to 4.8% of GDP in 2022 from 2.6% in 2021. Public debt dropped from 42.8% of GDP in 2021 to 27.1% in 2022. Inflation was an estimated 5% in 2022, after 1.3% deflation in 2021, due to higher food prices resulting from Russia's invasion of Ukraine. The Bank of Central African States raised the marginal lending rate from 5.25% to 5.75% in March 2022 and the compulsory reserve ratio to 7% on demand liabilities and 4.5% on term liabilities.

Economic recovery widened the current account surplus to 3.9% of GDP in 2022 from a deficit of 4.0% in 2021. International reserves rose from 2.7 months of import cover in 2021 to 3.5 months in 2022, above the target of 3 months. Higher prices for consumer goods and transportation reduced household purchasing power and accentuated urban poverty, which reached 67% of the population during the COVID-19 pandemic, leading to an overall poverty rate of 67% in 2022.

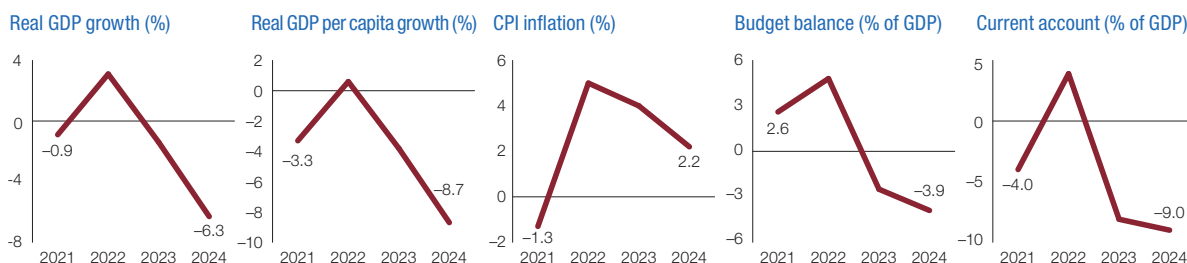
## Outlook and risks

Real GDP is projected to decline 1.4% in 2023 and 6.3% in 2024 due to aging oil wells and the effects of Russia's invasion of Ukraine. The budget deficit is projected to narrow to 2.5% of GDP in 2023 and 3.9% in 2024. The current account deficit is projected to continue to widen, to 8.1% of GDP in 2023 and 9.0% in 2024. To reduce the social impact of higher food and

energy prices, the government is negotiating with foreign suppliers of basic foodstuffs to facilitate imports, including through transportation subsidies. Inflation is thus projected to fall to 4.0% in 2023 and 2.2% in 2024 due to government measures to mitigate the effects of rising food prices. But the prospect of lower oil prices combined with aging oil wells is a risk for planned social programs.

## Climate change issues and policy options

Estimated climate finance need over 2020–30 is \$6.7 billion, or \$620 million a year. Estimated finance mobilized in 2020 was \$41 million—\$3 million (8%) from the private sector and \$37 million (92%) from the public sector. Private finance comes exclusively from institutional investors, and public finance comes principally from multilateral development finance institutions (\$32 million, or 78%), multilateral climate funds (\$4 million, or 9%), and the government (\$2 million, or 4%). Forestry and other land use and fishing account for \$32 million (80%), and multisector activities account for \$8 million (20%). The country has considerable natural capital, including the Congo Basin, a major source of carbon credits and climate resilience. It is also rich in bays, rivers, and mangroves; has a well developed river system; and maintains a maritime environment that favors productivity in economically valuable fisheries resources that could contribute to climate finance and green growth. However, the government needs to put in place a regulatory environment and policies that incentivize this type of financing.



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## Recent macroeconomic and financial developments

Real GDP grew 3.0% in 2022, up from 1.5% in 2021, due to the healthy state of the oil sector (which grew 7.1%) and the nonoil sector (which grew 2.3%). Growth in the oil sector was driven by the 45.3% rise in oil price associated with the 6.1% increase in oil production in 2022, and growth in the nonoil sector was driven by agriculture (which grew 4.9%), forestry (which grew 6.5%), and transportation (which grew 4.2%). The Bank of Central African States tightened monetary policy in 2022 by raising key rates several times to respond to inflationary pressures and boost foreign reserves. Inflation rose to 4.2% in 2022 from 1.1% in 2021 due to higher food prices and the effects of Russia's invasion of Ukraine. The fiscal balance turned to a surplus of 0.8% in 2022 from a deficit of 1.1% in 2021 due to higher oil revenue (up 51.8%). Debt fell to 52.6% of GDP in 2022 from 66.0% in 2021 thanks to lower financing needs. Reserves, which are used to finance the debt, dropped from 3.0 months of import cover in 2021 to 2.64 in 2022. The current account deficit was 1.2% in 2022 thanks to 45.7% growth in exports of goods and services.

Despite natural resources wealth and high GDP per capita (\$8,017 in 2021), social indicators remain poor, with poverty estimated at 33.4% and unemployment estimated at 28.8% in 2021.

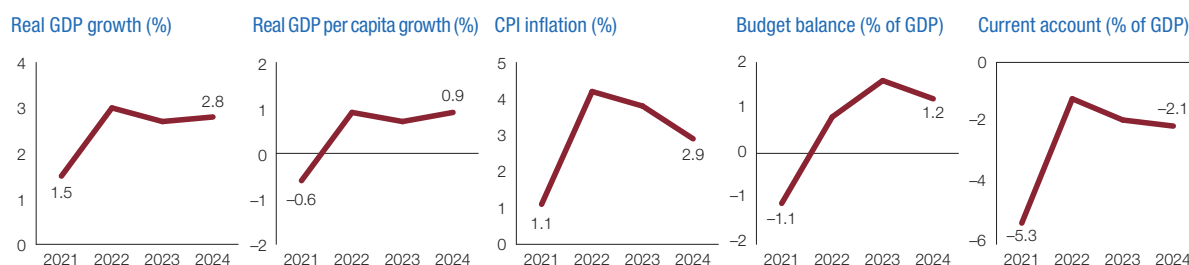
## Outlook and risks

Real GDP is projected to grow 2.7% in 2023 and 2.8% in 2024 due to high demand for export products (oil, manganese, wood, palm oil) and continued economic reforms. The budget balance is projected to remain in surplus, at 1.6% in 2023 and 1.2% in 2024. The

current account balance is likely to narrow to 1.9% of GDP in 2023 before widening slightly to 2.1% in 2024. Inflation is projected to rise to 3.8% in 2023, still above the 3% target due to effects of Russia's invasion of Ukraine, before dropping to 2.9% in 2024. Possible headwinds include the continuing COVID-19 pandemic, effects of Russia's invasion of Ukraine, and political instability linked to presidential elections in August 2023.

## Climate change issues and policy options

Green finance remains limited despite the country's substantial natural capital, which consists of forests, arable land, minerals, oil, waterways, and the like. About 88% of the country is covered by forest, a massive carbon sink, which according to the REDD+ initiative allowed the country to absorb 187 million tons of carbon dioxide between 2010 and 2018. In July 2022, the country committed to being carbon-neutral by 2050. The estimated finance needed to adequately respond to climate change for 2020–30 is \$658 million a year, while an average of \$83 million a year was received in 2010–20. All these funds came from the public sector: 57% from the government, 37% from multilateral partners, and 5% from climate funds. The two national financial institutions accredited by the Green Climate Fund to mobilize green finance are the Caisse des Dépôts et Consignations and the Fonds Gabonais d'Investissements Stratégiques. The private sector has only limited involvement in financing climate objectives due to low financial returns on associated projects. The government could encourage private investment in sustainable climate projects through tax incentives, innovative financing mechanisms, and favorable regulation.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.



# EAST AFRICA

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# Burundi

## Recent macroeconomic and financial developments

Real GDP grew an estimated 4.0%, up from 3.1% in 2021, led by public investment. The effects of Russia's invasion of Ukraine worsened the budget deficit, which widened to 5.1% of GDP in 2022 from 2.9% in 2021. The deficit was financed by external grants and loans as well as domestic loans and arrears. Public debt fell slightly in 2022, to 66.4% of GDP from 66.6% in 2021, but the risk of overindebtedness remains high.

The higher cost for imports of oil products, fertilizer, and food products, exacerbated by Russia's invasion of Ukraine, worsened both inflation and the trade deficit. Inflation more than doubled from 8.4% in 2021 to 18.7% in 2022. The trade deficit rose from 28.0% of GDP in 2021 to 28.7% in 2022, and the current account deficit rose from 11.0% of GDP in 2021 to 13.4% in 2022. The widening foreign deficit exacerbated the currency shortage, leading to a 2.9% depreciation of the Burundi franc against the US dollar between late August 2021 and August 2022. Reserves were estimated at 1.7 months of import cover in late August 2022, down from 3.1 months a year earlier. The poverty rate declined from 64.6% in 2014 to 62.8% in 2020.

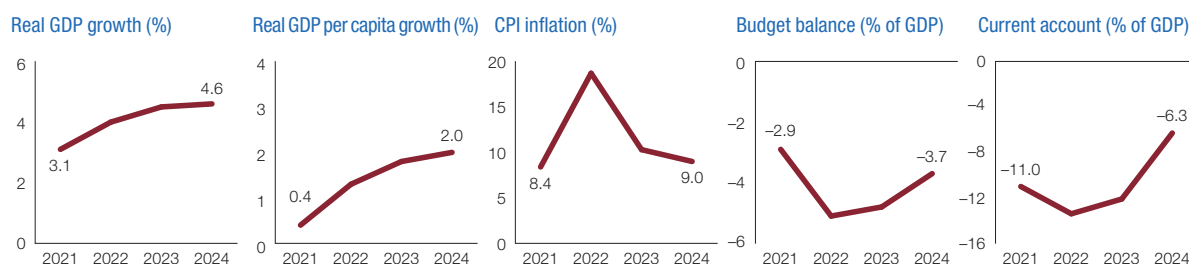
## Outlook and risks

Real GDP is projected to grow 4.5% in 2023 and 4.6% in 2024 thanks to public investment in transportation and energy. Measures aimed at boosting agricultural production and stabilizing the exchange rate are expected to reduce inflation, which is projected to drop to 10.3% in 2023 and 9.0% in 2024. Intensified mining, international economic and financial aid, and migrants' remittances may help narrow the current account deficit, projected to be 12.1% of GDP in 2023 and 6.3% in 2024.

in 2024. Public debt is projected to grow to 67.6% of GDP in 2023 before falling to 65.5% in 2024 thanks to budget consolidation, exchange rate unification, and higher mining exports. Possible headwinds include sociopolitical instability and disruptions in access to fertilizer, which could reduce agricultural returns and lead to inflationary pressures. Boosting security and partner support to develop the agricultural sector could mitigate these risks.

## Climate change issues and policy options

If Burundi receives the same \$186 million a year in climate finance that it received during 2016–20, the resulting climate finance deficit for 2020–30 will grow from \$178.4 million a year to \$215.0 million. This would severely limit capacity to strengthen climate resilience and promote green growth. Despite this considerable need, the country has yet to mobilize substantial climate finance from the private sector due to the discouraging business climate. Burundi could capitalize on its rich natural capital—504,116 hectares, or 17.5% of its territory, including 8.7% of forest ecosystems and 9.5% of aquatic and semiaquatic ecosystems—to contribute to climate finance and green growth. This could include debt-for-environment swaps, which could provide a double dividend of environmental protection and improved public debt sustainability. Due to its low carbon footprint, Burundi could also cash in on reforestation by participating in the carbon market, which could mobilize private finance to support green growth. The country's natural attractiveness is an opportunity to mobilize private investment in tourism (whose revenue accounted for 4.3% of GDP in 2019) by developing and exploiting tourism sites through private operators.



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## Recent macroeconomic and financial developments

Real GDP grew an estimated 2.9% in 2022, up from 2.2% in 2021, despite the surge in global prices following Russia's invasion of Ukraine. On the supply side, agriculture held up better, benefiting from the high prices of major export commodities. On the demand side, growth was driven by household final consumption spending, sustained by fund transfers from the diaspora. Inflation rose to 12.4% in 2022 from 0.1% in 2021 on the spike in energy and food prices. The central bank implemented a restrictive monetary policy in 2022, raising the minimum reserve requirement from 10% to 15% and conducting several liquidity-absorbing operations.

The budget deficit widened to 3.0% of GDP in 2022 due to rising public spending caused by higher prices and government subsidies on rice and flour. Debt was an estimated 32.7% of GDP in 2022, but the risk of overindebtedness is high due to limited repayment capacity for nonconcessional loans. Foreign exchange reserves were an estimated 9.5 months of import cover in 2022, down from 10.4 months in 2021. The current account balance turned to an estimated deficit of 3.2% of GDP in 2022 from a surplus of 0.4% in 2021 due to a structurally high trade deficit and lower foreign aid. The nonperforming loans ratio fell from 16.8% in 2021 to 13.9% in 2022. The poverty rate was an estimated 39.8% in 2022, up slightly from 39.7% in 2021.

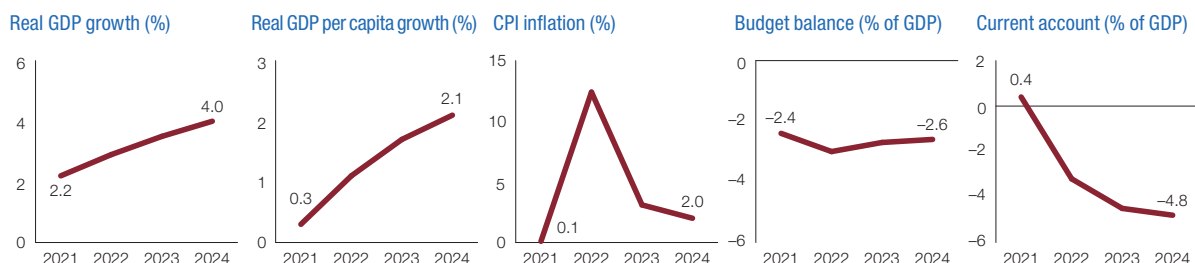
## Outlook and risks

The medium-term economic outlook is favorable, though fragile, with GDP projected to grow 3.5% in 2023 and 4.0% in 2024, supported by implementation of both the Plan Comores Émergent and the four-year arrangement under the IMF Extended Credit Facility for around \$43 million, expected to be approved in 2023. The engines of growth are expected to be services and agriculture on the supply side and household final consumption expenditure

on the demand side. Inflation is projected to decline due to downward trending global prices. The budget deficit is projected to remain high due to increased public spending linked to continued government subsidies for certain products and support for the economic recovery, specifically public investment. The current account deficit is projected to widen to 4.5% of GDP in 2023 due to an anticipated drop in the trade deficit following economic recovery and reduced external aid. Public debt is projected to rise moderately, and foreign exchange reserves are projected to remain high. Possible headwinds are escalation of Russia's invasion of Ukraine, reduced aid and external financing, and sociopolitical turmoil.

## Climate change issues and policy options

Climate finance depends on development partners. Having experienced a series of external shocks, Comoros must commit to green growth funded with private support to achieve sustainable development, economic growth, and climate action. The country has great potential for green growth, specifically its unique biodiversity and renewable energy potential. Since 2020, private international developers have started to invest in mini solar power stations, following the liberalization of electricity production and a commitment from the National Electricity Distribution Company to buy electricity produced from imported fossil fuels. Transfers from the diaspora—almost \$232 million in 2021, equivalent to 16.5% of GDP—could also be used to finance low-carbon flagship infrastructure projects. This would require improving climate data, strengthening the public-private cooperation framework, and developing innovative climate finance instruments. The estimated value of natural capital—primarily forests, coastal ecosystems, and agricultural land—was \$1.3 billion in 2018. Properly exploiting this natural capital could support climate finance and sustainable green growth.



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# Djibouti

## Recent macroeconomic and financial developments

Real GDP growth fell to 3.7% in 2022 from 4.8% in 2021 due to reduced port traffic attributable to the Tigray war and lower public investment. In 2022, the socio-economic impacts of the COVID-19 pandemic eased, and inflation rose to 5.3% from 1.2% in 2021 due mainly to higher food prices. Expansionist monetary policy aims to support economic activity and counteract the impact of numerous external shocks. The budget deficit narrowed to 1.0% of GDP in 2022 from 1.3% in 2021 due to reduced aid and higher tax revenue. The deficit was financed largely by accumulated external arrears, bank loans, and external borrowing. The current account surplus narrowed from 28.0% of GDP in 2021 to 25.1% in 2022 due to exports falling more than imports and transfers dropping with no counterparts.

Risk of external overindebtedness is high. Public debt fell from 74.1% of GDP in 2021 to 71.6% in 2022. Foreign exchange reserves were an estimated 3 months of import cover in 2022. Although the banking sector remains stable and liquid, performance was mixed in 2022, with deposit withdrawals and a resumption in bank financing. The nonperforming loans ratio fell to 5.5% in September 2022 from 16.2% at the end of 2019 due to the strict consolidation policy on outstanding receivables. The poverty rate fell from 16.9% in 2021 to 16.5% in 2022 due to government measures to mitigate multiple shocks.

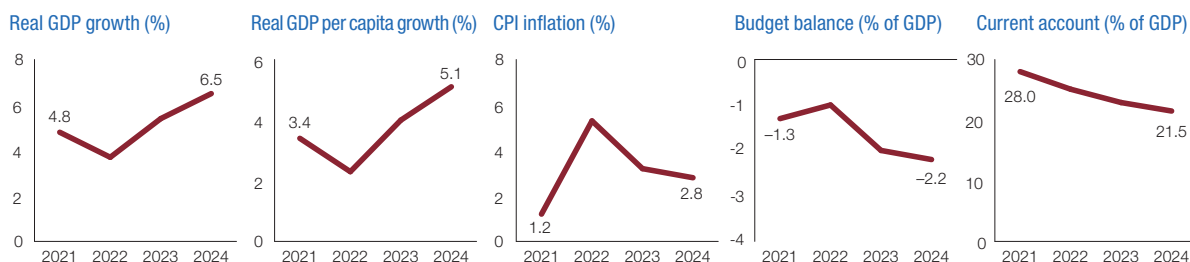
## Outlook and risks

With peace returning to Ethiopia, Djibouti's medium-term economic outlook is favorable. GDP is projected to grow 5.4% in 2023 and 6.5% in 2024. Inflation is projected to drop to 3% on average over 2023–24 as the price of essential goods remains high. The budget deficit is projected to widen to 2.1% of GDP between 2023

and 2024 due to current spending and higher investment. The current account surplus is projected to continue to narrow in 2023–24 due mainly to lower exports and stagnation in revenue from foreign military bases. Public debt is projected to increase to 73% of GDP over 2023–24 thanks to foreign loans used to finance infrastructure projects. Foreign exchange reserves are projected to remain at approximately 3 months of import cover over 2023–24. Possible headwinds include a return of instability in Ethiopia, difficulties in repaying external debt, a prolongment of Russia's invasion of Ukraine, the recurrent impact of climate change, and a resurgence of COVID-19.

## Climate change issues and policy options

Djibouti is particularly vulnerable to climate change, which threatens food security and water resources. Despite the country's negligible contribution to global greenhouse gas emissions, the government has committed to reducing emissions 40% by 2030. This voluntary commitment requires major investment in mitigation and adaptation. In 2015, climate finance need totaled \$5.5 billion, some of which has been mobilized. Climate finance requires an additional 2.2% of GDP, and green economy 8.4%. Energy, water, transportation, industry, and waste management are priority areas for green economy opportunities. Private finance for climate change and a green economy remains undeveloped and low. Despite limited natural resources, the potential for developing renewable energies, ecotourism, fishing, and salt is strong. Strengthening the legal, regulatory, and incentive framework and planning capacities could mobilize further private financial resources. The international community's contribution remains decisive in meeting the country's finance needs for climate change and a green economy.



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## Recent macroeconomic and financial developments

Real GDP growth slowed to an estimated 2.3% in 2022 from 2.5% in 2021 due partly to the impact of Russia's invasion of Ukraine on energy, fertilizer, and food prices. Russia and Ukraine account for nearly 100% of Eritrea's wheat imports, and oil constitutes 71% of the country's energy consumption. Other factors include the effects of COVID-19 on value chains, climate shocks, and the conflict in northern Ethiopia. Growth in 2022 was led by industry and services on the supply side and by private consumption and investment on the demand side.

The recovery in public revenue due to higher international prices for metals (copper, gold, and ores constitute 50% of exports) and fiscal consolidation narrowed the fiscal deficit to 2.2% of GDP in 2022 from 4.1% in 2021. The fiscal deficit was financed by drawdowns of government deposits with the central bank. Despite a drop in the public debt-to-GDP ratio to 164.7% in 2022 from 176.3% in 2021, reflecting debt servicing, Eritrea remains in debt distress. The current account surplus narrowed to 12.2% of GDP in 2022 from 13.5% in 2021, reflecting the uptick in imports due to higher international prices for energy and food. International reserves were estimated at 4 months of import cover in 2022. Inflation rose to 7.5% in 2022 from 4.5% in 2021 on account of higher energy and food prices. The financial sector remains bank-based with limited products. The nakfa is fixed at 15 per US dollar in the official market.

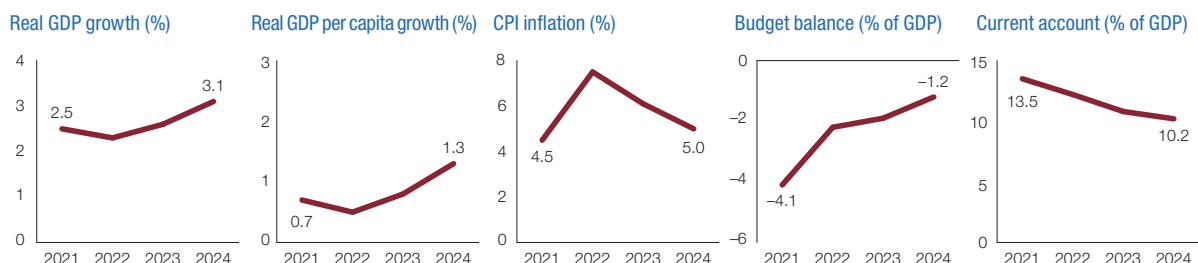
## Outlook and risks

Real GDP is projected to grow 2.6% in 2023 and 3.1% in 2024 due to higher international prices for metals, led by industry and services on the supply side and private consumption and investment on the demand side, reflecting the uptick in public and private consumption consistent with the reopening of economic activities. The fiscal deficit is projected to narrow to 1.9% of GDP

in 2023 and 1.2% in 2024 on account of fiscal consolidation. The current account surplus is projected to drop to 10.8% of GDP in 2023 and 10.2% in 2024 due to fluctuations in international commodity prices. Headwinds include climate change and the effects of Russia's invasion of Ukraine and the conflict in northern Ethiopia on supply chains. Poverty is expected to remain high as the share of the working poor, those who earn \$3.10 (in purchasing power parity terms) a day, in total employment was an estimated 75.2% in 2019.

## Climate change issues and policy options

Eritrea is among the most climate-vulnerable countries globally, with the least readiness. The estimated average climate finance gap for Eritrea over 2020–30 is \$1.202 billion a year, greatly limiting the country's ability to build climate resilience. During 2009–19, the country responded to climate change hazards through several projects, financed largely through grants and loans from bilateral and multilateral partners. Most climate finance was allocated to adaptation programs, notably interventions to restore degraded land and capacity building. The private sector remains small, with low capacity and access to finance. Limited awareness and the absence of catalytic risk-sharing instruments are among the key bottlenecks to private finance for climate and green growth. Consequently, there is a need to develop national platforms for exchanging knowledge and information related to climate change adaptation and mitigation. Eritrea has substantial endowments of copper, silver, zinc, gold, and potash, which accounted for about 10% of GDP and 50% of exports during 2010–19. Strong potential also exists for wind and solar energy. In this context, implementing economic and financial governance reforms to boost competitiveness and enhance the enabling environment for private finance of climate and green growth is equally important.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data on the budget balance correspond to Eritrea's fiscal year, which runs from July 1 to June 30.

# Ethiopia

## Recent macroeconomic and financial developments

Real GDP growth fell to 5.3% in 2022 from 5.6% in 2021 but remained above East Africa's average (4.7% in 2021 and 4.4% in 2022). Supply-side drivers of growth were industry and services, and demand-side drivers were private consumption and investment. Inflation rose to 34% in 2022 from 26.6% in 2021. Both growth and inflation were adversely impacted by internal conflict, drought, and the effects of Russia's invasion of Ukraine on commodity prices. The fiscal deficit widened to 4.2% of GDP in 2022 from 2.8% in 2021 due to higher defense spending and weak revenue performance. The banking sector, dominated by state-owned banks, is stable, although the nonperforming loans ratio was 5.4% in 2021, above the required 5.0% due to conflict-induced project stalling.

The current account deficit deteriorated to 4.0% of GDP in 2022 from 3.2% in 2021 due to higher prices for commodity imports. International reserves declined to about 1 month of import cover in 2022 from 2.2 months in 2021. Public and publicly guaranteed debt declined to 50.1% of GDP (with external debt at 23.6% of GDP) in 2022 from 51.0% in 2021. Ethiopia benefited from the G20 Debt Service Suspension Initiative in 2020–21. However, Ethiopia's application for the G20 Common Framework for debt restructuring in 2021 saw Fitch and S&P downgrade its sovereign rating from B to CCC. Income per capita grew 2.7% in 2022, but internal conflict and drought increased humanitarian support requirements from 15.8 million people in 2021 to 20 million in 2022.

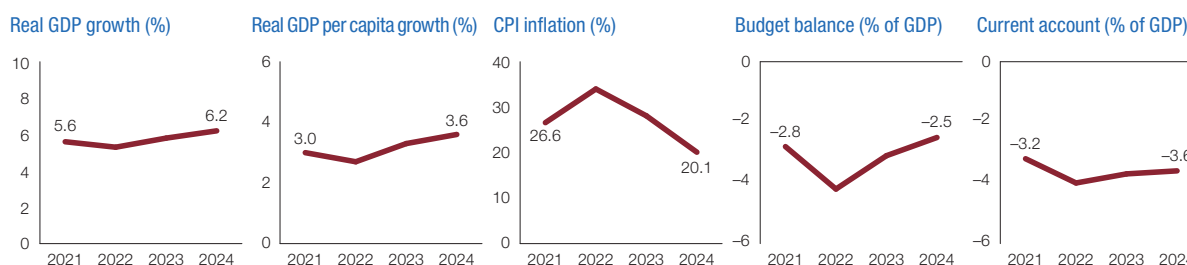
## Outlook and risks

GDP is projected to grow 5.8% in 2023 and 6.2% in 2024, driven by industry, private consumption, and investment. The peace dividend, rebounding tourism, and prospect of liberalizing more sectors are expected to boost the growth outlook. Inflation is projected to decline to 28.1% in 2023 and 20.1% in 2024, following the peace dividend.

The fiscal deficit is projected to grow to 3.1% in 2023 and 2.5% in 2024 due to the expected increase in government revenue driven by domestic resource mobilization improvements, implementation of the fiscal consolidation strategy, and resumption of donor inflows. The current account deficit is expected to narrow to 3.7% of GDP during 2023–24 as merchandise and service exports and foreign direct investment rise and imports of capital inputs continue to decline. Headwinds include interethnic conflicts in different parts of the country, drought, debt vulnerabilities, and the impact of Russia's invasion of Ukraine.

