

## ECONOMIC REPORT ON AFRICA 2023




# Building Africa's Resilience to Global Economic Shocks



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# **Building Africa's Resilience to Global Economic Shocks**

14 November 2023



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Publications Section

Economic Commission for Africa

P.O. Box 3001

Addis Ababa, Ethiopia

Tel: +251 11 544-9900

Fax: +251 11 551-4416

E-mail: [eca-info@un.org](mailto:eca-info@un.org)

Web: [www.uneca.org](http://www.uneca.org)

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# ABBREVIATIONS AND ACRONYMS

AEO	African Economic Outlook
AfDB	African Development Bank
AfCFTA	African Continental Free Trade Area
AU	African Union
AUC	African Union Commission
BE	Blue Economy
BEVT	Blue Economy Valuation Toolkit
CDDCs	Commodity-Dependent Developing Countries
CFA	Communauté Financière d'Afrique
COP	Conference of the Parties
COMESA	Common Market for Eastern and Southern Africa
UN Comtrade	United Nations Commodity Trade Statistics Database
Covid-19	Coronavirus Disease 2019
DRC	Democratic Republic of the Congo
EAA	East African Alliance on Carbon Markets and Climate Finance
EAC	East African Community
EAP	East Asia and Pacific
EC	European Commission
ECA	Eastern Europe and Central Asia
ECA	United Nations Economic Commission for Africa
EEZ	Exclusive Economic Zone
EIU	Economist Intelligence Unit
ERA	Economic Report on Africa
ESG	Environmental, Social, and Governance
FDI	Foreign Direct Investment
FTA	Free Trade Area
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GNI	Gross National Income
HIPC	Heavily Indebted Poor Countries
GHGs	Greenhouse Gas Emissions
GIS	Geographic Information Services
GNI	Gross National Income
GVA	Gross Value Added
HDI	Human Development Index

ICT	Information and Communications Technology
IFAD	International Fund for Agricultural Development
ILO	International Labour Organization
ILOSTAT	International Labour Organization Database
IFFs	Illicit Financial Flows
IMF	International Monetary Fund
INDC	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
HIPC	Heavily Indebted Poor Countries
ISIC	International Standard Industrial Classification
IUCN	International Union for Conservation of Nature
LDCs	Least Developed Countries
LNG	Liquefied Natural Gas
LULUCF	Land Use Change and Forestry
MDRI	Multilateral Debt Relief Initiative
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organizations
OECD	Organisation for Economic Co-operation and Development
PPP	Public-Private Partnership
PPP	Purchasing Power Parity
R&D	Research and Development
SADC	Southern African Development Community
SEZs	Special Economic Zones
SME	Small and Medium-sized Enterprise
SSE	Sustainable Stock Exchanges
MSMEs	Micro, Small and Medium-sized Enterprise
SDG	Sustainable Development Goals
SIDA	Swedish International Development Cooperation
SIDS	Small Island Developing States
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme
UNESCO	United Nations Education Science and Culture Organization
UNFPA	United Nations Population Fund
UN-Habitat	United Nations Human Settlements Programme
UNICEF	United Nations International Children's Emergency Fund
UNIDO	United Nations Industrial Development Organization
US	United States of America
WAA	West African Alliance on Carbon Markets and Climate Finance
WDI	World Development Indicators
WHO	World Health Organization



# FOREWORD

**T**he advancement towards the Sustainable Development Goals (SDGs) in Africa has slowed down and even regressed on certain goals, due to the accumulating impacts of the polycrisis, including the climate change induced shocks, the repercussions of the COVID-19 pandemic, and the ripple effects of the war in Ukraine. More than 30 million Africans were forced into extreme poverty in 2021, and 22 million jobs were lost. These exogenous crises diminish the capacity of nations to react, putting them in a perpetual state of emergency, with limited scope for recuperating and for allocating resources towards sustained economic development.

Africa's growth slowed from 4.6 per cent in 2021 to 3.6 per cent in 2022 but is projected to rebound to 4.1 per cent in 2023 due to increased domestic demand and a rebound in foreign direct investment. However, Africa's growth prospects face headwinds due to several factors. First, weak global growth affecting Africa's exports and continuing disruptions to global supply chains compounded by tight global economic and financial conditions have resulted in increasing debt servicing costs. Second, frequent extreme weather events causing substantial losses and damages put additional pressure on fiscal resources. African countries bear a disproportionate burden of increasingly devastating climate change. The United Nations Economic Commission for Africa (ECA) projects that some regions in Africa will face a potential loss of up to 15 per cent of their gross domestic product by 2050, an outcome already realised in some countries, because of climate change. Liberia, Sudan, Tunisia, Eswatini, Ethiopia, and the Democratic Republic of Congo recorded losses equal to or exceeding 5 per cent of GDP, and South Sudan's losses exceed 15 per cent of GDP. Third, the ongoing war in Ukraine triggered an international food and energy crisis, hampering Africa's fragile recovery and economic development prospects and hence prolonging global uncertainty and fears of food insecurity in Africa. And fourth, internal conflicts and risks have left several African countries more vulnerable and less resilient to manage current and future shocks.

Given the external nature and depth of the polycrisis, fiscal space in many African countries remains constrained. In response, ECA spearheaded several advocacy initiatives since the advent of the COVID-19 pandemic. Coordinated by ECA, the Africa High Level Working Group on the Global Financial Architecture—comprising African Ministers of Finance, Economic Planning and Development, the African Union, the African Development Bank, Afrixebank, and the World Bank, and including the participation of IMF staff and Executive Directors—advocated for changes to the Global Financial Architecture system. In its current form, the Global Financial Architecture requires modification to address global concerns more effectively, particularly in Africa, to expedite the attainment of the SDGs, and provide a global safety net for developing countries. Africa's induction into the Group of Twenty will strengthen Africa's voice on these matters.

As nations seek to revive their economies, more domestic and foreign resources need to be mobilised to bolster economic recovery and fortify households against future disruptions. Domestically and regionally, enhancing each country's ability to withstand and recover from unexpected

events is essential. Improving the capabilities of countries to formulate development strategies that foresee such events and develop proactive methods to address them, including pandemic prevention, early warning systems and social protection, is critical. With structural transformation and economic diversification proving difficult to attain, Africa needs to shift gears to developing effective industrial policies concentrating on specific sectors and properly implementing fundamental principles in order to generate decent employment, increase income, and diversify and add value to its exports.

The African Continental Free Trade Area holds immense potential for fostering Africa's progress and growth and for achieving sustainable development. It must do so by ensuring an accelerated industrialization which is environmentally sustainable, and to provide alternative employment strategies, especially for youth and off-farm rural work. Domestic resources mobilization can be enhanced by stemming capital flight, increasing domestic savings and tax revenues, and diversifying financial instruments to finance long-term investment.

African economies have suffered severely from global shocks, putting many at high risk of debt distress, while the globe is still lush with excess liquidity. Enhanced global cooperation is imperative to investigate and pursue novel approaches for resolving Africa's debt. Now is the time for Africa to increase its active participation in the ongoing discourse on the restructuring and redesigning of the global financial system, ensuring that it adequately helps to address Africa's development obstacles and meet its ambitions.



**Claver Gatete**

Under-Secretary General and Executive Secretary  
United Nations Economic Commission for Africa

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# EXECUTIVE SUMMARY

**T**he theme of the 2023 Economic Report on Africa is “Building Africa’s Resilience to Global Economic Shocks.” The report focuses on the impact of multiple and recurring global shocks on African economies. It examines how these shocks impede Africa’s prospects of reaching the targets set in the Sustainable Development Goals (SDGs), how to achieve inclusive economic transformation and how to build resilience.

The analytical and conceptual framework used in the report outlines a typology based on the magnitude of the shocks and on the resilience or preparedness of economies to withstand and buffer the shocks and identify pathways for sustainable recovery.

Shocks of various magnitude, duration and recurrence have shaped economic performance in the last several decades. They have undermined Africa’s aspirations for sustained growth and rapid economic transformation and benefiting from demographic (youth bulge) and geographic (urbanization) trends. They have also had scarring effects that make it difficult for African economies to recover fully even after a short-lived shock such as the global financial crisis. More important, their damage could morph into other domains such as political instability and conflict, thus undermining recovery and the resilience to future shocks.

The report also emphasizes the opportunities to implement long overdue structural and public finance reforms—and to take full advantage of regional initiatives such as the African Continental Free Trade Area—to reduce Africa’s exposure to external shocks.

## KEY FINDINGS

- African economies have in the last two decades been shaken by multiple and recurring global shocks that hit key macroeconomic indicators. Though fragile, recovery has also been observed in many cases.
- The global financial and economic crisis of 2008–09, the collapse of commodity prices in 2013, the Covid-19 pandemic that began in early 2020 and the war in Ukraine (2022–present) have led to various patterns of recovery across African economies, with some countries recovering faster and more robustly than others.
- The Covid-19 pandemic had a bigger impact on African economies than the global financial crisis. It is even expected to have long-term effects on the key drivers of growth, trade and capital flows. Per capita GDP declined by about 6%, pushing more than 20

million people into extreme poverty in an unprecedented reversal. A similar trend is expected from the consequences of the war in Ukraine.

- The global economic slowdown, elevated inflationary pressures, climate change and worsening international economic and financial conditions reduced Africa's growth from 4.6% in 2021 to 3.6% in 2022, but it is projected to rebound to 4.1% in 2023. But the frequency and intensity of multiple shocks could erode economic fundamentals and cause long-term damage that could take years to mend.
- The war in Ukraine indeed hampered recovery from Covid and hit African countries that depend on Russia and Ukraine for imports of oil, fertilizers and grains. It brought soaring inflationary pressure and severe food insecurity and sent many vulnerable people back into poverty. Indeed, in addition to the higher absolute numbers of food insecure people in Africa, the rates of food insecurity are much higher than in other regions: 56% compared with the 28% world average. Food insecurity is most pronounced in Central Africa (72% three-year average over 2019-21) and Eastern Africa (66%).
- In Central Africa, the Central African Republic is the most affected with about 62% of the population experiencing severe food insecurity. In Eastern Africa, the most affected countries are Comoros with moderate or severe food insecurity reaching 80%, the Democratic Republic of Congo (72%) and Ethiopia (57%).
- Except for 10 countries, Africa has experienced higher inflation since the outbreak of the war in Ukraine, mainly driven by food inflation. The 10 exceptions are Libya, Niger, Algeria, Côte d'Ivoire, Guinea, Benin, Togo, Zambia, Angola and Ethiopia, where inflation has been stable or declining. Angola (37% in October) and Ethiopia (40% in November) have particularly high inflation.
- The war in Ukraine also increased the debt-service burden, further disrupted global value chains and increased the risk of another recession in many African countries.
- Other major shocks destabilizing Africa are related to climate change, with the frequency and severity of climate shocks increasing. The impact on GDP growth is large and significant. A 1C rise in temperature above 30C could lead to a 2 percentage point decline in real GDP growth, undermining the gains from positive shocks such as commodity price booms, amplifying the impacts of negative shocks and diminishing domestic resource mobilizations, thus increasing debt.
- That the economic fundamentals of most African economies have not changed much in the last three decades is a major concern for the continent's capacity to withstand and recover from shocks. Investment, domestic savings, government revenue and economic structure remained unchanged, while urbanization, population density and unemployment are rising.
- Combined with an overstretched resource envelope to mitigate Covid-19, low productivity in agriculture and persistent trade barriers in the region, financing for recovery has become increasingly difficult. And countries are struggling to find the resources necessary to respond to shocks. The level of debt in developing countries has increased, and the cost of borrowing has risen.

All of this calls for new approaches to structural shocks on a global scale.

# THE WAY FORWARD

## IMPROVING RISK MANAGEMENT AND BUILDING RESILIENCE STRATEGIES

Global crises have become a new normal. Successive shocks have had scarring effects, and it has become difficult for African economies to recover fully even after a short-lived shock. It is difficult to isolate the individual impacts of these shocks to draw specific policy implications due to their overlapping occurrence and recurrence. But the report identifies strategies and policy reforms needed to improve the capacity of African countries to counter the impacts of multiple and recurrent shocks on short-term and long-term economic performance, business development and household welfare. The guiding principle is to develop strategies that enable countries to move to a state where the magnitude and recurrence of shocks are minimized through mitigative and adaptive actions, while building resilience that alleviates the impacts of shocks and speeds up the recovery.

## DEVELOPMENT PLANNING AND GOOD GOVERNANCE

Strengthening the capacity to design development plans that anticipate shocks and formulate proactive response measures is a primary factor in developing a country's resilience to shocks. National development plans provide a coordinated framework for countries to design, implement and monitor strategies that advance their development priorities in accordance with their international obligations. Invariably, well-designed national development plans must anticipate and proactively respond to disruptions. Through the development of risk-informed macroeconomic and sector strategies, resilience-building can be hard-wired into the national planning framework, and sectoral strategies can promote and sustain growth without compromising macroeconomic stability.

## STRUCTURAL TRANSFORMATION THROUGH SMART INDUSTRIAL POLICIES

Achieving sustainable growth and building resilience require structural transformation. Successful industrial policy requires both a sectoral focus as well as getting the basics right. Separating the two may be hard, but it is essential for countries to identify optimal combinations of policy actions to nurture an industrial program. The broad lessons are that the current global economic architecture affords opportunities for African countries to leapfrog and accelerate industrialization through careful experimentation of what has worked elsewhere and adapting it to local conditions.

Firm survival and growth in Africa are closely linked with exporting, working with international capital and international or global firms, adopting international managerial norms and standards as well as developing industrial clusters. These elements come in different shades depending on the type of firms and their technology intensity. Broadly, however, three economic fundamental gaps require attention to get the basics right: skill gaps, infrastructure gaps and overall institutional quality gaps.

## PROMOTING REGIONAL VALUE CHAINS

The African Continental Free Trade Area (AfCFTA) signed in 2018 encapsulates Africa's aspirations for greater integration. It builds on previous efforts to promote intra-Africa trade with a proposal for deep integration in trade and investment, which could create millions of jobs and reduce poverty significantly. But other opportunities less explored in the AfCFTA could build enormous resilience to shocks and provide opportunities for accelerating Africa's drive for industrialization and agricultural transformation. One clear example is the potential for engaging in regional value chains, of high significance in the current environment where global value chains have been severely disrupted by the Covid-19 pandemic and more recently the war in Ukraine.

In addition, the simmering multipolar geopolitics could create potential disruptions for which African countries need to be prepared and take advantage of the emerging opportunities, rather than suffer from the risks. Some sectors amenable to the creation of value chains are already emerging where collaborations in services, particularly those driven by technological advances, could be harnessed. The potential for regional value chains exists in agricultural products (agro-processing) and light and medium manufacturing processes.

Countries could collaborate in creating, for example, regional agricultural commodity markets that would help to connect surplus economies with net importers for wheat, sugar and rice. This certainly would reduce dependence on Russia and Ukraine, which is shaking up macroeconomic stability in most countries. Financial integration could also protect the continent from the vicious cycle of debt distress and liquidity crunches through regional bond markets that would enhance savings mobilization, risk pooling and funding for regional and national infrastructure.

## ENHANCING GLOBAL COOPERATION

There is a unique opportunity for Africa to forge a new global cooperation framework to bring collective prosperity. African economies have suffered severely from global shocks, leaving most countries with a high risk of debt distress. Some have already entered preemptive default (Ghana and Zambia), and many others may soon follow—this, while the globe is still lush with excess liquidity. It is time to seek and explore new mechanisms for Africa's debt resolution.

The war in Ukraine has further complicated the situation by increasing the cost of debt repayment, leading many countries to risk default. Special drawing rights could be reallocated to help indebted countries accelerate recovery and move to a path of inclusive growth. African countries also need a new debt-sustainability framework that is forward looking, predicated on the debt-investment-growth nexus that also accounts for the countries' growth potential and future shocks. That would make the cost of borrowing commensurate with their resource potential and development.



## EMPLOYMENT STRATEGIES, ESPECIALLY YOUTH EMPLOYMENT AND NONAGRICULTURE RURAL EMPLOYMENT (TO STEM RURAL MIGRATION)

Africa has reached the cusp of an employment crisis, compounded by global shocks. The continent accounts for only 7.8% of the global wage employment, with 14.3% of the global labor force. In addition, 62% of the world's working poor live in Africa, the largest concentration in the world. The youth suffer disproportionately in being unemployed and earning low wages or incomes from self-employment. Existing active labor market policies mostly focus on the supply side of the labor market where efforts are concentrated on schooling, skill upgrading and similar interventions. Policymakers now have to turn their attention to the demand side of the labor market by removing the constraints facing firms to enhance the quality and quantity of jobs they create. In efficiently working markets, competition and innovation govern firm entry and exit, allowing the most productive ones to thrive, as the inefficient ones readjust or exit the market. This process also generates the conditions for the creation and destruction of jobs, the net effect of which is highly dependent on the speed and sustainability of resolving the constraints to firm growth.

## MOBILIZING RESOURCES FOR DEVELOPMENT TO BUILD RESILIENCE TO SHOCKS

### STEMMING CAPITAL FLIGHT

Reversing capital flight alone would free close to USD40 billion a year to finance enormous public and private projects, more than Official Development Assistance, and significantly stimulate Africa's growth. Based on preliminary estimates, stemming capital flight fully would add close to 1.3 percentage points to current investment as a share of Africa's GDP. And note that a one percentage point increase in investment would add at least a 0.02 percentage point increase in long-term growth. So, just imagine the enormity of growth lost due to capital flight in the last five decades.

Compared with the total external debt the continent owes to its creditors, the amount lost to capital flight would be more than sufficient to expunge Africa's debt and make the continent debt free. In addition, the widespread prevalence of capital flight suggests deeply seated institutional and policy failures that can derail Africa's prospect of prosperity. Various strategies that can stem capital flight, starting from establishing verifiable measures to ensure that debt is used for its intended purpose and other mechanisms of debt transparency, include:

***Centralize all debt data and management activities into a Debt Management Office equipped with an efficient electronic debt management portal.*** This would build a comprehensive view of the country's contractual debt obligations. It would also allow countries to dynamically manage their debt positions by improving, for instance, the matching of debt currencies with expected export or FDI receipts, thus reducing exposure to foreign exchange risk. Ideally, debt management should be accompanied by an early warning system to alert governments and key stakeholders of any slippage in debt sustainability. Equally important is ensuring that the Debt Management Office has appropriate human and financial resources for effective delivery of its mandate. The office should centralize all debt data and management activities, with an efficient electronic debt management portal, as well as provide capacity-building at all levels of government, including subnational authorities when relevant.

***Increase transparency by committing to make public all data on old and new debt in real time.*** This will require efforts to standardize data gathering practices and to develop data collection systems to address data gaps (notably in accounting for state-owned enterprise-related liabilities and contingent liabilities arising from sovereign guarantees to individual projects). That would consolidate government accounts across regional levels, agencies, ministries and institutions. Comprehensive debt data management would ensure more accuracy of fiscal policy projections. While data standardization efforts have already been undertaken in most African countries, all countries need to adhere to best practices in reporting and making publicly available information on public and publicly guaranteed debt.

***Consolidate public revenue and expenditure management.*** This would go a long way to reassure multilateral lenders and private investors, reduce leakages of public funds and fight corruption and embezzlement of public funds.