## Climate change issues and policy options

Over \$316 billion is required to finance Ethiopia's adaptation (87% of the total) and mitigation (13%) targets for 2021–30. However, only \$63.2 billion of financing is expected to be mobilized from domestic sources, with the rest from international sources. The average financing gap for 2021–30 is about \$33.1 billion a year, hampering Ethiopia's ability to build climate resilience. Limited financing, low technical capacity, and the use of poor technologies restrain the operationalization of climate and green growth strategies. Economic reforms and the establishment of money and capital markets will help increase the scope for financing green growth. Tax relief and other incentives are needed to encourage private companies to invest more in climate and green growth as part of their strategic goals and corporate social responsibility. Ethiopia launched its Natural Capital Accounting Initiative to build a robust information system for natural capital to underpin national priorities and strategies. Natural capital accounts for about 40% of wealth, with natural resource rents amounting to about 5% of GDP. Raising awareness of and mainstreaming climate and green growth policies in public and private investment, especially in the natural resource sectors, are important to exploit the natural capital potential.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

## Recent macroeconomic and financial developments

Real GDP growth slowed to 5.5% in 2022 from 7.5% in 2021, attributable to the drought, increased commodity prices, and tight global financial conditions. Growth was driven on the supply side by services and on the demand side by household consumption. Inflation rose to 7.6% from 6.1% in 2021, driven by food and energy inflation. Inflation was moderated by subsidies and raising the policy rate to 8.25% from 7% in 2021. The fiscal deficit narrowed to 6.3% of GDP from 8.2% in 2021 due to improved revenue collection and adherence to the International Monetary Fund-supported fiscal consolidation path. Public debt rose to 70% of GDP from 68% in 2021, driven by higher interest payments and exchange rate depreciation.

The current account deficit widened to 6.0% of GDP in 2022 from 5.5% in 2021, driven by the lower trade deficit. It was financed by drawing down foreign exchange reserves, which fell to \$7.42 billion (4.2 months of import cover) at end-2022 from \$9.5 billion (5.8 months) at end-2021. The Kenyan shilling depreciated to 123.3 per US dollar at end-2022 from 110.2 at end-2021. The capital adequacy ratio of 18.9% and liquidity ratio of 55% were higher than the respective targets of 14.5% and 20%. The nonperforming loans ratio remained high, at 14%. Credit risk concentration is high in manufacturing, energy and water, and agriculture. High extreme poverty (18%), unemployment (12.3%), and income inequality (Gini coefficient of 0.408)—manifestations of slow structural change—remain challenges.

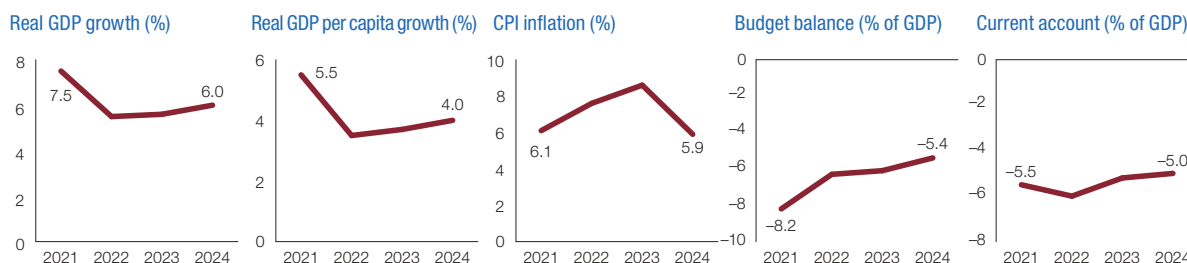
## Outlook and risks

GDP is projected to grow 5.6% in 2023 and 6.0% in 2024, driven by services and household consumption. Inflation is projected to rise to 8.6% in 2023 and 5.9% in 2024, driven by food and energy inflation. Monetary policy is expected to remain tight. The fiscal deficit is expected to narrow to 6.1% of GDP in 2023 and 5.4%

in 2024, in line with the fiscal consolidation path. The current account deficit is projected to narrow to 5.2% of GDP in 2023 and 5.0% in 2024, attributable to a recovery in global demand. The outlook is subject to considerable risks, including the effects of a prolongment of Russia's invasion of Ukraine on commodity prices, tight global financing, drought, and slow global economic recovery. Possible risk mitigation measures include diversifying exports and market destinations, enhancing domestic resource mobilization, deepening financial sector reforms, and accelerating structural reforms.

## Climate change issues and policy options

Kenya's Green Growth Index stagnated in the 48%–51% range during 2010–21, about halfway to its green growth target. This implies that if Kenya were supported by green growth policies, it could promote economic growth while reducing vulnerability to climate change. Kenya's national and sectoral green growth strategies and policies are aligned with its Nationally Determined Contribution (NDC). In 2019/20, NDC financing need totaled \$8.6 billion. Inflows from public and private sources amounted to \$1.9 billion, 21% of which was from the private sector. Kenya has the potential to scale up private climate finance through innovative financing approaches, such as green bonds, debt-for-nature swaps, blended financing, and climate markets. Renewable natural capital rose slightly, whereas nonrenewable natural capital rose 110% between 1995 and 2018. This suggests the potential to leverage private climate finance with natural resources. Notable initiatives enhancing natural capital include continuing oil exploration, increasing tree cover from 8.8% in 2022 to 30% by 2032, transitioning to 100% clean cooking by 2028, restoring 10.6 million hectares of degraded landscapes by 2032, and increasing land under irrigation from 500,000 acres in 2021 to 1.4 million acres by 2030. About 21%–30% of national territory is under forest cover.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data on the budget balance correspond to Kenya's fiscal year, which runs from July 1 to June 30.

# Rwanda

## Recent macroeconomic and financial developments

GDP growth reached 10.9% in 2021 before declining to 8.2% in 2022 due to climate shocks on domestic food production; high energy, food, and fertilizer prices; and weak external demand on exports. Inflation rose from 0.8% in 2021 to 17.7% in 2022, reflecting higher costs for imported goods and low domestic food production. The policy rate was raised 50 basis points, from 6.5% in November 2022 to 7% in February 2023, to reduce increasing inflation. The government introduced fertilizer and public transport subsidies to prevent a spiral in the cost of living.

The fiscal deficit was an estimated 8.8% of GDP in 2022, up from 8.5% in 2021, attributed to domestic revenue mobilization that extra tax revenue equivalent to 0.2% of GDP, while public debt remained at moderate risk. The current account deficit was an estimated 12.6% of GDP in 2022, up from 10.7% in 2021, because of a high import bill. The capital adequacy ratio at the end of September 2022 was 22.3%, far above the prudential limit of 15%, while the average return on assets was 3.0% and the average return on equity was 5.1%. The nonperforming loans ratio fell to 4.1% in September 2022 from 5.1% in September 2021. The extreme poverty rate declined from 47% in 2019 to 45% in 2021, and unemployment worsened to 17.9% in 2020 from 15% in 2019, with youth unemployment up to 22.4% from 18.2% during the same period.

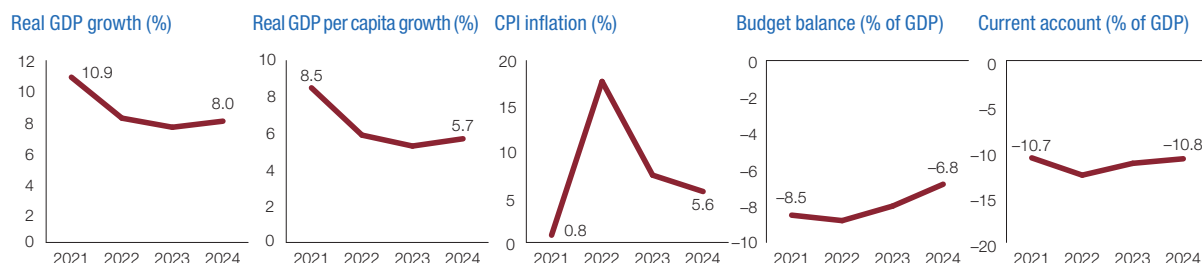
## Outlook and risks

Real GDP growth is projected to reach 7.6% in 2023 and 8.0% in 2024 on account of continued slow recovery in domestic agricultural production and recovery in exports and conference tourism. Inflation is projected to fall to 7.4% in 2023 and 5.6% in 2024 on account of a drop in imported inflation. The fiscal deficit is projected

to decline to 8.0% of GDP in 2023 and 6.8% in 2024 due to continued fiscal consolidation and higher domestic revenue. Debt is projected to remain at moderate risk. The current account deficit is projected narrow to 11.3% in 2023 and 10.8% in 2024 on account of a temporary reduction in capital imports, recovery in conference tourism, and strong remittances from the diaspora. Overall moderate economic performance is attributed to elevated risks from a prolongment of Russia's invasion of Ukraine and political tensions in the Great Lakes region.

## Climate change issues and policy options

Rwanda has articulated a bold vision to become carbon-neutral by 2050, with ambitious climate adaptation and mitigation interventions, at a cost of \$11 billion by 2030. But the country faces challenges mobilizing private financing due to high upfront capital needs for key projects, financing costs from banks, and collateral requirements. To address these challenges, it launched the Rwanda Green Investment Fund at the 2022 United Nations Climate Change Conference. Capitalized with \$104 million, the fund has been financing project preparation and providing concessional credit facility loans and guarantees to support small and medium enterprise investment in green projects. The fund aims to mobilize climate finance at speed and scale to finance a pipeline of innovative projects in clean energy, smart mobility, sustainable cities, climate-smart agriculture, increased forest cover, and waste and the circular economy. These investments are expected to crowd in at least \$364 million, create at least 372,000 jobs, and eliminate 1 million tons of carbon dioxide emissions by 2030. The country's stock of natural capital, economic value, and potential to support climate finance and the transition to green and sustainable growth have not been adequately estimated.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data on the budget balance correspond to Rwanda's fiscal year, which runs from July 1 to June 30.

# Seychelles

## Recent macroeconomic and financial developments

GDP growth rebounded to 7.9% in 2021 and 9.5% in 2022, exceeding the East Africa averages of 4.7% and 4.4%. Growth was driven by tourism and fisheries on the supply side and by household consumption and investment on the demand side. A successful vaccination program helped reduce the COVID-19 pandemic's impact on the economy. Overreliance on imports exposed the economy to external shocks. Monetary policy remained accommodative, and inflation declined to 2.8% in 2022 from 9.8% in 2021 as supply disruptions eased but remained higher than before the pandemic. The Seychellois rupee appreciated 33% in 2022, to 14.4 per US dollar, on higher tourism. The fiscal deficit narrowed to 3.6% in 2022 from 6.8% in 2021 as revenue collection improved. The current account deficit also narrowed, to 7.0% of GDP in 2022 from 10.8% in 2021, on buoyant tourism performance. Both deficits were financed by concessional loans and domestic borrowing. Reserves remained strong at around 4 months of import cover in 2021/22. Debt declined to 75.0% of GDP in 2022 from 89.5% in 2020 amid rebounding GDP and an effective debt management strategy. The financial sector is well developed, though highly concentrated, with the three largest firms holding 80% of assets, deposits, and loans. The nonperforming loans ratio remained low, at less than 6% in 2021 and 2022.

With 15 social welfare programs, the COVID-19 pandemic's impact on poverty was low, though unemployment increased to 4.8% in 2020 from 2.3% in 2019. Income inequality is also low, with a Gini coefficient of 0.28 in 2017/18.

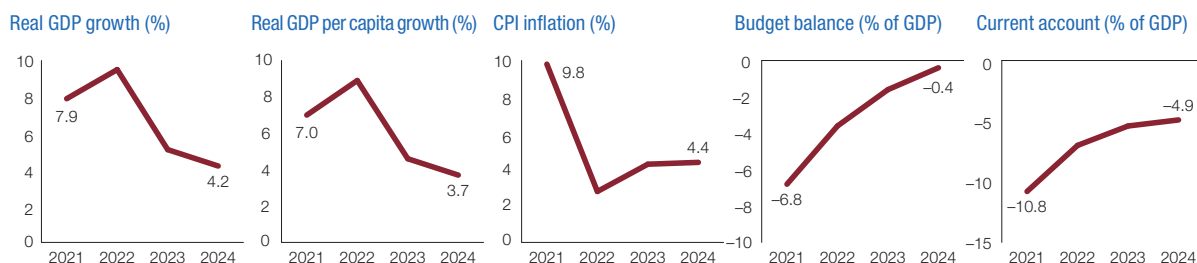
## Outlook and risks

GDP growth is projected to slow to 5.1% in 2023 and 4.2% in 2024 amid global supply chain disruptions due to Russia's invasion of Ukraine. Tourism and fisheries remain key growth drivers, but opportunities in knowledge-intensive services (notably digital finance) are untapped. Monetary policy is projected to remain

accommodative, and inflation is projected to rise to 4.3% in 2023 and 4.4% in 2024 on slower growth and higher import prices. The fiscal deficit is projected to decline to 1.6% of GDP in 2023 and 0.4% in 2024, driven by recovery in tourism and increased revenue, while the current account deficit is projected to narrow to 5.4% in 2023 and 4.9% in 2024 amid buoyant tourism. Debt is projected to fall below 70% in 2023 due to continued GDP growth and effective debt management. Uncertainty about the global economic recovery and supply chains remain major risks. Economic diversification and climate adaptation are crucial to build resilience.

## Climate change issues and policy options

The government's climate change policy and strategies prioritize transitioning to a low-carbon economy through reforms in energy, refrigeration and air conditioning, transport, and waste. For 2020–30, Seychelles needs an estimated \$61.3 million a year and faces an average financing gap of \$14.4 million a year. The government has had several financing arrangements for climate resilience. It raised \$15 million through a blue bond backed by the World Bank and introduced the world's first debt refinancing for ocean conservation, protecting a third of its ocean territory against climate change. The government spends more than 4% of its budget on the environment and climate change, and to complement this, it introduced the sustainable environment levy for visitors as of April 2023. While Seychelles aims to address the bulk of its climate resilience through concessional financing, the private sector can complement these efforts given the country's clear strategies and climate resilience commitments; a public-private partnership law that can facilitate investment in green energy and eco-friendly transport; and the country's well developed and capitalized financial sector, capable of facilitating investment in eco-friendly energy and transport. Seychelles should capitalize on its globally recognized brand of natural beauty.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# Somalia

## Recent macroeconomic and financial developments

Real GDP growth dropped to 1.7% in 2022 from 2.9% in 2021 due to drought, insecurity, and food and fuel inflation triggered by Russia's invasion of Ukraine. Private consumption was boosted by remittances, which remained stable at 27.3% of GDP in 2021 and 2022, and private investment remained buoyant despite foreign direct investment (FDI) falling to 7.8% of GDP in 2022 from 8.0% in 2021.

Monetary policy is held back by widespread dollarization, but reforms are under way to establish a framework for monetary and exchange rate policy. Inflation increased to 6.8% in 2022 from 4.6% in 2021 due to high energy and food import prices. The banking sector remains stable. While the nonperforming loans ratio rose from 1% in 2021 to 5% in June 2022, the capital adequacy and liquidity ratios remain sufficient. Somalia achieved a balanced budget in 2022, consistent with its completion point commitments under the Heavily Indebted Poor Countries Initiative (HIPC), compared with a deficit of 1.1% of GDP in 2021, which was financed by the 2021 Special Drawing Rights allocation (\$203 million, or 4.1% of GDP). Somalia remains in debt distress but is expected to reach its HIPC completion point by the end of 2023, reducing the risk of debt distress to moderate. The current account deficit widened to 17.1% of GDP in 2022 from 10.8% in 2021, driven by the growth of food imports and the suspension of budget support by some development partners prior to the May 2022 elections. The current account deficit was financed by aid, remittances, and FDI.

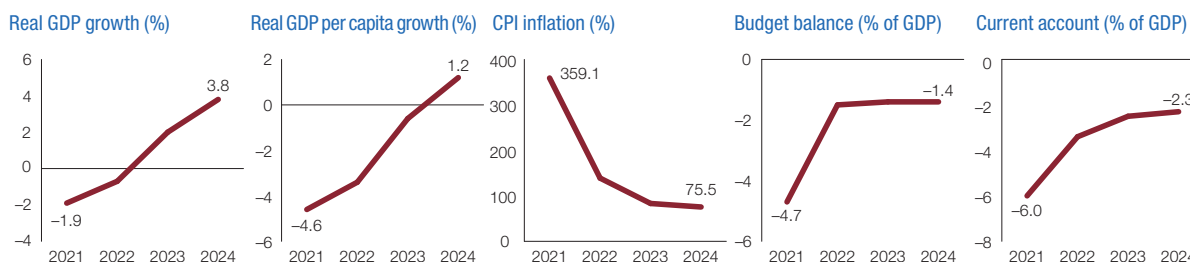
## Outlook and risks

GDP growth is projected to be 2.8% in 2023 and 3.5% in 2024, driven by private consumption and external demand. Inflation is projected to be 4.2% in 2023 and 4.0% in 2024 as supply chains stabilize. The fiscal deficit is projected to reach 0.3% of GDP in 2023 and 1.9% in 2024, calling for stronger public revenue mobilization.

The current account deficit is projected to remain high, at 15.8% of GDP in 2023 and 14.1% in 2024, reflecting the high import bill due to elevated energy and food prices. Headwinds include vulnerability to climate change (notably poor rainfall leading to persistent droughts), insecurity, slippages in reaching the completion point of the HIPC Initiative by the end of 2023, and weaker remittance inflows. A prolongment of Russia's invasion of Ukraine could further aggravate global energy and food prices, causing additional headwinds given Somalia's heavy reliance on imported food and oil for energy generation.

## Climate change issues and policy options

Somalia is highly susceptible to climate change, including droughts, floods, cyclones, and storm dust. Drought in 2022 caused crop and livestock failure, food insecurity, water scarcity, and loss of livelihoods, reducing real GDP growth from 2021, and displaced about 7.8 million people. If Somalia receives the same \$280 million a year in climate finance that it received over 2016–20, the resulting average financing gap would be \$4.42 billion a year during 2020–30, greatly limiting the country's ability to build climate resilience. Somalia's 2021 Nationally Determined Contribution was \$55.5 billion and identified options for private support to mitigation and adaptation, notably in energy and transport infrastructure, water, waste, food supply, forestry, and disaster risk response. Somalia has yet to fully harness its natural capital, including land, forests, coastline water and marine resources for fishing, minerals, and hydrocarbons. Enhancing institutional capacity will enable Somalia to harness its 2020 petroleum legislation and the National Blue Economy Strategy (2023–2027) to accelerate the mobilization of private finance and investment. Capacity building for relevant ministries in preparing bankable adaptation projects to crowd-in private investment and finance is equally important.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# South Sudan

## Recent macroeconomic and financial developments

Real GDP contracted an estimated 2.9% in 2021/22, after contracting 4.9% in 2020/21, driven by the oil sector. Oil production declined to 156,000 barrels a day in 2021/22 from 169,000 in 2020/21 after several oilfields were damaged by floods. The sector was the leading contributor on the supply side (−0.6 percentage point) to the real GDP contraction in 2021/22. Agriculture, which contributed −0.1 percentage point, was affected by floods and drought. On the demand side, the contraction was driven by net exports (−1.3 percentage points).

Tight monetary policy and reduced monetization of the fiscal deficit reduced inflation to an estimated 0.9% in 2021/22 from 43.5% in 2020/21. High lending rates (averaging 12% in 2022) remain a challenge for capital investment. The fiscal deficit widened to 6.6% of GDP in 2021/22 from 3.7% in 2020/21, owing to higher public spending. The fiscal deficit was financed by domestic and external borrowing. Overall and external public debt remains sustainable but with a high risk of debt distress. The current account deficit narrowed to 1.4% of GDP in 2021/22 from 4.9% in 2020/21 due to reduced financial transfers to Sudan under the Transitional Financial Arrangement for oil transit fees. The Special Drawing Rights allocation (3.8% of GDP) boosted international reserves. Poverty remains high, with an estimated 7.7 million people requiring emergency food assistance in 2022.

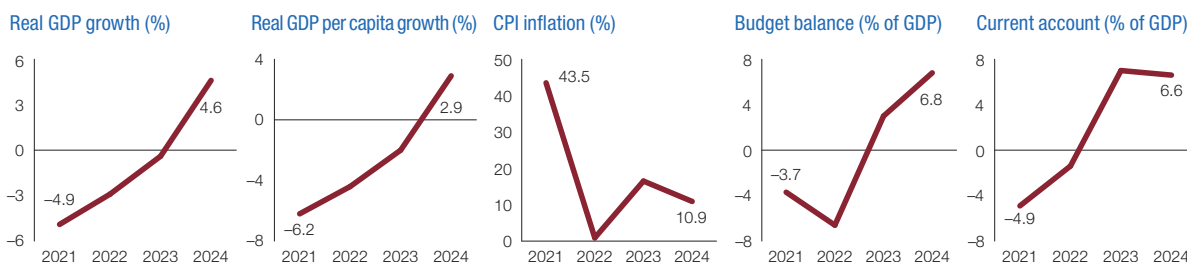
## Outlook and risks

GDP is projected to contract 0.4% 2022/23 and recover to 4.6% growth in 2023/24, driven by increased domestic oil production and higher global oil prices. The oil sector is projected to drive growth on the supply side, and private consumption and investment are projected to do so on the demand side. Headwinds include disruptions to the peace process and climate change. Inflation is projected to increase to 16.5% in 2022/23

and 10.9% in 2023/24, reflecting higher food prices. The fiscal deficit is projected narrow to a surplus of 3.0% of GDP in 2022/23 and 6.8% in 2023/24 due to fiscal consolidation and higher global oil prices, though lower tax revenue mobilization could hold back poverty-reducing and growth-enhancing public spending. The current account balance is projected to narrow to a surplus of 7.0% of GDP in 2022/23 and 6.6% in 2023/24, reflecting higher oil export revenue.

## Climate change issues and policy options

The financing gap to achieve South Sudan's climate and green growth ambitions is an estimated \$9.94 billion a year over 2020–30. Climate adaptation and mitigation needs are substantial in agriculture, livestock, and disaster risk management, among others. Data on private financing for climate and green growth are not readily available. However, the private sector faces several bottlenecks, including inadequate infrastructure, skills gaps, capacity shortages to develop bankable climate finance proposals, limited access to capital, and high lending rates. These hold back the sector's contribution to economic transformation, including financing climate and green growth. Consequently, developing policy and regulatory frameworks for green financing to crowd-in private investment and finance remains critical. South Sudan is endowed with considerable natural resources, including oil, minerals, forests, water, land, and biodiversity, which if well harnessed could lead to economic transformation and diversification away from oil and other extractive resources. Development partners, including the Bank, need to support South Sudan in designing suitable instruments for mobilizing finance for conflict or postconflict regions, such as security-indexed financing. Furthermore, the government could establish a natural capital accounting framework to support investment in green projects and programs.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data on the budget balance correspond to South Sudan's fiscal year, which runs from July 1 to June 30.



# Sudan

## Recent macroeconomic and financial developments

GDP grew 0.7% in 2022 after contracting 1.9% in 2021 on account of political instabilities and spillover effects of Russia's invasion of Ukraine. Growth in 2022 was driven by agriculture and mining on the supply side and by private consumption on the demand side. The central bank adopted reserve money targeting, reducing money supply growth to 48% in 2022 compared with 153% in 2021. Inflation eased from 359.1% in 2021 to 139% in 2022 due largely to unifying the exchange rate and reducing monetization of the fiscal deficit. Banks dominate the financial sector, accounting for over 80% of assets. Fiscal consolidation and improvement in public revenue reduced the fiscal deficit to 1.5% of GDP in 2022 from 4.7% in 2021.

Sudan's \$56 billion external debt (163% of GDP) in 2020 was expected to fall 50% by 2022 after the country achieved its decision point under the Heavily Indebted Poor Countries Initiative (HIPC) in June 2021. However, progress toward its HIPC completion point stalled due to the military takeover in October 2021. The current account deficit narrowed to 3.4% of GDP in 2022 due to higher exports following the normalization of operations at Port Sudan. The current account deficit was financed by portfolio investment and remittances. International reserves increased to 2.7 months of import cover in 2022 from 2.3 in 2021. The poverty rate rose from 64.6% in 2021 to 66.1% in 2022, and unemployment remained high, at 20.6% in 2022, due partly to reduced economic activity, owing to political instability.

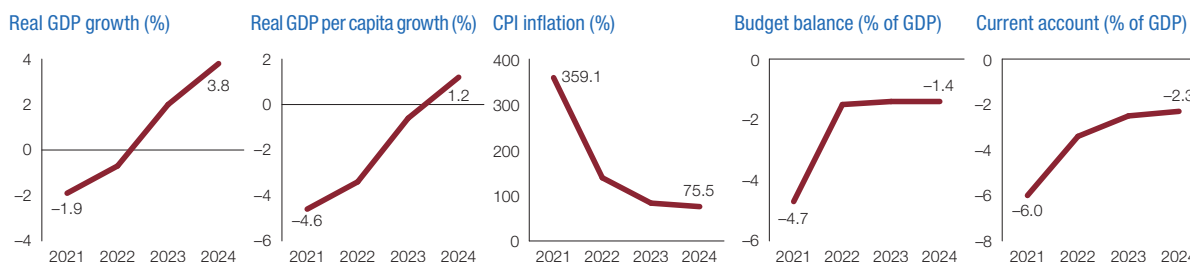
## Outlook and risks

GDP is projected to grow 2.0% in 2023 and 3.8% in 2024 on account of reduced political instability following the Framework Agreement signed between the military and civilians. Growth is projected to be driven by agriculture and mining on the supply side and private consumption and investment on the demand side. Headwinds include

political instability, tighter global financial markets, and the effects of Russia's invasion of Ukraine. However, ongoing efforts to implement the Framework Agreement are expected to restore political stability and accelerate the rollout of structural reforms. Consequently, inflation is projected to moderate to 83.2% in 2023 and 75.5% in 2024. Sustained rationalization of public spending is projected to reduce the fiscal deficit to 1.4% of GDP in 2023 and 2024. The fiscal deficit will be financed by domestic and external borrowing. The current account deficit is projected to narrow to 2.5% of GDP in 2023 and 2.3% in 2024 as exports stabilize.

## Climate change issues and policy options

Sudan faces land degradation, temperature increases, frequent droughts and floods, erratic rainfall, and locust invasions, which have reduced agricultural output, slowed GDP growth, and destroyed livelihoods. If Sudan receives the same \$160 million a year in climate finance that it received over 2016–20, the average financing gap would be \$2.39 billion a year during 2020–30, limiting its ability to build climate resilience. Sudan is unlikely to mobilize this huge financing from public sources; this calls for active engagement of the private sector, which spends \$50 million a year on climate-related activities. Sudan has strong natural capital, with huge natural resource endowments, including arable land, livestock, and minerals. Hindered by financing deficiencies, Sudan has yet to harness these resources for economic transformation, as less than 40% of GDP is generated from natural capital. Private engagement in climate finance is held back by lack of government incentives, high risks, and low returns on investments in nature-based solutions. Consequently, enabling policy frameworks to facilitate the establishment of natural capital-based markets to crowd-in private investment and finance are critical. Such policies include carbon taxation, clean technology subsidies, and bank loans linked to net-zero emissions.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# Tanzania

## Recent macroeconomic and financial developments

Real GDP growth slowed to 4.7% in 2022 from 4.9% in 2021 due in part to the impact of Russia's invasion of Ukraine, notably on food and energy prices. Growth was driven by services and agriculture on the supply side and by investment and consumption on the demand side. The accommodative monetary policy was tapered in June 2022 to contain inflationary pressures while supporting the growth recovery. But rising food and fuel prices pushed inflation to 4.3% in 2022 from 3.7% in 2021. Exchange rates remained stable, supported by high gold exports and tourism receipts.

The fiscal deficit narrowed to an estimated 3.4% of GDP in 2022 from 3.8% in 2021, in line with the pickup in revenue performance, and was financed by external and domestic borrowing. Public debt remains sustainable and stabilized at 40.4% of GDP in 2021 and 40.9% in 2022. The current account deficit widened to 5.7% of GDP in 2022 from 3.4% in 2021, driven by the uptick in the import bill due in part to higher oil prices, and was financed mainly by external commercial debt as other financial flows including foreign direct investment and grants declined. International reserves dropped to 4.7 months of import cover in December 2022 from 6.6 months in December 2021, reflecting the tighter external financing environment. The poverty rate increased from 26.1% in 2019 to 27.7% in 2020 due to the economic slowdown induced by the COVID-19 pandemic, while inequality, measured by the Gini coefficient, increased from 0.42 in 2015 to 0.44 in 2021.

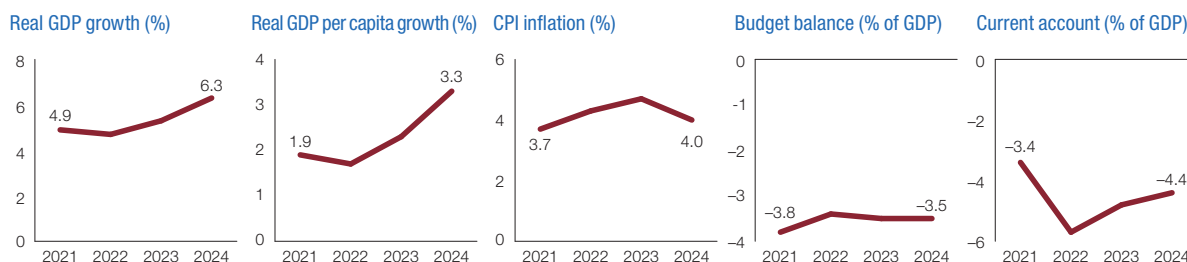
## Outlook and risks

Real GDP growth is projected to rise to 5.3% in 2023 and 6.3% in 2024, driven by the sustained recovery in tourism and gradual stability in supply and value chains. Inflation is projected to increase to 4.7% in 2023 due to higher food and energy prices before moderating to

4.0% in 2024 due to better agricultural performance. The fiscal deficit is projected to widen to 3.5% of GDP in 2023 and 2024 due to higher spending on infrastructure, financed by domestic and external borrowing. The current account deficit is projected to narrow to 4.8% of GDP in 2023 and 4.4% in 2024 due to higher merchandise exports and tourism receipts and is projected to be financed mainly by external borrowing. Headwinds include the lingering possibility of new COVID-19 variants and the effects of Russia's invasion of Ukraine, which could aggravate food and oil prices.

## Climate change issues and policy options

The financing gap for Tanzania to respond adequately to climate change over 2020–30 is an estimated \$3.4 billion a year. Potential exists for private financing to bridge this gap, including through carbon taxes and green-listed equity. However, many private investors are less attracted to climate mitigation investments due to perceived low returns and poor incentives. Of the \$5.5 billion in climate finance received over 2010–20, \$3.0 billion (approximately 54%) came from the private sector, but uncertainty about incentive policies is a major risk to the sustainability of this trend. In addition, Tanzania has vast natural capital that can complement public and private financing of climate change and green growth. Hydropower, with a potential of 7 gigawatts, accounts for only 561 megawatts of installed capacity. Geothermal potential is estimated at 5 gigawatts; solar photovoltaics potential, with average sunshine of more than 9 hours per day, is estimated at 34 gigawatts; and on-shore wind potential, with windspeeds of 0.9–9.9 meters per second across the country, is estimated at 8 gigawatts. Tanzania has about 57 trillion cubic feet of discovered natural gas reserves, with 8.3 trillion cubic feet earmarked for generating 7.09 gigawatts of electricity. By 2022, 100 million cubic feet had been harnessed for 527 megawatts of electricity.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data on the budget balance correspond to Tanzania's fiscal year, which runs from July 1 to June 30.

# Uganda

## Recent macroeconomic and financial developments

Real GDP grew an estimated 6.3% in 2022, more than the 5.6% in 2021, despite higher commodity prices, tighter financial conditions fueled by Russia's invasion of Ukraine, and continued global supply chain disruptions. Agriculture, notably food crops, performed well, supported by good rains, while growth in industry weakened as output in construction waned. Services also performed well as trade and repairs and the health subsector demonstrated strong growth. During 2022, the Uganda shilling depreciated 3.8% against the US dollar. Inflation was 7.2%, driven by a 14.9% increase in food prices and a 12.7% increase in energy prices. Higher food and energy prices pressed households, especially subsistence farmers and urban dwellers. To curb inflation, the Bank of Uganda raised the policy rate four times in 2022, from 6.5% to 10%. The financial sector remains well capitalized, with a capital adequacy ratio of 21.7% in 2022.

Higher public investment in roads, interest costs, and other nonwage spending stoked fiscal deficits until 2020. Since then, the government has slowed the pace of investment, reducing the deficit to 7.4% of GDP in 2021 and an estimated 5.3% in 2022. The deficit was financed through public borrowing, rising to 50.3% of GDP in June 2022. Risk of public debt distress is moderate, and public debt remains sustainable. The current account deficit remains elevated, at 8.6% of GDP, attributed to rising imports and lower tourism receipts after the COVID-19 pandemic, which were exacerbated by a short Ebola outbreak in 2022.

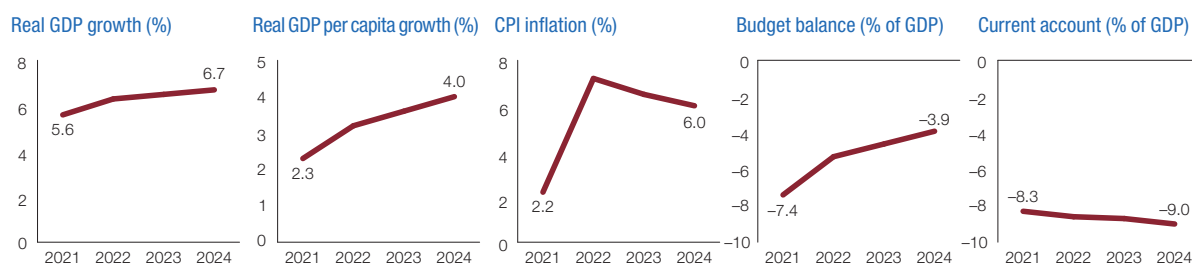
## Outlook and risks

GDP is projected to grow 6.5% in 2023 and 6.7% in 2024, assuming any global growth slowdown will be short lived. This expansion is projected to be supported by stronger growth in East Africa, while the Chinese economy has eased lockdowns, reducing global supply chain disruptions, supporting higher growth. Following

the final agreements in 2022, the oil sector is ramping up investments, underpinning growth beyond the medium term. Although inflation is expected to slow, it is projected to remain above the central bank's medium-term target of 5%. The fiscal position is projected to improve, reflecting consolidation efforts. External risks are tilted toward the downside, notably a prolongment of Russia's invasion of Ukraine and continued supply chain disruptions, while pockets of regional insecurity continue to pressure security-related spending. Domestic risks relate to unexpected increases in public spending on infrastructure amid weak tax revenue.

## Climate change issues and policy options

Uganda's estimated climate finance needs are \$17–\$28 billion during 2020–30, with an average financing gap of \$1.3–\$2.2 billion a year. The government will need to mobilize private investment to close this gap. The private sector is financing projects in agriculture, forestry, and renewable energy, but more is required. To achieve the Nationally Determined Contribution targets, investment of \$880 million–\$2.3 billion is needed in renewable energy. Uganda can tap into its natural capital to finance climate change and green growth while emphasizing sustainability. The country already faces overexploitation of renewable natural capital, especially forest land, which has shrunk to 9% from 25% in 1990. Sustainable exploitation and replenishment of forests must take center stage. Uganda has large deposits of nonrenewable natural capital: oil and gas, iron ores, and "green" metals that can be sustainably exploited. The country is expected to produce 230,000 barrels of crude oil a day from 2025, generating substantial revenue. These resources could be channeled into green technologies. Green metals and iron-ore deposits could be developed using technologies for greening manufacturing and construction to provide the basis for transforming to a green economy. To attract the right investors, stronger accountability and transparency will be required.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data on the budget balance correspond to Uganda's fiscal year, which runs from July 1 to June 30.

# NORTH AFRICA

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## Recent macroeconomic and financial developments

Real GDP growth climbed to 3.0% in 2022 from 3.4% in 2021, stimulated by the rebound in oil prices in 2022. Monetary authorities implemented a refinancing plan to grant new loans to the government and the rest of the economy. Inflation continued to rise, to 9.3% in 2022 from 7.2% in 2021, due to global inflation. The budget deficit fell from 6.9% of GDP in 2021 to 0.2% in 2022, while budgetary revenue rose, especially revenue related to the oil sector. The current account swung to a surplus of 7.8% of GDP in 2022 from a deficit of 2.8% in 2021 thanks to higher volume and value of oil exports as well as import compression measures. In 2022, foreign exchange reserves reached 18 months of import cover, up from 11.1 months in 2021. Public debt, primarily domestic, dropped to 52.4% of GDP from 62.1% in 2021, encouraged by the smaller budget deficit and nominal GDP growth. Financial system modernization showed progress in 2022, with a denser network of insurance companies (170 additional agencies) and improved financial inclusion, notably the deployment of Islamic finance products.

Algeria's Human Development Index rank improved, to 91st of 191 countries. The multidimensional poverty rate declined to 1.4% in 2019 from 2.1% in 2013 despite high unemployment (14.5% in 2021 and 14.9% in 2022). In 2021, the government launched an unemployment benefit of 15,000 Algerian dinar (approximately \$110) a month.

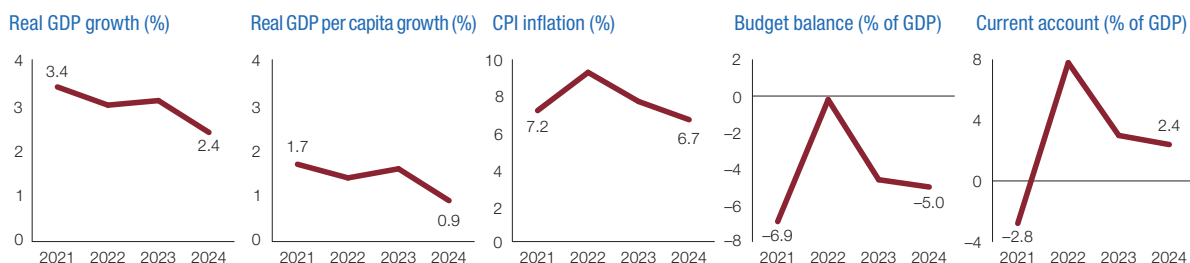
## Outlook and risks

Real GDP growth is projected to reach 3.1% in 2023 before dropping to 2.1% in 2024. While crude oil prices are expected to remain high, capacity to expand production could be limited in the short term. As a result, growth may decline due to the lack of an explicit economic diversification policy and constraints on the capacity to expand natural gas production in the short term. Inflation

is projected to decline to 7.7% in 2023 and 6.7% in 2024. Constraints on global grain supplies could maintain pressure on food prices, and due to the monetary financing of the budget deficit, monetary policy is expected to remain expansionist. The budget deficit is projected to widen to 4.6% of GDP in 2023 and 5.0% in 2024 due to lower tax revenue and higher budgetary spending pressured by social spending. The external current account is projected to achieve a surplus of 3.0% of GDP in 2023 and 2.4% in 2024, both below the 2022 surplus. The economy's strong dependence on the oil sector poses a risk for the medium-term economic outlook.

## Climate change issues and policy options

An estimated \$22 billion is needed over 2020–30, \$2.3 billion a year, to adequately respond to climate change. But the share of private finance in the energy transition and green growth remains low. The private sector is hampered by difficult access to long-term resources and a business climate inconducive to mobilizing foreign direct investment. But initiatives are being undertaken as part of the National Climate Plan, including implementing the National Fund for Energy Management and Renewable Energies and Cogeneration, which is expected to encourage private investment through compensation schemes, given the additional cost of generating electricity from renewable energy resources and cogeneration systems. These initiatives are all the more necessary given Algeria's large stock of natural capital, which includes an abundant supply of renewable energy (solar, wind, geothermic), fossil energy (oil and gas), and mineral resources (iron, helium, uranium). Nevertheless, due to the shortage of freshwater resources, the threat of drought, and the possible depletion of its fossil energy resources (oil and gas) in the medium term, Algeria scored 37.1 out of 100 on the 2021 Natural Capital Index.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

## Recent macroeconomic and financial developments

In 2021/22, real GDP growth increased to an estimated 6.6%, driven by gas extractives, communications, agriculture, and construction. But manufacturing performed below its potential. On the demand side, growth was driven by household consumption and investment. The fiscal deficit fell from 6.9% of GDP in 2020/21 to an estimated 5.8% in 2021/22, with a primary surplus of 1.2% of GDP. Total spending increased but was compensated by a 15% rise in value added tax revenue and a 40% jump in receipts from property taxes over the previous fiscal year. Public debt fell modestly, from 92.0% of GDP in 2020/21 to an estimated 89.6% in 2021/22, because of a lower budget deficit.

Inflation increased from 4.5% in 2020/21 to 8.5% in 2021/22, led mostly by rising international food and energy prices and the depreciation of the Egyptian pound against the US dollar by 16% in May 2022. The current account deficit narrowed to 3.5% of GDP in 2021/22 from 4.4% in 2020/21 thanks to tourism revenue rising to \$10.7 billion from \$4.9 billion. The banking system remained profitable and well capitalized, and the nonperforming loans ratio was limited to 3.2% in June 2022. Subsidies and social protection programs have reduced the impact of high food and energy prices on vulnerable households. The poverty rate was 29.7% in 2020. Unemployment remained stable at 7.2% in June 2022.

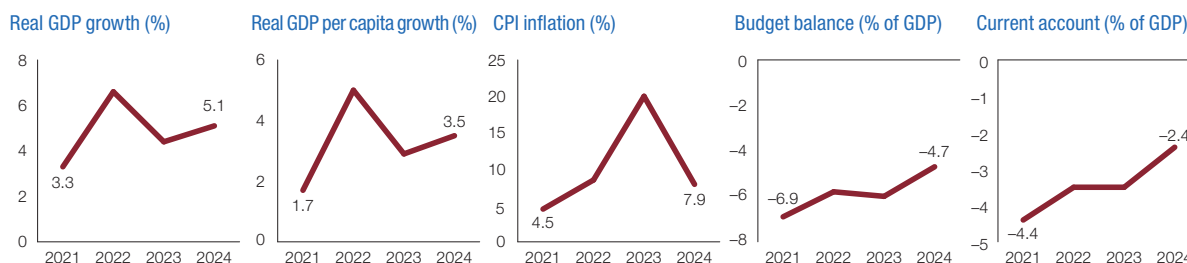
## Outlook and risks

The outlook remains clouded by uncertainty related to the global economic context. Growth is projected to slow to 4.4% in 2022/23. The fiscal deficit is projected to widen slightly, to 6.0% of GDP in 2022/23, and inflation to increase to 20.0%, as a result of high food and nonfood prices and the devaluation of the Egyptian pound against the US dollar. The current account deficit is expected to remain at 3.5% of GDP in 2022/23 and improve to

2.4% in 2023/24 thanks to higher tourism revenue and oil exports. In December 2022, the International Monetary Fund Executive Board approved an Extended Fund Facility Arrangement of \$3 billion for Egypt, which aims to maintain economic and financial stability and enhance comprehensive structural reforms. Moreover, the government announced the privatization of \$40 billion worth of state-owned enterprises over 2023–27 to give the private sector more room to grow. Need for large external financing remains an important risk.

## Climate change issues and policy options

The financing needed for Egypt to adequately respond to climate change is an estimated \$19.75 billion a year. If Egypt receives the same \$1.25 billion a year in climate finance that it received over 2010–20, the resulting financing gap will be \$18 billion a year over 2020–30. The private sector is involved in several projects financed by the Green Climate Fund, the Clean Technology Fund, and multilateral financial institutions, accounting for about 13% of climate finance in 2019–20. However, the private sector is facing some challenges to scaling up its participation in addressing climate change, including lack of technical knowledge, limited access to funds, unclear laws and regulations, and a weak case for adaptation. Key long-term strategic opportunities for the private sector include creating a carbon market, issuing green bonds, establishing 15 new green cities, and implementing the Integrated Sustainable Energy Strategy, which steps up renewable energy in the electricity mix to 42% by 2035. Also, minerals are in large quantities but are yet to be exploited to their full potential. As of 2021, Egypt ranks 28th in proven oil reserves and 18th in proven gas reserves. Egypt's natural capital could be a source of climate actions and green growth financing, with important involvement of the private sector.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data in the figure correspond to Egypt's fiscal year, which runs from July 1 to June 30.

## Recent macroeconomic and financial developments

In 2022, real GDP contracted sharply, by 12.1%, after growing 28.3% in 2021. The recession was driven by rising conflict and lower performance of hydrocarbon, services, and, to a lesser extent, manufacturing. Inflation increased to 4.6% in 2022 from 2.8% in 2021, following the rise in prices of food and essential goods. As of January 2023, no agreement had been reached on unifying the Central Bank of Libya with its Eastern branch, affecting the country's monetary policy and banking system. The fiscal surplus rose to 13.8% of GDP in 2022 from 11.3% in 2021, due mainly to higher oil revenue. In 2022, spending also increased, driven mainly by higher spending on salaries and an extraordinary budget outlay for the National Oil Corporation to fund operations and investments.

The current account surplus remained in 2022 but dropped nearly 5 percentage points from 2021, reflecting volatility in oil exports. Public debt is domestic and estimated at \$33 billion in 2021, or 83% of GDP. Political turmoil has affected the banking system's operating environment and performance, while the liquidity crisis persists. Domestic credit to the private sector represented 16.6% of GDP in 2020. In 2022, 2% of the population was multidimensionally poor, and 11.4% was vulnerable to becoming multidimensionally poor. About 800,000 people in need require humanitarian assistance. The unemployment rate reached 19.6% in 2022, and acute food insecurity continues to escalate.

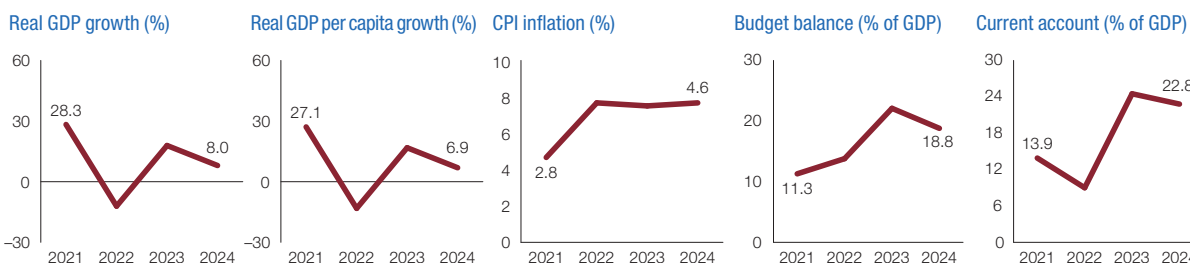
## Outlook and risks

Real GDP is projected to grow 17.9% in 2023, reflecting a base effect, and 8.0% in 2024, buoyed by hydrocarbon sector recovery and high oil prices. Inflation is projected to remain under control, at 4.5% in 2023 and 4.6% in 2024. The fiscal balance is projected to post a

surplus of 18.8%–22.1% of GDP in the short term due to high oil revenue. Continuing oil sector recovery is projected to boost exports more than imports—which may boost the current account surplus, projected to reach 24.5% of GDP in 2023—and to result in a large accumulation of foreign reserves. Headwinds include increased political instability and conflicts, leading to an oil blockade and additional humanitarian needs. On the global side, tighter financial conditions could further slow global economic growth, reducing oil demand.

## Climate change issues and policy options

Libya has elaborated neither a national climate change strategy nor a National Determined Contribution. The potential of the domestic private sector to close the climate finance gap remains very low, following prolonged conflict and macroeconomic uncertainty. Although international private financing could be an alternative, it depends heavily on stabilizing the political situation. Over 2010–20, Libya received \$328.2 million in climate finance, mainly from the Global Environment Facility and the Green Climate Fund. In 2019–20, 94% of climate finance in the country, or \$44 million, was from the private sector. Attracting private climate finance requires appropriate regulatory policies and investment incentives. Libya is well endowed with hydrocarbon resources, holding 3% of the world's proven crude oil reserves at the end of 2021, the largest endowment in Africa (39% of the continent's total) and the ninth largest globally. In 2021, Libya was the third largest producer of crude oil in Africa, after Nigeria and Algeria. Only 25% of Libya's territory has been explored for hydrocarbons. The country also holds important untapped mineral resources such as iron ore, limestone, magnesium salts, potassium salts, gold, and uranium, in addition to phosphate and silica deposits.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# Mauritania

## Recent macroeconomic and financial developments

Real GDP growth rose to 5.3% in 2022 from 2.4% in 2021, underpinned mainly by higher extractive and agricultural production and trade. The major drivers of growth on the demand side remain household consumption and investment. Inflation rose to 9.6% in 2022 from 3.8% in 2021 due to higher global prices for imported foodstuffs and petroleum products. The Central Bank of Mauritania pursued a restrictive monetary policy in 2022 by raising its key rate 300 basis points to 8%. The banking sector increased financing to the private sector 16.4% from 2021.

Higher current spending (17.0% of GDP in 2022, up from 12.0% in 2021), particularly subsidies for energy and food products, led to a budget deficit (1.2% of GDP in 2022, following a 2.2% surplus in 2021) for the first time since 2018. Tax revenue remains insufficient at 12.5% of GDP in 2022, up from 10.8% in 2021. Debt restructuring agreements with Kuwait and Saudi Arabia reduced debt to 48.4% of GDP in 2022 from 57.9% in 2018. The current account deficit widened to 13.7% of GDP in 2022 from 7.9% in 2021 due to higher prices for food imports and petroleum products. The COVID-19 pandemic had a negative impact on the social wellbeing of the population, particularly on unemployment (11.5% in 2021, up from 10.4% in 2019) and multidimensional poverty (56.9%).

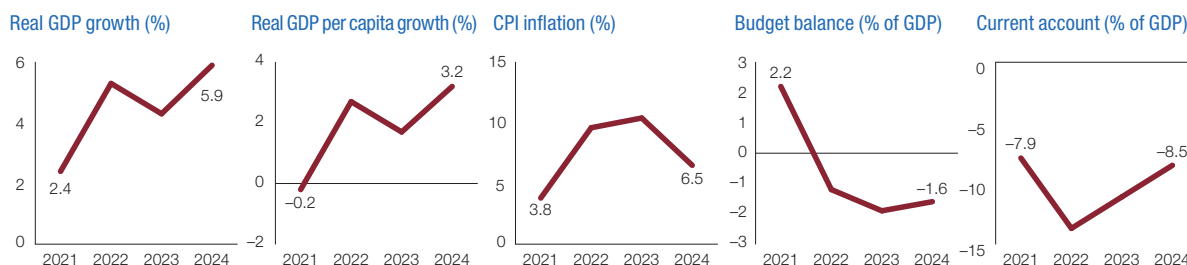
## Outlook and risks

Real GDP is projected to grow 4.3% in 2023 and 5.9% in 2024, supported by the primary and extractive sectors and the expected benefits of gas development. Inflation is projected to rise to 10.4% in 2023 before dropping to 6.5% in 2024 with the central bank's restrictive monetary policy. The budget balance will remain in deficit (1.9% of GDP in 2023 and 1.6% in 2024), consistent with higher current and investment spending. Debt is projected to stabilize at 49% of GDP in the short

term, ensuring that risk of debt distress remains moderate. The current account deficit is projected to narrow to 11.1% of GDP in 2023 and 8.5% in 2024 thanks to anticipated gas exports. Possible headwinds include security tensions in the Sahel, high prices for imported food and energy products, price volatility for exported raw materials (mainly iron), and recurrent droughts and floods, which impact food security. In addition, the efficiency of public spending and debt management needs to improve.

## Climate change issues and policy options

The estimated finance needed to reduce greenhouse gas emissions 11% by 2030 is \$4.8 billion a year over 2021–30, 72.1% of which is earmarked for mitigation. But the country lacks a dedicated climate finance mechanism. The private and banking sectors have almost no presence in climate finance. Most of the \$1.0 billion received over 2010–20 came from international partners. Obstacles to private sector participation include the lack of knowledge of climate change risks and opportunities, the high cost of investment related to climate change adaptation, and the limited availability of private resources devoted to green investment. Essential actions include adopting green financial instruments such as green bond issues to increase resource mobilization, establishing a special green fund dedicated to the private sector, adopting tax incentives to encourage green private investment, and involving the private sector in strategies for climate change adaptation. Mauritania has substantial natural capital (gas, green hydrogen, iron, fishery resources, and agricultural land) valued at \$24.3 billion in 2018, whose sustainable development could support climate finance and green growth. In addition, phase 1 of the Grand-Tortue/Ahmeyim gas project should provide additional room for budgetary adjustments of at least 0.5% of GDP in 2024.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.



## Recent macroeconomic and financial developments

Real GDP grew 1.1% in 2022, down from the buoyant recovery of 2021 (7.9%). Agricultural value added fell 15% from 2021 due to the worst drought of the past 40 years. Manufacturing, tourism, and transport performed well. The drought and inflation weighed negatively on household consumption, while foreign direct investment was up 31.5% and public investment 20.6%. Inflation rose sharply, to 6.6% in 2022 from 1.4% in 2021, driven by food inflation of 11% and higher commodity prices. Since 2022, the central bank has raised its key interest rate by 1.5 basis point, to 3%. Measures to mitigate inflationary pressures pushed fiscal spending up in 2022, but the fiscal deficit eased to 5.1% of GDP from 5.9% in 2021, on strong fiscal revenues.