## ENHANCING DOMESTIC SAVINGS AND TAX MOBILIZATION

In the past several decades, private consumption has played a significant role in driving economic growth in Africa. Domestic saving plays a lifesaving role for households, governments, and businesses by smoothing consumption and avoiding production disruptions. There has been some progress in mobilizing savings in the last two decades, increasing from 11% of GDP in 1980 to about 18% in 2020. But this progress is neither substantial enough to achieve high and sustained growth, nor sufficiently complementary to remove the foreign exchange constraint facing most African countries. Governments could increase domestic saving and tax revenue by leveraging digital technologies to reach millions of households and enterprises through mobile banking and improving tax administration so that it is transparent, fair and equitable. Such measures instil trust and confidence in the government and the tax system, and thus increase tax compliance.

## DIVERSIFYING FINANCIAL INSTRUMENTS TO FINANCE LONG-TERM INVESTMENT

A big challenge is translating savings into productive investment. Large public investments remain essentially unfunded for lack of suitable financial instruments. Most financial instruments available are short to medium in term and concentrated in a few geographic areas, such as South Africa, which accounts for more than 80% of the capitalization of Africa's stock markets. For far too long, African countries have not had an opportunity to tap into the global saving glut partly because of a risk perception bias against Africa, which alone increases borrowing costs by more than 2 percentage points.

African governments could work closely with rating agencies to improve their creditworthiness by taking concrete and credible measures to reduce the risk perceptions of institutional investors. This includes strong macroeconomic management, transparent debt management, credible public investment programmes and demonstrable capacity to implement growth strategies and development visions. Still, as African economies transition to middle-income status and as domestic private saving increase, public debt can provide a safe long-term outlet for excess savings, if public expenditure does not crowd out private investment, thus fuelling inflation and financial repression. The role of public debt as a safe asset is most relevant when domestic financial markets remain largely undeveloped, to avoid capital flight and unproductive hoarding of liquidity. But public liabilities should be viewed as a kick-start engine for flourishing private funding instruments in equity and bond markets.

## REFORMING THE GLOBAL FINANCIAL ARCHITECTURE

The current international architecture for development funding is profoundly unjust and inadequate. The method for allocating funds does not adequately support the agreed-on transformation to sustainable development in the face of multiple concurrent crises. The current multilateral architecture and governance for development funding thus needs to be reevaluated. To avoid losing the gains of decades of development, the international community should urgently deploy a range of financial and policy instruments to promptly provide additional liquidity and policy space for African nations to support their populations and preserve social stability. As the region of the world most exposed to a debt crisis, Africa should also continue its advocacy for changes in the global financial architecture to ensure a more equitable and representative international system.

## PANDEMIC PREVENTION AND EARLY WARNING SYSTEMS

The Covid-19 pandemic provided valuable lessons about the preparedness of Africa's health systems to counter deadly infectious diseases. The continent needs to implement pandemic prevention and early warning systems to face future shocks and build resilience. The elements of preparedness include epidemic prevention; threat identification and surveillance; emergency preparedness and response operations; emergency manufacturing, procurement, and supply chain management; and access to innovation. These elements function and thrive in an environment supported by technology and data, robust public communication, the availability of finance, and effective partnerships.

Beyond healthcare systems, the Covid-19 pandemic also exposed the fragility of livelihoods to such shocks in the absence of functioning and adequate social protection systems. African countries could leverage informal social protection and risk-sharing mechanisms to build more robust, sustainable and resilient systems to protect households and businesses from succumbing under the pressures of global shocks.

However, the pandemic caught not only Africa off guard but also the world, revealing significant gaps in early warning capabilities to detect and respond to emerging pathogens before they cause global damage. This provides an opportunity for global cooperation on mitigating shocks and risk-sharing. The same is true for climate-related shocks.

## GREEN GROWTH AND MITIGATION AND ADAPTATION POLICIES

Today's challenges and disruptions require an in-depth and high-scale economic transformation. Rebuilding towards more equitable societies requires protecting the environment, social welfare, and the economic wellbeing of all. This will involve adapting economies to climate change and avoiding the high-carbon growth path that advanced countries followed earlier. Ambitious green growth plans will offer opportunities for economic growth, diversification, industrialization and job creation. And promoting innovative, resource-friendly technologies to achieve long-term structural changes—such as transforming supply chains and transitioning to a circular economy—will foster green and equitable growth. Moreover, harnessing the large renewable energy potential of African countries offers an opportunity for diversification, industrialization and job creation while strengthening the continent's economies against future energy price shocks.



# CHAPTER 1 OBJECTIVES AND ANALYTICAL FRAMEWORK



The theme of the Economic Report on Africa 2023 (ERA 2023) focuses on the impacts of multiple and recurring global shocks on African economies from 2020 and the extent to which these shocks impede Africa's prospects of achieving the targets set in the Sustainable Development Goals (SDGs). In the past two years, countries have confronted significant hurdles that have impeded progress toward the 2030 Agenda—an objective already off-track prior to the Covid-19 pandemic.<sup>1</sup> As African economies attempted to recover from the 2020 recession caused by the pandemic, the region confronted another economic growth hurdle, the Russian invasion of Ukraine.

In 2021, over 30 million Africans were forced into extreme poverty and 22 million jobs were destroyed as a result of the pandemic. In 2022, the economic interruptions caused by the Russia-Ukraine conflict forced an additional 1.8 million Africans into extreme poverty. In 2023, that number might increase by an additional 2.1 million.<sup>2</sup> Such crises undercut, impede and stall progress. Poor households move in and out of poverty because of exogenous shocks, and their inability to manage uninsured risks only increases their vulnerability.<sup>3</sup> Risks are rising significantly, and numerous risks are heaped on the vulnerable.<sup>4</sup> Shocks may have diverse dynamic effects based on the specifics (and interactions) of the underlying welfare-generating process and the access of households to insurance mechanisms.<sup>5</sup>

Poor individuals and poor nations endure incalculably more hardship than others, with the economic impact of shocks much greater in developing nations.<sup>6</sup> None of these shocks and strains have identical effects, and each differs among countries and households.<sup>7</sup> And due to their heterogeneity, African countries exhibit varying degrees of resilience when dealing with different shocks.

Overall, progress toward the SDGs has stalled or even reversed, and the future is uncertain due to the multiplicative and cumulative effects of the Covid-19 pandemic, the war in Ukraine, and climate change (see **APPENDIX 1.1** for indicative statistical examples of the impact of global shocks on the SDGs). An estimated 15 million deaths were caused by Covid-19 worldwide, and economies and people's livelihoods were disrupted for extended periods of time in many world regions. An international food and energy crisis, precipitated by the conflict in Ukraine, disrupted the economy's tentative recovery from the pandemic. And the effects of climate change—increased frequency and intensity of extreme weather events around the planet and longer-term damage like protracted drought and rising sea levels—show no signs of slowing down. These compounding crises reduce the ability of countries to respond, leaving them in a constant state of crisis, with little room for recovery and for investing in long-term growth.

Resilience is the capacity to withstand recurrent adverse economic and other shocks and stressors—and to adjust to and learn to live with change and uncertainty, without jeopardizing long-term development prospects. Ensuring resilience requires the right mix of policy responses and economic plans. Overall, governments must pursue macroeconomic policies to counteract the short-term consequences of external shocks while pursuing medium- and long-term structural initiatives. In the face of external shocks, it is common for governments to forgo long-term advantages to prevent short-term pain.<sup>8</sup> But policies and institutions that mitigate the early impact of a shock may enhance its persistence, and vice versa; they may have contradictory impacts on resilience. For example, employment protection laws may restrict how many people employers can lay off in the near term in reaction to a negative shock, thus bolstering employment and private consumption. But that may hinder the wage adjustment process and the reallocation of employees to other productive jobs, postponing the recovery of employment and production to their earlier levels.<sup>9</sup>

In several regions experiencing recurring crises, the response of governments and the international relief sector has been inadequate. New strategies are required to reduce risk to mitigate poverty and inequalities and to build resilience.<sup>10</sup> Shock responses are required from the countries as well as the international community.

Building on previous editions, ERA 2023 examines the impacts of global economic shocks on Africa and how to build resilience. The overall aim is to bring together salient information through case studies of African countries on strategies for resilience in times of shocks. ERA 2023 will analyse the persistent global shocks in terms of growth, poverty and inequality as well as long-term losses to potential output in Africa.

The 2023 report provides evidence-based reference material for policymakers and other stakeholders for Africa's sustainable resilient development. It seeks to:

- Provide a typology of global shocks and determine whether these shocks were short, medium or long in term.
- Understand the impact of various global shocks on member states, by determining the impact on poverty, inequality, growth, trade, finance, investment, climate and fragility.
- Understand member states policy responses to global shocks by and the effect in the short and medium terms.

- Determine whether existing policy recommendations are adequate to foster resilience and propose policies to make economies more resilient against shocks.
- Evaluate the impact of proposed global financial architecture reforms for Africa's resilience to shocks.

This introductory chapter provides the analytical and conceptual framework to assess the implications of recent global shocks, specifically the Covid-19 pandemic, the war in the Ukraine as well as climate change-induced shocks. These three shocks have taken place concurrently and cumulatively, with a high probability of future recurrence and with a high risk of further scarring African economies. For example, climate shocks have become more severe and frequent in recent years where droughts, floods and pestilence affect millions of Africans in an ever-expanding geographic space. The end of the Covid-19 pandemic, while a relief, has left a mark on the economy, with some sectors still struggling to recover from the shock. The war in Ukraine cast a long shadow with a potential resurgence of geopolitical tensions having significant implications for the path of sustainable development, already bruised by worsening terms of trade from a position of fragile growth, shrinking fiscal space, high inflationary pressures, food insecurity and rising external debt. The results are catastrophic for the macroeconomy, for poverty reduction and for inclusive growth.

# SHOCKS, PERSISTENCE AND RECOVERY: ANALYTICAL TYPOLOGY

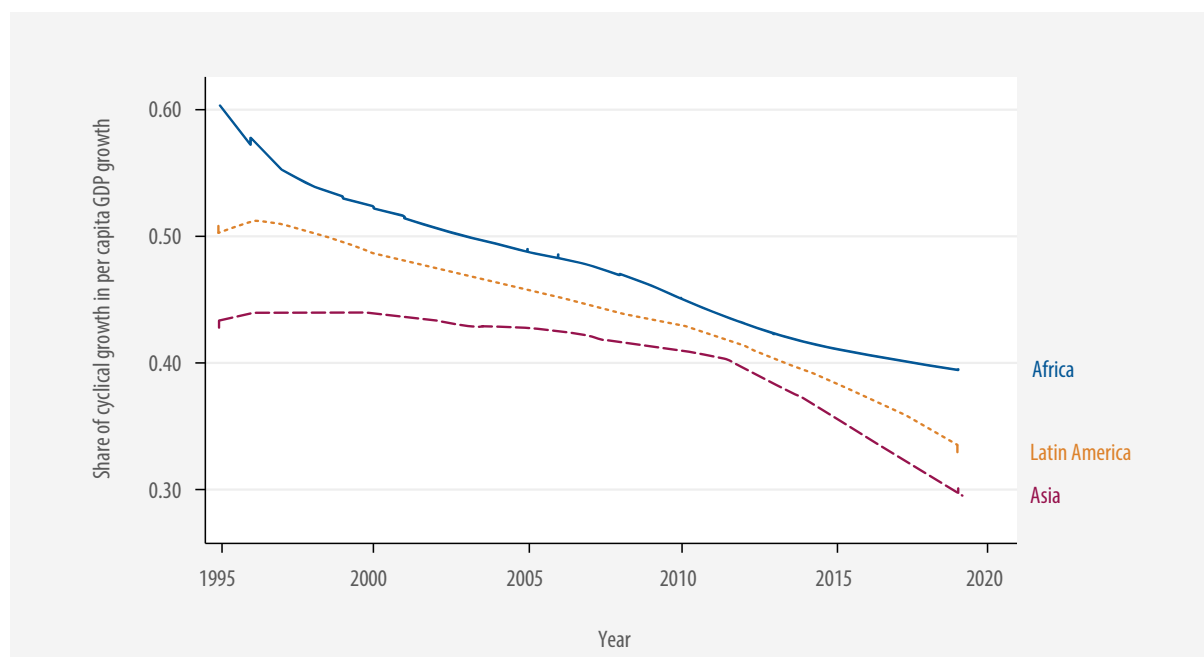
## SHOCKS AND GROWTH

While recent growth episodes showed some improvements, the cyclical component of real GDP growth still accounts for a significant portion of per capita GDP growth in Africa. **TABLE 1.1** suggests that the cyclical component of per capita GDP growth tends to be large in Africa, particularly the negative ones, when compared with countries in Asia and Latin America (**FIGURE 1.1**). Positive shocks tended to dominate the period 1997–2015 as African countries started to benefit from favorable external conditions (debt relief, access to capital markets, improved terms of trade) that in many cases helped them register higher per capita GDP growth over a relatively long period. This performance is in sharp contrast with the “lost decades” of the 1970s, 1980s and early 1990s, when the entire continent experienced chronic negative per capita GDP growth as negative shocks played a significant role.

Upon further analysis, the cyclical component of per capita GDP growth tended to be correlated positively with real per capita GDP growth indicating that episodes of slower or faster growth were associated respectively with negative or positive shocks (**APPENDIX 1.2**). Compared with other regions, negative or positive shocks tend to be less amplified in Africa.

Before the pandemic average per capita GDP growth remained positive for many African countries. More than 10 had annual per capita GDP growth rates that could potentially have enabled them to double per capita GDP in the last 25 years. Guinea, Ethiopia, Djibouti and Rwanda exhibited very rapid growth in average per capita GDP exceeding 4% (**FIGURE 1.2**). It is conceivable that the average growth hides underlying factors of significant consequence—including shocks, shifts in total productivity, and changes in the structure of the economy—that would give valuable insights for public policy.

**FIGURE 1.1** SHARE OF THE CYCLICAL COMPONENT IN PER CAPITA GDP GROWTH IN AFRICA, 1990–2022

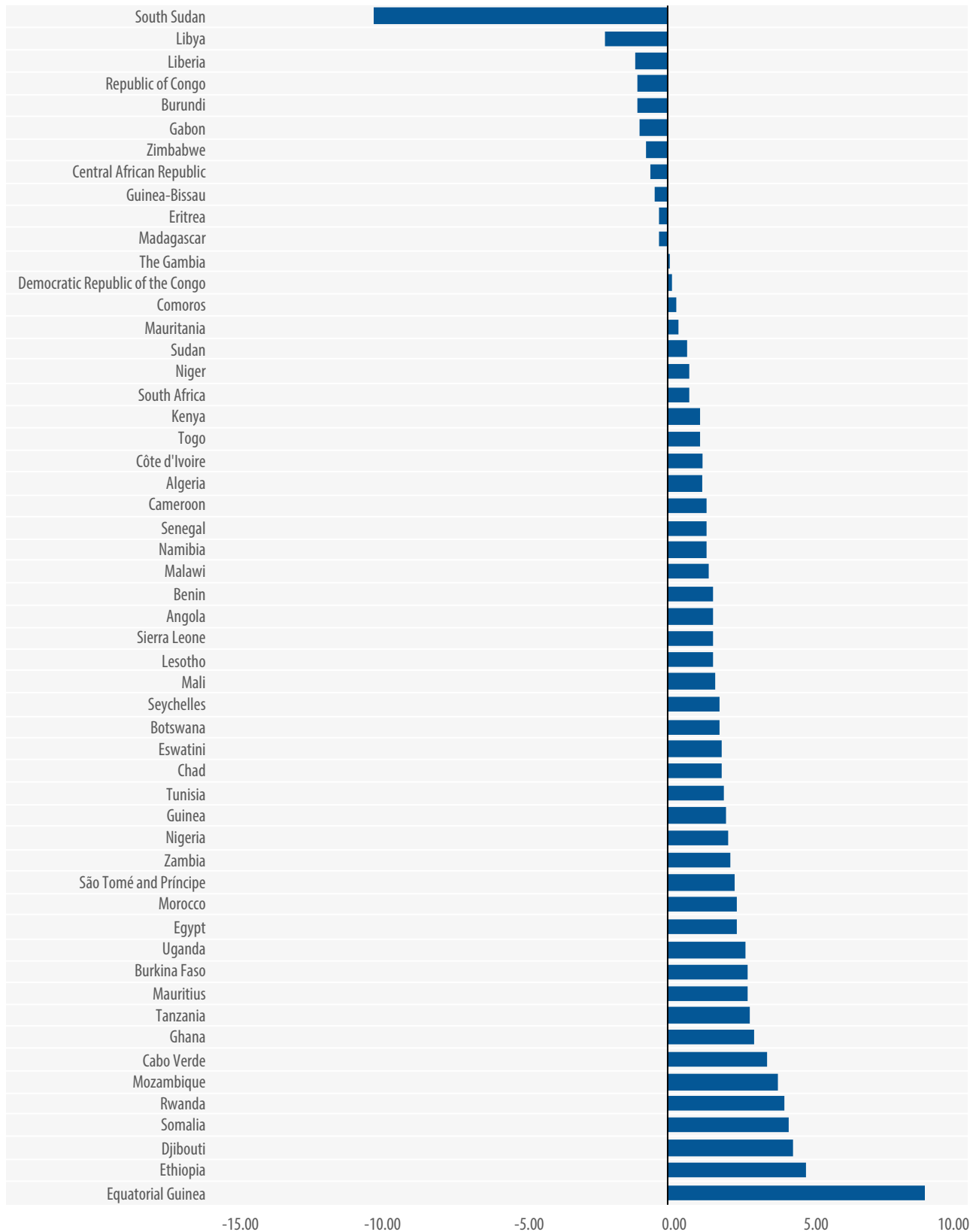


**Source:** ECA computations based on the Penn World Tables by Robert et al (2015).

**Note:** The cyclical component of growth in per capita GDP is computed using the Kalman filtering technique. Lowes’s technique is used to smooth the graphs.



**FIGURE 1.2 GDP PER CAPITA GROWTH OVER 1995–2020**  
(AVERAGE ANNUAL %)



Source: ECA computations using data from World Development Indicators.

**“The remarkable average growth in the last three decades hides significant shifts, both negative and positive, that may affect a sustainable transition from low to high per capita incomes.”**

The remarkable average growth in the last three decades hides significant shifts, both negative and positive, that may affect a sustainable transition from low to high per capita incomes.

In the early decades, many countries in Africa experienced a cycle of economic downturn, recovery and then recession that in many cases left per capita GDP levels, hence welfare, unchanged from their initial levels.<sup>11</sup> Some growth episodes exhibit accelerations over an extended period such that countries enjoy sustained prosperity, while others indicate false take-offs, or recovery from a growth crisis. Only Botswana, Cabo Verde, Djibouti, Equatorial Guinea and Mauritius completed at least one growth acceleration<sup>12</sup> where per capita GDP moved from low to high equilibrium in intervals of eight

years over 60 years (TABLE 1.1). Ethiopia, Gabon, Mali and Zambia achieved at least one episode of growth acceleration in an interval of five years. So, a majority of growth episodes in Africa have not been sustained.

These patterns demonstrate partly the role of exogenous shocks of various types, including political instability (conflict),<sup>14</sup> price shocks, natural disasters (including climate change), and pandemics (like Covid-19). These patterns indicate that growth during this period followed a nonlinear path where both negative and positive shocks tend to persist in subsequent periods for many countries. In other words, per capita growth would continue to decline in the wake of a negative shock and vice versa. As a result, for some countries, recovery is slow, while for others, it occurs immediately after the shock.

Some of the episodes of growth acceleration could be driven by positive shocks sustained over a long period, such as natural resources booms (Botswana, Gabon, and Equatorial Guinea) or positive windfalls (Djibouti), instead of shifts in growth fundamentals. This is further illustrated by the significant decline of total factor productivity (TFP) in Africa, an indicator that measures the embodiment of knowledge and technical progress in productive activity (FIGURE 1.3). An increase in TFP underpins improvements in factors that determine long-term growth including economic fundamentals, market development, technological adoption and structural transformation—all critical for dealing with global shocks.

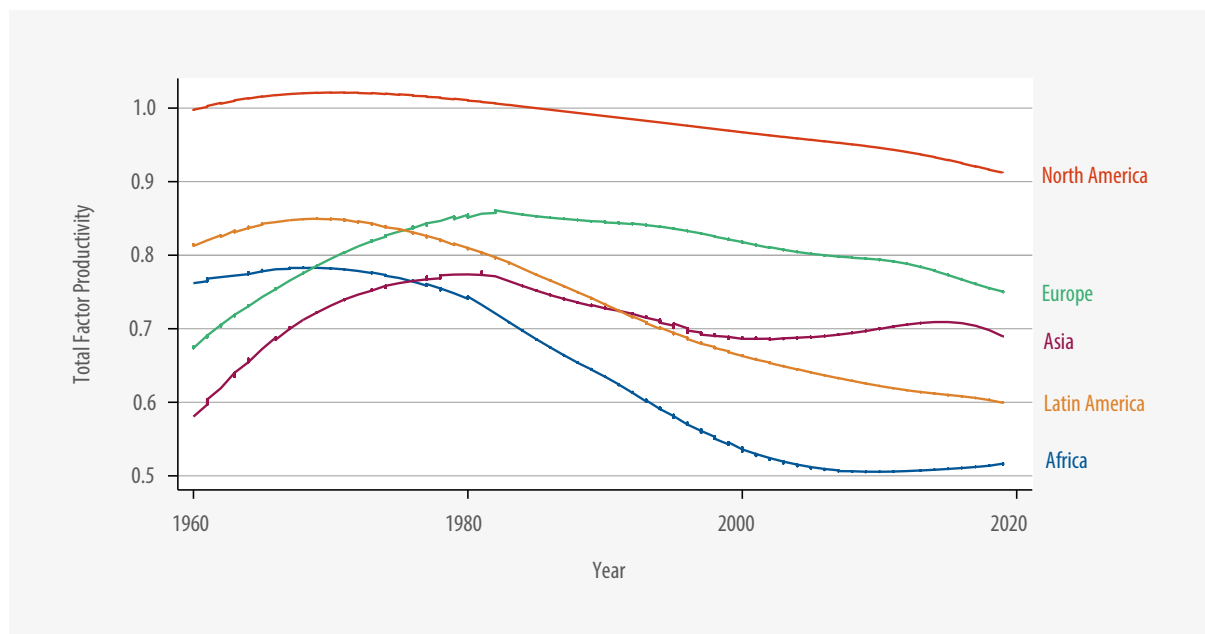
**TABLE 1.1** GROWTH ACCELERATION EPISODES IN SELECTED AFRICAN COUNTRIES

COUNTRY	NUMBER OF GROWTH ACCELERATIONS IN EIGHT YEAR INTERVALS	PERIOD ACCELERATION COMPLETED	NUMBER OF GROWTH ACCELERATION IN FIVE YEAR INTERVALS	PERIOD ACCELERATION COMPLETED
Botswana	1	1976–1983	1	1970–1974
Cabo Verde	1	1992–1999	1	1995–1999
Djibouti	1	2008–2015	1	2010–2014
Ethiopia			1	2005–2009
Gabon			1	1970–1974
E. Guinea	1	1992–1999	1	1995–1999
Mali			2	1995–1999 and 2005–2009
Mauritius	1	1984–1991		1985–1989
Zambia			1	2005–2009

**Source:** ECA computations based on the Penn World Tables by Robert et al. (2015).

**Note:** See endnote <sup>13</sup> for the definition of growth acceleration.

FIGURE 1.3 TOTAL FACTOR PRODUCTIVITY TRENDS IN SELECTED WORLD REGIONS, 1961–2019



**Source:** ECA computations based on Penn World Tables by Robert et al. (2015).

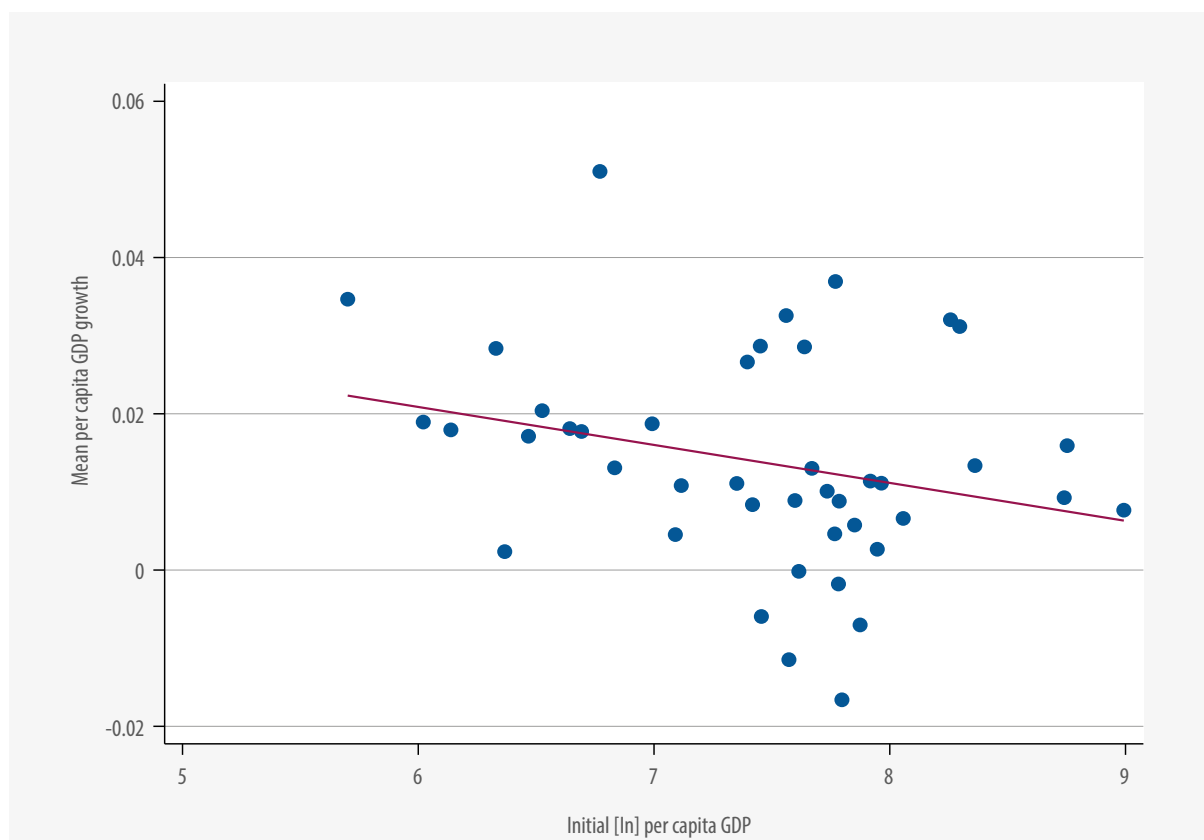
**Note:** TFP reported in figure 1.3 represents a portion of output at current PPP not explained by the number of inputs used in production (mainly labor and capital). The graph is based on an index with relative to the US=1 as a reference point.

Overall, positive shocks (natural resource booms, large inflows of aid, favorable terms of trade) tend to reinforce subsequent growth, which is encouraging. This approach to analyzing growth patterns enables us to classify the impact of a shock by its magnitude, potential for persistence and speed of recovery. Using the historical pattern of growth dynamics across a set of African countries, this report attempts to assess whether the shocks experienced in recent periods could have a potential to permanently impact key macroeconomic indicators in the long term as well as examine whether they also present opportunities for policymakers to build buffers, implement policies that foster economic transformation and resilience.

Simple diagnostic tests in the earlier literature examined whether African countries exhibit fragility to sustained growth and whether shocks could significantly reverse the developmental gains.<sup>15</sup> The assertion began with the analysis of why Africa was growing slowly or not at all, with some attributing slow growth to the hazards of bad climate and geography;<sup>16</sup> anti-growth syndromes of different origins, such as bad policy, chronic corruption;<sup>17</sup> artificial boundaries;<sup>18</sup> conflict,<sup>19</sup> and even slavery in pre-colonial periods.<sup>20</sup>

These studies implicitly or explicitly suggest that most African countries are too poorly endowed to grow and are locked in low-income equilibrium trap.<sup>21</sup> The evidence presented by Easterly (2006) challenged these established views. As shown in **FIGURE 1.2**, many African countries registered positive per capita GDP growth in the last 25 years. As shown by Easterly (2006) and later updated by Shimeles (2015), there was no evidence of growth divergence for a representative sample of African countries and initially poor countries grew at a pace not different from the initially richer ones. Countries relatively poorer in 1961 have grown faster during the last six decades than those relatively richer in the same period, further suggesting the possibilities that shocks may not have permanent impact on growth trajectories (**FIGURE 1.4**).

However, the last decade witnessed a few setbacks confronted by African countries, such as the global financial crisis (GFC) of 2008/9, the terms of trade shocks that worsened since 2013 and now the Covid-19 pandemic and the war in Ukraine. In addition, the recurrence and frequency of natural disasters have increased in the last decade. These shocks, combined, could explain a large part of the growth process.

**FIGURE 1.4** AVERAGE REAL PER CAPITA GDP GROWTH (1961–2019) AND INITIAL PER CAPITA GDP FOR AFRICA

**Source:** ECA computations based on Penn World Tables by Robert et al. (2015).

## TYPOLGY OF SHOCKS

The impact of exogenous shocks, their persistence, the speed of recovery and the resilience to future shocks are mediated by several factors. Exogenous shocks (both positive and negative) could have a permanent or transitory impact on socioeconomic conditions depending on the type of shock, the magnitude and severity of the shocks, and a country's resilience to cushion the impact of the shocks.

An analytical anatomy of shocks helps to comprehend and develop a vulnerability map that informs policies to save lives and livelihoods and as much as possible emerge better prepared for the next wave of shocks.<sup>22</sup> African countries have been dealing with several types of shocks affecting economic performance in the past decades. Many African economies are small open economies with structures that expose them to commodity price movements and other global shocks. Estimates in the 2017 *African Economic Outlook* suggest that close to 25% of the variation in real GDP growth in Africa is explained by terms of trade shocks.<sup>23</sup> Shocks that have affected

Africa over the last two decades include the global financial crises, pandemics, extreme climate events and political crises.

**Financial/economic crises.** From 2007 onwards, a downturn in the US housing market became a catalyst for a financial crisis that spread to the rest of the world, including Africa, through linkages in the global financial system. The commodity price shock in 2014–15 is the biggest shock in recent times, with the long-term consequences of this crisis still felt today.

**Pandemics.** The Ebola outbreak in West Africa in 2014–2016 led to severe losses in life and economic development for affected countries. The recent Covid-19 pandemic created one of the worst economic shocks to the entire world economy, leading to a dramatic loss of human life worldwide and presenting an unprecedented challenge to public health, food systems and public finance, with likely prolonged effects.

**Climate events.** About 90% of all disasters in Africa are weather and climate driven. The 2015–16 El Niño-induced drought in Southern Africa and the 2022 drought in the Horn of African are examples. These shocks have continually hit farmers and result in crop yield failures and water shortages, which ultimately affect social and economic outcomes and threaten food security.

**Political crises.** The Russia-Ukraine crisis, ongoing since February 2022, had an immediate impact on the world, with the most vulnerable in Africa affected most with rising prices for food (and intermediate products required in food production) and fuel. Moreover, the continent is facing a more complex and compounded shock situation, with the Russia-Ukraine crisis breaking out during the later phase of Covid-19 when countries were still recovering from the consequences of pandemic.

## MAGNITUDE AND SEVERITY OF THE SHOCKS

One dimension of shocks is their magnitude and severity, which may be global as in the Covid-19 pandemic and the war in Ukraine, or subregional such as the Ebola outbreak in West Africa (Guinea, Liberia, Sierra Leone) and droughts in East and Southern Africa, or national (political instability).

Shocks could be short-lived (floods, earthquakes, droughts, pandemics, global financial crisis), long-lived (conflict, political instability) or recurring (climate risks, commodity price shocks). The magnitude of shocks can be measured by the geographic coverage and population affected. Some shocks are region and demography specific. For example, natural disasters often have epicenters in specific geographic locations, pandemics primarily affect a certain demographic group (vulnerable groups such as children, mothers, or the elderly) and other shocks have ripple effects that could engulf an entire country (such as HIV/AIDs, the Covid-19 pandemic and the 2008/09 GFC). Any analysis of the impact of shocks must consider these features of the shocks.

## RESILIENCE TO SHOCKS

Shocks tend to persist or fade away depending on the robustness of policy responses and the resilience of institutions that underpin the responses. Depending on the institutional set-up and initial conditions that foster resilience, a country could recover quickly from a shock and embark on a path of better development outcomes by learning from the experience. This

implies there may be a feedback loop between shocks, impacts and resilience that creates either vicious or virtuous cycles. This is a possibility in the case of multiple and overlapping shocks, such as climate-related risks, the Covid-19 pandemic and the war in Ukraine.

Typologies based on the size of the shock include its recurrence and joint occurrence mapped against the resilience capacity of a country or household. A country that faced severe shocks (such as the ones faced recently) with weak resilience capacity has a high probability of the shock persisting and propagating in its impact (a type of poverty trap, as described in the literature).<sup>24</sup>

In this context, it is important to clarify and agree on the definition of resilience to be adopted in this report. One common definition of resilience is the capacity of the country or household to return to pre-shock conditions, which is more focused on equilibrium analysis. Some of the popular econometric or economywide models that analyse the impact of shocks are oriented towards understanding how shocks displace the economy of a country or the livelihood of a household from a certain “steady state” and analyse the speed of recovery back to equilibrium. So, resilience is focused on analysing the path to “returning to pre-shock equilibrium.” This approach has a drawback when the economies are exposed to extreme shocks, as witnessed during the Covid-19 pandemic, natural disasters or the war in Ukraine. So, it may be instructive to adopt a broad definition of resilience that includes capacity to adapt and change in response to shocks, while at the same time being open to non-equilibrium recoveries.<sup>25</sup>

It follows that the magnitude and severity of shocks do not have linear gradations, but rather exhibit non-linear effects where their impact becomes catastrophic once a certain threshold is crossed. This approach to the analysis of shocks

**“ The impact of shocks depends not only on its magnitude and severity, but on the readiness of countries to cushion the impact through various institutional and financial buffers. ”**

### BOX 1.1 AFRICA'S RESPONSE TO GLOBAL SHOCKS

Various tools inform public policies that are undertaken in reaction to conflicts, natural catastrophes, and economic and health crises. The required and available mix of policies is heavily influenced by the economy's characteristics, including the fiscal space, balance-of-payments positions, and labour market characteristics, as well as the nature and magnitude of the shock. Over the past few decades, short-term macro policy responses to global shocks have significantly improved. They include specific financial, fiscal and monetary actions to direct money to consumers and important sectors. Globally, countries have implemented expansionary monetary policy, which has caused rapid drops in central bank interest rates, frequently to very near to zero, together with expansionary fiscal policy, which has resulted in ballooning budget deficits, to balance the loss in economic activity.

The majority of African nations have employed monetary and fiscal policy to withstand the immediate shocks brought on by global crises. For instance, in 2008–2009, in response to the financial shock of 2008, more than 80% of African countries originally supported expansionary fiscal policies and boosted total spending.<sup>1</sup> Mauritius adopted a stimulus package, 3% of GDP, to boost domestic demand and increase job creation. Liberia proposed a 10% reduction in corporate and income tax. The magnitude of South Africa's fiscal adjustment to the crisis has been among the biggest in the world, with the budget balance shifting from a deficit of 1% in 2008/09 to an expected deficit of about 7.6% in 2009/10. This resulted in an increase of fiscal deficit and rising debt.<sup>2</sup>

Several countries eased their monetary policy by cutting interest rates to stimulate consumption and encourage borrowing. Examples include Botswana, where the central bank cut its bank rate by 50 basis points to 15% in December 2008. Similarly, the Egyptian central bank cut its benchmark interest rate for the first time since April 2006. Namibia's central bank and the South African Reserve Bank also reduced their repurchase rate to stimulate borrowing and boost private investment and consumption.<sup>3</sup>

Indeed, expansionist policies during global crises later reversed into austerity, with severe ramifications for the poorest. Between 2010 and 2012, the worsening of economic conditions and the global recession pushed countries into a process of fiscal consolidation and austerity.<sup>4</sup> Fiscal contraction in Africa was achieved through the phased elimination or reduction of subsidies. This included fuel subsidies in Angola, Burkina Faso, Burundi, Cameroon, Central African Republic, Democratic Republic of Congo, Côte d'Ivoire, Gabon, the Gambia, Ghana, Guinea-Bissau, Liberia, Mali, Mozambique, Niger, Nigeria, Sierra Leone, Sudan and Togo. It also included electricity subsidies in Cabo Verde, Ghana, Guinea and Mauritania. And it included subsidies to agricultural inputs like fertilizers and pesticides in Benin, Cameroon, Guinea, Mali, Tanzania, Zambia and Zimbabwe and food subsidies in Guinea-Bissau, Liberia, Mauritius, Sudan and Zambia. In addition, Kenya and Swaziland rationalized the wage scale in the civil service and Democratic Republic of Congo restrained public sector wages and imposed hiring freezes. Notably, several countries increased health and education workers (Central African Republic, the Gambia and Mozambique).<sup>5</sup> These austerity measures generally increased in inequality and vulnerability.

Countries that lack large reserves or whose balance-of-payments situation is precarious were not able to adopt expansionary fiscal policy unless they were assured of financing on easy terms. For such countries, the confidence of their governments to engage in expansionary policies was increased by expanding the resources of the World Bank and the IMF and loosening the conditions under which these institutions lend.

Very few countries responded to crisis with financial policies, there were some bank rescue and financial sector packages, such as financial sector policies to address the financial sector crisis linked to the construction boom in Nigeria).<sup>6</sup>

During the 2014–16 oil price collapse, Africa's oil importing and exporting countries implemented fiscal and monetary policies. Many oil-exporting experienced either sharp currency depreciations or rapid declines in

foreign exchange reserves. Countries with floating exchange rate regimes were better able to stabilize reserves, but generally suffered sharper initial depreciations. Monetary authorities in several countries intervened in foreign exchange markets to support their currencies (Angola, Nigeria, Sudan), while many raised interest rates to contain inflation amid large currency depreciations (Angola, Ghana, Nigeria). The erosion of foreign exchange reserves forced some currency devaluations and encouraged a shift to more flexible exchange rate regimes in Nigeria.