Rising commodity prices impacted the current account deficit, which widened to 4.6% of GDP in 2022 from 2.3% in 2021. Credit to the private sector increased in 2022, to 67% of total credit. However small and medium enterprises, which account for 74% of employment, received only 12% of bank loans. Foreign exchange reserves reached 6 months of import cover at end-2022. In 2022, the shares of people living in poverty (4.9%) and vulnerable to living in poverty (12.7%) returned to their 2014 rates due to inflation and the impact of the drought on agricultural revenue.

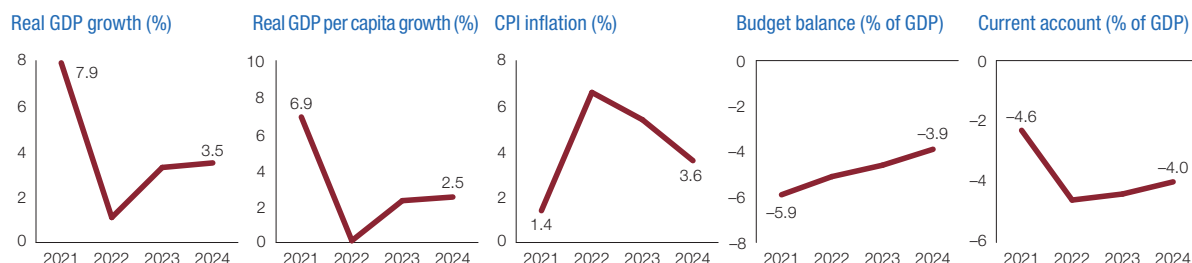
## Outlook and risks

GDP growth is projected to rise to 3.3% in 2023–24, driven by a recovery in agriculture. Nonagricultural GDP growth is projected to remain modest, at 2.7%, because of the anticipated worldwide economic slowdown. Inflation is projected to ease to 5.4% in 2023 thanks to higher agricultural output. However, the central bank could raise its key interest rate further. The fiscal deficit

is projected to fall, albeit slowly, given ongoing social security reforms. The current account deficit is projected to decline to 4.4% due to expected lower energy prices in 2023. Limited rainfall could impact agricultural output as well as the fill rate of dams. Moreover, a stronger than anticipated slowdown in the European Union could hamper exports, while a dramatic rebound of food and nonfood commodity prices would imply inflationary pressures and a deteriorating fiscal stance.

## Climate change issues and policy options

The cumulative financing needed to adequately respond to climate change is an estimated \$93.91 billion over 2020–30. Adaptation costs are an estimated \$40 billion, mitigation costs \$38.8 billion, and damage costs \$15.1 billion. Private investment has been substantial, at 17% of climate finance in 2019–20, mainly in adaptation projects such as renewable energy. Most climate change adaptation projects have been backed by public funds, as private investment in adaptation faces hurdles such as cost estimates, expected returns, and risks as well as the current narrow classification of adaptation actions. To unleash the potential for private operators in projects such as seawater desalination as well as climate-smart agriculture and insurance, the country could adopt a broader green national classification and a public de-risking system. Moreover, private financing could further anchor green growth using natural capital. The Mediterranean and Atlantic coasts make Morocco one of the largest fish producers in Africa. To entrench the sustainability of the fisheries sector, the country has developed an environmental and economic accounting system, and its Blue Strategy aims to develop coastal clusters. Morocco also benefits from the largest forest cover in North Africa.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

## Recent macroeconomic and financial developments

Real GDP grew an estimated 2.4% in 2022, driven by industry and services, down from 4.3% in 2021 due to a catching-up effect. Inflation rose from 5.7% in 2021 to 8.3% in 2022 due to Russia's invasion of Ukraine, which led to higher oil and food prices. The budget deficit narrowed from 7.6% of GDP in 2021 to 6.8% in 2022, with the wage bill, subsidies, and debt servicing accounting for roughly two-thirds of government spending. The current account deficit widened from 6.0% of GDP in 2021 to 8.5% in 2022 as food and energy import prices rose. In November 2022, foreign exchange reserves covered 3.2 months of imports, down from 4.2 months in November 2021. Tunisia faces downgrading of its sovereign rating in addition to difficulty mobilizing resources from multilateral donors. Public debt, over two-thirds of which is external, was an estimated 90% of GDP in 2022. The government's recourse to domestic debt is putting pressure on bank liquidity. And the quality of major banks' portfolios deteriorated due to high inflation, rising interest rates, and weak economic growth.

Unemployment was 15.3% in the third quarter of 2022, with higher rates among women (20.5%), young people age 15–24 (37.2%), university graduates, and residents of the interior of the country. The poverty rate, 15.3% overall, was higher in rural areas (26%) than in small and medium municipalities (15%) and much lower in large urban centers (6.3%).

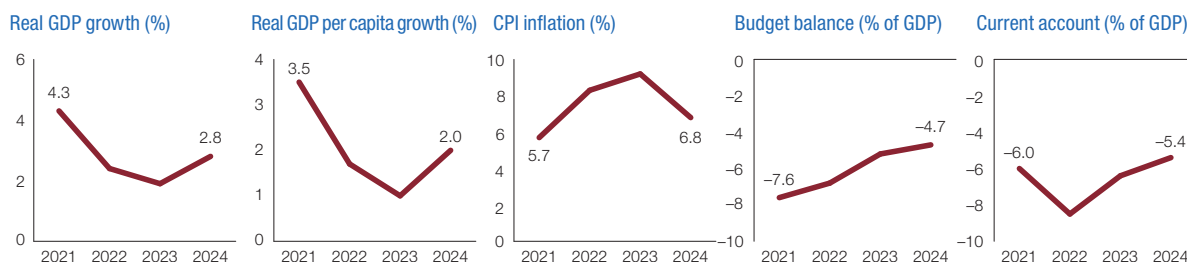
## Outlook and risks

Real GDP is projected to grow 1.9% in 2023 and 2.8% in 2024, driven by manufacturing and services. Inflation is projected to rise to 9.2% in 2023 before falling to 6.8% in 2024, assuming prudent monetary policy and easing external inflationary pressure. The fiscal and current account deficits are projected to narrow as a result of the National Reform Program launched in 2022 to strengthen private investment, consolidate public finances, and improve the performance of public enterprises. But this outlook could worsen due to the high risk of debt distress,

which could limit access to external financing. Possible headwinds include social tensions triggered by rising prices in a difficult economic context for households, a restrictive fiscal policy that penalizes public investment, and worsening political uncertainties. To stabilize its macroeconomic framework, Tunisia should adopt a medium-term sovereign debt reduction strategy, implement a plan to restructure public enterprises and reduce their external debt underwritten by the government, and conclude a preliminary agreement with the International Monetary Fund to restore fiscal sustainability backed by a 48-month loan of \$1.9 billion to send a positive signal to private investors and donors and unlock concessional financing from other development partners.

## Climate change issues and policy options

Estimated climate finance need over 2020–30 is \$24.4 billion, with adaptation costs estimated at \$4.2 billion, mitigation costs at \$14.4 billion, and losses and damages at \$5.0 billion. There is a promising range of options for engaging the private sector: capital markets (green bonds and the carbon market), outcome-based financing that can be used as a catalyst for mixed (public-private) financing instruments, Islamic financing, and expatriate-friendly financial products designed to turn remittances into green investment. But private sector participation in climate finance has barely gotten off the ground. Barriers include a lack of transparency surrounding the profitability of green projects, difficulties evaluating and pricing risks, investment horizons that can be extremely long, and challenges in quantifying profits. New regulatory frameworks and government incentives will be key to channeling private finance into green growth. Tunisia's 1,300 kilometer coastline supports over two-thirds of the country's 12 million inhabitants. Natural capital has enormous potential for various forms of green energy, from solar and wind power to ecotourism and organic farming. The country also has large and, for the most part, underexploited phosphate and hydrocarbon deposits.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# SOUTHERN AFRICA

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# Angola

## Recent macroeconomic and financial developments

Real GDP growth reached 3.0% in 2022, up from 1.1% in 2021. Income per capita growth remained negative (0.2%) in 2022 due to high population growth (3%). GDP growth was spurred by sustained high oil prices in 2022 because of Russia's invasion of Ukraine; the average price per barrel for Angola's crude was \$100.65, above the conservative \$59.00 that the 2022 national budget was based on, generating estimated additional revenue of \$17.18 billion. High oil revenue further widened the fiscal surplus to 3.0% of GDP in 2022 from 1.9% in 2021. However, moderated oil exports took the current account surplus down to 8.9% of GDP in 2022 from 11.2% in 2021, while the debt-to-GDP ratio declined further, to 56.1% from 82.9% over the same period.

Global inflation pressure from Russia's invasion of Ukraine<sup>1</sup> was eased by improved terms of trade. The increased export revenue and agricultural production reduced food inflation and overall inflation from 25.8% in 2021 to an estimated 21.3% in 2022. The banking sector also improved, with more positive economic performance and lower private sector debt in 2022. Nevertheless, unemployment remains high, at 30%, and the country continues to face challenges in curbing the poverty rate (40.6% in 2019).

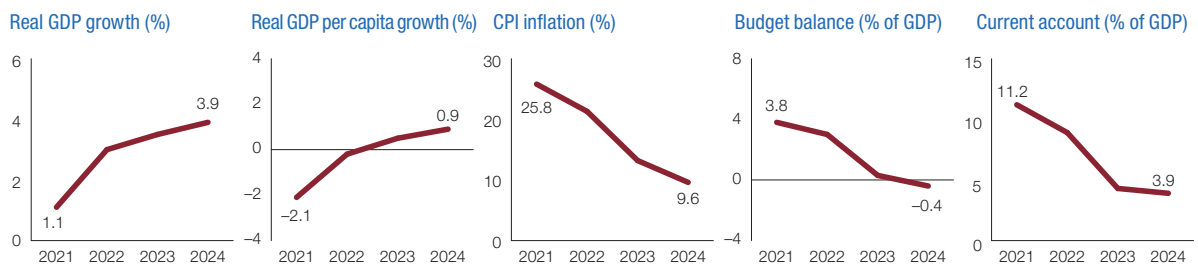
## Outlook and risks

The price of crude oil, influenced by Russia's invasion of Ukraine and post-COVID-19 economic recovery, is likely to remain above the \$75.00 per barrel assumed in the 2023 national budget, improving medium-term growth prospects. GDP is projected to grow 3.5% in 2023, leading to low projected GDP per capita growth of 0.2% given high population growth. Inflation is expected to

drop further, to 13.2% in 2023 and 9.6% in 2024, as the availability of export revenue in a flexible exchange rate setting eases pressure via exchange rate pass-through. The major risk to the outlook is oil price volatility; to mitigate that risk, the 2023 national budget assumes a stable oil price. If the price of oil remains stable, a budget surplus of 0.3% of GDP is projected, with the debt-to-GDP ratio falling further, to 52.5%, and the current account staying in surplus, at 4.3% of GDP in 2023.

## Climate change issues and policy options

Angola developed its National Climate Change Strategy (2018–2030), which establishes a vision for tackling climate change in the context of its Paris Agreement commitments. In its Nationally Determined Contribution (NDC), the country committed to reducing its greenhouse gas emissions 24% by 2025 and established a Climate and Environmental Observatory to monitor emissions. Angola's NDC identifies climate finance needs of \$44.1 billion for 2021–25 to spur the green growth agenda, with mitigation accounting for 99.7% and adaptation for 0.3%. Despite potential for private investment in green energy, particularly photovoltaic off-grid projects to rural communities, internal financing opportunities are limited. Unlocking the potential for climate finance requires institutional improvements in regulatory frameworks to allow private participation as independent power producers and structuring of public–private partnerships in the context of a highly subsidized electricity tariff regime. Creating a dedicated national climate fund and strengthening public resource generation systems with green taxes can be key to promoting green growth initiatives with private participation.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

1 The Board of Governors agreed on this text during their meeting in 2022. However, Algeria, China, Egypt, Eswatini, Namibia, Nigeria, and South Africa entered a reservation and proposed "Russia-Ukraine Conflict."

# Botswana

## Recent macroeconomic and financial developments

Real GDP grew 11.9% in 2021 after contracting 8.7% in 2020 due to the COVID-19 pandemic. The broad-based 5.8% growth in 2022 was driven by a diamond market rebound, consumption-supportive government policies, and an effective vaccination drive (over 67% of the population has been vaccinated). At 12.2%, average inflation in 2022 remained above the Bank of Botswana's medium-term objective of 3%–6%, reflecting the domestic pass-through of high global commodity prices from Russia's invasion of Ukraine. The government temporarily reduced the value added tax rate to 12% from 14% and zero-rated cooking oil and gas to ease living costs. The Bank of Botswana raised the policy rate to 2.65% in August 2022 from 1.65% in May 2022.

The 2021/22 budget was balanced, after a fiscal deficit of 9.5% of GDP in 2020/21, with higher mineral earnings and an underexecuted development budget. The 2022/23 deficit of 1.0% of GDP was financed through borrowing and reserves drawdown. Public debt, at 23.9% of GDP in 2021/22, is sustainable. The current account surplus of 2.2% of GDP in 2022 signaled rising diamond sales and receipts from the Southern African Customs Union. International reserves stood at \$4.6 billion in November 2022 (9.7 months of import cover), compared with \$4.8 billion at end-2021 (9.9 months). The banking sector's capital adequacy ratio averaged 19.1% from November 2021 to November 2022, above the 12.5% prudential requirement. The nonperforming loans ratio fell to 3.8% in November 2022 from 4.3% in December 2021. Botswana had a low poverty headcount ratio, 20.8% in 2021, but high unemployment, 25.4%, driven by youth unemployment of 39.9% in 2022.

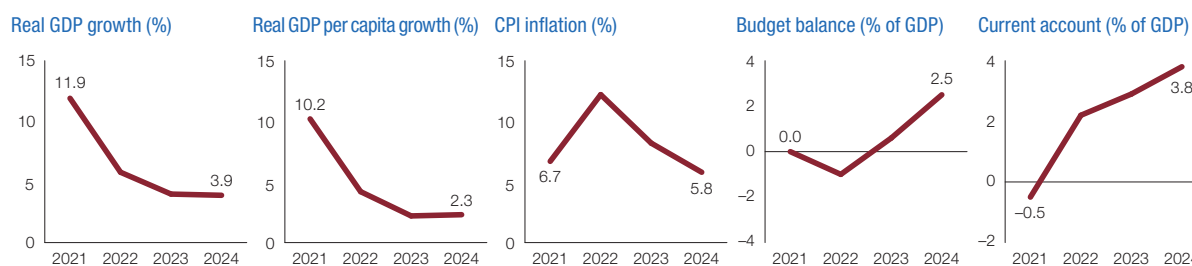
## Outlook and risks

GDP growth is projected to moderate at 4.0% in 2023, supported by anticipated higher economic activity from the liberalized beef sector, higher diamond prices, and ramped-up copper and vaccine production. The forecast hinges on the fast-tracked implementation of the government's Economic Recovery and Transformation Plan. Headwinds include higher global inflation from

supply-chain disruptions linked to Russia's invasion of Ukraine, lower diamond earnings if diamond market economies go into recession, persistent droughts, and lower exports and Southern African Customs Union revenue if weak economic conditions persist in South Africa. With the economy operating below full capacity, inflation is projected to fall to 5.8% in 2024, within the central bank's target range. The projected fiscal surplus of 0.6% of GDP can be supported by full implementation of the government's consolidation and public financial management reforms. The current account may stay in surplus as the diamond and tourism industries rebound. Unemployment may be mitigated by the government's planned well targeted social protection system.

## Climate change issues and policy options

Given its semi-arid climate, Botswana is vulnerable to multiyear droughts. For 2020–30, estimated climate mitigation financing need stands at \$9.2 billion. Over 2010–20, the country received \$570 million in climate finance, an average financing gap of \$834 million a year. The stock of natural capital consists mainly of minerals (97% diamonds). Other resources are water and energy. Given the finite characteristic of minerals, earnings from natural capital may dwindle over time. Botswana's National Climate Change Policy provides for climate finance mobilization. Private climate finance is low due to the less comprehensive costing of climate finance needs for adaptation; limited institutional investor interest, compounded by low expertise and an inadequate regulatory environment; perceptions of higher transaction costs in developing green bankable projects; and a less developed renewable sector to support green bond issuances. Better adaptation data will require sufficient national technical expertise to cost relevant adaptation pathways. Botswana's 84 metric tons of irrecoverable carbon in the Okavango Basin make it vital to establish secure markets for carbon trading, by ensuring that value chains linked to development and inclusive growth strategies are effective. Botswana should continue deepening regulatory reforms to improve the private investment climate.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. The fiscal years start in the named April and conclude the end of March in the following year.

## Recent macroeconomic and financial developments

Real GDP growth fell to 3.6% in 2022 from 7.9% in 2021, reflecting the spillover effects from South Africa's weak growth and the disruptive effects of Russia's invasion of Ukraine, which induced a slump in demand due to an upsurge in inflation, an increase in the cost of credit, and fiscal constraints. Inflation rose to 4.8% in 2022 from 3.7% in 2021, driven mainly by food and transport costs. To tame rising inflation, monetary policy was tightened, with the discount rate gradually increased to 7.25% in March 2023 from 3.75% in January 2022. The lilangeni and rand depreciated 9.5% against the US dollar in 2022 due largely to weak investor sentiments on South Africa over its persistent energy crisis.

The 2022 fiscal deficit is an estimated 4.6% of GDP, similar to the rate in 2021, a result of fiscal consolidation. Public debt stood at 42.7% of GDP in December 2022, up from 40.4% in December 2021. The current account deficit dipped to an estimated 0.9% of GDP in 2022 due to weak trade and secondary income inflows. International reserves stood at 2.6 months of import cover in December 2022, below the recommended 3 months. The nonperforming loans ratio increased from 6.5% in January 2022 to 6.9% by end-2022, while private sector credit increased 7.8%. Unemployment remained high, at 33.3% in 2021, exacerbating the poverty rate (58.9%) and inequality (Gini coefficient of 0.546) amid high HIV prevalence (27.9%).

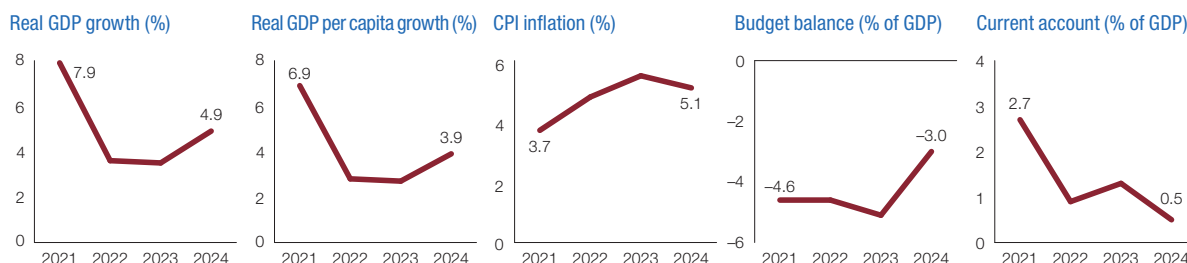
## Outlook and risks

In 2023, GDP growth is projected to be maintained at 3.5%, supported by a rebound in domestic demand and rejuvenation of consumption and investment spending. Inflation is projected to remain elevated, averaging 5.3% over 2023–24, attributed to persistent global inflation and a weaker rand. The fiscal deficit is expected to narrow to 3.0% of GDP in 2024 from 5.1% in 2023 due to a strong

rebound in Southern African Customs Union (SACU) receipts. With the forecasted higher growth trajectory, the public debt-to-GDP ratio is projected to decline to 41% in 2023 and 38% in 2024. The current account surplus is projected to average 0.9% in the medium term due to higher secondary income flows spurred by SACU. Economic tailwinds include the huge increase in SACU revenue windfalls and the proposed SACU Stabilisation Fund, expected to foster fiscal stability. Headwinds remain higher global inflation, weak growth in South Africa, and the difficult sociopolitical context.

## Climate change issues and policy options

Eswatini has diverse land and climatic conditions, and its natural resources include arable land, water, and minerals. The mining industry's contribution to GDP is around 2%, concentrated in coal and quarry mining. The scope to leverage natural capital to finance climate programs remains minimal. Eswatini's 2021 Nationally Determined Contribution (NDC) suggests that the country needs \$0.95–\$1.5 billion to achieve its climate goals, resources beyond its capacity. The 2021 Climate Public Expenditure and Institutional Review indicated that Eswatini received about \$209 million from international financiers over 2015–20 and that \$103 million was leveraged as co-finance, mainly from domestic sources. The private sector's participation in NDC actions, though nascent, is imperative. Banks and large companies, such as sugar corporations, are key potential partners. Eswatini adopted the Strategy to Enhance Private Sector Engagement for climate finance, but barriers include lack of affordable long-term financing, market imperfections, inadequate enabling policies, perceived financial and technology risks, and high upfront capital costs. An enabling policy and regulatory environment to enable private innovation and investment in NDC actions is important, including creation of investment incentives that will minimize costs and reduce risks.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data on the budget balance correspond to Eswatini's fiscal year, which runs from April 1 to March 31.

## Recent macroeconomic and financial developments

Despite global disruptions caused by Russia's invasion of Ukraine, the economy remained resilient, growing 2.5% in 2022, driven by growth in services (2.6%) and construction (8.1%), fiscal stimulus, and COVID-19-related spending. This is an improvement on the 1.6% growth in 2021. Inflation rose to 8.3% in 2022 from 6.1% in 2021, owing to higher inflation in South Africa, the country's main trading partner. In 2022, the fiscal deficit narrowed to 4.3% of GDP from 4.8% in 2021 due to a rebound in Southern African Customs Union revenue. It was financed with government savings in the banking sector and borrowing. The current account deficit increased to 6.8% of GDP in 2022 from 4.2% in 2021, owing to higher imports. It was financed with South African capital transfers.

Real GDP per capita grew 1.5% in 2022, up from 0.3% in 2021, and is projected to grow 1.0% in 2023 and 1.5% in 2024. The nonperforming loans ratio rose from 4.1% in 2021 to 4.4% in 2022. The return on assets increased from 1.0% in 2021 to 1.4% in 2022, and the return on equity increased from 8.3% in 2021 to 11.7% in 2022. Poverty remains endemic, with half the population living below the national poverty line in 2017. The Gini coefficient is projected to increase from 0.446 in 2020 to 0.48 in 2021 and 2022. Youth unemployment stands at 33.2% compared with overall unemployment of 24%. And 500,000 people are food insecure.

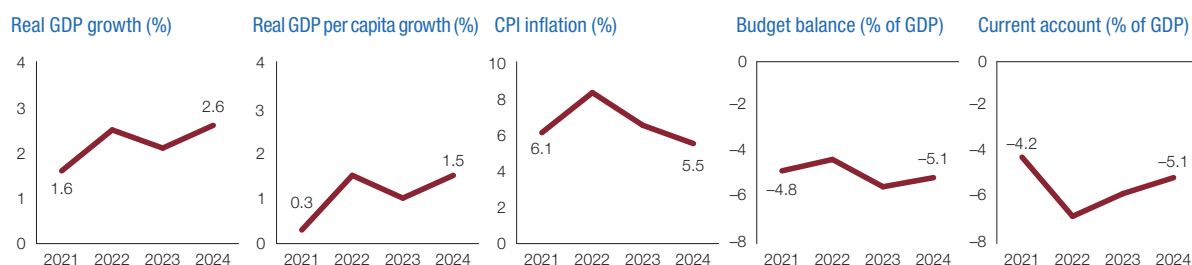
## Outlook and risks

GDP is projected to grow 2.1% in 2023 and 2.6% in 2024, driven by the Highlands Water Project's huge infrastructure construction works involving tunnels and dams. Other tailwinds include higher government capital spending. Inflation is projected to fall to 6.5% in 2023

and 5.5% in 2024, owing to further projected marginal increases in food prices. The fiscal deficit is projected to increase to 5.5% in 2023 and 5.1% in 2024, owing to a projected decrease in government revenue arising from a drop in Southern African Customs Union revenue. The current account deficit is projected to narrow to 5.8% of GDP in 2023 and 5.1% in 2024, due to projected recovery in remittances. The main risk to the macroeconomic outlook remains the fragile fiscal situation, given the huge fiscal gap. Russia's invasion of Ukraine will also present headwinds to growth by increasing inflation, weakening demand for Lesotho's exports, and reducing investor confidence.

## Climate change issues and policy options

Private climate finance and its role in financing climate and green growth are very limited. Lesotho received an average of \$238 million a year in climate finance over 2019–20. Challenges to attracting private climate finance include lack of a culture of support at the national level, inadequate policy and legal frameworks, and unfavorable market conditions for private investment in cleantech solutions. Natural capital includes water and diamonds, valued at \$3.2 billion—about 88% of the country's GDP—in 2018. However, Lesotho does not use these resources for climate finance, instead relying on trust funds. The estimated cumulative financing needed to adequately respond to climate change is \$511–\$582.53 million, or \$54.71 million a year over 2020–30, excluding the cost of adaptation. Looking forward, Lesotho should strengthen the private sector's capacity and systems to support the implementation of climate finance activities, develop a strategy to create a conducive environment for attracting private investment, and undertake ambitious tax reforms that cover green taxes and subsidies.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data on the budget balance correspond to Lesotho's fiscal year, which runs from April 1 to March 31.

# Madagascar

## Recent macroeconomic and financial developments

Real GDP grew 4.2% in 2022, down from 5.7% in 2021, due to the effects of tropical storms and cyclones, the COVID-19 pandemic, and Russia's invasion of Ukraine. Growth was boosted by the mining sector (up 23.6%) and the recovery in tourism, especially the hotel and restaurant sector, on the supply side and by investment (23.4% of GDP) and higher exports on the demand side. Inflation reached 8.1% in 2022, driven by higher energy and food prices. To mitigate the effects of inflation, the government capped the price of basic products (rice, sugar, cement), raised government employee wages 17% on average, and reduced the value added tax on fuel from 20% to 15%. The 62% increase in spending widened the budget deficit to 6.8% of GDP in 2022 from 2.8% in 2021, 58% of which was financed by external resources and 42% by treasury bills and advances from the central bank. The risk of overindebtedness remains moderate, with outstanding debt at 57% of GDP in 2022.

The current account deficit widened to 5.7% of GDP in 2022 due to an increase in imported services and a decline in remittances received, with foreign exchange reserves covering 4.3 months of imports. The financial sector remains sound overall, with the nonperforming loans ratio at 7.7% in 2022. Poverty is high, at an estimated 81% in 2021. The unemployment rate is 2.6%, 70% of which is young people age 15–30.