Some oil-exporting countries also undertook fiscal consolidation measures to realign spending with revenues despite sluggish growth and uncertain long-term growth prospects (Algeria, Angola, Nigeria).<sup>7</sup> These policies, compounded by weaker initial fiscal positions, led to budget deficits and fiscal sustainability gaps in oil exporting countries. Having previously built-up buffers in sovereign wealth funds, Algeria was able to alleviate fiscal and exchange rate pressures.<sup>8</sup>

In oil importing countries, the plunge in oil prices, coupled with weak global growth, exacerbated disinflation. Several central banks cut interest rates or pursued accommodative monetary policy during 2015–16. Yet, several oil importing countries raised rates during 2015–16 because of the depreciation of their currency, in part due to increasing concerns about external vulnerability, as in Kenya, South Africa, Uganda and Zambia.<sup>9</sup>

While lower oil prices were expected to provide oil importers an opportunity to rebuild fiscal space, fiscal positions worsened in a number of these countries over 2014–16. In fact, cyclically adjusted fiscal balances of oil importing African countries deteriorated significantly, and government debt ratios increased. This reflected the broader decline in commodity prices, which reduced government revenues and required spending cuts (Mozambique, Namibia, Rwanda). But even in countries where growth remained relatively robust and output gaps positive, governments missed the opportunity of lower energy prices to rebuild necessary fiscal space.<sup>10</sup>

The Covid-19 pandemic reinforced the already close interactions between monetary and fiscal policies in Africa. Policymakers provided support to their economies in a coordinated way. Both policies were countercyclical and complementary in the downturn. This response was remarkable since historically the policy stance in Africa has tended to be procyclical during recessions.<sup>11</sup> Overall, however, monetary policy played a bigger role than fiscal policy. Central banks reacted

more forcefully than fiscal authorities, as high debt constrained the fiscal response. The tighter fiscal-monetary policy nexus—while effective in facing the pandemic shock—presents risks for the future. Against a backdrop of inflationary pressures and subdued recovery, political pressures could weigh on the management of monetary policy.

Policies implemented by African countries during shock periods are provided in chapters 3, 4 and 5.

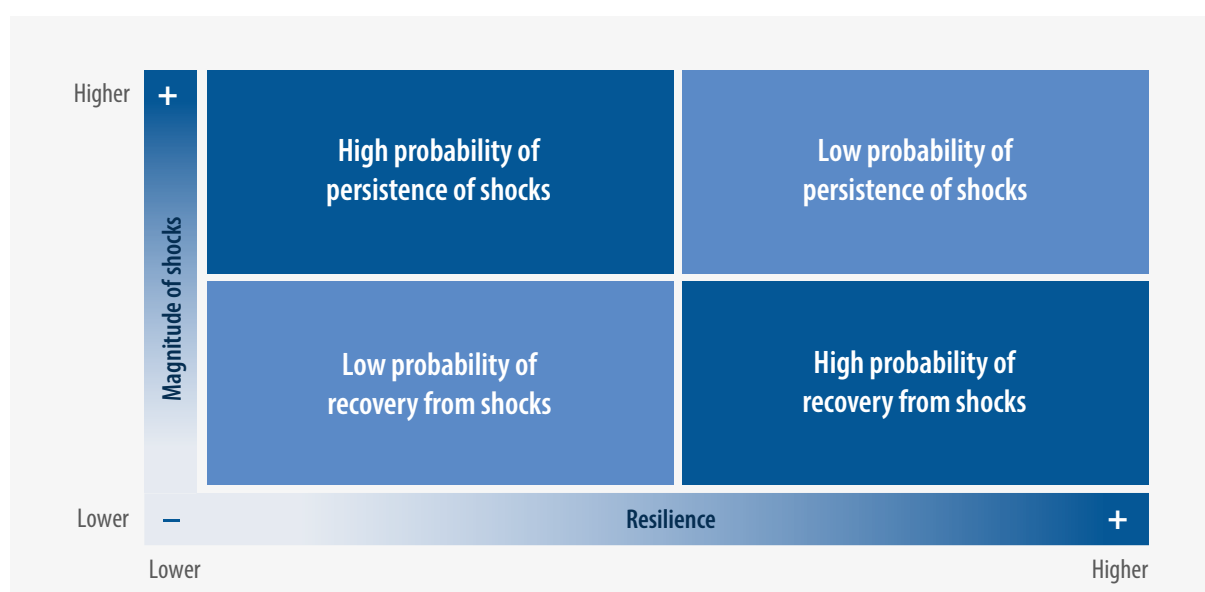
1. te Velde and Massa, 2009.
2. IMF, 2010.
3. IMF, 2010.
4. Ortiz and Cummins, 2013; Bonnet et al., 2012; Ortiz et al., 2011.
5. Ortiz and Cummins, 2013.
6. te Velde, 2009.
7. Danforth, Medas and Salins, 2016.
8. World Bank, 2015.
9. Arteta et al., 2016.
10. Kose et al., 2017.
11. Konuki and Villafuerte, 2016; Ndjokou and Mbassi, 2018; Herrera et al., 2019.

is relevant since it considers the second dimension of shocks: resilience. The impact of shocks depends not only on its magnitude and severity, but on the readiness of countries to cushion the impact through various institutional and financial buffers. Combined they form the channels to the macroeconomy (instability, growth), private sector activity (investment, trade), household welfare (poverty, food-security, jobs) and the speed of recovery from shocks.

**FIGURE 1.5** presents these two dimensions of shocks as the organizing framework for this report. The vertical axis measures the magnitude of the shocks and the horizontal axis the strength of resilience a country musters to cushion the impact of the shocks. The larger the shocks, for a given level of resilience, the bigger the impact. Similarly, the stronger the resilience for a given level of shocks, the better a country weather shocks. It is then possible to provide four scenarios or typologies on the shock-resilience nexus.

- The first scenario is a situation where a country faces a severe shock but has weak capacity to deal with shocks or has low level of resilience. In this situation, there is a very high probability of shocks persisting over time, even creating the conditions for shocks to have permanent impacts on key macroeconomic indicators, household welfare and private sector activity. This is shown in the upper-left panel.
- Under the second scenario, shocks could be large in magnitude, but the country has strong buffers to weather the shocks. In this case, there is a low probability for shocks to persist. This is shown in the upper-right panel.
- In the third scenario, the shocks could be mild, but a country's resilience high. In this situation the speed of recovery from shocks will be rapid. This is shown in the lower-right panel.
- The final scenario is a situation where the shocks could be mild, but a country may be fragile in dealing with them. In this case, recovery is long drawn. This is shown in the lower-left panel.

**FIGURE 1.5** STYLIZED TYPOLOGY ON SHOCKS AND RESILIENCE RELATIONSHIP



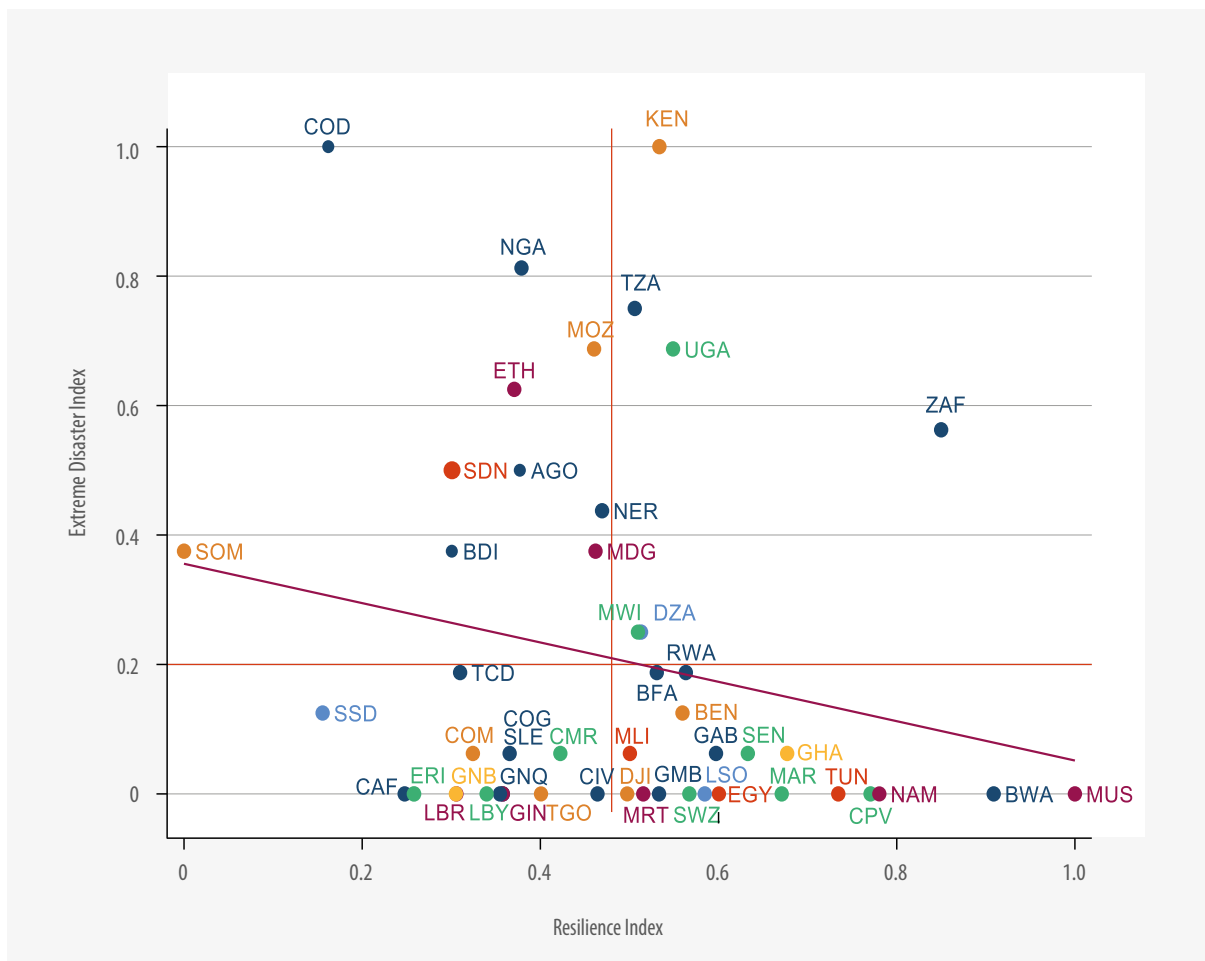
Source: ECA construction.

The resilience to shocks covers a wide range of institutional and financial buffers that include strong social safety nets, fiscal capacity for countercyclical policies and the availability of productive capacity to recover from shocks, etc. **FIGURE 1.6** illustrates the application of the conceptual framework. The vertical axis represents the frequency of extreme natural disasters experienced by African countries during 1995–2020. The index is constructed by taking the top 25% frequent natural disasters experienced by African countries. The horizontal axis represents a measure of resilience based on a wide range of institutional and governance indicators that include the rule of law, effectiveness of government, political stability and economic structure such as the share of employment in

agriculture and the share of government expenditure in GDP. The resilience index accounts for differences in per capita GDP to capture only the institutional and structural readiness of countries to cushion the impacts of shocks.<sup>26</sup>

Of the four shock resilience categories, many countries are concentrated in the three categories where shocks seem to have either a high probability of persistence of the impact of shocks or fast pace of recovery from shocks. Still, a good number of countries are in the category where even if the natural disaster is less severe, the speed of recovery is slow. This classification of countries into different types of shocks and resilience in a matrix provides insights for public policy.

**FIGURE 1.6 SHOCK-RESILIENCE TYPOLOGY FOR AFRICAN COUNTRIES**



**Source:** ECA construction of the indices based on data from FAO STAT, World Development Indicators and IMF World Economic Outlook.



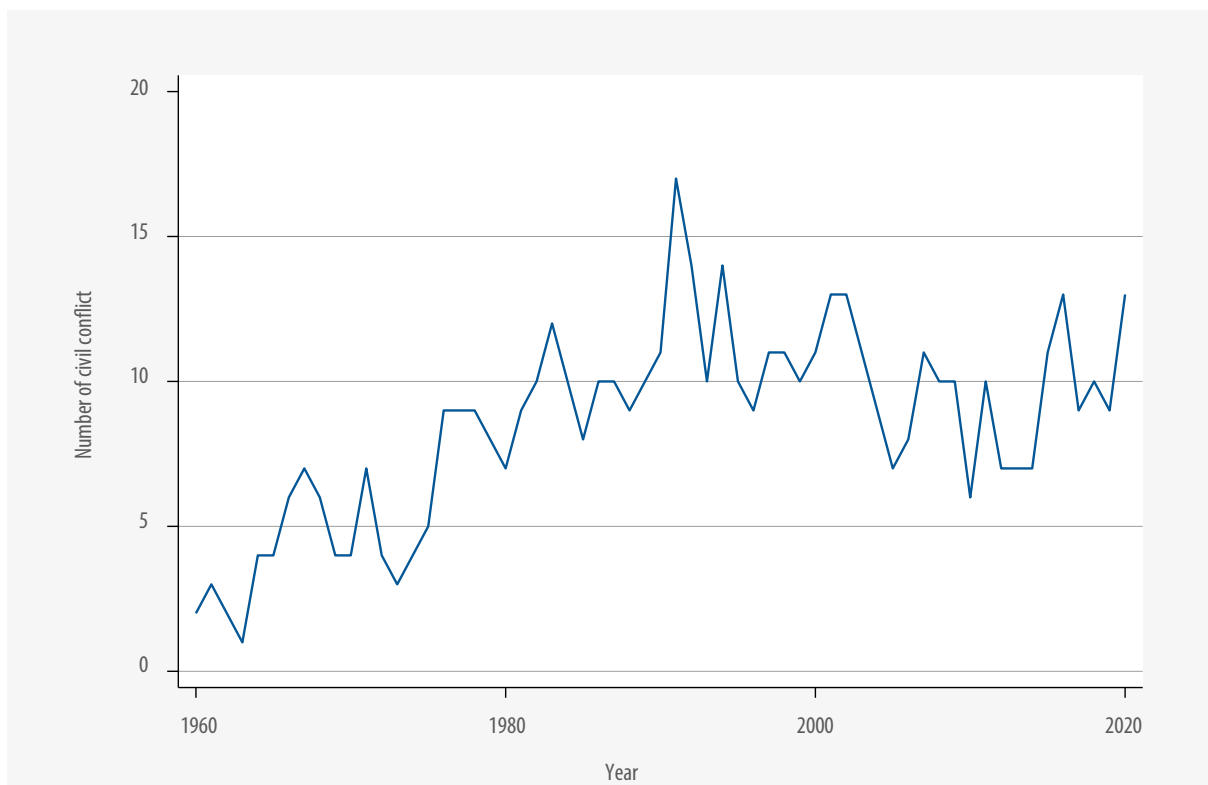
# IMPACTS OF GLOBAL SHOCKS ON AFRICAN ECONOMIES: METHODOLOGICAL APPROACHES

One of the key challenges in estimating the impacts of shocks is attribution. Causal relationships between shocks and the impact indicators are commonly identified by establishing the counterfactual, which is the path of the indicator without the shock. For example, real GDP growth is one commonly used indicator to assess the impact of shocks on the economy. To evaluate the direct impacts, it is necessary to know what would have been the rate of growth in real GDP without the shock. Since this hypothetical situation is not observed, analysts have to use various methods to approximate the counterfactual.

When shocks are fully exogenous to the indicator impacted, the challenge is to control for other unobserved factors that could influence the path of the indicator. Approximating the counterfactual is even more challenging if the shock is endogenous, such that the indicator impacted could have influenced the shock itself. This is known as reverse causality. A good example is shown by Miguel et al. (2004), who studied the relationships between conflict and economic growth for African countries. The working hypothesis commonly considered is that conflict is bad for economic growth and prosperity.

**FIGURE 1.7** shows that during 1960–1995 the number of civil conflicts in Africa has been rising, reached a peak in 1990,

**FIGURE 1.7** NUMBER OF CIVIL CONFLICTS IN AFRICA: 1960–2020



**Source:** Authors' computations based on data from Our World in Data ([https://ourworldindata.org/grapher/the-number-of-active-state-based-conflicts?country=~OWID\\_WRL](https://ourworldindata.org/grapher/the-number-of-active-state-based-conflicts?country=~OWID_WRL)).

started to fall until 2013 and began to rise since then. It is also known that economic activity followed the same pattern in Africa over the last six decades, suggesting the possibility that civil conflict is an important factor reducing economic activity. But Miguel et al. (2004) showed that weak economic activity caused civil conflict, paving the way for a different approach in analyzing the relationships between shocks and economic indicators.

This report attempts to provide a clear picture of the association between shocks and socio-economic indicators to help the discussion of policy implications. It uses these methodologies to assess the macroeconomic and microeconomic impacts of the shocks and to discuss, as appropriate, limitations to caution the interpretations.

## MACROECONOMIC IMPACTS

The analysis of the macroeconomic impacts focuses on the effects of the three major shocks on key indicators of macroeconomic stability, such as inflation, the real exchange rate, fiscal balances, the current account and real GDP growth. The descriptive and statistical methods to assess the impacts on these key macroeconomic indicators are presented below. The assessment of the impact is restricted to direct impacts, or what are known as first-order impacts. However, many times shocks have ripple effects such that they affect other parts of the economy, a phenomenon known as second-order or general equilibrium effects.

## DESCRIPTIVE METHODS

The descriptive analysis relies on the trends of macroeconomic indicators before and after the shock. For example, the impacts of the Covid-19 pandemic are assessed by examining the trends in macroeconomic indicators in 2019 (before the pandemic) against the outcomes in 2020 (with the pandemic). The same approach is used for the impacts of the war in Ukraine on macroeconomic indicators. Depending on the availability of requisite data, the report uses variance in forecasts of key macroeconomic indicators using projections by institutions such as the ECA, the African Development Bank and the IMF. Often these institutions generate projections of key macroeconomic indicators for each country three to five years from the current year. For example, these institutions had already made projections in 2020 for key macroeconomic indicators for 2021–2023. They revised these projections months after the onset of the war in Ukraine. The differences in the projections offer a useful benchmark for the potential impacts of the war on macroeconomic indicators in Africa. In addition, where possible, the association between exposure to Ukraine and Russia economies and impacts is established using an appropriate index of exposure.

## STATISTICAL ANALYSIS

While the descriptive analysis offers a benchmark to assess the impacts of the three shocks on macroeconomic indicators, and where data permit, the report also provides evidence based on estimated causal relationships between shocks and impacts. For example, the report presents evidence on the impact of the Covid-19 pandemic on economic activity in selected African countries using novel data collected monthly at the height of the pandemic. This includes mobility reductions from daily routine provided by Google (a proxy for lockdowns), monthly night light data (proxy for real GDP growth) and monthly inflation. Such statistical analysis gives us an opportunity to attribute the impact of the policy responses implemented by African governments on key macroeconomic indicators.

Similarly, the impacts of climate change-induced risks on key macroeconomic indicators are estimated based on econometric analysis by establishing causal relationships between a rise in temperature and economic activity after controlling for potential confounding factors. The impact of the war in Ukraine on African economies is slightly more difficult to establish in a causal manner. The report uses a Global structural Vector Auto-Regressive (GVAR) methodology, which models the relationships of African economies with Ukraine and Russia, as well as the potential impact of the war on the global economy, such as the increase in interest rates and the slowdown in the economies of Europe and the United States, which are key destinations of Africa's exports.

## MICROECONOMIC IMPACTS OF SHOCKS

For purposes of public policy, assessing the impacts of shocks on household welfare, including poverty, inequality and employment is critical. Unlike macroeconomic indicators, microeconomic indicators such as poverty and inequality are generated from household and labor force surveys. In most African countries, such surveys are carried out infrequently (in some countries every five years or more), making it difficult to establish direct links between the state of poverty and inequality and ongoing shocks. Further, data collected at the household level make it difficult to use consumption to identify individuals living in poverty.

The poverty rate is commonly determined by dividing the total annual household expenditure by the number of people living in the home. If this metric falls below the poverty threshold, then all members of the household are poor. Consequently, per capita poverty measurements implicitly presume an equal distribution of household resources. These metrics also presume that people of different ages and sexes get the same amount of utility out of the same amount spent on consumption. A multidimensional view of poverty and its intensity is partially absent from this analysis, because aggregate poverty and inequality at a continental (sometimes regional and country) level are evaluated. Still the report attempts to reasonably approximate the impacts of the three shocks on poverty and inequality, as outlined below.

## POTENTIAL IMPACT ON POVERTY

In the development literature, poverty is measured in various ways, including magnitude, depth and severity using money-metric measures (household income and consumption), assets, and self-assessment (subjective poverty). Studies have shown that there is strong complementarity and correlation between money-metric measures and other measures of poverty.<sup>27</sup> Given the consistency, comparability and availability for many African countries, the report uses household per capita consumption expenditure as a measure of poverty, obtained from the World Bank depository.<sup>28</sup> The preferred measure of poverty is the "headcount" ratio using the global poverty line of around USD2 a day per person which captures extreme poverty. The report also examines changes in the total number of poor people defined as such following the shocks. In this regard, there is some variation in the approach followed across the shocks.

Estimating the impact of poverty due to Covid-19 is facilitated by high-frequency data collected by the World Bank in 10 African countries where it was easy to directly estimate the impact of the pandemic on food availability, jobs and income lost. This could give important insight into how the pandemic ravaged household welfare in Africa. Attempts are also made to simulate the impact of the pandemic across all African countries using the established relationships between poverty and per capita consumption expenditure based on the concept of the elasticity of poverty

with respect to growth. Such an elasticity could be estimated at the country level (using simple ratios of rate of growth in poverty to rate of growth of per capita GDP) or econometric methods for a sample of African countries or subregions.<sup>29</sup> A similar approach is used to estimate the impact of the war in Ukraine on poverty. To capture the impact of climate change-induced shocks on poverty, a cross-country regression is used to estimate the relationship between frequency of natural disasters and poverty measures.

### POTENTIAL IMPACT ON INEQUALITY

Compared with poverty conditions, quantifying the impact of shocks on income inequality is even harder. Previous studies have shown that growth in per capita GDP has been inequality neutral suggesting that in the long-term incomes

of all households grow at the same rate. But short-lived shocks tend to have varying consequences across households. Some are more vulnerable to shocks either due to the direct effect (income loss, unemployment, etc.) or indirectly (lack of consumption smoothing opportunities). Either way, the distribution of consumption with and without shocks cannot be the same for all households. So, the report uses statistical approaches to establish the associations between changes in a measure of inequality (in this case the Gini coefficient) and shocks. Preliminary analysis shows that negative shocks (reductions in per capita GDP due to cyclical factors) tend to increase the Gini coefficient while positive shocks tend to reduce it. In addition, the long-term growth, smoothed for cyclical variations, tends to reduce inequality. The report uses these insights to quantify the magnitude of the impact of the three shocks on income inequality in Africa.

## STRUCTURE OF PRESENTATIONS IN THE CHAPTERS

The chapters first provide evidence on the impact of the three global shocks on macroeconomic indicators and household welfare by reporting the magnitudes and directions of the impacts. In each chapter, a descriptive analysis provides the benchmark, followed by granular estimation using econometric techniques and country examples. The conceptual framework in **FIGURE 1.5** is used to categorize countries into different shock-resilience matrices to assist in drawing the policy insights. Where possible, impacts are also reported based on risk of exposure to a particular shock to identify structural and institutional reforms necessary to deal with the impacts of shocks.

Noting that the commitment to eliminate extreme poverty and foster inclusive society is at the top of the SDG agenda, the report also uses stylized facts on different social protection programmes to assess their effectiveness in dealing with poverty and inequality reductions separately and jointly.

### IMPACTS OF THE COVID-19 PANDEMIC

This report builds on ECA's previous Economic Report on Africa (ERA 2021), themed "Addressing poverty and vulnerability in Africa during the Covid-19 pandemic." ERA 2021 examined the causes and effects of increased poverty due to the Covid-19 pandemic and other shocks like an oil price collapse within a vulnerability-poverty-resilience framework, providing national estimates of vulnerable people in different country clusters. This report's main findings are that poverty in Africa is highly dynamic, that poor people move in and out of poverty due to consumption volatility caused by shocks like the Covid-19 pandemic, and that their inability to manage uninsured risks increases their vulnerability. The report will continue its assessment of the impacts of the Covid-19 pandemic on key economic and social indicators, such as poverty, employment and hunger.

To establish robust associations between policy responses implemented by African governments and socioeconomic activities, the report uses high frequency data on daily movements of people, monthly nightlight data and WHO daily data on the spread of the pandemic offering fresh evidence that links socioeconomic impacts directly with the pandemic. This is important in a context where some countries faced other shocks concurrently with the pandemic, such as natural disasters (drought in East Africa), political instability, and other shocks that confound, and most likely overestimate, the damages inflicted by the pandemic. The report also presents evidence on the impact of the pandemic on poverty and other social indicators using data from high frequency phone surveys conducted during the pandemic allowing direct associations between economic and social outcomes the pandemic.

## IMPACT OF THE WAR IN UKRAINE

The war in Ukraine has disrupted global value chains, increased the prices of key commodities, including wheat, edible oil, fertilizers, and fuel, which further aggravated the fragile economic conditions in Africa right after the Covid-19 pandemic seems to have subsided. As the war is still ongoing, the true impact cannot be fully known yet. However, the report provides an analysis of the impacts by identifying the vulnerability of African countries using trade, investment and price channels, which establishes associations between the war and key economic and social indicators.

## IMPACTS OF CLIMATE CHANGE

### THE COMPLEXITY OF CLIMATE-RELATED RISKS

Climate change has both direct and indirect adverse effects on African economies in various ways. The impact of climate-related shocks on national economies is endogenous, which may increase both the severity of the shocks and make policy responses less effective if they do not incorporate this two-way relationship. The two-way relationship arises from the special nature of climate risk that makes it difficult to assess its immediate and long-term impact on the economy and to design forward-looking strategies to mitigate its impact. The key characteristics of climate risk help understand its complexity and endogeneity of its relationship with the economy.<sup>30</sup>

- Deep uncertainty or irreducible uncertainties of climate change risk and its impact on society and ecosystems, due to the nature of the earth system and cascading effects of individual climate shocks.
- Nonlinearity of the evolution of climate-related events, involving extreme events, making past climate shocks a poor predictor of future shocks, hence an uncertain basis for designing climate shock prevention and mitigation policies.
- Long duration of climate shock impacts, which is at odds with the often short-term horizon of individual decisions (investors and consumers) and policymaking.
- Endogeneity of risk, a much neglected or misunderstood feature of climate risks and shocks, which is related to the expectations and reactions of individuals and policymakers to actual shocks and anticipated shocks, as well as physical impacts of shocks.

### ENDOGENEITY OF CLIMATE CHANGE RISK AND IMPACTS

The endogeneity of climate change risk and impact arises from many channels. First, original climate shocks undermine the physical and societal capacity to prevent and prepare for future climate shocks by destroying the infrastructure, the natural assets, and by diverting resources from investments in climate preparedness towards responding to the immediate impacts of the

climate shocks. For example, the destruction of the forest due to temperature shocks leaves the areas more exposed to further shocks by removing the natural protection given by the forest. Another example is the destruction of public infrastructure by violent weather shocks, which displaces the resources that would have been used to finance climate change preparedness (through research and development and upgrading the infrastructure) towards repairing the damages of the shocks. This implies that as African countries are hit by climate shocks, their capacity to prepare for and mitigate future shocks is severely impaired, implying that future shocks will become more frequent, and their impact will become more devastating.

Endogeneity of climate change risk also arises from expectations of agents and their induced responses to shocks. For example, the behaviour of farmers is influenced by experience with climate-related hazards that affect agriculture. Farmers that have experienced climate-related shocks undertake actions aimed at making their farms less exposed to future shocks, such as planting trees to prevent erosion.<sup>31</sup> Farmers anticipate future shocks with other strategies including soil and water conservation, modern seed varieties and crop diversification, with the attempt to both reduce the occurrence and severity of shocks (rain fall instability) and mitigate the impact of shocks when they do materialize.<sup>32</sup> The behavioural adaptation of producers makes climate risk endogenous.

The behavioural channel of endogeneity of climate change risk has been explored in the linkages between finance and climate risk.<sup>33</sup> Climate-related shocks affect the current and future of value of assets (physical and financial), which affects the financial position of individuals, firms and governments, leading to possible rating downgrades, with implications for investment and consumption. The negative effects of climate-related risks on the financial position of economic actors in turn affect the willingness and capacity to make investments that enhance climate change preparedness and resilience, thus increasing exposure to further climate risks. By increasing overall financial risk (real or perceived), climate-related risks discourage both domestic and foreign direct investment, undermining the economy's growth prospects.<sup>34</sup>

These complexities of climate-related risks and shocks need to be accounted for in thinking about policy responses to climate shocks and climate change generally, to better position African economies for the transition to an environment-friendly growth path.

Noting these complexities, the chapter on climate change shocks prudently documents how such shocks could have an impact on economic activities and other social indicators such as poverty based on descriptive as well as econometric approaches. In the first instance, the chapter establishes a direct connection between economic activity and greenhouse gas emissions and presents quantitative estimates of the strength of the association across different world regions. This helps to benchmark Africa against other regions while also predicting the trends of greenhouse emissions based on projected growth of economic activity. This is established through an estimation of elasticities between real GDP growth and greenhouse emissions. In addition, the chapter considers the reverse impacts running from climate change shocks to economic activities. Using simple econometric techniques, it establishes direct relationships between climate change shocks, proxied by rising temperature and frequency of natural disasters on the one hand, and key economic and social indicators such as real GDP growth, inflation, debt and poverty on the other.

# APPENDIX 1.1

## INDICATIVE STATISTICAL EXAMPLES OF THE IMPACT OF GLOBAL SHOCKS ON THE SDGS

### IMPACT OF GLOBAL SHOCKS ON THE SUSTAINABLE DEVELOPMENT GOALS: INDICATIVE STATISTICAL EXAMPLES



Up to 95 million more people than expected were living in extreme poverty in 2022 owing to the coronavirus disease (COVID-19) pandemic and the war in Ukraine. More than four years of progress against poverty was erased by COVID-19 alone.



The COVID-19 pandemic caused the first rise in between-country income inequality in a generation, with the richest 10 per cent of the world's population owning 76 per cent of international wealth.



Conflict, COVID-19, climate change and growing inequalities are converging to undermine food security worldwide, with nearly 1 in 3 people lacking regular access to adequate food as of 2021. About 150 million more people faced hunger in 2021 than in 2019.



During the pandemic, many cities faced strained health and transport systems, inadequate water and sanitation services, increased homelessness and other challenges. At the same time, it was estimated that local governments would yield 15-25 per cent lower revenues in 2021.



22.7 million children missed basic vaccines in 2020, 3.7 million more than in 2019. As of mid-2022, 500 million people had been infected by COVID-19, leading to 15 million deaths in 2020 and 2021.



Despite global shocks, global consumption rates continue to climb, estimated at \$69.47 trillion in 2021, up from \$62.2 trillion in 2020. Unsustainable patterns of consumption and production are the root cause of climate change, pollution and biodiversity loss.



24 million learners (pre-primary to university level) may never return to school following the COVID-19 pandemic. 147 million children missed over half of in-person instruction in 2020 and 2021.



Energy-related CO<sub>2</sub> emissions for 2021 rose by 6 per cent, erasing pandemic-related declines. COVID-19 impacted investment in renewable energy, with clean energy accounting for just 3 per cent of recovery spending through October 2021.



Globally, one quarter of employed women work in agriculture, forestry and fishing sectors, which are particularly vulnerable to the effects of climate change. COVID-19-related disruptions significantly widened the gender food security gap, from 6 per cent in 2019 to 10 per cent in 2020.



Despite lockdowns, more than 17 million tons of plastic entered the ocean in 2021, causing further pollution. The economic strain from the COVID-19 crisis put small-scale fisheries, which represent 90 per cent of the world's fishers, in distress.



Natural disasters have a direct impact on clean water access and sanitation, and at an increasing rate, with more frequent droughts and flooding due to climate change. Two billion people live without safely managed drinking water services.



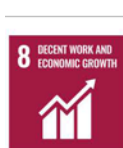
Forests play a significant role in reducing the risk of global shocks associated with natural disasters. However, 10 million hectares of forest are destroyed every year, with deforestation on the rise to compensate for economic losses caused by the pandemic and inflation.



The pandemic slowed progress towards universal access to clean energy, according to the World Bank. Globally, 733 million people still have no access to electricity, and the number of people lacking clean cooking facilities rose during the pandemic.



A record 100 million people were forcibly displaced as of May 2022. In total, 41 per cent of those estimated to be forcibly displaced in 2021 were children, who are disproportionately affected by global shocks.



In 2020, the world's output shrank by 4.3 per cent, over three times more than during the global financial crisis of 2009. Global economic recovery was set back by new waves of COVID-19, the Ukraine crisis, rising inflation, supply-chain disruptions and other shocks.



Rising sovereign debt burdens threaten developing countries' pandemic recovery and socioeconomic growth. In low-income countries, the average debt-to-export ratio increased from 3.1 per cent to 8.8 per cent between 2011 and 2020.

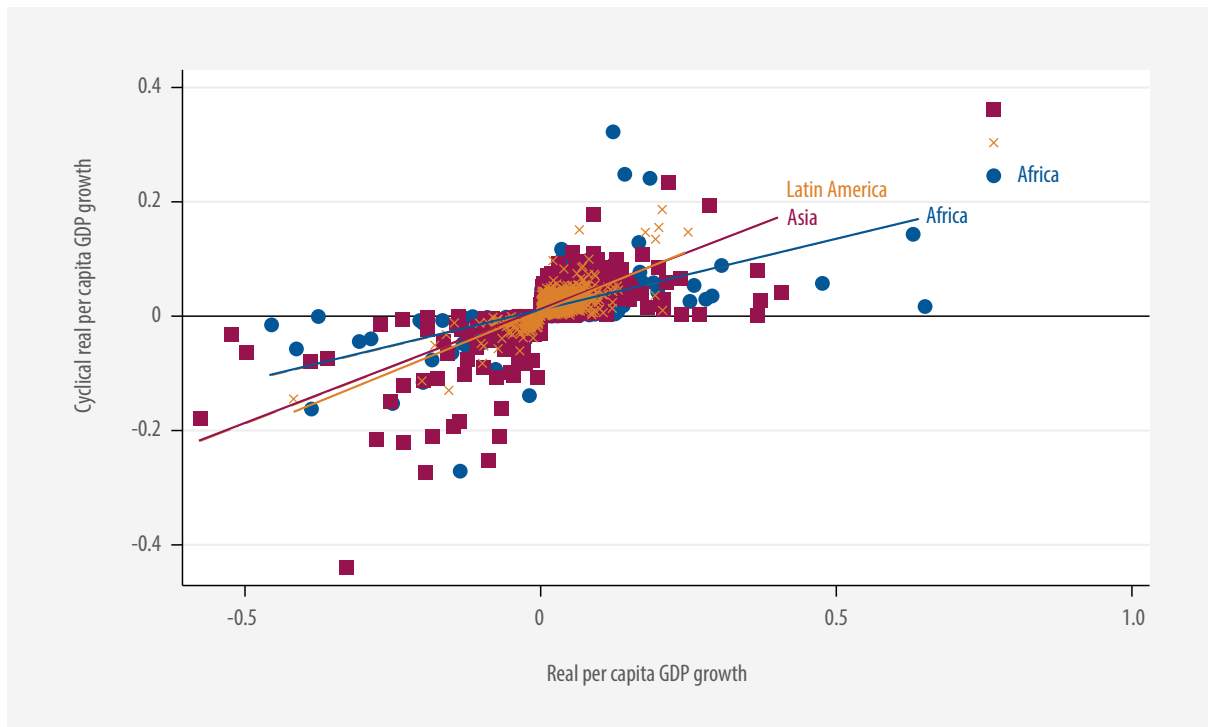


1 in 3 manufacturing jobs were negatively affected by the COVID-19 pandemic. Global manufacturing has rebounded from the pandemic, but the least developed countries have been left behind.

Source: United Nations, 2022 (<https://www.un.org/sites/un2.un.org/files/globalshocks-sdgs.pdf>).

# APPENDIX 1.2

## CYCLICAL AND REAL PER CAPITA GDP GROWTH, 1990–2022



**Source:** ECA computations based on the Penn World Tables by Robert et al. (2015).

**Note:** The cyclical component of growth in per capita GDP is computed using the Kalman filtering technique.



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## ENDNOTES

- 1 UNDP, 2022.
- 2 African Development Bank, 2022.
- 3 ECA, 2022.
- 4 Oxfam, 2013.
- 5 Premand and Vakis 2010.
- 6 Oxfam, 2013.
- 7 Premand and Vakis, 2010.
- 8 Sy, 2016.
- 9 Duval and Vogel, 2008.
- 10 Oxfam, 2013.
- 11 Berthélemy, 2018; 2006; Berthélemy and Soderling, 1999.
- 12 Growth acceleration is an analytical framework introduced by Hausman et al. (2005) to identify and characterize growth patterns to classify growth in terms of potential sustainability and true take-off. A growth acceleration episode is defined as a situation where a country registers a growth rate in per capita GDP equal to or higher than 3.5% for at least eight consequent years and the level of per capita GDP achieved is higher at the end of the growth acceleration than at the beginning. In addition, the rate at which the economy grows (rate of acceleration) at the end of the episode is equal to or higher than 2%. These three conditions ensure that the growth rate experienced during the specified period indicates long-term sustainability or a shift from low to high per capita GDP equilibrium.
- 13 Growth acceleration is an analytical framework introduced by Hausman et al (2005) to identify and characterize growth patterns such that it is possible to classify growth performance of countries in terms of potential sustainability and true 'take-off'. A growth acceleration episode is defined as a situation where a country registers a growth rate in per capita GDP higher than 3.5% for at least eight consequent years and also the level of per capita GDP achieved is higher at the end of the growth acceleration than at the beginning. Another telling example is the contrast between the rapid (V-shaped) post-genocide recovery in Rwanda and the much slower (L-shaped) post-conflict recovery in Burundi (Ndikumana 2015; Nkurunziza, 2015; Nkurunziza and Ngaruko, 2005).
- 14 Another telling example is the contrast between the rapid (V-shaped) post-genocide recovery in Rwanda and the much slower (L-shaped) post-conflict recovery in Burundi (Ndikumana, 2015; Nkurunziza, 2015; Nkurunziza and Ngaruko, 2005).
- 15 Easterly, 2006.
- 16 Sachs and Warner, 1997.
- 17 Fosu, 2009.
- 18 Alesina et al., 2007.
- 19 Collier, 2004; Andrimihaja et al., 2012.
- 20 Nun, 2008.
- 21 Sachs et al., 2007.
- 22 Barrett and Costas, 2014.
- 23 African Development Bank, 2017.
- 24 Carter et al., 2005.
- 25 Klimek et al., 2019.
- 26 The Resilience Index constructed for this report follows the definition of Hallegate (2014) where macroeconomic resilience is perceived as consisting of two aspects. One is instantaneous resilience, which encompasses the ability to contain and limit the damage loss inflicted by the shocks. The other definition is dynamic resilience, which consists of the ability to reconstruct and recover from the shocks. In this light, the Resilience Index has two components. The first is the financial or fiscal component which proxies a country's ability to minimize the production and/or consumption losses caused by the shock. The

second component which also cuts across the first is the institutional capability that enables a country to recover from shocks at the shortest time possible. The first component of resilience is proxied by the overall saving and revenue mobilization capacity of the economy. Hence, share of government revenue as a % of GDP and share of savings as a % of GNP were used as indicators of resilience. For the second component institutional and governance quality are considered as essential part of speeding up recovery and reconstruction. Each of the indicators is regressed on log per capita GDP, and the residual is retained to purge the influence of per capita GDP in these indicators. A single index is generated using the Principal Components Analysis commonly used for reducing data dimensions.