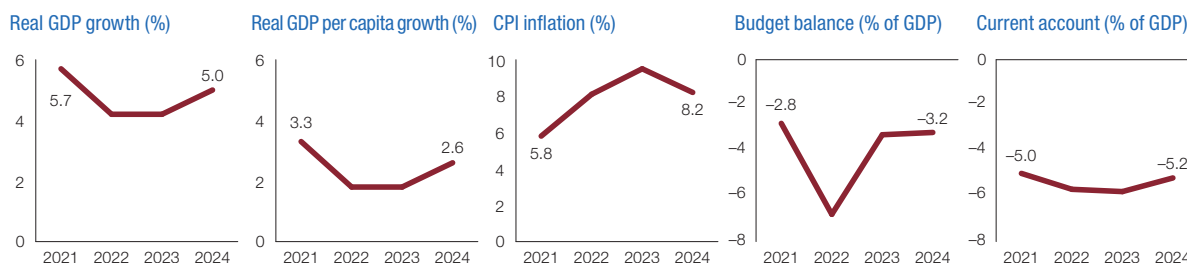
## Outlook and risks

Real GDP is projected to grow 4.2% in 2023 and 5.0% in 2024, driven by a rebound in mining and quarrying and continued recovery in tourism on the supply side and by investment and exports of minerals contribute to the energy transition (graphite, nickel, cobalt) on the

demand side. Inflation is projected to rise to 9.5% in 2023 before falling to 8.2% in 2024. The budget deficit is projected to narrow to 3.0% of GDP on average over 2023–24 thanks to higher revenue from oil products as the result of an agreement with distributors in December 2022. The current account deficit is projected to remain stable in 2023 and to narrow slightly, to 5.2% of GDP, in 2024. Possible headwinds include new waves of COVID-19 infection, higher energy and food prices, tighter global financial conditions, climate shocks, and sociopolitical tensions during the 2023 presidential elections.

## Climate change issues and policy options

An estimated \$29.1 billion in finance—or \$2.6 billion a year—is needed over 2023–30 to adequately respond to climate change. But the private sector's contribution to climate finance is low: of the \$353 million in climate finance raised over 2019–20, only \$15 million (4%) came from the private sector. This is due mainly to the absence of a regulatory framework encouraging the sector to develop natural resources, the failure to prioritize the development of natural capital, insufficient technical and financial capacities, the lack of bankable green investment projects and opportunities, and the poor governance of natural resources. But there are opportunities for the private sector. The country has rich natural capital, with dense forests, a 4,828 kilometer coastline, an exclusive economic zone of 1.2 million square kilometers, substantial mining potential, abundant water resources, and rich biodiversity. However, mobilizing private climate finance will require fiscal incentives, financing models, and technical and financial support for businesses involved in developing natural capital.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.



## Recent macroeconomic and financial developments

Despite the reopening of the economy after almost two years of COVID-19 containment measures, GDP growth fell to 0.8% in 2022 from 2.2% in 2021. Russia's invasion of Ukraine, global logistical challenges, and climate shocks dampened growth. The largest contributor to 2022 GDP growth was agriculture (22.1%), followed by wholesale and retail trade (12.6%) and real estate and construction (6.5%). The downward trend in manufacturing's contribution to growth reversed to 12.7% in 2022. Monetary policy was tightened, with the key policy rate hiked to 18% in October 2022 from 12% in 2021. Inflation jumped from 9.3% in 2021 to 21.0% in 2022 on account of higher food and nonfood prices. The local currency was devalued in May 2022, dropping from 824.8 Malawi kwacha per US dollar to 1,036.2. Banking sector liquidity tightened in 2022, and nonperforming loans ratio rose to 6.1% from 4.5% at the end of 2021.

In 2022, the fiscal deficit narrowed marginally, to an estimated 7.2% of GDP from 7.4% in 2021 due to fiscal consolidation. Malawi continues to face structural balance of payments challenges on account of COVID-19-induced economic weaknesses in China and Russia's invasion of Ukraine, the country's key tobacco export destinations. Foreign currency shortages reduced imports, narrowing the current account deficit to 12.9% of GDP in 2022 from 13.8% in 2021.

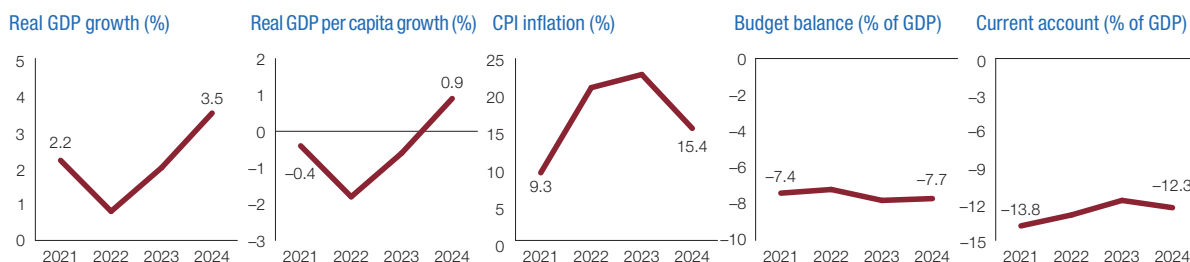
## Outlook and risks

GDP growth is projected to rebound to 2.0% in 2023 and 3.5% in 2024, driven by a recovery in agriculture, tourism and exports, and foreign direct investment. Headwinds include weather-related shocks and the

prolongment of Russia's invasion of Ukraine. Despite tight monetary policy, inflation is expected to rise to 22.8% in 2023 before falling to 15.4% in 2024. The current account deficit is projected to narrow to 11.7% of GDP in 2023 and 12.3% in 2024 due to weak growth and domestic demand. Fiscal consolidation to achieve medium-term debt sustainability was expected to narrow the fiscal deficit, but a mixed picture is emerging. In 2023, the fiscal deficit is projected to rise to 7.8% of GDP due to the impact of Cyclone Freddy before falling to 7.7% in 2024. Using the baseline assumptions, the debt-to-GDP ratio is likely to fall to 72.6% by 2026 from 76.6% in 2022.

## Climate change issues and policy options

Natural resource rents fell from 10.9% of GDP in 2016 to 4.0% in 2020. Malawi updated its Nationally Determined Contribution, prioritizing agriculture, water resources, health, infrastructure, land-use planning, transport, population and human settlements, and disaster risk management for adaptation. The financing needed for mitigation and adaptation in these sectors through 2040 is an estimated \$46.3 billion. Private sector credit averaged \$3.3 billion a month in 2022, only 15% of which was allocated to climate-related sectors. Estimated costs for damage and loss caused by climate events in 2019 alone amounted to \$220 million. The public sector's dominance in climate-related sectors also crowds out the private sector, which grapples with the lack of clear frameworks for involvement. With the help of development partners, government capacity to develop frameworks for private sector participation in climate-related activities would be required.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data on the budget balance correspond to Malawi's fiscal year, which runs from July 1 to June 30.

## Recent macroeconomic and financial developments

Real GDP growth rose to an estimated 8.7% in 2022, up from 3.4% in 2021, spurred by sustained policy support and the lifting of travel restrictions and buoyed by recovery in the tourism sector. Monetary policy remained accommodative to support economic activity, taking advantage of low inflation. However, inflation rose sharply in 2022, to an estimated 10.8% from 4.0% in 2021, driven largely by surging imported food and energy prices because of Russia's invasion of Ukraine. Public finances have been under pressure in recent years. The fiscal deficit stood at 10.4% of GDP in 2021 and narrowed to an estimated 6.1% in 2022 as the economy continued to recover and the government resumed fiscal consolidation, which had been suspended during the COVID-19 pandemic. Public debt reached 100.7% of GDP in 2021, owing to increased COVID-19-related spending and the contraction in GDP. It started a downward trajectory in 2022 thanks to strong economic recovery and government plans to sell nonstrategic assets to allow for early repayment of debt.

The current account suffers from structural deficits, driven by a large trade deficit. Its financing depends on resilient financial and capital flows in the global business sector. Gross international reserves remain high, estimated at 10.2 months of import cover in December 2022, down from 17.6 months of import cover at end-2021. The social landscape is mixed, with a low poverty headcount ratio (9.6% in 2017), high inequality (a Gini coefficient of .40 in 2017), and 9.1% unemployment (with 27.7% youth unemployment in 2021). Its Human Development Index value remains high (0.802 in 2021).

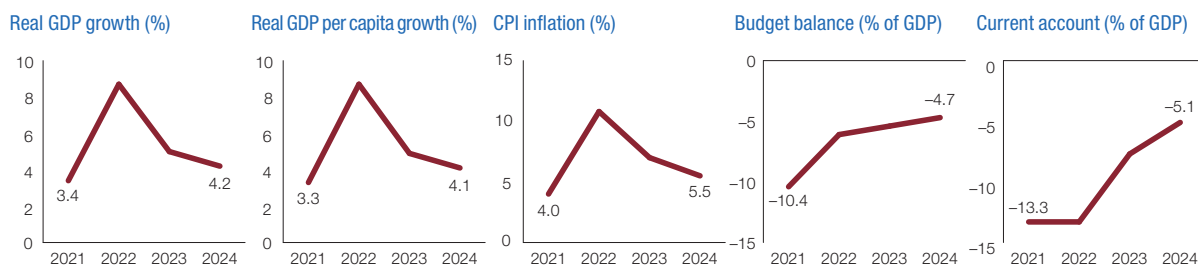
## Outlook and risks

The economy is projected to grow 5.0% in 2023 and 4.2% in 2024 thanks to tourism. But growth is expected to slow in 2023 as Europe (a key market) experiences a downturn because of higher living costs and the effects of Russia's invasion of Ukraine. Monetary tightening will

also weigh on domestic demand. The fiscal deficit is projected to further narrow to 5.4% of GDP in 2023 and 4.7% in 2024, financed predominantly through domestic borrowing and, to a lesser extent, external borrowing. Inflation is projected to moderate to 7.0% in 2023 and 5.5% in 2024. The trade deficit is also projected to fall to 7.7% of GDP in 2023 and 5.1% in 2024.

## Climate change issues and policy options

Very few ecosystem assessments have been carried out in Mauritius, and the level of natural capital deterioration or enhancement remains unknown. The lack of quantitative assessment, along with increasing demand for information on environmental sustainability, has led to projects such as Maurice Ile Durable, which aims to make Mauritius a world model of sustainable development. Natural capital management will be a major factor in Mauritius's response to climate change. The country accounts for only 0.01% of global greenhouse gas emissions, but it is among the most exposed to natural disaster shocks and ranks low in adaptive capacity. Adaptation to and mitigation of climate change effects need to be strengthened. Estimating the cost of climate adaptation and mitigation is problematic, primarily because there is no agreed quantitative target. Mauritius's Nationally Determined Contribution suggests the country requires \$2 billion for mitigation and \$4.5 billion for adaptation by 2030. About 35% of the total would be covered by government resources and domestic private sector contributions and the rest by external sources. While Mauritius's financing need is among the highest in dollar terms across small islands states, it is much lower as a percentage of GDP. The government is seeking new sources of finance, especially from the private sector, through public-private partnerships and innovative financing instruments such as bonds (green bonds, blue bonds, resilience bonds, and catastrophe bonds) and de-risking instruments. Blended debt, equity, and grant finance may be used strategically to attract private investment.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# Mozambique

## Recent macroeconomic and financial developments

Real GDP growth rose from 2.3% in 2021 to an estimated 3.8% in 2022, consolidating the recovery from recent shocks such as the COVID-19 pandemic, conflict, and global geopolitical tensions. Growth was followed by higher inflation, which jumped from 5.7% in 2021 to 10.3% in 2022, driven mostly by fuel and food price increases. The Bank of Mozambique raised the reference interest rate from 15.25% in 2021 to 17.25% in August 2022. The exchange rate remained stable. The current account deficit widened to 39.1% of GDP in 2022 from 23.6% in 2021, given a one-off import of a liquefied natural gas offshore platform estimated at 25% of GDP. International reserves fell to 3.2 months of import cover in June 2022, due to high imports.

The budget deficit narrowed from 4.8% of GDP in 2021 to 3.7% in 2022 due to increased revenue from higher economic activity, despite a pressing wage bill and high debt service. Debt also fell marginally, from 106.4% of GDP in 2021 to 102.6% in 2022, although new borrowing came from more expensive domestic finance. The financial sector remained stable in the first half of 2022, with an increase in the solvency ratio from 26.6% in June 2021 to 27.3%. The poverty rate fell marginally, from 64.5% in 2021 to 64.2% in 2022, following a 1.0% increase in GDP per capita.

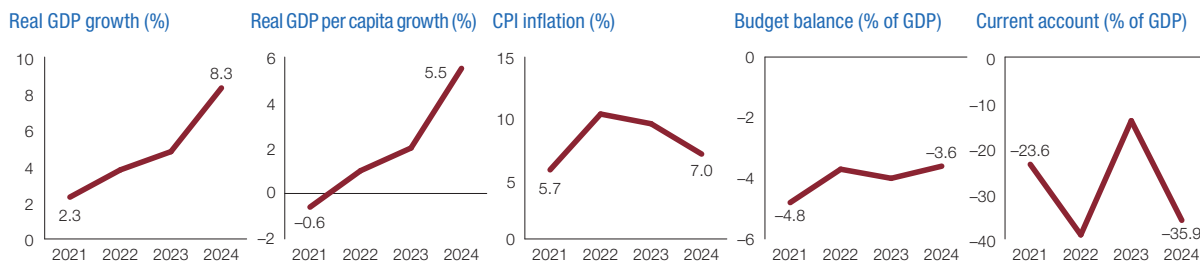
## Outlook and risks

GDP growth is projected to rise to 4.8% in 2023 and 8.3% in 2024, pushed by extractives and agriculture, leading GDP per capita growth to jump from 2.0% in 2023 and 5.5% in 2024. Inflation is projected to fall to 9.5% in 2023 and to return to the target of 7.0% in 2024. The fiscal deficit is projected to slightly deteriorate in 2023, to 4% of GDP, impacted by the wage bill, before turning to a deficit 3.6% of GDP in 2024. The current account deficit is projected to decline to 14.0% in 2023

and then drastically increase to 35.9% in 2024, given imports of liquefied natural gas projects. Headwinds include climate shocks and the insurgency in northern Mozambique. Tailwinds include the liquefied natural gas sector as an energy supplier for the country's electrification and just transition, government investment in agricultural productivity, and overall subregional growth, leading to higher usage of Mozambique's logistics corridors.

## Climate change issues and policy options

Despite being one of the lowest contributors of greenhouse gas emissions, Mozambique is among the 10 countries most affected by climate change. At the 2021 United Nations Climate Change Conference, Mozambique set a target of reducing Nationally Determined Contribution emissions from 76 metric tons of carbon dioxide equivalent to 99, with adaptation the highest priority to ensure a long-term path toward green growth. The country's need for 2020–30 totals \$53 billion, well above the \$3.7 billion mobilized over 2011–20 and roughly three times its GDP. The Mozambique National Climate Change Adaptation and Mitigation Strategy 2013–2025 is the first comprehensive instrument to address climate change. Given the financial gap, it is critical for the government to emphasize private investment, particularly on the green growth front, with low-carbon energy, agriculture, and climate-resilient infrastructure and insurance schemes to meet its goals. To mobilize resources more efficiently, the country could habituate national institutions to international governance standards for accessing worldwide climate finance; foster a more attractive investment environment, particularly for smaller hydro dams, wind, and solar farms; and advance a debt-for-climate swap proposal, which offers an opportunity to tackle both debt and climate issues.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# Namibia

## Recent macroeconomic and financial developments

Real GDP growth rose to 4.6% in 2022 from 3.5% in 2021, supported by the lifting of COVID-19-related restrictions in July 2022 and the continued recovery in primary and secondary industries. Inflation averaged 6.1% in 2022, up from 3.6% in 2021, driven by elevated global commodity prices linked to the COVID-19 pandemic and Russia's invasion of Ukraine. The Bank of Namibia progressively increased the policy rate to 7.25% in April 2023 from 6.75% in November 2022 and 3.75% in 2021.

The fiscal deficit averaged 7.5% of GDP in 2021/22, as Southern African Customs Union (SACU) receipts and diamond earnings declined. The public sector wage bill remained high, taking public debt to 67% of GDP. In May 2022, Namibia launched a \$15 million sovereign wealth fund that supports debt sustainability through spending stabilization. The current account turned to a deficit of 9.8% of GDP in 2021 and 8.4% of GDP in 2022, from a 2.8% surplus in 2020, after higher fuel import payments and declining SACU receipts. International reserves rose marginally, to 5.7 months of import cover in December 2022 from 5.6 months in 2021. The capital adequacy ratio of 17.0% in 2022 was above the 10% statutory requirement. The nonperforming loans ratio fell to 5.6% at end-2022 from 6.4% the year before. The headcount poverty ratio stood at 17.4% in 2019. Unemployment stood at 33.4% in 2018, with youth unemployment at 46.1% and female unemployment at 48.5%. Inequality is high, with a Gini coefficient of .572 in 2015.

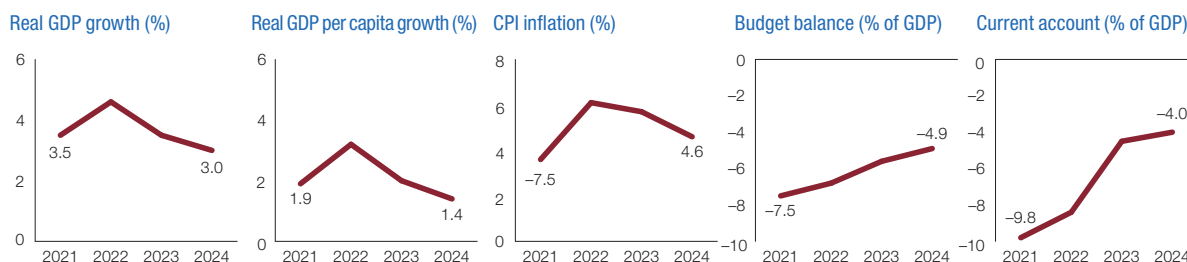
## Outlook and risks

Real GDP is projected to grow 3.5% in 2023 and 3.0% in 2024, buoyant on the continued economic recovery, particularly in diamond processing and export, and increased consumption in wholesale and retail trade and tourism. Headwinds include a higher import bill and lower SACU revenue for Namibia as South Africa

struggles with rising global commodity prices due to international supply chain disruptions, low COVID-19 vaccine uptake (27% of the population was vaccinated as of May 2022), higher global inflation, and higher global interest rates. With the tight monetary policy stance, inflation is projected to remain below the central bank target of 6.0% in the medium term. The fiscal deficit is projected to decline, driven by strong domestic resource mobilization and tax compliance efforts by the new Namibia Revenue Authority and spending rationalization efforts. The current account deficit is projected to decline on higher diamond and tourism earnings.

## Climate change issues and policy options

Namibia's low-lying and southern desert regions frequently experience rainfall variability. Its river basin areas and coastline are susceptible to flooding. Private climate finance is still low compared with public funding. In 2019/20, Namibia received on average \$202.3 million in climate finance flows: \$32 million (16%) from the private sector and \$170 million (84%) from public sources. The government secured \$544 million in climate finance at the 2022 United Nations Climate Change Conference in November 2022. Natural capital comprises minerals (diamonds, uranium, copper, magnesium, zinc, silver, gold, lead, semiprecious stones, and industrial minerals), land (8.1% forest cover in 2020), and a blue economy (more than 1,570 kilometers of coastline). Natural capital is valued at \$19.6 billion, \$17.2 billion of which is renewable. However, these resources are threatened by both climate change and weak resource governance. Between 2018 and 2022, several commercial banks issued green bonds to finance eligible renewable energy projects, showing the potential for private climate finance. Namibia needs to harness this potential by creating a strong enabling environment for private climate investment through regulatory reforms that support climate-resilient sectors and de-risk low-emission private investment.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data for the budget balance as a % of GDP reflect a financial year that begins April 1 and ends March 31 the following year.

# São Tomé and Príncipe

## Recent macroeconomic and financial developments

Real GDP growth declined moderately, from 1.9% in 2021 to an estimated 0.9% in 2022. The decline is attributed to the lingering effect of the COVID-19 pandemic on tourism, coupled with Russia's invasion of Ukraine, which disrupted global trade. As a small island development state, the country relies on tourism, which accounted for 43.7% of foreign currency revenue in 2021, as one of the main contributors to the economy.

The economic slowdown was further constrained by the impact on the local market of higher food and oil prices in the international market. São Tomé and Príncipe imports 100% of its oil and half of its food. As a result, inflation rose to 17.9% in 2022 from 8.1% in 2021, on the back of the enduring COVID-19 pandemic effect. The fiscal deficit reached an estimated 7.2% of GDP in 2022, up from 5.9% in 2021. At the same time, the current account deficit climbed to an estimated 19.4% of GDP in 2022 from 16.9% in 2021 due to a sharp increase in oil and food prices on the global market. The current account deficit is financed mainly through credit for oil and multilateral loans. Net international reserves declined from \$29.9 million in 2021 to \$14.3 million in 2022 due to the associated increase in import costs of oil and food products. The return on assets rose from 1.0% in September 2021 to 1.4% in September 2022, and the return on equity followed the same trend, rising to 8.4% in September 2022 from 5.7% in September 2021.

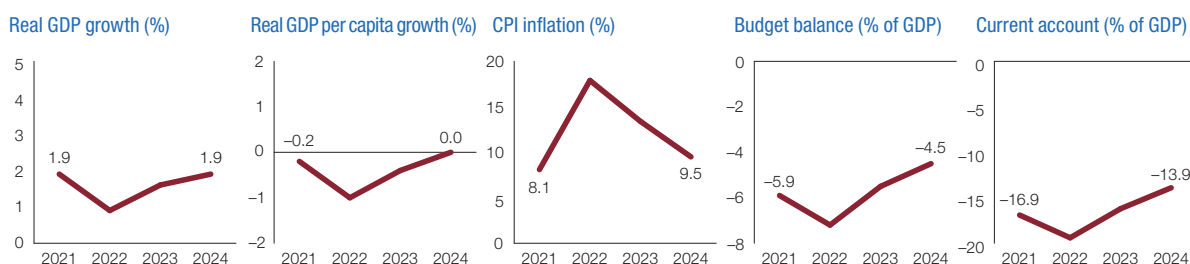
## Outlook and risks

Real GDP is projected to grow a mere 1.6% in 2023 and 1.9% in 2024 due to the slow return to global trade after the COVID-19 pandemic. The fiscal deficit is projected to decline to 5.5% of GDP in 2023 and 4.5% in 2024 due to prudent public spending and austerity measures to contain inflation. Export and tourism earnings are projected to rebound, helping narrow the current account deficit to 16.2% of GDP in 2023 and 13.9% in 2024.

in 2024, while international reserves are projected to rise to \$20.3 million in 2023 and \$25.2 million in 2024, urged by inflows of multilateral and bilateral loans and grants. A new International Monetary Fund program is projected to stir economic activity and drive growth by supporting the government in achieving macroeconomic stability, reducing debt vulnerability, alleviating balance of payments pressures, and creating the foundations for stronger growth. However, headwinds include an escalation of Russia's invasion of Ukraine, climate change events, poor infrastructure, and slower global trade, which can dampen economic growth.

## Climate change issues and policy options

As a small island developing state, São Tomé and Príncipe is prone to climate shocks. The country thus developed its Nationally Determined Contribution (NDC) aiming to increase the renewable energy share in the national grid, reduce power grid losses, and increase energy efficiency, while substantially reducing the transport sector's carbon footprint. The estimated cost of the NDC from 2020 to 2030 to reduce emissions 27% by 2030 is \$150 million. The measures will reduce the country's vulnerability to climate change while spurring private investment in power, agriculture, tourism, and transport. The private sector may pursue climate-smart agriculture practices and technology to enhance adaptation and resilience to climate change. The country has a target of 100% organic agricultural products, led by the private sector, aiming to promote sustainable local agriculture production for internal consumption and export while preserving biodiversity. Furthermore, the blue economy can be a new source of growth based on marine and biodiversity preservation. The current energy mix, with 95% of power generated by fossil fuels, can be altered with private sector support. The government is expected to adopt new legislation to facilitate private investment in the transition to green and clean energy.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# South Africa

## Recent macroeconomic and financial developments

Real GDP growth dropped to 2.0% in 2022 from 4.9% in 2021, mainly on account of persistent electricity shortages, flooding in KwaZulu Natal, and constraints in the transport sector, coupled with the global downturn following Russia's invasion of Ukraine. Inflation rose to 6.9% in 2022 from 4.5% in 2021, driven by higher food and fuel prices. To curb rising inflation, the Reserve Bank of South Africa raised the base interest rate to 6.25% in September 2022 from 5.5% in July 2022. The rand depreciated from 15.3 per US dollar in January 2022 to 17.3 in December 2022.

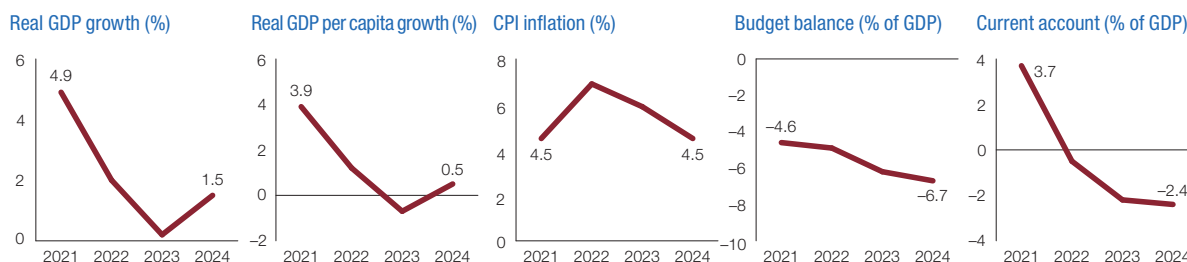
The budget deficit widened marginally, to 4.9% of GDP in 2022 from 4.6% in 2021, due to higher growth in priority spending, including spending related to the COVID-19 for the most vulnerable. The current account deficit also narrowed, to an estimated 0.5% of GDP in 2022 from a surplus of 3.7% in 2021, mainly because prices and volume of imports exceeded those of exports. External reserves increased from \$58.4 billion in August 2021 to \$63.4 billion in October 2022 (about 5.5 months of import cover), boosted by higher export earnings. Public debt increased marginally, to 71.4% of GDP in 2022 from 68.0% of GDP in 2021, due to increased budget financing requirements and fluctuations in interest and exchange rates. The financial sector continued to recover strongly from the impacts of the COVID-19 pandemic, with the nonperforming loans ratio declining from 4.5% in 2021 to 4.0% in 2022. Poverty remains high, with an estimated 30% of people living in extreme poverty in 2022. Inequality is also high, with a Gini coefficient of 0.63 in 2021. Unemployment was an estimated 32.7% as of December 2022.

## Outlook and risks

The economy is projected to grow marginally, by 0.2% in 2023 and 1.5% in 2024, supported by growth in trade, tourism, mining, and manufacturing. Inflation is projected to ease to 5.9% in 2023 and decline further to 4.5% in 2024 on account of reduced fuel and food prices, subject to evolving global dynamics. The fiscal deficit is projected to increase marginally, to 6.2% of GDP in 2023 and 6.7% in 2024 due to fiscal consolidation, including higher tax revenue. The current account deficit is projected to widen to 2.2% of GDP in 2023 and 2.4% in 2024 due to an anticipated drop in commodity prices. Headwinds include continued electricity supply constraints, weak governance in state-owned enterprises, and the global economic downturn.