- 27 Bigsten and Shimeles, 2011.
- 28 The World Bank constructed a web-based data on poverty (<https://www.worldbank.org/en/home>) that includes facilities for users to estimate and simulate poverty for nearly all African countries.
- 29 Another approach could be to assume the shocks impact households uniformly and simply adjust the poverty line by a certain percentage. This method is applied by Sumner et al. (2020).
- 30 Battiston et al., 2021; Monasterolo, 2020; Ackerman, 2017.
- 31 Oyekale and Oyekale, 2019.
- 32 See Gatiso (2015) for evidence on Ethiopia.
- 33 Battiston et al., 2021. See the special section Special Section on Climate Risk and Financial Stability in *Journal of Financial Stability*, volume 54, June 2021.
- 34 Chen et al., 2022.

# CHAPTER 2 RECENT ECONOMIC AND SOCIAL DEVELOPMENTS



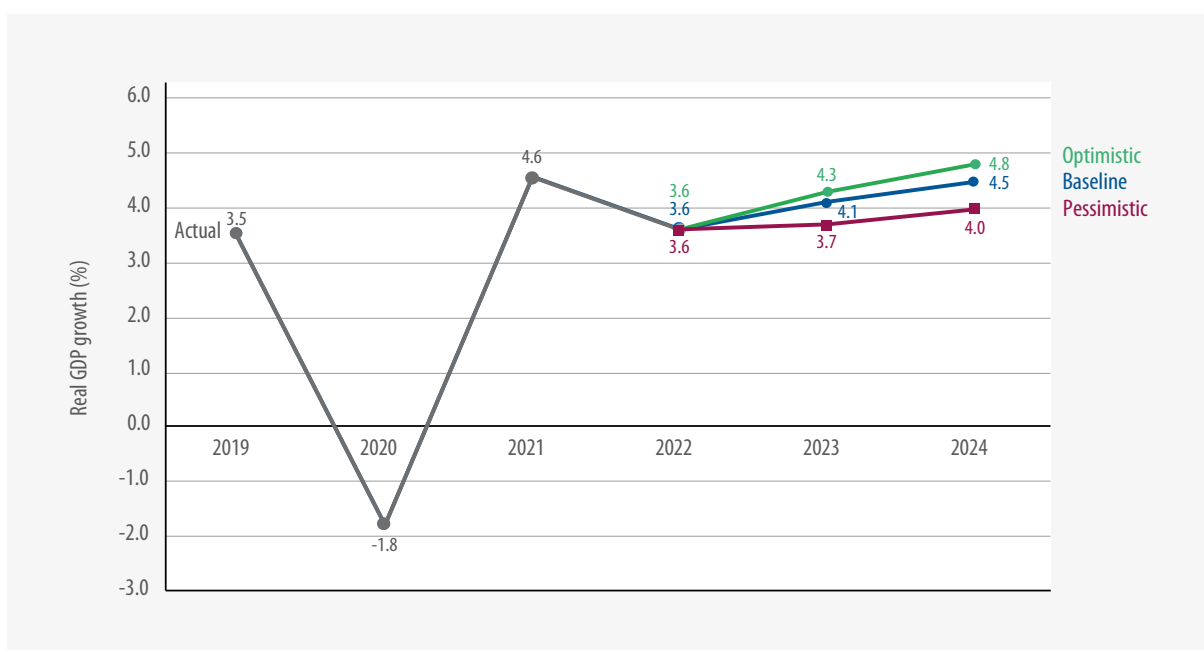
# ECONOMIC PERFORMANCE

Global economic activity slowed in 2022, owing to a decline in economic growth in major global economies, with growth rates in China (3.0%), the EU (3.1%), the United Kingdom (3.6%) and the United States (1.6%), substantially lower than in 2021.<sup>1</sup> Weak external demand related to monetary policy tightening and economic slowdown in major economies (especially in the euro area and China), created headwinds for exports, while higher oil and food prices, partly due to the war in Ukraine, pushed up import costs for net importers in Africa. The war exacerbated the social and economic effects of Covid-19, as it erupted just as the African economy was recovering from the adverse effects of the pandemic, posing a further threat to Africa’s economic growth prospects.

## GROWTH PERFORMANCE AND PROSPECTS

The global economic slowdown, elevated inflationary pressures, climate change and worsening international economic and financial conditions reduced Africa’s growth from 4.6% in 2021 to 3.6% in 2022, but it is projected to rebound to 4.1% in 2023 (FIGURE 2.1). The rebound in global demand, higher crude oil prices (mostly benefiting oil-exporters), looser Covid-19 restrictions in most countries especially China, and the resulting increase in domestic consumption and investment significantly is expected to contribute to the resurgence in 2023.<sup>2</sup> If current headwinds ease, growth could reach 4.3% in 2023, but if they intensify, it may be only 3.7% by the end of 2023. Africa has, however, been among the fastest expanding regions after East and South Asia (4.5%) (FIGURE 2.2).

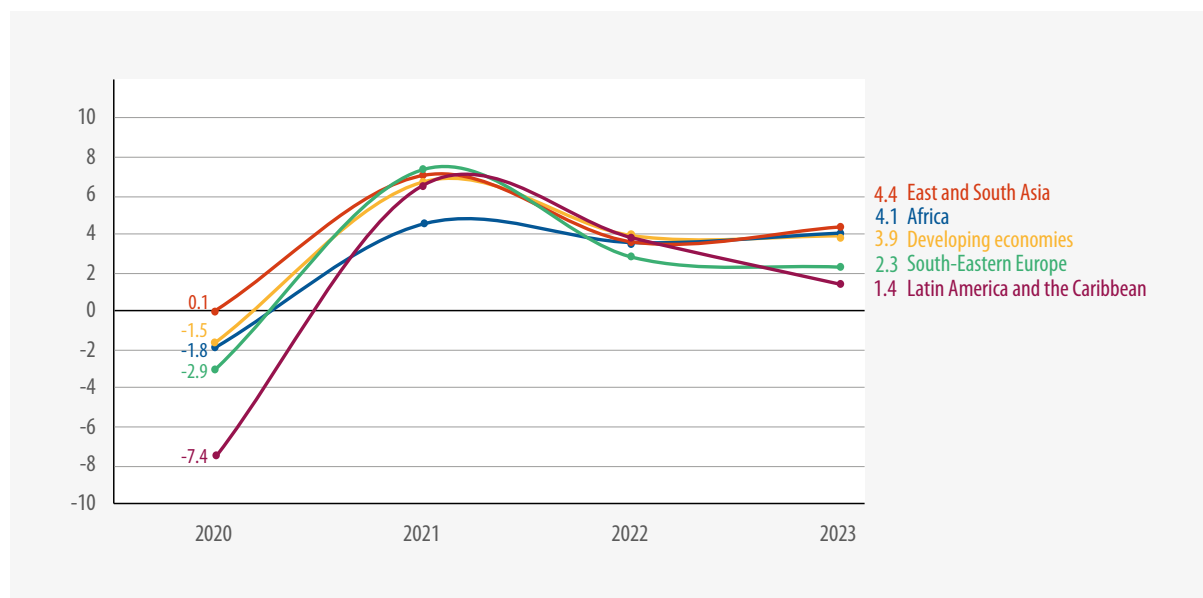
FIGURE 2.1 REAL GDP GROWTH IN AFRICA, 2019–24



Source: Based on data from UNDESA (2023) and ECA (2023).

Note: Data are estimated for 2022 and projected for 2023.

FIGURE 2.2 ECONOMIC GROWTH IN AFRICA AND OTHER DEVELOPING REGIONS, 2020–23



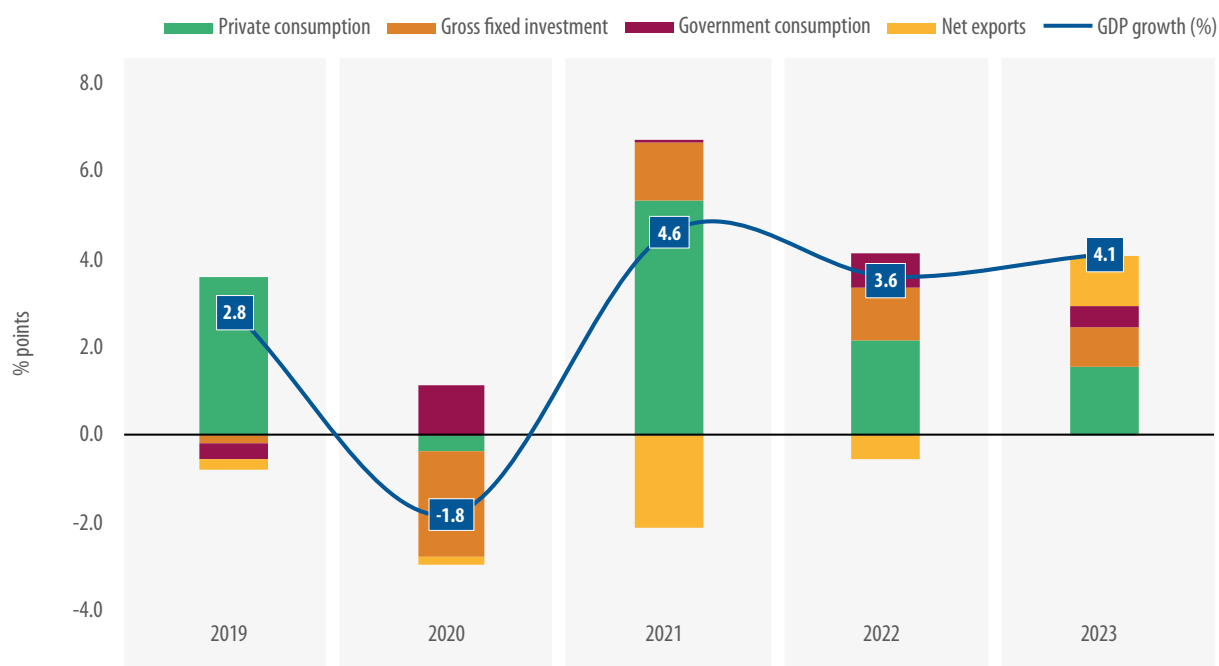
Source: UNDESA 2023 and ECA 2023 estimates and forecasts.

“ The region experienced an improvement in net exports and government consumption as exports increased due to improved global demand amidst higher global prices for some commodities such as coal and aluminium. ”

### PRIVATE CONSUMPTION AND GROSS FIXED INVESTMENT CONTINUED TO DRIVE GROWTH

Private consumption and gross fixed investment are expected to continue underpinning Africa’s growth in 2023 supported by an expected rebound in net exports, but tightening global monetary policies are expected to weigh on investments in the continent (FIGURE 2.3). Government final consumption increased in 2022, contributing 0.8 percentage point to GDP growth, while private consumption’s contribution to GDP growth was significantly lower than in 2021, amidst the tightening of the global economy by monetary authorities to combat inflationary pressures.

The region experienced an improvement in net exports and government consumption as exports increased due to improved global demand amidst higher global prices for some commodities such as coal and aluminium.<sup>3</sup> The structure of African economies continues to be driven by the services sector followed by the industrial and agriculture sectors, with an estimated average contribution of 56.2%, 29.0% and 19.3%, respectively.

**FIGURE 2.3** COMPONENT CONTRIBUTIONS TO ECONOMIC GROWTH IN AFRICA, 2019–23

**Source:** Based on data from EIU (2023), accessed December 2022, UNDESA (2023) and ECA (2023).

**Note:** Data are estimated for 2022 and projected for 2023.

## FDI REBOUNDED DESPITE THE DECLINE DUE TO COVID-19 PANDEMIC

Foreign direct investment (FDI) inflows to Africa already exhibited a declining trend over the years preceding the Covid-19 pandemic, mainly due to the fall in commodity prices and the rise of Asia and Latin America as attractive FDI destinations. Several internal constraints—including regulatory and administrative barriers, political instability and security concerns, and significant infrastructure deficits—weighed on investment flows to Africa, among others. The situation was exacerbated by the pandemic, which led to a 16% drop in FDI flows to Africa in 2020, reaching USD39 billion, the lowest level since 2005.<sup>4</sup>

However, inflows rebounded in 2021 reaching an all-time high of USD83 billion, largely driven by a single large intra-firm financial transaction in South Africa, while most African countries experienced a moderate rise (FIGURE 2.4). Over this period, greenfield investment announcements remained relatively low at USD39 billion in 2021, with only a modest recovery after a significant decline from USD77 billion in 2019 to USD32 billion in 2020.<sup>5</sup>

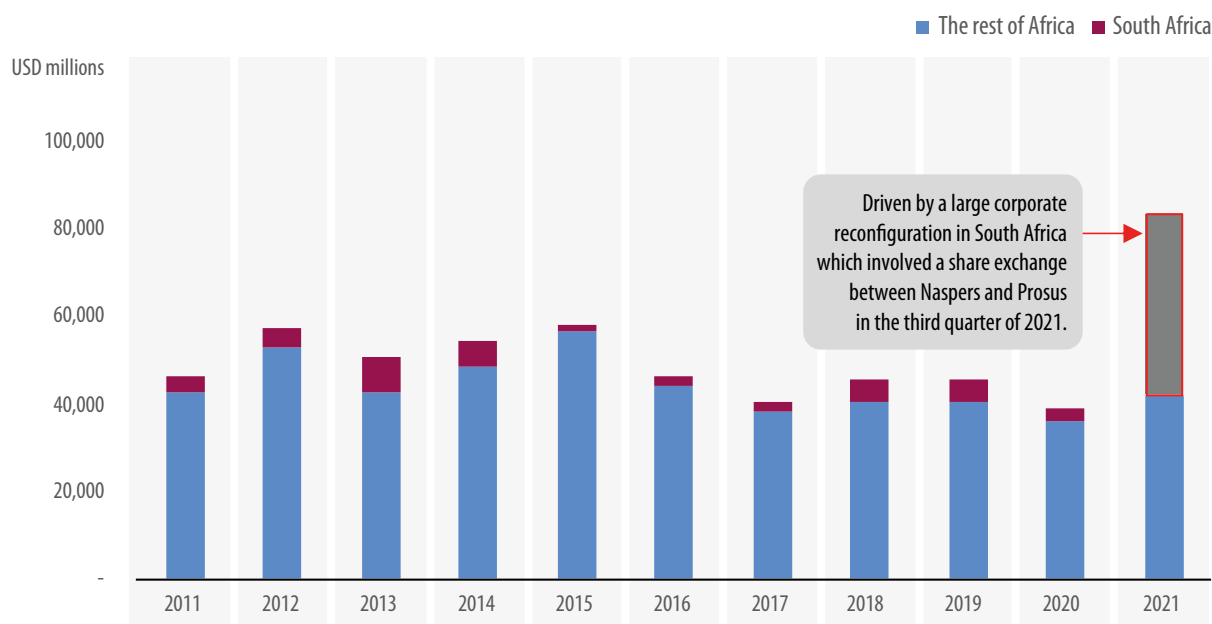
The war in Ukraine with the triple food, fuel and finance crises, along with the spillover effects of the Covid-19 pandemic and

climate change, are adding volatility to near-term investment prospects on the continent. Even so, the African Continental Free Trade Area (AfCFTA) is expected to create new opportunities for FDI. Its investment protocol adopted at the 36th Ordinary Session of the Assembly of Heads of State and Government of the African Union on 19 February 2023, and the associated establishment of an African common investment area, will enable the harmonization of investment rules and stimulate market-seeking FDI through the gains from trade facilitation. It will also boost intra-African investment, which tends to be more diversified than FDI from outside the continent, concentrating heavily in services, particularly insurance, retail banking and telecommunications.<sup>6</sup> To fully realize the potential of the AfCFTA, high-return priority sectors should be targeted, such as transportation, communication, food and tobacco, financial services, business services, renewable energy, industrial equipment, automotive components and software and IT services.<sup>7</sup>

Another source of traction may come from the ongoing energy transition. This is a big wave, considering that renewables and energy efficiency projects accounted for most of the FDI growth in 2021 globally. The number of international projects in renewables in Africa has also increased consistently, doubling between 2011 and 2021, from 36 to 71, and



FIGURE 2.4 FDI INFLOWS TO AFRICA, 2021



Source: UNCTAD, 2022a.

is expected to stay on the rise in coming years and decades.<sup>8</sup> Global economies are approaching the African economies to re-engage and strengthen ties with the continent, where around a third of the world's mineral resources are housed. And there are pledges to do mining more responsibly in a way that helps transform African economies.