## Climate change issues and policy options

South Africa has embraced the private sector in its efforts to tackle climate change. It was among the top-five recipients of private climate finance in Africa in 2019/20, with \$656 million (40% of climate finance). But this compares poorly with climate finance needs; hence the focus on mobilizing more private financing. The country has taken measures to restructure the energy sector by moving toward renewable and cleaner energy sources. Natural capital was valued at \$400 billion in 2018 (\$213.8 billion of it renewable). Its National Climate Change Response Policy calls for including the financial services sector in shaping climate and green finance architecture.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data on the budget balance correspond to South Africa's fiscal year, which runs from April 1 to March 31.

# Zambia

## Recent macroeconomic and financial developments

Real GDP recovered to 4.6% growth in 2021 and 3.0% in 2022 after contracting 2.8% in 2020. The recovery was driven mainly by wholesale and retail trade, agriculture, and mining and quarrying. Inflation dropped from 22.1% in 2021 to 10.1% in 2022, driven mainly by the reduced food price shocks. The policy rate was maintained at 9.0% in 2021 and 2022, owing to inflationary pressures, weaker medium-term growth prospects, and vulnerabilities and risks to the financial sector. The fiscal deficit was 8.1% of GDP in 2021 and 8.9% in 2022, down from 13.8% in 2020.

There was a trade surplus of 12.1% in 2021 on account of higher export volumes and prices and subdued imports of consumer goods. International reserves rose from 2.4 months of import cover in 2021 to 3.6 months in 2022 on account of the Extended Credit Facility and the Special Drawing Rights allocation from the International Monetary Fund. Zambia remains in high debt distress, with debt above 104% of GDP. The financial sector's performance improved in 2021 and 2022, with the nonperforming loans ratio rising from 9.0% in 2021 to 6.1% in 2022 due to business recoveries. Credit to the private sector was 8.9% of GDP in 2021 and 9.2% in 2022. Slightly over 50% of the population lives below the national poverty line, and the poverty rate is higher in rural areas (77%) than in urban areas (23%).

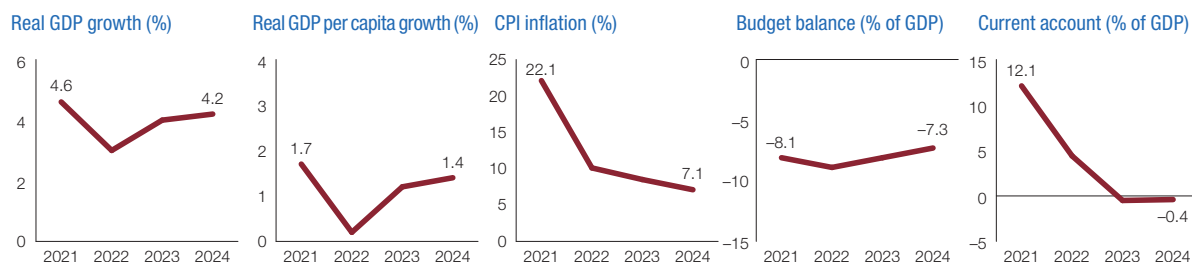
## Outlook and risks

GDP is projected to grow 4.0% in 2023 and 4.2% in 2024, underpinned by the continued recovery in mining, services, and manufacturing; higher global copper prices; and the market confidence associated with ongoing fiscal consolidation measures. A slight uptick in

growth in real GDP per capita is projected, to 1.2% in 2023 and 1.4% in 2024. Inflation is projected to decline to 8.5% in 2023 and 7.1% in 2024, within the 6%–8% target range. Upside risks include higher fuel prices and electricity tariffs and fluctuation in global fertilizer prices. The fiscal deficit is projected to persist at 8.1% of GDP in 2023 and 7.3% in 2024, owing to increased social spending. Headwinds include perennial drought, fluctuating copper prices, and the impact of Russia's invasion of Ukraine on fertilizer and fuel prices.

## Climate change issues and policy options

Zambia's overall need for climate finance is an estimated \$50 billion through 2030, which is expected to be mobilized predominantly through new climate finance mechanisms such as the Global Climate Fund and other climate-related bilateral, multilateral, and domestic financing. This includes the private sector, which already provides climate finance through corporate social responsibility, in addition to investment with returns. A good example of private financing is the \$53 million Green Outcomes Fund that was recently established by Zambia National Commercial Bank, Kukula Capital, and the World Wide Fund for Nature–Zambia. The Development Bank of Zambia also attained an accreditation by the Green Climate Fund to receive and submit proposals on behalf of developers of green projects. Carbon-market financing mechanisms remain underexploited but have great potential. Weather-indexed insurance instruments are already being used, as are infant-stage green bond initiatives. Zambia is endowed with many natural resources (land, water, forest, and wildlife). The mining sector accounts for 12% of GDP, and the forest sector accounts for 5%–7%. More than 300,000 people make their living directly or indirectly from fishing.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

## Recent macroeconomic and financial developments

Real GDP growth moderated to 3.0% in 2022, down from 8.5% in 2021, due largely to exogenous and endogenous shocks. Floods and drought adversely affected agricultural output, which contracted 14% in 2022. Total output was further constrained by macroeconomic instability in 2022, arising from exchange rate depreciation and hyperinflation. The Zimbabwe dollar depreciated 521% against the US dollar in 2022, falling from 108 per US dollar in January 2022 to 671 in December 2022. This triggered an increase in inflation: from 60.6% in January 2022 to 285% in June 2022. Russia's invasion of Ukraine exerted further pressure on the economy by triggering increased fuel and food prices. Inflation moderated at 243.8% in December 2022 as the government introduced measures to arrest the rapid currency depreciation, such as selling gold coins and raising the interest rate from 100% to 200%.

The fiscal deficit narrowed to 0.9% of GDP in 2022, reflecting fiscal consolidation. The current account surplus also narrowed to 1.0% of GDP in 2022 from 2.9% in 2021 due to higher fuel and imported commodity prices. Debt stood at \$17.5 billion in 2022 (66% of GDP). External debt was estimated at \$14 billion, while domestic debt stood at \$3.5 billion as of 30 September 2022. Zimbabwe has started implementing the Arrears Clearance, Debt Relief and Restructuring Strategy to resolve long-outstanding debt and external arrears with creditors. Gross international reserves were an estimated \$540 million (0.9 month of import cover) in 2022. As of September 2022, Zimbabwe had used \$582 million of the International Monetary Fund's \$960 million additional Special Drawing Rights allocated in August 2021. Poverty and inequality are high due to deteriorating economic conditions. The extreme poverty rate was an estimated 44% in 2022, and the Gini coefficient was 0.503 in 2023. As of 27 January 2023, Zimbabwe

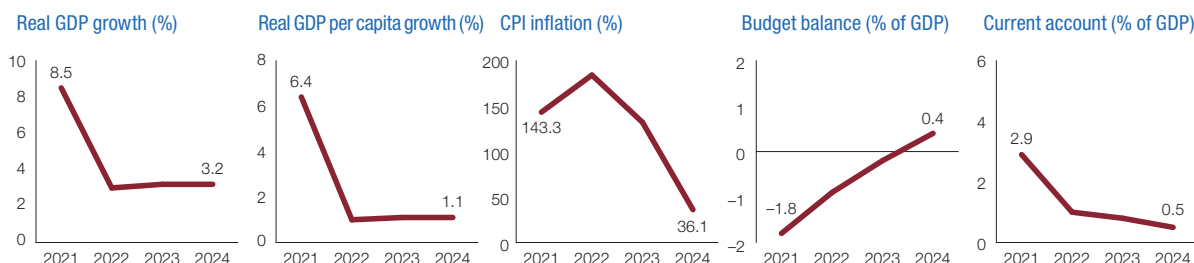
had recorded 259,942 cases of COVID-19 infection and 5,635 deaths. Some 12.69 million COVID-19 vaccine doses have been administered, and over 31% of the population is fully vaccinated against the virus.

## Outlook and risks

Real GDP growth is projected to recover to 3.2% in 2023 and 2024, anchored largely by agriculture, mining, and services. Tight monetary and fiscal policy is expected to increase macroeconomic stability in 2023. Inflation is projected to ease further, to 132.2% in 2023 and 36.1% in 2024, supported by economic stability, subject to evolving global dynamics. The fiscal deficit is projected to narrow to 0.2% of GDP in 2023 on account of higher revenue mobilization and stringent budget execution. The current account is projected to show a surplus of 0.8% of GDP in 2023 and 0.5% in 2024, supported by favorable commodity export prices and increased remittances. But the uncertain global economic outlook due to geopolitical tension coupled with climatic shocks, power shortages, and exchange rate volatility remain major risks.

## Climate change issues and policy options

Zimbabwe has prioritized private financing to achieve its climate change targets in transitioning to green and inclusive growth. The country is developing the National Climate Change Fund and Climate Finance Facility to crowd-in the private sector through blended finance and results-based approaches to de-risk markets and scale up investment and boost participation in scaling up climate actions. Zimbabwe received about \$990 million in climate finance between 2010 and 2020, averaging \$90 million a year. This leaves a financing gap of \$440–500 million a year, thus greatly limiting the country's ability to build climate resilience.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.



# WEST AFRICA

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## Recent macroeconomic and financial developments

Real GDP growth was steady at 6% in 2022 following a remarkable 7.2% in 2021, led by the primary, secondary, and tertiary sectors. The economy has shown resilience to the effects of recent crises: the COVID-19 pandemic, Russia's invasion of Ukraine, and the security situation in northern parts of the country. Inflation rose to 2.5% in 2022 from 1.7% in 2021 due to the rising cost of basic necessities.

The budget deficit remained high, at 5.5% of GDP in 2022 compared with 5.7% in 2021, due to looser fiscal policy. Outstanding government debt climbed 2.5 percentage points, to 52.8% of GDP in 2022 from 50.3% in 2021. In December 2022, risk of debt distress was moderate. The current account deficit widened slightly, to 4.9% of GDP in 2022 from 4.1% in 2021, with imports rising more rapidly than exports. The depth of the financial sector remains weak overall, with private bank lending representing only 15.2% of GDP in 2022. The nonperforming loan ratio improved to 12.6% in late December 2021 from 16.8% in late December 2020. Over 70% of credit was concentrated among the five largest borrowers in 2021, up from 64.6% in 2020. About 38.5% of the population was living in poverty in 2019, and underemployment was 72.9%. Social protection programs (health and retirement insurance), essential to strengthening social inclusion, are still in development.

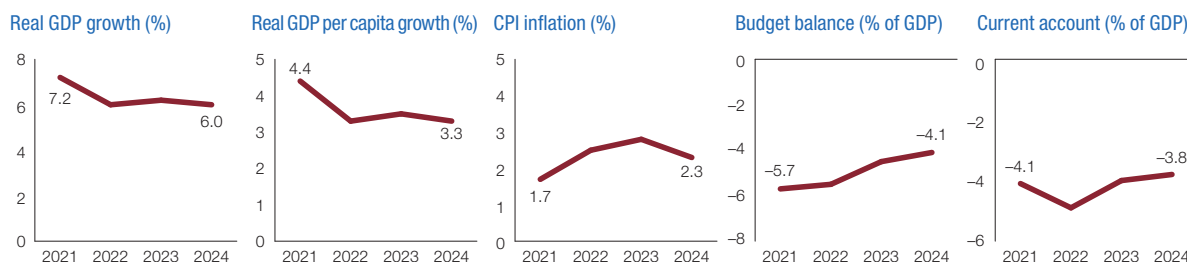
## Outlook and risks

Real GDP growth is projected to remain steady at 6.2% in 2023 and 6.0% in 2024 thanks to momentum in the primary, secondary, and tertiary sectors. The main risks to the economy are unfavorable variations in global cotton and oil prices and the negative effects

of climate change. Furthermore, the unfavorable evolution of Nigeria's economic situation and the worsening security situation in Benin's northern areas could compromise the economic outlook. Inflation is projected to rise to 2.8% in 2023 and 2.3% in 2024 as global oil prices stabilize. Budgetary policy is likely to benefit from an ongoing International Monetary Fund program that provides \$638 million in funding. The budget deficit is projected to drop slightly, to 4.5% of GDP in 2023 and 4.1% in 2024. The current account deficit is projected to fall to 4.0% of GDP in 2023 and 3.8% in 2024 due to the decline in raw material prices (food products).

## Climate change issues and policy options

The estimated climate finance needed over 2020–30 is \$13.8 billion, or \$1.3 billion a year. If the country receives the same \$2.3 billion a year that it received over 2010–20, it will face a finance deficit of at least \$910 million a year. Private climate finance remains largely nonexistent. In 2019–20, climate finance reached \$360 million, 98.6% of it from the public sector and only 1.4% of it from the private sector. To boost private sector participation in climate finance, the government needs to create a green investment bank that, for example, issues green bonds, provides debt relief for small and medium enterprise and startups. Moreover, to achieve green growth based on green industrialization, Benin should further capitalize on its natural capital, which consists of nearly 121 kilometers of coastline and a continental plateau with 3,100 square kilometers of lagoons, brackish lakes, and a river system comprising 700 kilometers of waterways. The country also has large, yet underutilized, mineral assets (gold, construction materials, iron, phosphates, nickel, and zircon).



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# Burkina Faso

## Recent macroeconomic and financial developments

Real GDP growth dropped to 3.2% in 2022 from 6.9% in 2021 because extractive activities fell 13.6% in 2022 despite growing 7.3% in 2021, following the closure of several mines for security reasons. Other factors in the economic slowdown were sociopolitical instability, military coups, a deteriorating security environment, and the effects of Russia's invasion of Ukraine. Contributors to growth included agriculture (up 10.3% in 2022 after declining 12.3% in 2021) and the tertiary sector (up 6.6% in 2022 compared with 13.5% in 2021). On the demand side, public investment fell. Inflation jumped to 14.4% in 2022 due to higher imports of food products and oil. Private sector funding in the banking sector rose 16% in 2022. The budget deficit widened to 8.5% of GDP in 2022 from 6.3% in 2021 after public spending rose to 26.1% of GDP in 2022 from 25.6% in 2021 to address security and humanitarian challenges and provide oil subsidies. But tax revenue also increased, to 16.3% of GDP in 2022 from 15.2% in 2021. Public debt was an estimated 57.2% of GDP in 2022, up from 47.1% in 2021, suggesting moderate risk of overindebtedness. The current account balance turned to a deficit of 5.2% of GDP following a surplus of 0.4% in 2021 due to higher costs for food and energy imports and a weak rise in exports.

The security context and resulting humanitarian crisis have exacerbated poverty in rural areas (estimated at 51.1% in 2019) as well as unemployment (57% of the population age 15 and older).

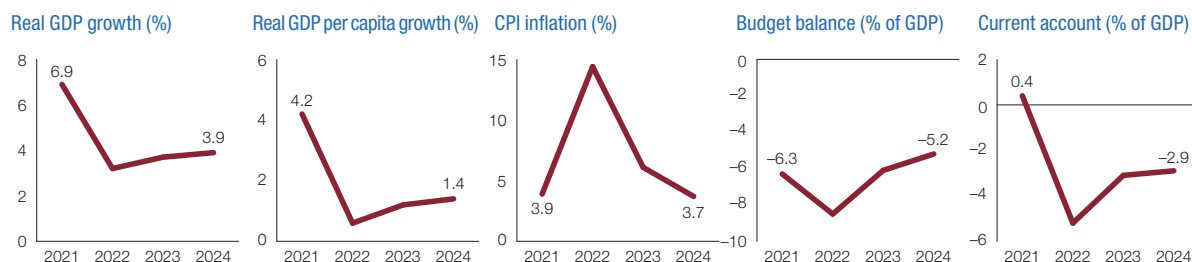
## Outlook and risks

Real GDP is projected to grow 3.7% in 2023 and 3.9% in 2024, less than the 6% average for 2017–19, due to sociopolitical instability and the deteriorating security environment. The restrictive monetary policy of the Central Bank of West African States and improved food availability are expected to reduce inflation to 6.1% in 2023 and 3.7% in 2024. The budget deficit is projected

to fall to 6.1% of GDP in 2023 and 5.2% in 2024, despite increased needs to address security and humanitarian challenges, thanks to higher tax revenue. Public debt is projected to remain sustainable, rising to 62% of GDP in 2023 and 2024 due to an increase in treasury bonds issued to fill the budget deficit. The current account deficit is projected to narrow to 3.1% of GDP in 2023 and 2.9% in 2024. Possible headwinds include a delay in re-establishing constitutional order, pronounced deterioration in the security situation, inflationary pressures, and lower prices for exported raw materials (gold and cotton).

## Climate change issues and policy options

Burkina Faso remains highly vulnerable to climate change and aims to reduce its greenhouse gas emissions 29.4% by 2030. An estimated \$636.9 million a year in climate finance is needed over 2021–30 for adaptation and mitigation, but only \$284.5 million a year was mobilized over 2010–20, primarily from international partners. Both the private and banking sectors are involved in climate finance through the Intervention Fund for the Environment and through Coris Bank International (from the Green Climate Fund). Yet the private sector faces several obstacles, including low availability of resources dedicated to green investment, high cost of investment in climate change adaptation, and lack of awareness of how to access climate funds. The country should thus adopt green financial instruments such as green bonds to mobilize additional resources, adopt tax incentives to encourage green investment, and strengthen private capacity to design bankable ecological projects. The agricultural, forestry, and pastoral sectors, which accounted for 22% of GDP over 2011–22), and the mining sector (10.7%) are key to creating wealth. These sectors employ nearly 80% of the labor force. If sustainably exploited, natural capital, estimated at \$50.8 billion in 2018, could contribute to climate finance and green growth.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# Cabo Verde

## Recent macroeconomic and financial developments

Real GDP grew by 7.0% in 2021 and 10.5% in 2022, supported by transport, the digital economy, construction, and tourism. Renewable energy (22% of total power supply) also stimulated growth through reduced energy import costs on the supply side, and private consumption and exports bolstered growth on the demand side. Credit guarantees and social safety nets targeting 24,406 workers helped boost income per capita 6.0% in 2021 and 9.6% in 2022. The exchange rate peg to the euro anchored the central bank's accommodative monetary policy. Inflation increased from 1.9% in 2021 to 8.0% in 2022 due to higher food and energy prices induced by Russia's invasion of Ukraine.

Spending efficiency and improved tax collection reduced the fiscal deficit from 7.2% of GDP in 2021 to 4.7% in 2022. The deficit was financed mainly by external disbursements and domestic loans. Public debt fell from 143.0% of GDP in 2021 to 128.1% in 2022, reflecting higher nominal GDP growth. High concessionality, long maturity (22 years), and fixed interest rates suggest debt sustainability. The current account deficit narrowed from 12.8% of GDP in 2021 to 7.8% in 2022, driven by tourism revenue and remittances. The current account was financed by foreign direct investment, which boosted international reserves from €591 million in 2021 to €601.1 million in 2022 (5.7 months of import cover). The financial sector is stable, adequately capitalized, and liquid. The poverty rate increased from 31.6% in 2021 to 35.5% in 2022, exacerbated by effects from Russia's invasion of Ukraine, as 80% of food is imported.

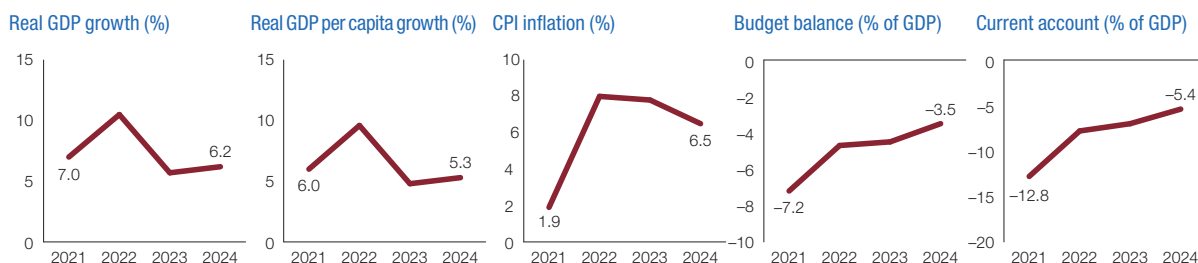
## Outlook and risks

Real GDP is projected to grow by 5.7% in 2023 and 6.2% in 2024, supported by agriculture, energy, the digital economy, and tourism. Headwinds include effects from Russia's invasion of Ukraine, rising global interest rates, climate change, and potential recession in Europe, which accounts for 80% of imports. Inflation is projected to remain high, at 7.8% in 2023 and 6.5% in 2024, driven

by imported food and energy prices. Monetary policy, although accommodative to support economic recovery, could be tightened to mitigate inflationary pressures. The fiscal deficit is projected to narrow from 4.5% of GDP in 2023 to 3.5% in 2024, reflecting improved tax collection. The current account deficit is projected to shrink to 5.4% of GDP in 2024 from 7.0% in 2023, as recovery in tourism and remittances helps preserve international reserves at 5.5 months of import cover. The poverty rate is projected to fall to 34% in 2023 with the progressive resumption of economic growth.

## Climate change issues and policy options

Limited fiscal buffers exacerbate the gap in Cabo Verde's private climate finance over 2020–30 to \$120.3 million (2% of GDP). Private climate finance in 2019/20 averaged \$21 million—98% of it from public and multilateral climate funds and 2% from institutional investors, and targeted transport, energy, the blue economy, and the digital economy. The regulatory framework for public-private partnerships is stable. Cabo Verde gained experience in blended finance, notably from independent power producers in solar and wind energy. However, private climate finance experience remains limited, as evidenced by the disparity between private (\$12.20) and public (\$157.50) climate finance per capita. Challenges to private climate finance include a weak financial system, poor economies of scale, and skills constraints. Cabo Verde has promoted innovative climate finance instruments, such as the social bond envisaging environmental sustainability, the blue fund launched on the Blu-X sustainable finance platform, and a \$150 million debt-for-nature swap with Portugal. Going forward, deploying public capital to crowd-in private investment is critical to harness climate finance. Cabo Verde's natural resource wealth, comprising marine fisheries and minerals (such as salt), is threatened by climate change. As a result, natural capital's contribution to GDP underperforms its potential, with agriculture accounting for 5%, fisheries 1%, and extractives 0.3%.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

## Recent macroeconomic and financial developments

Real GDP growth dropped from 7.4% in 2021 to 6.7% in 2022 due to the ongoing effects of Russia's invasion of Ukraine and the COVID-19 pandemic. Growth is driven mainly by the extractive industry, manufacturing, construction, retail trade, telecommunications, private and public investment, and private consumption. Inflation rose from 4.2% in 2021 to 5.2% in 2022, induced mainly by higher food prices due to inadequate local supplies and by the higher cost of transportation caused by increased global energy prices. To maintain the population's purchasing power, the government subsidized oil prices in the first quarter of 2022, upgraded civil service salaries, and capped the price of mass market products. This widened the budget deficit from 4.9% of GDP in 2021 to 6.8% in 2022. Outstanding debt rose from 52.1% of GDP in 2021 to 56.0% in 2022. The risk of overindebtedness remains moderate, as in 2021, even with less capacity to absorb shocks.

The current account deficit widened from 4% of GDP in 2021 to 6.9% in 2022 due to the deteriorating terms of trade. Import prices rose more than export prices, exacerbated by the euro's depreciation against the US dollar. Despite higher average interest rates for bank loans (6.1% in 2022 compared with 5.6% in 2021), credit to the economy rose 11.4%, against 12.5% in 2021, due to momentum in economic activity.

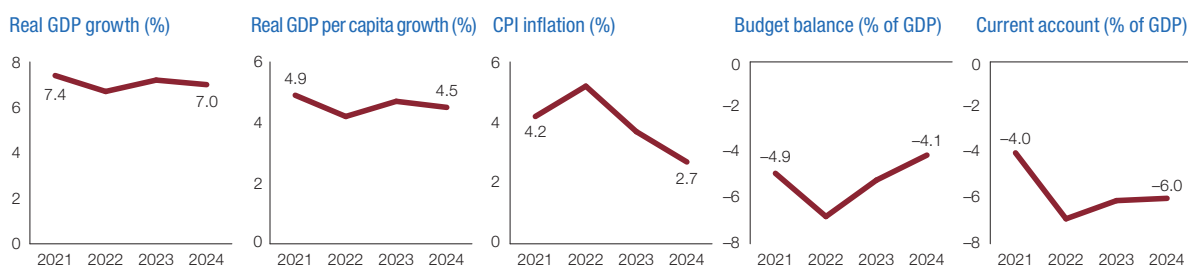
## Outlook and risks

GDP is projected to grow 7.2% in 2023 and 7.0% in 2024 as the reforms and investments in the National Development Plan (NDP) 2021–2025 accelerate and production starts at the Baleine gas and oil field discovered in 2021–22. Growth could be fueled by several sectors (energy, construction, mining, agribusiness,

trade, telecommunications, and agriculture), as well as investment and consumption. Inflation is projected to fall to 3.7% in 2023 and 2.7% in 2024 due to increased local food supplies and the continued fight against the high cost of living. The budget deficit is projected to narrow to 5.2% of GDP in 2023 and 4.1% in 2024 due to greater mobilization of domestic resources and better control of public spending. The current account deficit is projected to widen to 6.1% of GDP in 2023 and 6.0% in 2024 due to higher NDP investment. Possible headwinds include a deteriorating political climate following local elections in 2023, the ongoing effects of Russia's invasion of Ukraine, a resurgence of the COVID-19 pandemic, and a decline in the price of agricultural raw materials.

## Climate change issues and policy options

The climate finance deficit averages \$2.7 billion a year over 2020–30, with limited potential for private contributions. The country has no sovereign fund, and investment funds are limited and difficult for small and medium enterprises to access. But the country can rely on its network of insurance companies and on two pension funds (Caisse Nationale de Prévoyance Sociale and Caisse Générale de Retraite des Agents de l'État). Due to resource mobilization difficulties, private climate finance remains extremely low. Resolving this problem should focus on addressing the inadequate legal framework, specifically for the carbon market, and tax incentives; the lack of awareness of existing finance; and poor national capacity and technical skills in innovative climate finance. Natural capital, worth an estimated 45% of the national economy, is a major asset that should be promoted as the country seeks to establish sustainable economic growth.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

## Recent macroeconomic and financial developments

After muted 0.6% growth in 2020 due to the COVID-19 pandemic, GDP growth remained subdued at 4.3% in 2021 and 4.4% in 2022, as the effects of Russia's invasion of Ukraine disrupted agriculture, tourism, construction activities, and private investment. Increased COVID-19 spending (0.5% of GDP) and food support (0.7% of GDP) protected livelihoods and businesses, bolstering real GDP per capita growth from -2.0% in 2020 to 1.9% in 2022. High food and fuel prices induced by Russia's invasion of Ukraine, freight charges, and the strong US dollar raised inflation from 7.4% in 2021 to 9.6% in 2022. In response, the policy rate was raised from 10% in May 2022 to 12% in September 2022 and 13% in December 2022.

Improved revenue collection and spending rationalization contained the fiscal deficit at 4.4% of GDP in 2022, financed mostly by grants and \$20 million in Special Drawing Rights. Public debt declined from 83.8% of GDP in 2021 to 80.8% in 2022, yet risk of debt distress remains high. The current account deficit, financed by foreign direct investment, widened to 13.1% of GDP in 2022, reflecting disruptions in cashew and timber exports and weak remittances. Gross international reserves dropped from \$520 million in 2021 (7 months of import cover) to \$420 million in 2022 (4.4 months). The financial sector remains resilient, with the capital adequacy ratio at 26.9%, well above the statutory ratio of 10%. The nonperforming loans ratio rose from 5.1% in 2021 to 4.2% in 2022. The poverty rate increased from 48.4% in 2019 to 53.4% in 2022, exacerbated by the COVID-19 pandemic.