Per capita income performance remains poor across the continent, losing 5–15% because of climate change, which has limited Africa's capacity to realize its economic potential. If current global climate policies remain unchanged, average temperature could reach around 2.7° Celsius higher than preindustrial times, which would lead to a 20% reduction in economic growth by 2050.<sup>9</sup> Many African countries are already spending 2–9% of their budgets to respond to extreme weather events.<sup>10</sup>

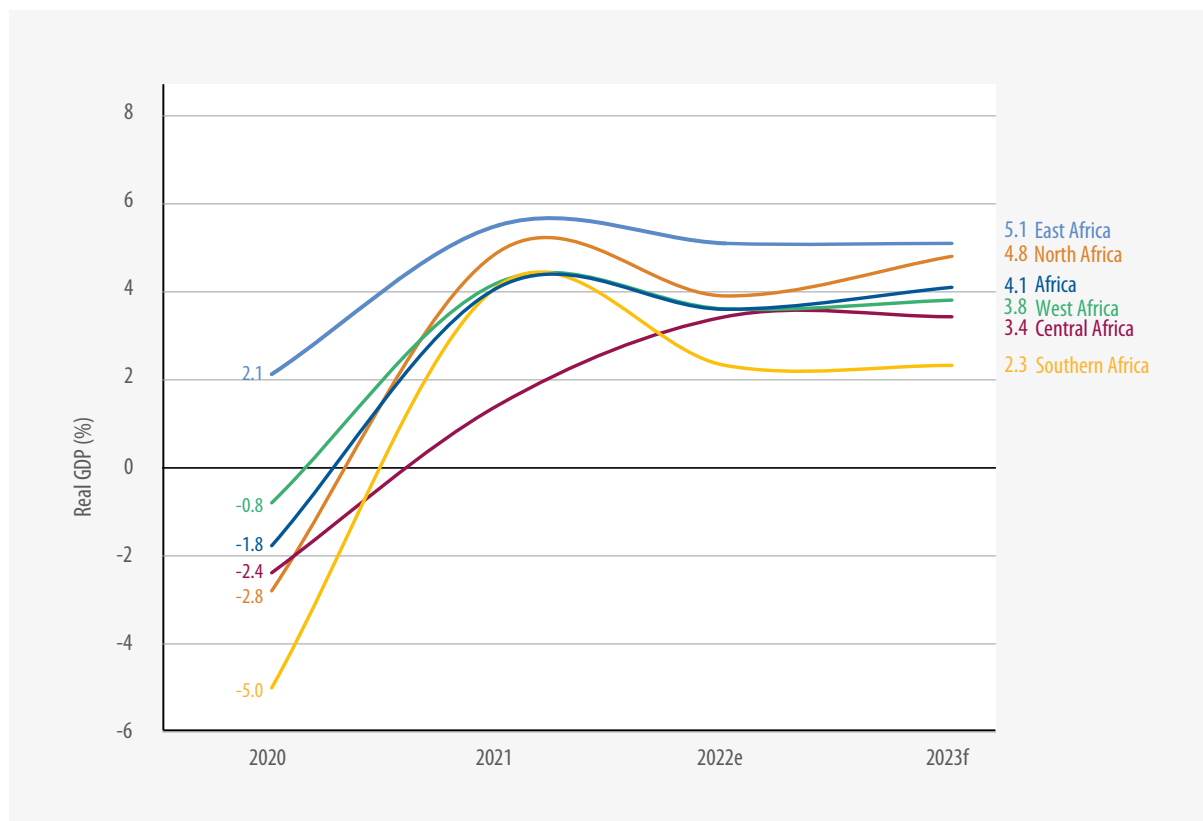
## EAST, NORTH AND WEST AFRICA LED THE GROWTH RECOVERY

Africa's growth over the past year has mainly been driven by growth in its Eastern, Northern and Western subregions (FIGURE 2.5). Following a substantial recovery from the Covid-19 pandemic in 2021, economic growth in East Africa is projected to have declined to 4.8% in 2022. However, it is anticipated to rebound to 5.7% in 2023, primarily propelled by a resurgence in service and industrial sectors, thriving intra-regional trade and a robust revival in the tourism industry. Even so, the enduring presence of inflationary pressures, subpar agricultural output resulting from climate shocks and the need to consolidate fiscal spending in the light of high debt are expected to weigh on growth.

Growth in Central Africa was anticipated to reach 3.4% in 2022 and remain at this point in 2023, exhibiting a significant improvement from the 1.4% growth in 2021.<sup>11</sup> This growth is mostly attributed to favourable commodity prices,<sup>12</sup> particularly bolstered by the rise in oil prices and robust domestic production.

Growth in West Africa is projected at 3.6% in 2022, according to the United Nations Department of Economic and Social Affairs (UNDESA). This growth is expected to persist despite the adverse impact of the oil sector in Nigeria, which resulted in a decline in GDP growth from 3.6% in 2021 to 3.2% in 2022.

FIGURE 2.5 REAL GDP GROWTH BY SUBREGION, 2020–23



Source: UNDESA, 2023, and ECA estimates and forecasts, 2023.

Côte d'Ivoire and Senegal emerged as the primary nations driving economic growth within the subregion in 2022. It is anticipated that there would be a marginal improvement in growth in 2023, with a predicted growth rate of 3.8%. Senegal should sustain its notable growth trajectory in 2023, with projections indicating a potential increase of 10.1%,<sup>13</sup> primarily attributable to the initiation of hydrocarbon exports, which aligns with the upward trend in global natural gas prices.<sup>14</sup>

The projected growth in North Africa is expected to slip, going from 3.9% in 2022 to 3.8% in 2023. One of the primary factors contributing to the current situation is the unpredictable trajectory of the conflict in Ukraine. This led to a significant surge in both food and energy prices, as well as the imposition of stricter global financial conditions. In addition, the weakened exchange rates and elevated interest rates have boosted the costs of servicing debt. The projected deceleration of economic expansion in Egypt, prominent in the subregion, is expected to be 5.1% in 2023, a decline from the 6% growth observed in 2022.<sup>15</sup> This deceleration is noteworthy considering the financial support received from the International Monetary Fund (IMF) and the Gulf states. Morocco should see

growth of 3.3% in 2023, up from 1.3% in 2022, thanks to the revitalization of its primary sector.<sup>16</sup>

Modest economic growth is expected in the majority of Southern African nations, and projected to result in a regional average of 2.8%. In 2022, South Africa, the largest economy in the subregion, grappled with enduring challenges encompassing limitations in electricity supply, deficiencies in transport infrastructure, elevated unemployment and pronounced inflationary pressures. In addition, the deceleration of external demand given concerns over economic downturns in the eurozone and the United States caused a decline in South Africa's exports, positioning it as one of the least rapidly expanding economies among prominent African nations in 2023.<sup>17</sup>

## FISCAL SPACE STILL CONSTRAINED BY RISING INFLATION AND INTEREST RATES

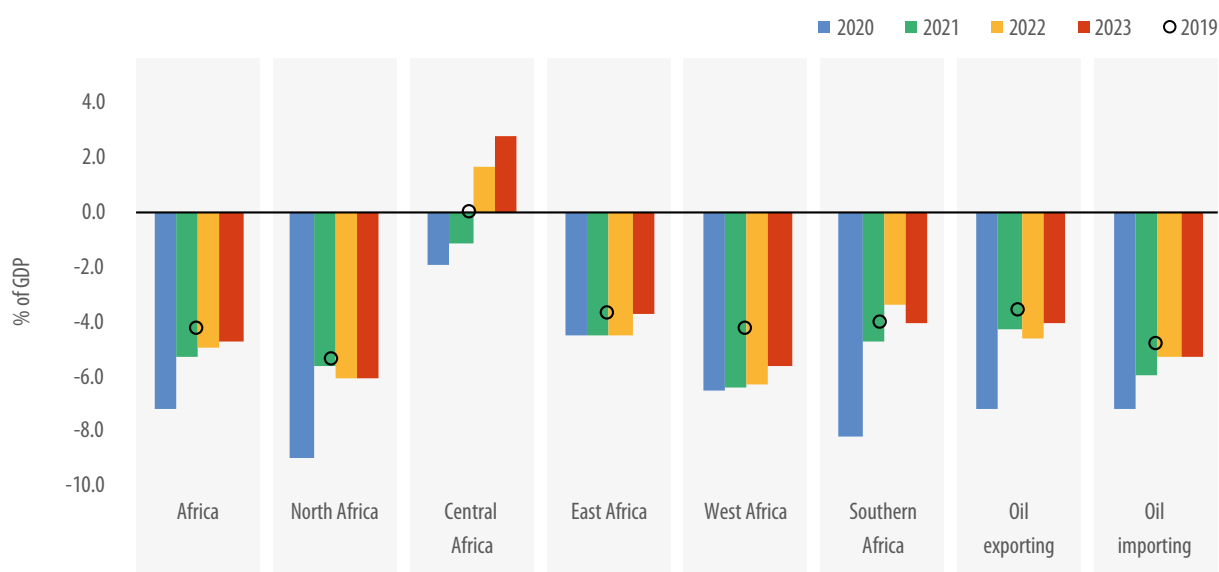
Since the start of 2022, soaring inflation and rising interest rates have worsened the already limited fiscal space for African governments. The need to stimulate economic recovery and to protect vulnerable population against high prices made it difficult to maintain fiscal sustainability. Burgeoning fiscal deficits reached -5.0% in 2022, higher than before the pandemic (FIGURE 2.6), making it challenging to tackle the multiple shocks and build resilience. The fiscal deficits are expected to narrow to -4.8% in 2023, thanks to higher revenues for net commodity exporters.

Oil exporters benefited from the elevated energy prices, with subregions such as the Central Africa recording surpluses. But oil importers are expected to experience widening fiscal deficits due to higher oil prices reaching -5.3% in 2023.

Despite the need to combat recent shocks, Africa's fiscal space remains constrained with average government expenditures estimated at 26% of GDP in 2022 and 25% in 2023. The average revenue collection for the continent is estimated at 22.5% of GDP in 2022 (1 percentage point higher than in 2019), before narrowing slightly to 22.0% in 2023. As fiscal deficits continue to strain governments, they have adopted policy measures including cash transfers, price subsidies and reductions in income and consumption taxes to protect households from inflation.<sup>18</sup>

“The average revenue collection for the continent is estimated at 22.5% of GDP in 2022 ...”

FIGURE 2.6 AFRICA'S FISCAL BALANCE BY SUBREGION AND COUNTRY GROUP, 2019–23



Source: IMF, 2022b, WEO October 2022 and ECA 2023.

## INFLATION REMAINS HIGH IN SOME AFRICAN COUNTRIES

Africa's average inflation remained elevated and stayed above 10% since 2020, reaching 14.3% in 2022, mainly due to supply constraints and price rises for oil, food and other tradable goods in 2022.<sup>19</sup> The war in Ukraine is estimated to have contributed 1.5 percentage points to the price increase of 12.8% in 2022, which is set to decline to 12.0% in 2023 as monetary policy tightens across the continent.<sup>20</sup> So, rising borrowing costs and debt service burdens pose a significant challenge going forward.<sup>21</sup>

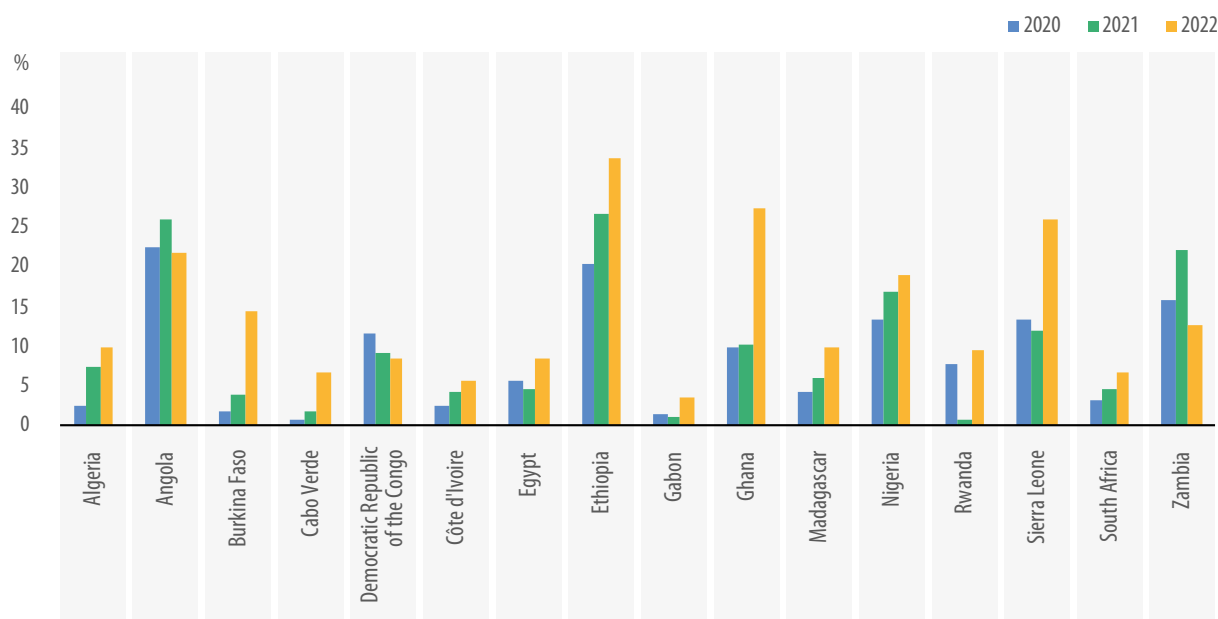
Since the last quarter of 2021, inflation has remained relatively high in nearly all African countries and remained in double digits in many (FIGURE 2.7). But countries are expected to register a downward trend in the short to medium term as central banks tighten policies and as global energy and food prices decline.<sup>22</sup>

## GROWING EXCHANGE RATE PRESSURES DUE TO TIGHTER FINANCIAL CONDITIONS AND ADVERSE TERMS-OF-TRADE

As has been the case in many regions, African countries have faced significant exchange rate pressures driven predominantly by external factors, including tighter financial conditions and adverse terms of trade.<sup>23</sup> The increase in interest rates—led especially by major central banks such as the US Federal Reserve and the European Central Bank in response to persistently high inflation—has led to the appreciation of the US dollar against major currencies. The associated higher yields on long-term government bonds in developed economies and investor searches for safe assets have led to capital outflows from developing markets, including Africa. These capital outflows have led to a significant depreciation of domestic currencies (against the US dollar) in several African countries (FIGURE 2.8). These depreciations have contributed to higher inflation and public debt and worsened the trade balances.

Currency depreciation has been more pronounced in countries with flexible exchange rate regimes and in commodity-exporting countries, as they experience higher inflationary pressures, suggesting a strong pass-through effect against the US dollar. The worst hit currency on the continent was the Ghana cedi, which depreciated by more than 50% against

FIGURE 2.7 INFLATION RATES IN SELECTED AFRICAN COUNTRIES, 2020–22



Source: IMF World Economic Outlook database, October 2022.

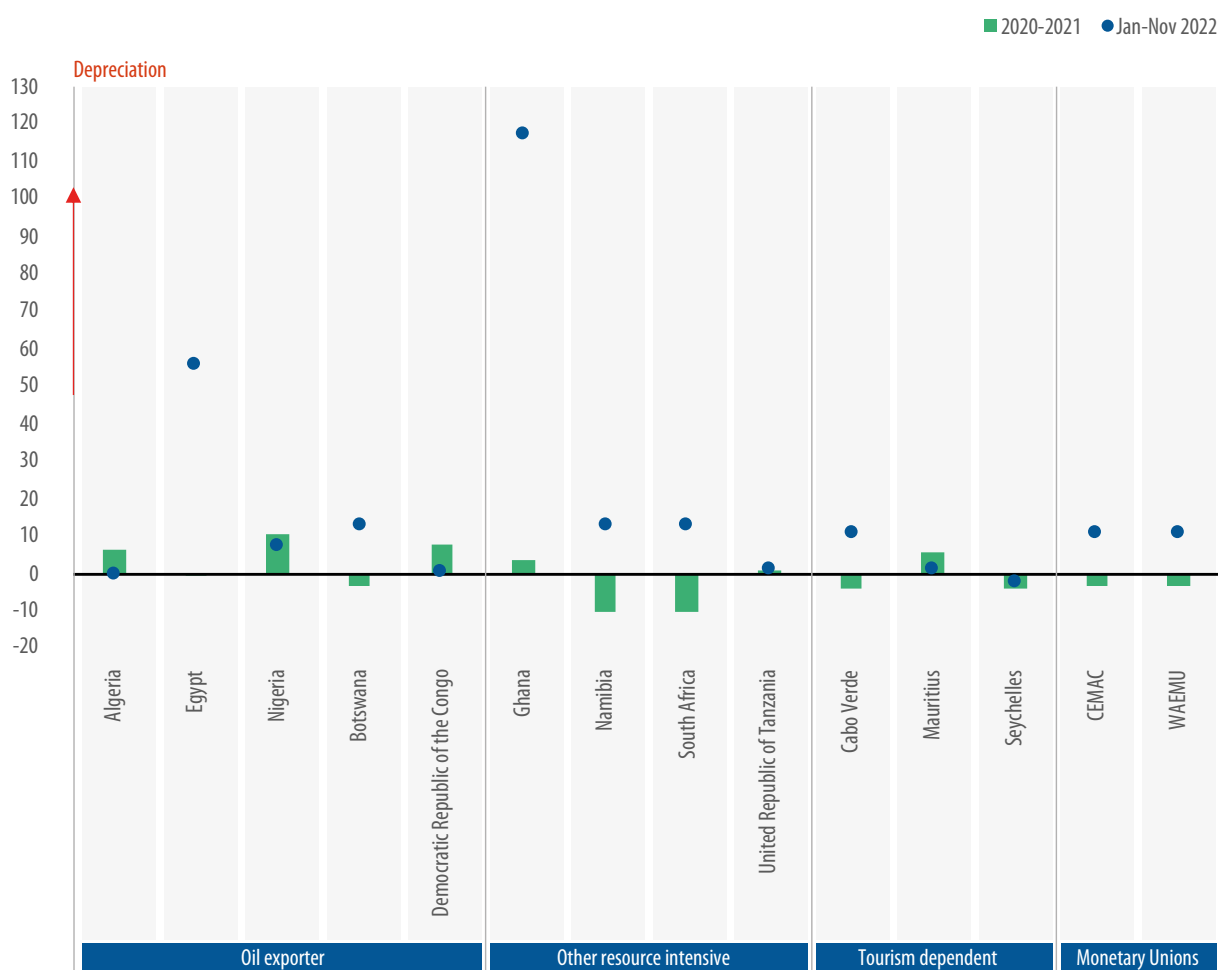
“The increase in interest rates ... has led to the appreciation of the US dollar against major currencies.”

the dollar in 2022 (see **FIGURE 2.8**). But it has strengthened since December 2022 after an IMF visit and a domestic debt exchange announcement.<sup>24</sup>

The South African rand weakened nearly 12% over January–November 2022, while the Egyptian pound depreciated more than 20% by the end of August and slid to about 14.5% in October 2022 to a record low against the dollar after moving to a flexible exchange rate regime.<sup>25</sup>

Countries with fixed exchange rates within CEMAC and WAEMU, experienced an average depreciation of 10% against the US dollar between January and November 2022. Among tourism-dependent economies over the same period, Cabo Verde’s currency depreciated by 11%. The IMF (2023) estimates a pass-through of 0.28 percentage points for non-pegged countries in the region, about four times stronger than in pegged countries, where trade is mostly invoiced in the peg currency.

**FIGURE 2.8** PERCENTAGE CHANGE IN EXCHANGE RATE, 2020–22  
(LOCAL CURRENCY AGAINST THE US DOLLAR)



Source: Based on data from the IMF International Financial Statistics and Bloomberg databases, 2022.