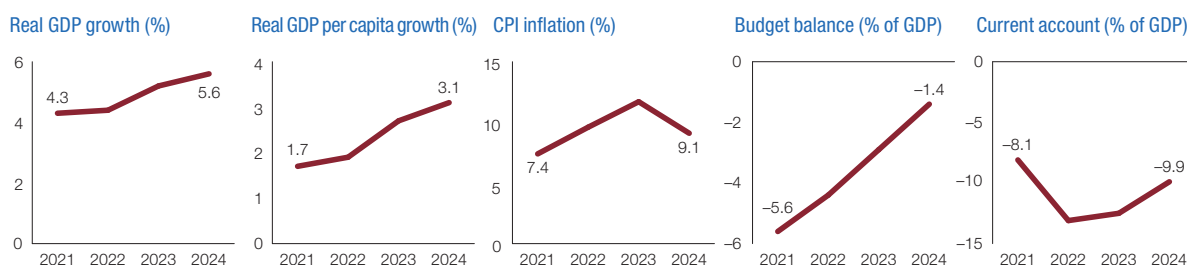
## Outlook and risks

GDP growth is projected to remain below pre-COVID-19 levels, at 5.2% in 2023 and 5.6% in 2024, as uncertainties about Russia's invasion of Ukraine, tighter international financial market conditions, and climate change could weaken economic activity in agriculture, construction,

energy, and tourism. These shocks could also intensify fiscal pressures and affect the debt profile. Inflation is projected to be 11.7% in 2023, reflecting high fuel and food prices and exchange rate depreciation, but to fall to 9.1% in 2024 as commodity prices normalize. The central bank is expected to continue tightening monetary policy to address inflationary pressures. The fiscal deficit is projected to decline from 2.9% of GDP in 2023 to 1.4% in 2024, owing to restrained spending and improved tax collection efforts. The current account is projected to narrow from 12.5% of GDP in 2023 to 9.9% in 2024 as tourism strengthens and export disruptions dissipate.

## Climate change issues and policy options

The Gambia's Green Growth Index rose from 42.8% in 2010 to 44.6% in 2021, still short of its green growth target. This implies that by enforcing appropriate green growth policies, The Gambia could promote economic growth while reducing vulnerability to climate change. The country's 2050 Climate Vision and sectoral green growth strategies are aligned with its Nationally Determined Contribution (NDC). NDC financing need over 2020–30 totals \$1.64 billion. In 2019/20, private climate finance inflows amounted to \$65 million, mostly from public, bilateral, and multilateral institutions. The private sector accounted for 1% and targeted only a few initiatives on carbon markets in forests and renewable energy. Challenges to private climate finance include a heavy tax regime, currency risk, and technical capacity. The Gambia has the potential to scale up private climate finance through innovative approaches such as green bonds, debt-for-nature swaps, blended financing, and carbon markets. Renewable natural capital increased 86.2% between 1995 and 2018. This suggests the potential to leverage private climate finance with natural resources. The Gambia boasts more than 500 marine fish species and 47.5% of land area covered by 505,000 hectares of forests, 10% of which is woodland.



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# Ghana

## Recent macroeconomic and financial developments

Real GDP growth slowed to 3.3% in 2022 from 5.4% in 2021 due to macroeconomic instability, global financial tightening, and spillover effects of Russia's invasion of Ukraine. Inflation was an estimated 31.5% in 2022, up from 10% in 2021, driven by food and energy prices and depreciating local currency. The Bank of Ghana tightened monetary policy; the policy rate was hiked to 27% in 2022 from 14.5% in 2021. The fiscal deficit widened slightly, to 9.3% of GDP from 9.2% in 2021, due to higher spending. Public debt hit 93.5% of GDP in 2022, up from 82.0% in 2021, driven by primary fiscal deficits and exchange rate depreciation. The current account deficit narrowed to 2.8% of GDP from 3.2%, driven by an improved trade balance. The capital and financial accounts recorded deficits.

Foreign exchange reserves declined to \$6.2 billion in 2022 (2.9 months of import cover) from \$9.7 billion in 2021 (6.9 months). The financial sector remained sound. At 14.2%, the capital adequacy ratio is above the target of 13.0% but declining. Credit risk, measured by the nonperforming loans ratio, remained elevated at 14.8%, and real credit growth declined to 14.5% due to rising inflation. The poverty rate declined from 11% in 2021 to 10% in 2022. However, living standards have been negatively impacted by the rising cost of living and unemployment. The latter increased from 11.9% in 2015 to 13.4% in 2021, with youth (ages 15–24) unemployment an estimated 7.2% in 2021, up from 7.3% in 2020.

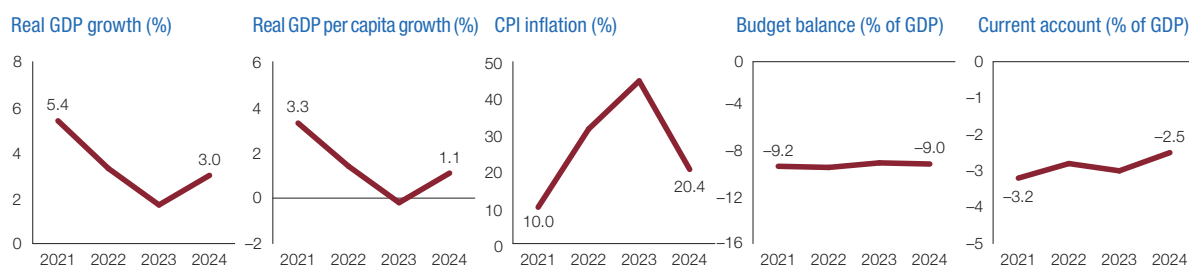
## Outlook and risks

The outlook is tilted negative due to possible shocks from a prolongment of Russia's invasion of Ukraine and a tighter global financial market. GDP growth is projected to fall to 1.7% in 2023 and to recover to 3.0% in 2024, in line with global demand trends. Inflation is projected to remain elevated at 44.7% in 2023 and to decline to 20.4%

in 2024, driven by the base effect and food and energy inflation. The fiscal deficit is projected to narrow to 8.9% of GDP in 2023 and 9.0% in 2024 on account of new revenue enhancement measures. The current account deficit is projected to widen to 3.0% of GDP in 2023 and to narrow to 2.5% in 2024 following global growth trends. Headwinds include delays in international financial support, volatility in key export commodity prices, and financial stress. Possible mitigation measures include international financial assistance, enhanced fiscal consolidation, economic diversification, and private sector growth.

## Climate change issues and policy options

Ghana's Green Growth Index is estimated at 51%, or about halfway to its green growth target. This indicates that with the right green growth policies and strategies, Ghana could achieve economic growth while reducing vulnerability and building resilience to climate change. This requires boosting financing from public and private sources. An estimated \$1.9 billion a year in financing is needed to meet the country's Nationally Determined Contribution. The main source of climate finance has been the public sector, which contributed \$100 million, leaving a gap of \$1.8 billion a year for 2020–30. The private sector has the potential to raise climate finance equivalent to 8.8% of GDP. The government is exploring practical solutions to close the financing gap, including private equity, carbon markets, and climate impact bonds. It is also working on policies and regulations to enable participation in the global climate finance market. Ghana could explore ways of attracting sovereign welfare and pension funds. Factors constraining private climate finance include risks and barriers associated with inadequate regulations. Natural capital (renewable and nonrenewable) increased slightly between 1995 and 2018, suggesting the potential to leverage private finance with natural capital.



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# Guinea

## Recent macroeconomic and financial developments

Real GDP grew an estimated 4.8% in 2022, up from 4.4% in 2021, driven by output in the mining sector. The sustained growth demonstrates the country's resilience to sociopolitical shocks, the COVID-19 pandemic, and Russia's invasion of Ukraine. Inflation dropped to 12.2% in 2022 from 12.6% in 2021. Imported inflation was partially offset by the appreciation of the Guinean franc. The budget deficit narrowed to an estimated 1.3% of GDP in 2022 from 1.7% in 2021. Performance improved due to higher revenue from the mining sector but was constrained by rising electricity subsidies due to low tariffs for hydroelectric power.

Public debt fell to 35.5% of GDP in 2022 from 40.4% in 2021. The risk of external overindebtedness is moderate, but the fiscal space for absorption of shocks is limited. The current account deficit widened to 7.4% of GDP in 2022 from 2.1% in 2021, as debt service payments resumed after the freeze implemented by the G20, the Paris Club, and the International Monetary Fund in response to the COVID-19 pandemic. The deficit was financed by foreign direct investment in mining, loans, and project funding grants. Foreign exchange reserves totaled 2.5 months of import cover in 2022, down from 2.8 months in 2021. The banking sector was stable, but the nonperforming loans ratio rose to 11% in 2022 from 10% in 2019, with most nonperforming loans in transportation and commerce. The poverty rate fell from 55.2% in 2012 to 43.7% in 2019, and unemployment followed a bell curve, rising from 3.8% in 2012 to 5.2% in 2014 and dropping again to 4.8% in 2018.

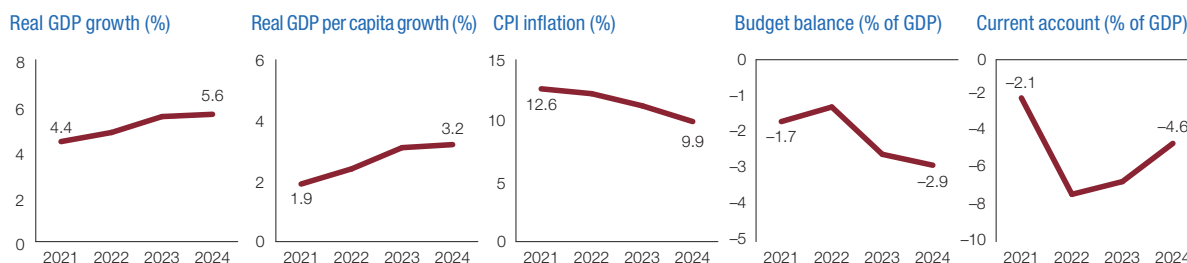
## Outlook and risks

Real GDP is projected to grow 5.5% in 2023 and 5.6% in 2024, stimulated by mining production, energy availability, and infrastructure investment. Inflation is projected to fall to 11.2% in 2023 and 9.9% in 2024 thanks to reduced tensions resulting from Russia's invasion of Ukraine and related imports of fertilizers and agricultural

seeds as well as improved supply chains for imported consumer goods and equipment. Possible headwinds include weak recovery in nonextractives, the effects of Russia's invasion of Ukraine, low mobilization of internal resources (12.6% of GDP in 2022 compared with a norm of 20% in Economic Community of West African States members), and sociopolitical tensions. The budget deficit is projected to widen to 2.6% of GDP in 2023 and 2.9% in 2024, linked to high electricity subsidies and election-related spending. The current account deficit is projected to drop to 6.7% of GDP in 2023 and 4.6% in 2024, linked to mining exports. The foreign trade deficit will be financed by foreign direct investment in mining, loans, and grants. Foreign exchange reserves are projected to fall to 2.2 months of import cover in 2023 and 2024.

## Climate change issues and policy options

In 2020, Guinea ranked 146th of 182 countries in vulnerability and preparedness for climate change. The effects of climate change will be felt in water resources, agriculture, hydroelectric power production, and the economy as a whole. Climate finance mobilized over 2016–20 averaged \$200 million a year compared with average need of \$1.6 billion a year. Forecasts for 2020–30 are similar, with an average finance gap of \$1.4 billion a year. The resilience of the economy and its ability to transition toward inclusive and green growth may be limited. Structural weaknesses include the narrowness of the nonextractive private sector, the shallowness of the financial sector, the limited diversification of National Social Security Fund financing, and the near lack of alternative instruments such as a stock market or private equity. Reforms to mining sector governance and the business framework as well as a deeper financial market will be needed to channel public and private finance into green investment. The main driver for mobilizing public resources to close the climate finance gap is mining, described as a geological scandal, which accounts for 80% of exports and generates 20% of GDP but contributes very little to government revenue (2%–3%).



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# Guinea-Bissau

## Recent macroeconomic and financial developments

Real GDP growth dropped to 3.7% in 2022 from 6.4% in 2021 due to inflationary pressures that limited private consumption on the demand side and lower manufacturing and primary sector on the supply side. Inflation rose to 7.9% in 2022 from 3.3% in 2021, driven by higher prices for imported food and oil. The budget deficit widened to 6.3% of GDP in 2022 from 5.6% in 2021 due to temporary measures to curb the effects of Russia's invasion of Ukraine, irregular hiring of workers, and expenses linked to upcoming elections. The deficit was financed by grants and loans as well as bond issues. Risk of overindebtedness is high after public debt rose from 78.5% in 2021 to more than 80.0% in 2022. The current account deficit widened to 5.8% of GDP in 2022 from 0.8% in 2021 on higher prices of imported commodities and lower exports of cashews. The financial sector is solid except one undercapitalized systemic bank. The nonperforming loans ratio dropped from 21.8% in 2020 to 14.6% in June 2022.

Poverty rose from 63.0% in 2019 to 68.4% in 2021 due to the COVID-19 pandemic. In 2022, higher prices affected private consumption and thus the quality of life of households, which spend most of their income on food.

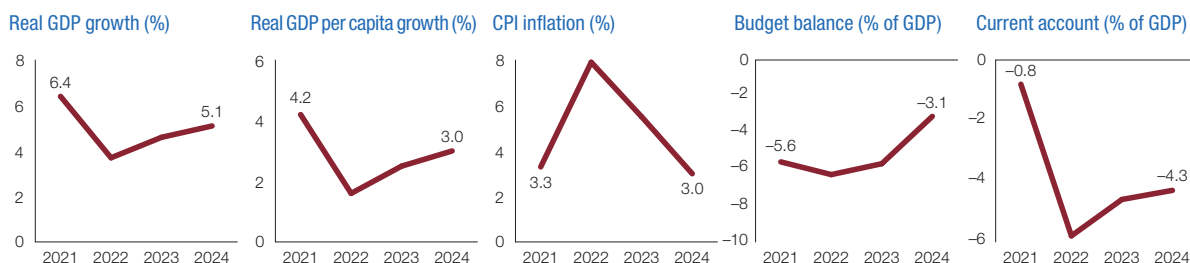
## Outlook and risks

Real GDP is projected to grow 4.6% in 2023 and 5.1% in 2024 thanks to planned infrastructure investment and the health of agriculture and industry. Inflation is projected to reach its target of 3% in 2024 thanks to the central bank's tighter monetary policy. The budget deficit is projected to narrow to 5.7% of GDP in 2023 and 3.1% in 2024 thanks to higher revenue and control of public spending. Public debt is projected to fall to 75.4% of GDP in 2024 as a result of reforms supported by a new International Monetary Fund program to

ensure debt sustainability. The current account deficit is projected to narrow to 4.3% of GDP in 2024, reflecting an expected increase in cashew exports. Possible headwinds include deteriorating terms of trade (particularly in cashew export prices), sociopolitical instability, delayed implementation of reforms, and climate shocks. Persistent inflationary pressures would affect food security and poverty.

## Climate change issues and policy options

Guinea-Bissau is among the countries most affected by climate change. An estimated \$688.8 million in climate finance is needed to address mitigation and adaptation over 2021–30 and reduce greenhouse gas emissions 30%. Committed finance has been mobilized from development partners and climate funds. Investment from the private sector, including banks, is practically nonexistent, mainly because of the absence of a suitable regulatory framework, the lack of expertise and experience, and the high cost of investment. The sectors that are particularly adapted to private investment include renewable energy, energy efficiency, forestry, and biodiversity. To attract private finance, the country must develop a regulatory framework dedicated to climate finance, put in place fiscal incentive measures, promote good governance, and increase technical capabilities. While the public accounts make it difficult to access sustainable financing markets and innovative instruments, the country could create a national green fund with the help of partners and target impact funds that are increasingly directed toward forestry, biodiversity, and sustainable agriculture. The country has considerable agricultural potential, natural resources that could be exploited (large deposits of bauxite, phosphates, hardwood, and heavy sand), and oil reserves estimated at 1.1 billion barrels in 2019.



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## Recent macroeconomic and financial developments

GDP growth fell to an estimated 4.0% in 2022 from 5.0% in 2021, driven largely by growth in mining and construction on the supply side and increased infrastructure spending on the demand side. Growth was slower due to the impact of Russia's invasion of Ukraine, including higher commodity prices and tight fiscal space. Inflation eased from 7.9% in 2021 to 7.4% in 2022 on a steady decline in domestic food prices. The fiscal deficit widened to an estimated 4.8% of GDP in 2022 from 2.4% in 2021 due to higher spending on infrastructure and wages. As of October 2022, public debt had increased to 54.6% of GDP from 53.2% in 2021, reflecting increased borrowing.

The current account deficit narrowed to 17.4% of GDP in 2022 from 17.7% in 2021 thanks to a smaller trade deficit, as export receipts increased, driven by gold exports. International reserves stood at \$691 million in December 2022 (4 months of import cover), down from \$700 million (4.2 months) in 2021. The exchange rate appreciated 4.6% against the US dollar, from 159.34 Liberian dollars per US dollar in December 2021 to 152.38 in December 2022, due to higher net remittances and export receipts. The financial sector remained sound, with a capital adequacy ratio of 34.03% in September 2022 compared with the 10% target, although the nonperforming loans ratio remained high, at 23.43%, compared with the 10% target. The share of people living below the international poverty line (\$2.15 a day) remains high, at 35.4%. Unemployment was an estimated 4.1% in 2021.

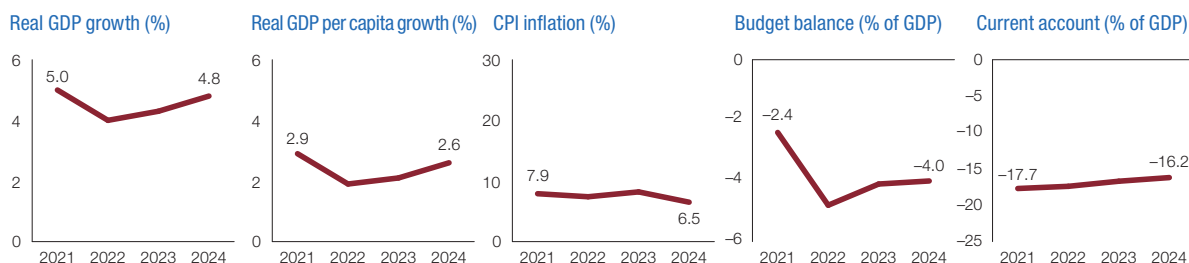
## Outlook and risks

GDP is projected to grow 4.3% in 2023 and 4.8% in 2024, driven by expansion in mining, services, and agriculture. Inflation is projected to edge to 8.2% due to election-related speculation in 2023 but will ease to

6.5% in 2024 due to a stable exchange rate and calm after the election. The fiscal deficit is projected to be 4.1% of GDP in 2023 and to stabilize at 4.0% in 2024 on account of fiscal consolidation. The current account deficit is projected to be 16.7% of GDP in 2023 and 16.2% in 2024 due to higher exports. Public debt is projected to rise to 55.3% of GDP in 2023 and 56.9% in 2024. The exchange rate and financial market are projected to remain stable. Headwinds include the prolongment of Russia's invasion of Ukraine and a deterioration of terms of trade on gold and rubber. Possible mitigation measures include stepping up support to the vulnerable.

## Climate change issues and policy options

Liberia's Green Growth Index stagnated in the 49%–53% range during 2010–21. The country is highly vulnerable to the adverse effects of climate change, with a vulnerability score of 0.606 (ranking it 177th of 181 countries). This requires huge financial needs. The government needs an estimated \$490.6 million to achieve its climate and green growth ambitions through 2025 and faces a gap of \$460 million based on its Nationally Determined Contribution, with zero financing yet from the private sector. Some of the main reasons are difficulty accessing financing to pay for adaptation actions, lack of financial incentives to motivate private actors to invest in new products or markets that support adaptation, and lack of de-risking opportunities in investments—particularly large-scale infrastructure investments that support green growth. Liberia has great potential as a carbon sink for the world, given its huge forest reserves. In 2018, natural capital was worth \$24.7 billion, or \$5,134 per capita, including forest capital per capita of \$1,035. Natural capital could therefore serve as a potential source of climate action and green growth financing with private sector involvement.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team. Data on the budget balance correspond to Liberia's fiscal year, which runs from July 1 to June 30.

## Recent macroeconomic and financial developments

Real GDP grew 3.7% in 2022, up from 3.1% in 2021, driven by the primary and secondary sectors, particularly cereal production (up 16.7%) and industrial gold production (up 4.4%), and higher consumption by households and government agencies. Inflation rose to 9.7% in 2022 from 3.9% in 2021, leading to three 25 basis point increases in key Central Bank of West African States rates.

The budget deficit widened to 5.0% of GDP in 2022 from 4.9% in 2021. Of the 1,348.0 billion CFA francs (\$2.3 billion) in funding need in 2022, 83.3% was covered through domestic financing, especially from the West African Economic and Monetary Union financial market (96.8% of domestic financing), where Mali's Public Treasury raised only 71.9% of its resource objectives. Public debt declined to 49.9% of GDP in 2022 from 52.0% in 2021, but the risk of overindebtedness remains moderate. The current account deficit narrowed to 7.2% of GDP in 2022 from 7.7% in 2021, as exports rose more than imports (20% versus 10%). The banking system (comprising 14 banks and 3 bank-like financial institutions) recorded a marked improvement in portfolio quality, with a decrease of the nonperforming loan ratio to 4.2% in December 2022 from 4.7% in December 2021. Social conditions deteriorated in 2022, with the poverty rate rising to 45.4% from 44.6% in 2021, 1.3 million additional people in need of humanitarian aid, 20% of schools closed, and 2.5 million people lacking health coverage.

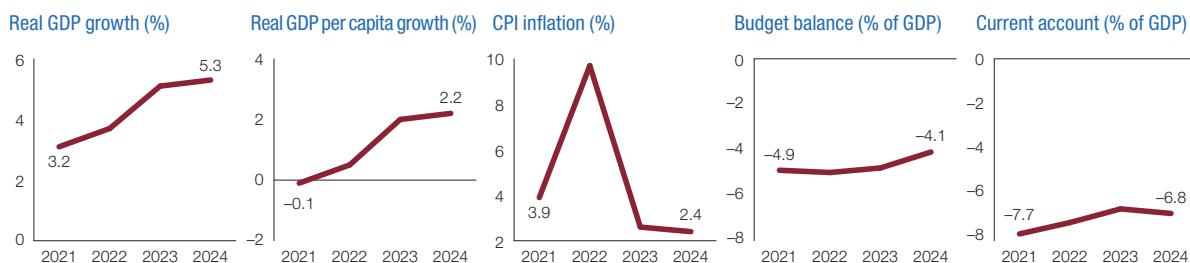
## Outlook and risks

Real GDP is projected to grow 5.1% in 2023 and 5.3% in 2024, driven by recovery in cotton production, extractive activities (discovery of lithium), industrial gold production, the launching of new industries, and the restructuring of struggling industries. Inflation is projected to moderate at 2.6% in 2023 and 2.4% in 2024 as a result of strong cereal production (expected to jump 7.7% in 2023 and 5.1% in 2024) coupled with the temporary suspension of grain exports. The budget deficit is projected to narrow to 4.8% of GDP in 2023 and 4.1% in 2024 thanks to the introduction of the Integrated Civil

Service Management System. Public debt is projected to rise to 53.4% of GDP in 2023 but decline to 53.3% in 2024, with a crowding-out effect on credit to private companies from 2023 and domestic debt (27.6% of GDP) likely to exceed external debt (25.8%). The current account deficit is projected to narrow to 6.6% of GDP in 2023 (with the Export Development Strategy 2022–2025 set to raise exports 25% by 2025) but widen to 6.8% in 2024. Possible headwinds include new sanctions by the Economic Community of West African States resulting from changes to the consensus timetable for elections, the lack of security, and the impact of climate change.

## Climate change issues and policy options

The cost of mitigation measures for 2020–30 is \$3.0 billion, and adaptation finance is likely to be \$8 billion. To mobilize these resources, Mali will have to rely on a range of internal and external finance sources. The financing gap could be substantial, although the number of parties involved makes it difficult to estimate. The private sector has considerable potential, including the Private Sector Guarantee Fund. The government has designated the National Bank for Agricultural Development and the Development Bank of Mali to be accredited by the Green Climate Fund. A strategic plan has been developed to ensure that the private sector has an active role in climate finance. Private climate investment is being directed toward energy, waste management, forestry, and agriculture. The private sector could profit from the country's enormous potential, as Mali has some of the greatest solar power potential and the largest reserves of natural hydrogen in the world. The obstacles to private climate finance are the lack of information concerning opportunities, the lack of training in procedures for accessing climate finance, low participation in the development of climate change strategies, and limited access to international finance. Solutions include training, awareness-raising, issuing green bonds, providing access to clean development mechanisms, selling carbon credits, adopting ecological taxation, and creating a private sector lending window for the Green Climate Fund.



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## Recent macroeconomic and financial developments

Real GDP growth rebounded to 7.2% in 2022, on strong performance across all sectors, particularly primary and tertiary services (which grew 7%), on the supply side and ongoing major infrastructure projects on the demand side. Inflation exceeded the West African Economic and Monetary Union (WAEMU) target of 3%, fueled by higher consumer food prices and the deteriorating international economic situation.

The budget deficit widened to 6.6% of GDP in 2022 from 6.1% in 2021 due to public spending rising more than public revenue. Constraints on budgetary performance continue to be both structural (tax base, economic structure, economic and social needs, and the like) and cyclical (lower global price for uranium, closing of the border with Nigeria). The budget deficit was financed primarily by external resources (budgetary support and projects), mainly grants. Public debt rose slightly to 51.2% of GDP in 2022 from 50.9% in 2021. Foreign loans accounted for 65% of public debt—below the WAEMU target—resulting in moderate risk of external debt distress. The chronic current account deficit widened to 15.1% of GDP in 2022 from 13.9% in 2021, financed by concessional loans and foreign direct investment, which rose substantially between 2017 and 2020. The social situation remains precarious, with extreme poverty at 42% in 2021.

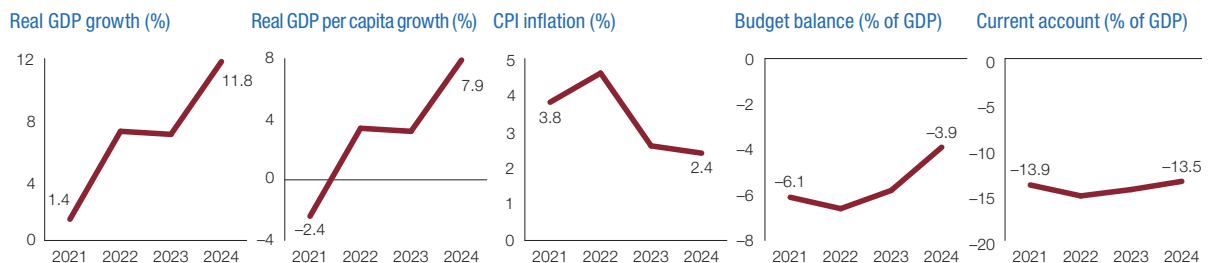
## Outlook and risks

Real GDP is projected to grow 7.0% in 2023 and 11.8% in 2024, with all sectors growing at least 5%. Consumption and higher oil investment as well as exports enabled by the new pipeline are projected to boost GDP growth. Possible headwinds include lack of security, climate change, a deteriorating international economic situation, and the like. Inflation will be contained below the WAEMU target of 3%. Public finances are

expected to consolidate, with a substantial increase in public revenue from oil production, and the quality of public spending is improving under the new public finance reform strategy. Public debt is projected to remain sustainable, with most external borrowing contracted on concessional terms. The current account and trade deficits are projected to narrow. Social conditions are also expected to improve thanks to economic recovery and the resilience-building measures in the new Economic and Social Development Plan 2022–2026.

## Climate change issues and policy options

Niger is highly exposed and vulnerable to the effects of climate change, with substantial energy requirements for its economic and social development. The country's objective is to fulfill its commitments under the Paris Agreement, particularly in terms of limiting the rise in temperature to less than 2°C or even 1.5°C by 2050. To meet this challenge and implement the revised Nationally Determined Contribution roadmap, Niger has developed a private sector financing strategy. The strategy sets out five intervention areas: mobilizing and involving private industry and professional organizations in adaptation planning, implementation, and monitoring and evaluation; updating the overview of the market's state of progress by identifying the sectors that are most promising and of the most interest to companies, compiling an inventory of companies in these sectors or with the potential to participate in them, and conducting a financing needs assessment; mobilizing financial resources from private funders as well as private stakeholders and corporations and implementing an annual work plan and budget; promoting climate technology innovation; and building capacity for company training and support structures as well as for companies themselves.



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# Nigeria

## Recent macroeconomic and financial developments

Real GDP growth fell to 3.3% in 2022 from 3.6% in 2021, precipitated mainly by a decline in oil production. This led to 5% shrinkage in overall industry, which was offset by expansion in services (7%) and agriculture (2%). On the demand side, the decline in GDP growth was driven by contraction in public consumption (2.5%) and net exports (80%). Growth in income per capita declined to 0.8% from 1.2% in 2021. The fiscal deficit narrowed to 4.9% of GDP in 2022 from 5.2% in 2021 and was financed by borrowing, bringing public debt to \$103.1 billion (about 22% of GDP) from \$92.6 billion in 2021.

Inflation peaked at a two-decade high of 18.8%, fueled by energy and food price increases and pass-through effects of exchange rate depreciation. The Central Bank of Nigeria successively raised the policy rate, which peaked at 16.5% in November 2022 from 11.5% at the start of the year, to tame rising inflation. Buoyed by relative improvement in oil exports, the current account recorded a small surplus of 0.1% of GDP in 2022, reversing three years of deficit. Gross international reserves declined 7.5% to \$37.1 billion (5.7 months of import cover). The nonperforming loans ratio stood at 4.2% in 2022, below the regulatory requirement of 5%. The capital adequacy ratio, at 13.8%, exceeded the regulatory benchmark of 10% in 2022. The multidimensional poverty rate (63%) and unemployment (33.3%) remained high.

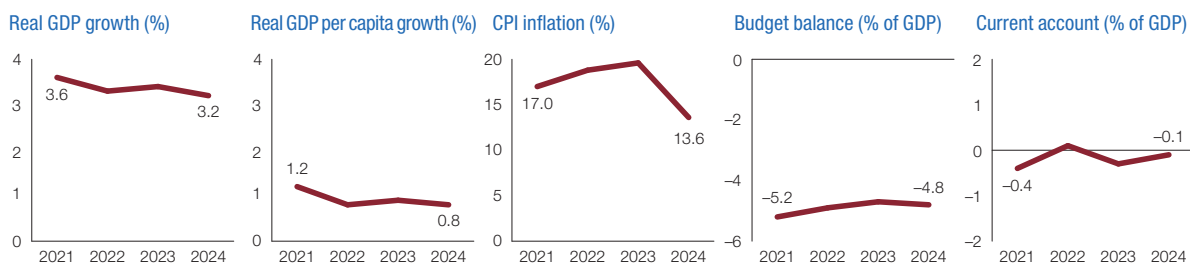
## Outlook and risks

Real GDP growth will remain subdued, averaging 3.3% in 2023–24, with inflation elevated at 19.6% in 2023 before declining to 13.6% in 2024, reflecting efforts to shore up domestic food supply and the effects of contractionary monetary policy. The planned removal of the subsidy on Premium Motor Spirit (PMS) and increased revenue could further narrow the fiscal deficit to below 5% of GDP in 2023–24. The deficit will be financed by borrowing, biased toward concessional debt and longer

maturities. Higher oil exports may not offset subdued capital inflows, with the current account projected to be in deficit, averaging 0.2% of GDP in 2023–24. Peaceful resolution of the court challenge of the 2023 presidential election could confirm Nigeria's maturing democracy, boosting investment. Headwinds include insecurity and potential social resistance to removing the PMS subsidy. Maintaining the subsidy could further increase fiscal risks, exacerbated by high debt service costs.

## Climate change issues and policy options

Natural capital was an estimated \$842.4 billion in 2018, \$582.4 billion of it nonrenewable and \$260.1 billion of it renewable. These resources can drive sustainable and inclusive green growth. Exploiting Nigeria's large gas reserves, estimated at 206.53 trillion cubic feet, and addressing gas flaring can support the net-zero transition. Abundant solid and critical minerals present opportunities for green development. With the discovery of more than 3,000 lithium pegmatite bodies, Nigeria can lead lithium-ion battery manufacturing. The benefits include green job creation and climate change mitigation. Such opportunities require a blueprint to attract green financing and investment. From 2019 to 2020, average climate finance amounted to only \$1.9 billion from both public (\$1.5 billion) and private (\$435 million) sources. Across sectors, \$798 million was in energy, followed by \$626 million in cross-sectoral projects, \$300 million in agriculture, \$128 million in transport, and the rest in other sectors. Nigeria needs \$247 billion in climate finance through 2030 to implement its Nationally Determined Contribution. Investment is needed in clean energy, including 8 gigawatts of solar energy. The private sector has the potential to mobilize climate finance. Innovative financing opportunities include green bonds for energy efficiency and sukuk bonds for resilient transport infrastructure. Restructuring the sovereign wealth fund also presents an opportunity for climate finance.



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## Recent macroeconomic and financial developments

Real GDP growth dropped to 4.0% in 2022 from 6.5% in 2021 due to the effects of Russia's invasion of Ukraine, a sharp slowdown in the secondary sector, and contraction in the primary sector (which shrank 0.5%) caused by an unfavorable agricultural season and sanctions against Mali, the leading customer for Senegalese exports, by the Economic Community of West African States. Inflation reached a record high of 9.7% in 2022, driven by soaring food prices. To contain these inflationary pressures, the Central Bank of West African States revised the minimum liquidity injection rate to 3.0% and the marginal lending rate to 5.0%, and the government raised energy subsidies to 4% of GDP and drastically reduced public investment. The budget deficit narrowed slightly to 6.1% of GDP in 2022 from 6.3% in 2021 thanks to a 23% increase in public revenue. Public debt rose from 64.0% of GDP in 2019 to 75.0% in 2022 because of public deficits accumulating since the COVID-19 pandemic.

The current account deficit is projected to widen to 17.5% of GDP in 2022 from 12.1% in 2021 following the sanctions on Mali and higher import costs. The banking sector remains resilient, with a 20.2% increase in loans to the economy. The nonperforming loans ratio fell slightly from 11.5% in 2021 to 11.2% in 2022. The poverty rate remained stable at around 37% in 2022 as growth was driven by the urban services sector, whereas poor people live in rural areas and depend on farming.

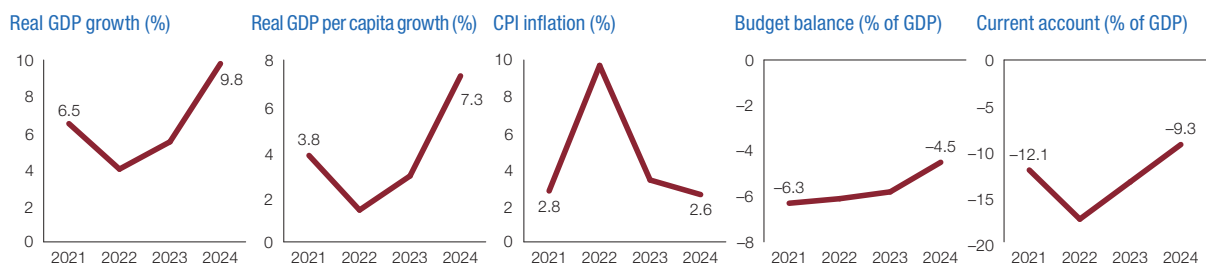
## Outlook and risks

Real GDP is projected to grow 5.0% in 2023, driven by an upturn in agricultural output as well as gradual normalization of the effects of Russia's invasion of Ukraine, and to 9.8% in 2024 thanks to expected oil production. Inflation is projected to drop to 3.4% in 2023 and 2.6%

in 2024 due to tighter monetary policy. The budget deficit is projected to narrow to 5.8% of GDP in 2023 and 4.5% in 2024 thanks to the expected rationalization of subsidies and domestic revenue mobilization. Debt is projected to fall below 70% of GDP in 2024 thanks to the narrower public deficit and growth prospects. The current account deficit is projected to drop below 10% of GDP in 2024 for the first time since 2020, with the start of hydrocarbon exports. Possible headwinds include prolongment of Russia's invasion of Ukraine, declining terms of trade, effects of climate change and the regional security situation.

## Climate change issues and policy options

Despite having a carbon footprint well below that of developed countries, Senegal is experiencing substantial economic impacts due to vulnerability to climate change. About \$2.8 billion a year is needed in compensation. The estimated climate finance needed to strengthen climate resilience is \$13 billion, or \$1.1 billion a year. Climate finance thus needs to be pursued both locally and internationally to ensure the energy transition and build resilience to climate change. The private sector's contribution to climate finance remains low. The country has initiated a range of actions to attract private investment, particularly by implementing a clear regulatory framework and innovative financing mechanisms, but the private sector makes far too little use of these financing sources. Crédit Agricole's accreditation with the Green Climate Fund in 2020 represents an important step in mobilizing the private sector around climate finance. To increase private participation, an incentive system (fiscal or preferential) is needed that will promote climate change adaptation and mitigation. Added to this is the need for further technical capacity-building and guaranteed access to information on private investment opportunities and how to structure and implement projects.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

# Sierra Leone

## Recent macroeconomic and financial developments

Real GDP growth declined to 2.8% in 2022 from 4.1% in 2021 due to the impact of Russia's invasion of Ukraine. Growth was driven by mining exports (iron ore) on the demand side and by the recovery in key sectors on the supply side. Inflation rose to 26.1% in 2022 from 11.9% in 2021, driven by food and fuel inflation and depreciation of the leone. The fiscal deficit declined to an estimated 4.8% of GDP from 7.3% in 2021 due to higher grants. Public debt increased to an estimated 92.9% of GDP from 79.8% in 2021. The country remains at high risk of debt distress.

The current account deficit narrowed to an estimated to 10.3% of GDP from 15.0% in 2021, attributable to an improved trade balance and higher net transfers. The current account deficit is financed by the financial account. Gross foreign reserves fell to \$599.5 million (3.3 months of import cover) in September 2022 from \$932 million in December 2021 following measures to increase food and fuel supplies in local markets. The exchange rate depreciated sharply after mid-2021 due mainly to the widening trade deficit. The financial sector is underdeveloped but generally sound, with most indicators above the recommended minimum, except the nonperforming loans ratio (at 14.8% in 2021 against a regulatory target of 10%). Sierra Leone is characterized by high poverty (59.2% in 2020), income inequality (Gini coefficient of 0.357 in 2018), and high youth unemployment (70%), compounded by skills mismatch.

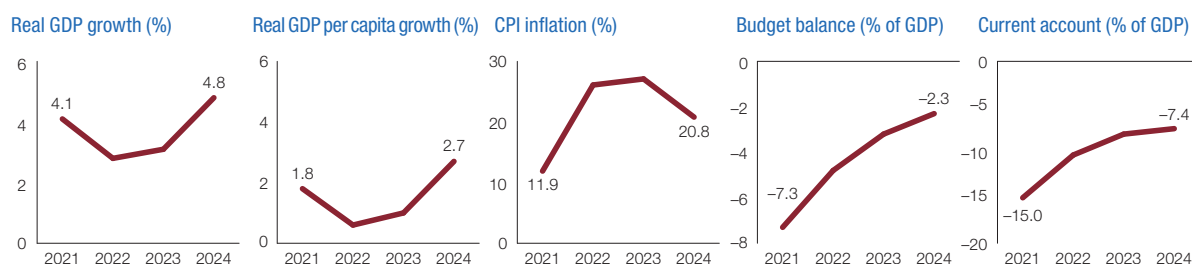
## Outlook and risks

GDP growth is projected to increase to 3.1% in 2023 and 4.8% in 2024, driven by the mining sector and the continued recovery of agriculture, manufacturing, construction, and tourism. Inflation is projected to rise to 27.1% in 2023 but decline to 20.8% in 2024 as external shocks subside. The fiscal deficit is projected to narrow to 3.2% of

GDP in 2023 and 2.3% in 2024 due to higher tax revenue supported by economic recovery and spending rationalization. The current account deficit is projected to narrow to 8.0% of GDP in 2023 and 7.4% in 2024 as the trade deficit narrows and official and private grants increase. Headwinds include the likelihood of a global economic recession, a prolongment of Russia's invasion of Ukraine, sustained increases in food and fuel prices, lower international financial assistance, and a re-emergence of COVID-19 and other public health emergencies.

## Climate change issues and policy options

Sierra Leone's Green Growth Index deteriorated from 45.3% in 2010 to 44.9% in 2021, highlighting the challenges associated with achieving the green growth target. This was due to weak performance in green economic opportunities. Despite this, supported by green growth policies and strategies, Sierra Leone has the potential to foster economic growth while reducing vulnerability to climate change. Its national and sectoral green growth policies and strategies are aligned with its Nationally Determined Contribution, whose financing need is an estimated \$276 million. Inflows amounted to \$164 million, 12% of which came from the private sector. Sierra Leone can mobilize private climate finance through innovative instruments, including a carbon market, debt-for-climate swaps, and climate-related debt. Between 1995 and 2018, its nonrenewable natural capital rose 94% in real terms, and its renewable natural capital rose 70%. This provides a major chance to leverage private climate finance with natural resources. Ongoing initiatives to enhance natural capital include pursuing oil and gas exploration and strengthening the legislative framework around forest protection and related environmental issues to leverage climate finance from forests, including carbon credits, REDD+ payments, and grants for forest conservation or reforestation.



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## Recent macroeconomic and financial developments

Real GDP growth declined to 5.5% in 2022 from 6.0% in 2021 due to the security crisis in the far north of the country and Russia's invasion of Ukraine. Inflation rose from 4.6% in 2021 to 7.8% in 2022, driven by higher food and energy prices. The fiscal deficit widened from 4.7% of GDP in 2021 to 8.4% in 2022 due to purchasing power support measures (subsidies and tax exemptions for basic products) as well as additional security spending. The current account deficit widened from 0.9% of GDP in 2021 to 3.7% in 2022 due to higher costs of imported goods (oil and food) brought about by the disruption of supply chains during the COVID-19 pandemic and the effects of Russia's invasion of Ukraine.

Loans to the private sector to boost economic activity increased 14.3%, to 32.8% of GDP. The nonperforming loans ratio fell from 12.0% in 2021 to 8.1% in 2022 due mainly to the recovery of overdue loans and favorable monetary conditions in the West African Economic and Monetary Union, which allowed banks to lighten their balance sheets to restore their capacity to finance the economy. Risk of debt distress is moderate. Public debt dropped to 55.9% of GDP in 2022 from 63.1% in 2021 thanks to debt management measures.

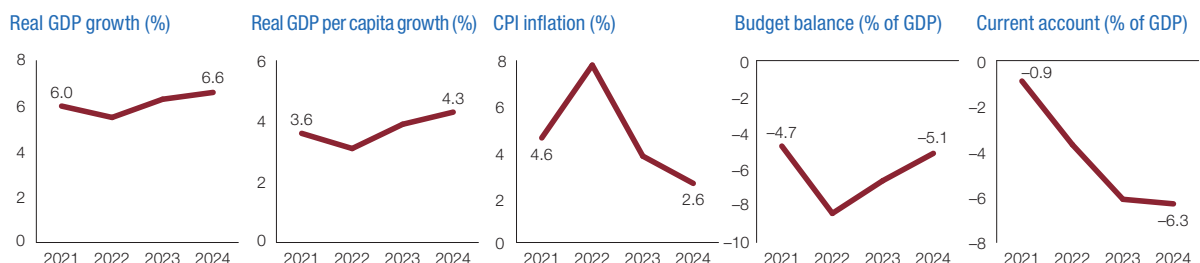
## Outlook and risks

Real GDP is projected to grow 6.3% in 2023 and 6.6% in 2024 thanks to the government's 2025 roadmap for infrastructure projects and economic, financial, and structural reforms, including those aimed at boosting

agricultural production and yields. Inflation is projected to fall to 3.8% in 2023 and 2.6% in 2024 thanks to purchasing power support from the government. The current account deficit is projected to widen slightly to 6.1% of GDP in 2023 and 6.3% in 2024 on higher import growth than export growth. The fiscal deficit is projected to narrow to 6.6% of GDP in 2023 and 5.1% in 2024 due to continued public financial management reforms. Possible headwinds include unfavorable fluctuations in global phosphate and oil prices, prolongment of Russia's invasion of Ukraine, repeated terrorist attacks in the country's northern regions, and the effects of climate change.

## Climate change issues and policy options

Obtaining private financing for climate change and green growth is challenging for Togo. The estimated finance needed to adequately address climate change is \$7.0 billion over 2020–30, or \$702.6 million a year. The estimated cost of losses and damages due to adaptation is \$2.7 billion, or 38.8% of total financing need, and the financing gap averages \$560 million a year. This gap could severely limit the country's ability to build climate resilience and promote green growth and calls for private sector mobilization. Of the \$126 million in climate finance over 2019–20, only \$17.4 million (14%) was provided by the private sector. The private sector is thus being called on to strengthen access to electrical power by providing individual solar kits and to fight coastal erosion in order to ensure environmental sustainability and mitigate the effects of climate change.



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.



# ABBREVIATIONS

<b>AAI</b>	Africa Adaptation Initiative	<b>DRC</b>	Democratic Republic of Congo
<b>ABM</b>	Adaptation Benefits Mechanism	<b>DSA</b>	Debt Sustainability Analysis
<b>ACBF</b>	African Capacity Building Foundation	<b>DSSI</b>	Debt Service Suspension Initiative
<b>ACMI</b>	African Carbon Markets Initiative	<b>ECAD</b>	African Development Institute
<b>ADF</b>	African Development Fund	<b>ECCAS</b>	Economic Community of Central African States
<b>AEO</b>	African Economic Outlook	<b>EFF</b>	Extended Fund Facility
<b>AFAC</b>	Africa Financial Alliance on Climate Change	<b>EIA</b>	Environmental Impact Assessment
<b>AfCFTA</b>	African Continental Free Trade Area	<b>EIB</b>	European Investment Bank
<b>AfDB</b>	African Development Bank Group	<b>EITI</b>	Extractive Industries Transparency Initiative
<b>AFMI</b>	African Financial Markets Initiative	<b>EM</b>	Ecosystem Marketplace
<b>AFOLU</b>	Agriculture, forestry, and other land use	<b>ESG</b>	Environmental, Social, and Governance
<b>AFR100</b>	African Forest Landscape Restoration Initiative	<b>ETS</b>	Emissions trading system
<b>AFSM</b>	African Financial Stability Mechanism	<b>EU</b>	European Union
<b>AG3F</b>	African Green Bank Initiative	<b>EU-ETS</b>	European Union-Emissions Trading System
<b>AIF</b>	Africa Investment Forum	<b>EV</b>	Electric vehicle
<b>ANS</b>	Adjusted Net Savings	<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>AU</b>	African Union	<b>FDI</b>	Foreign Direct Investment
<b>AUDA-NEPAD</b>	African Union Development Agency– New Economic Partnership for Africa’s Development	<b>FFI</b>	Fossil-Fuel combustion and Industrial Group of 20
<b>AVCA</b>	African Private Equity and Venture Capital Association	<b>G20</b>	Group of 20
<b>BII</b>	British International Investment	<b>G7</b>	Group of 7
<b>BNEF</b>	Bloomberg New Energy Finance	<b>GBF</b>	Global Biodiversity Framework
<b>bp</b>	Basis points	<b>GCA</b>	Global Center on Adaptation
<b>BSO</b>	Balance Sheet Optimization	<b>GCF</b>	Green Climate Fund
<b>CBAM</b>	Carbon Border Adjustment Mechanism	<b>GDP</b>	Gross domestic product
<b>CBD</b>	Convention on Biological Diversity	<b>GEF</b>	Global Environment Facility
<b>CDM</b>	Clean Development Mechanism	<b>GFF</b>	Green Finance Facility
<b>CDN</b>	Contribution déterminée au niveau national	<b>GFI</b>	Global Financial Integrity
<b>CEMAC</b>	Central African Economic and Monetary Community	<b>GGGI</b>	Global Green Growth Institute
<b>CEO</b>	Chief Executive Officer	<b>GGI</b>	Green Growth Index
<b>CFA</b>	Communauté Financière Africaine/ Coopération Financière en Afrique	<b>GHG</b>	Greenhouse Gas
<b>CO2</b>	Carbon dioxide	<b>GNI</b>	Gross National Income
<b>COP27</b>	Conference of the Parties, 27th session	<b>GPCA</b>	Global Private Capital Association
<b>COVID-19</b>	Coronavirus disease	<b>GSCPI</b>	Global Supply Chain Pressure Index
<b>CPI</b>	Climate Policy Initiative/ Consumer Price Index	<b>GtCO2</b>	Gigaton of Carbon Dioxide
<b>DAC</b>	Development Assistance Committee	<b>HIPC</b>	Heavily Indebted Poor Countries Initiative
<b>DEFPA</b>	Database on Energy and Food Price Actions	<b>HIV</b>	Human immunodeficiency virus
<b>DFI</b>	Development Financial Institution	<b>ICT</b>	Information and communication technologies
<b>DNS</b>	Debt-for-nature swap	<b>IDA</b>	International Development Association
		<b>IEA</b>	International Energy Agency
		<b>IETA</b>	International Emissions Trading Association
		<b>IFC</b>	International Finance Corporation

<b>IFS</b>	International Financial Statistics	<b>PMI</b>	Purchasing Managers' Index
<b>IFSwF</b>	International Forum of Sovereign wealth Funds	<b>PMS</b>	Premium Motor Spirit
<b>IMF</b>	International Monetary Fund	<b>PPI</b>	Private Participation in Infrastructure
<b>IPCC</b>	Intergovernmental Panel on Climate Change	<b>PPP</b>	Private public partnership
<b>IQR</b>	Interquartile range	<b>RCRWA</b>	Regulatory Capital to Risk-Weighted Assets
<b>IRENA</b>	International Renewable Energy Agency	<b>REDD+</b>	Reducing Emissions from Deforestation and Forest Degradation
<b>IRP</b>	International Resource Panel	<b>RMC</b>	Regional Member Country
<b>ITMO</b>	Internationally transferred mitigation outcome	<b>ROA</b>	Return On Assets
<b>IUU</b>	Illegal, Unreported, and Unregulated	<b>SACU</b>	Southern African Customs Union
<b>KCIC</b>	Kenya Climate Innovation Center	<b>SADC</b>	Southern African Development Community
<b>KNOMAD</b>	Global Knowledge Partnership on Migration and Development	<b>SBI</b>	Sustainable Budget Index
<b>KPI</b>	Key Performance Indicators	<b>SDG</b>	Sustainable Development Goals
<b>LAC</b>	Latin America and the Caribbean	<b>SDR</b>	Special Drawing Rights
<b>LIC</b>	Low-Income Country	<b>SEA</b>	Strategic Environmental Assessment
<b>LTS</b>	Long-term strategy	<b>SEEA</b>	System of Environmental Economic Accounting
<b>LULUCF</b>	Land use, land-use change, and forestry	<b>SEEA EA</b>	SEEA Ecosystem Accounting
<b>MAIA</b>	Mapping and Assessment for Integrated Ecosystem Accounting	<b>SME</b>	Small and Medium-sized Enterprise
<b>MDB</b>	Multilateral development bank	<b>SOE</b>	State-owned enterprise
<b>MEA</b>	Millennium Ecosystem Assessment	<b>SST</b>	Synthetic Securitization Transaction
<b>MEO</b>	Macroeconomic Performance and Outlook	<b>SWF</b>	Sovereign wealth fund
<b>MRV</b>	Monitoring, reporting, and verification	<b>UK</b>	United Kingdom
<b>MSME</b>	Micro, Small, and Medium Enterprises	<b>UN</b>	United Nations
<b>MtCO<sub>2</sub></b>	Metric tons of carbon dioxide equivalent	<b>UN DESA</b>	United Nations Department of Economic and Social Affairs, Population Division
<b>NBAP</b>	National Biodiversity Action Plan	<b>UNCCD</b>	United Nations Convention to Combat Desertification
<b>NbS</b>	Nature-based solutions	<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>NCAVES</b>	National Capital Accounting and Valuation of Ecosystem Services	<b>UNDP</b>	United Nations Development Programme
<b>NCIC</b>	Nigeria Climate Innovation Center	<b>UNECA</b>	United Nations Economic Commission for Africa
<b>NDC</b>	Nationally Determined Contribution	<b>UNEP</b>	United Nations Environment Programme
<b>NDP</b>	National Development Plan	<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>NEER</b>	Nominal Effective Exchange Rate	<b>UNWTO</b>	World Tourism Organization
<b>NEPAD</b>	New Economic Partnership for Africa's Development	<b>US</b>	United States
<b>NPL</b>	Non-Performing Loan	<b>USGS</b>	United States Geological Survey
<b>NRGI</b>	Natural Resource Governance Institute	<b>VAT</b>	Value Added Tax
<b>OCCRP</b>	Organized Crime and Corruption Reporting Project	<b>VCM</b>	Voluntary Carbon Market
<b>ODA</b>	Official Development Assistance	<b>VIX</b>	Chicago Board Options Exchange's CBOE Volatility Index
<b>ODI</b>	Overseas Development Institute	<b>WAEMU</b>	West African Economic and Monetary Union
<b>OECD</b>	Organisation for Economic Cooperation and Development	<b>WAMU</b>	West African Monetary Union
<b>OPEC</b>	Organization of the Petroleum Exporting Countries		
<b>PCG</b>	Partial Credit Guarantee		