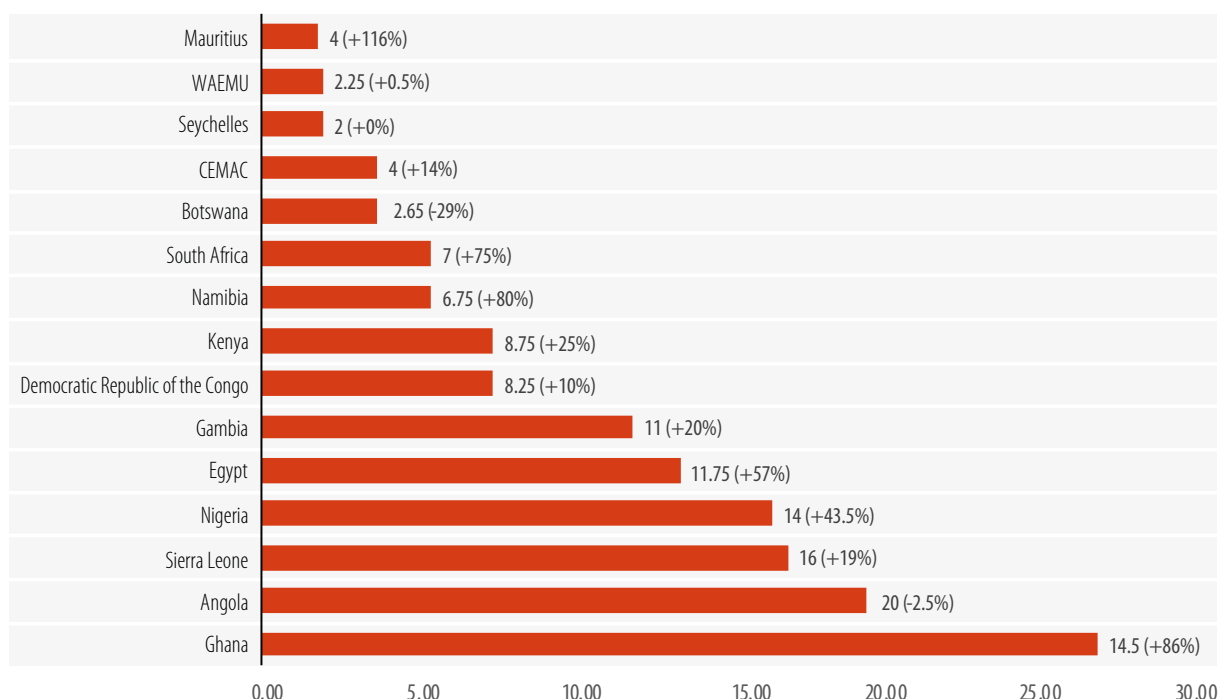
Despite a break in the dollar's bull trend in Q4 of 2022, most African currencies would likely depreciate against the US dollar in 2023 as developed nations continue to tighten monetary policy to limit inflation. Due to the ongoing Ukraine war, reduced foreign demand and domestic pricing pressures, African economies may continue to endure exchange-rate weakness in 2023. As a result, several African central banks have tightened their monetary policies and adjusted exchange rates, with Mauritius, Ghana and Namibia increasing their policy rates by 116%, 86% and 80%, respectively, over the period January–November 2022 (FIGURE 2.9).

With a higher proportion of Africa's public debt now external, exchange rate depreciations have led to significant increases in public debt. The debt stock increase is relatively more pronounced for non-pegged or flexible exchange rate regimes, in part because a greater share of their debt is in US dollars—66% of external debt and 99% of Eurobonds, compared with only 50% and 45%, respectively, in pegged regimes.<sup>26</sup> In the short term, trade is slow to respond to exchange rate depreciation as goods are invoiced mostly in US dollars and exporters require time to adjust their production despite higher profits while consumers face difficulties finding local substitutes for imports. This is expected to improve in the medium term, as countries adjust to new relative prices. But structural

impediments—including a weak business environment and Africa's trade mostly in commodities and agriculture, which tend to be less responsive to changes in relative prices—undermine improvements in the countries' trade balance.<sup>27</sup>

“ [Trade] ... is expected to improve in the medium term, as countries adjust to new relative prices. ”

**FIGURE 2.9** MONETARY POLICY RATE IN SELECTED AFRICAN COUNTRIES, JANUARY–NOVEMBER 2022 (PERCENTAGE CHANGE)



Source: IMF International Financial Statistics, December 2022; central bank websites, 2022.

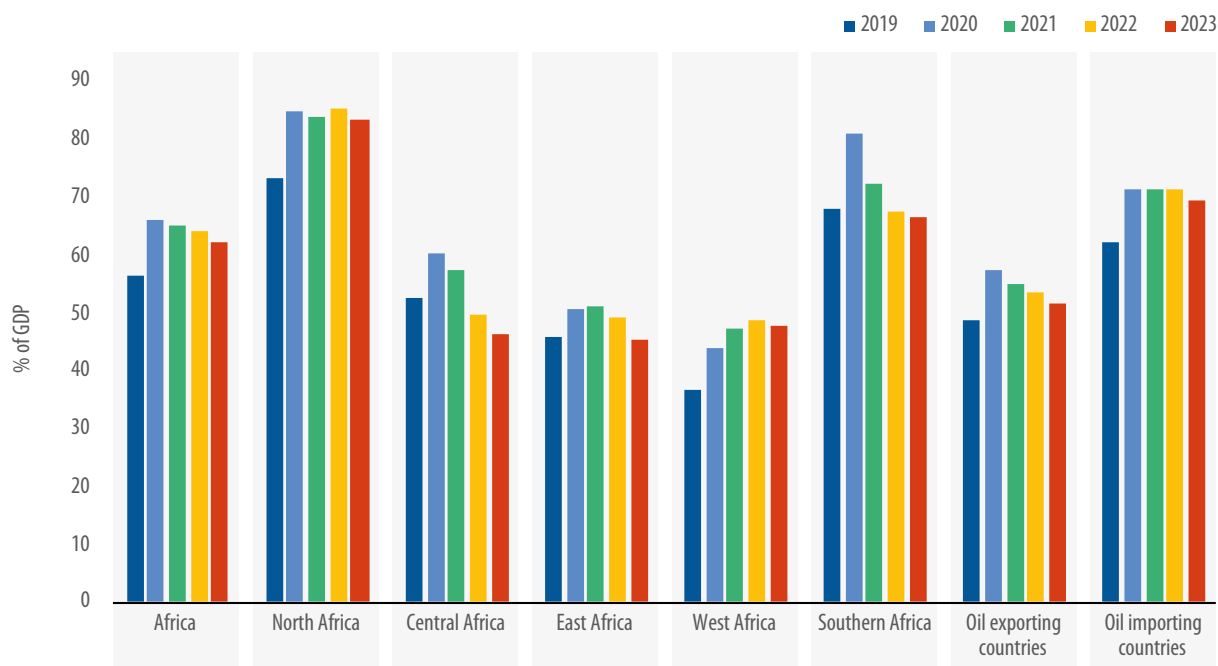
## DEBT VULNERABILITIES REMAIN ELEVATED DESPITE DECLINING DEBT-TO-GDP RATIOS

Debt vulnerabilities remain elevated on the continent, and debt is projected to remain high due to the combined effect of increased public spending and declining revenues, due to the persistent exogenous shocks. Public debt soared with the fiscal support deployed to vulnerable households and firms, which in turn limited the scope for fiscal policy. The debt-to-GDP ratio in Africa is estimated at 64% of GDP in 2022, slightly down from 65% in 2021 (FIGURE 2.10), which could be partially attributed to inflation since higher inflation reduces the real value of government outstanding debt.

These levels remain above the IMF debt sustainability level of 60% of GDP and increase due to rising interest rates aimed at curbing inflationary pressures.

Public debt levels are expected to improve slightly in 2023 to 61.9% of GDP albeit higher than the pre-pandemic level of 56.6% in 2019. In August 2023, 12 African countries were at high risk of debt distress, and 8 were already in debt distress.<sup>28</sup> The need to service and roll over large amounts of debt when domestic and international borrowing costs are on the rise will weigh heavily on some countries in 2023. And the situation could worsen in 2024 as more capital repayments fall due for most countries.<sup>29</sup>

**FIGURE 2.10** GOVERNMENT GROSS DEBT IN AFRICA'S SUBREGIONS AND COUNTRY GROUPS, 2019–23 (% OF GDP)



Source: IMF World Economic Outlook October 2022.

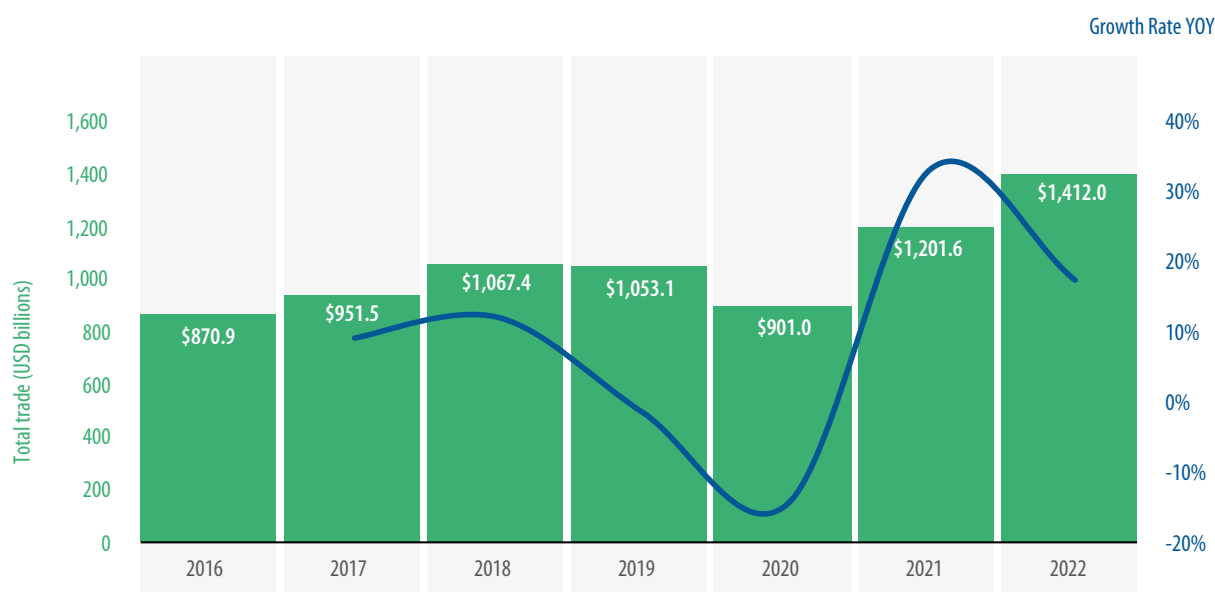
## AFRICA'S TRADE FACES HEADWINDS DESPITE REBOUNDED FROM THE PANDEMIC

After declining 12% in 2020 as a result of the Covid-19 pandemic, Africa's trade rebounded in 2021, increasing by 31% (FIGURE 2.11). The relaxation of pandemic-induced mitigation measures spurred an increase in global demand for goods and services while the alleviation of supply-chain constraints simultaneously helped in facilitating trade growth. However, despite initial estimates of further growth, Africa's trade in goods and services faced several headwinds in 2022 including increased costs of African imports, particularly in food and energy products mainly due to the war in Ukraine. In addition, the tightening of global financial conditions has stressed African budgets and increased the likelihood of a global recession.<sup>30</sup> In response, the growth in Africa's trade, though still increasing, slowed significantly, to 18%, year-over-year in 2022.

Even as growth in trade slowed, the value of Africa's exports reached an all-time high. The value of Africa's total exports reached USD592 billion in 2022 (FIGURE 2.12). And intra-African exports reached a record high of USD102 billion, even as the proportion of the continent's intra-African exports to its global exports not increasing much in recent years (FIGURE 2.13).

Yet while the value of Africa's exports is encouraging, it is important to note that Africa's share of global exports has declined in recent years. In 2010, for example, African exports made up 2.9% of the global total, whereas by 2021, its share of global exports fell to a mere 2.3%. This decline occurred even as the continent's exports recovered significantly faster from the pandemic, at 41% in 2021, compared with 27% globally.<sup>31</sup>

**FIGURE 2.11** TOTAL AFRICAN TRADE (LEFT AXIS), AND GROWTH RATE YEAR-ON-YEAR (RIGHT AXIS), 2016–21

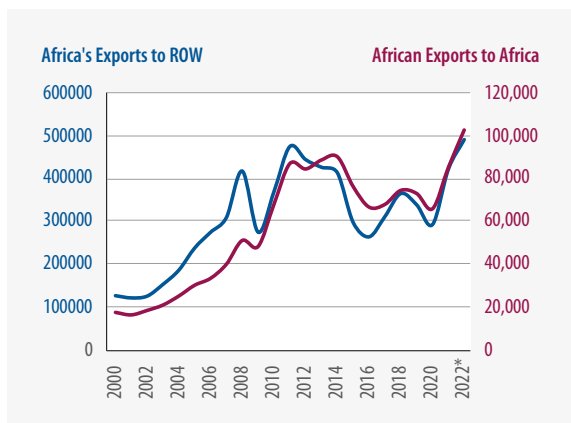


**Source:** Data from IMF Direction of Trade Statistics Database, accessed 10 March 2023.

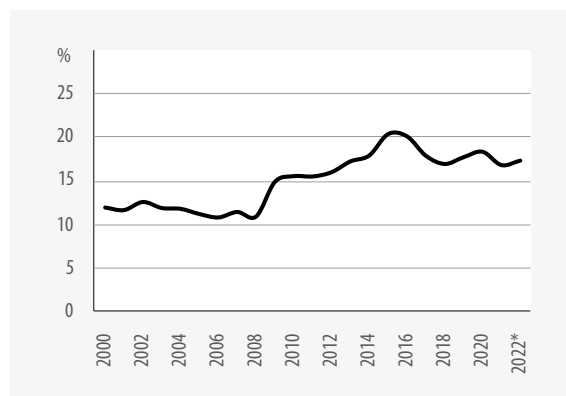
**Note:** Total trade defined as the sum of imports and exports. 2022 values estimated based on data available through November 2022.



**FIGURE 2.12** VALUE OF AFRICAN EXPORTS TO WORLD AND AFRICA (RIGHT AXIS), 2000–22



**FIGURE 2.13** AFRICAN EXPORTS TO AFRICA IN RELATION TO GLOBAL EXPORTS

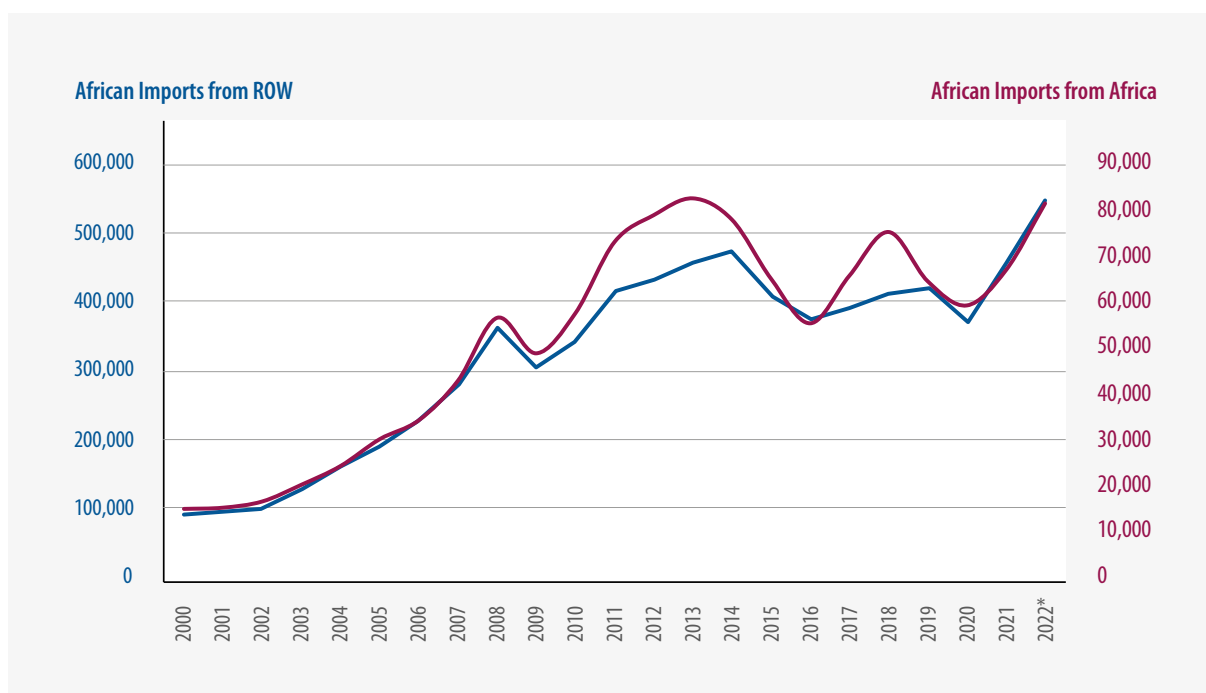


Source: ECA estimates based on data from the IMF DOTS database, accessed March 2023.

“... the continent is still heavily reliant on imports from the rest of the world for its products.”

Similarly, African imports reached all-time high in 2022 at USD629 billion with imports from within the continent making up approximately USD81 billion, or 13% of its total (FIGURE 2.14). So, while demand for African goods is increasing, the continent is still heavily reliant on imports from the rest of the world for its products.

**FIGURE 2.14** AFRICAN IMPORTS FROM THE REST OF THE WORLD (LEFT AXIS) AND WITHIN AFRICA (RIGHT AXIS), 2000–22



Source: ECA estimates based on data from the IMF DOTS database, accessed March 2023.

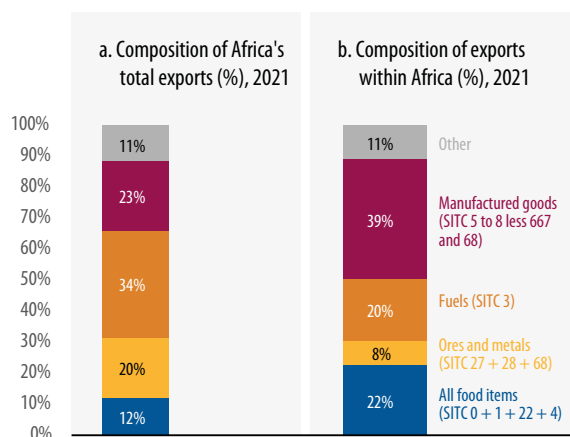
## INTRA-AFRICAN TRADE HOLDS THE KEY TO ECONOMIC DIVERSIFICATION

Africa’s total exports are largely concentrated in fuel products, which made up approximately 34% of its exports in 2021 (FIGURE 2.15a). Ores and metals, also extractive industries, held a 20% share of African exports. Together these two sectors made up more than half of Africa’s exports to the rest of the world. Conversely, on average, intra-African trade in manufactured goods made up a 39% share of intra-African exports whereas fuels and ores made up only 20% and 8%, respectively (FIGURE 2.15b).

However, with only 13% of its global total in 2021, intra-African exports are a relatively small share of overall African trade. Likewise, in 2021, African imports from within the continent represented only 13% of its overall goods imports. This suggests that even with more balanced intra-African trade, the continent’s main trading relationships are outside its borders, leaving it increasingly and continually exposed to global shocks.

At a more granular level, this exposure is even more pronounced. For example, while representing only 2.4% of total imports, or USD14.3 billion in 2021, Russia and Ukraine are critical sources of wheat and maize. In fact, in 2021, Russia and Ukraine were the source for over 50% of the wheat import bill in 16 African countries. More granularly, the two countries were responsible for 80% of the wheat import bill in Benin and Somalia.<sup>32</sup> Africa’s import trade dependence exacerbates food insecurity across the continent. This, combined with higher prices and tightening global financial conditions, has led more than 60% of African countries to require external assistance to source critical food products.<sup>33</sup>

**FIGURE 2.15 TOTAL AFRICAN EXPORTS BY COMPOSITION, 2021**



**Note:** SITC is Standard International Trade Classification.

**Source:** ECA calculations based on UNCTADStat data, accessed 7 March 2023.

## THE AfCFTA IS EXPECTED TO REDUCE THE CONTINENT'S DEPENDENCE ON ENERGY AND MINING AND ITS RELIANCE ON EXTERNAL PARTNERS

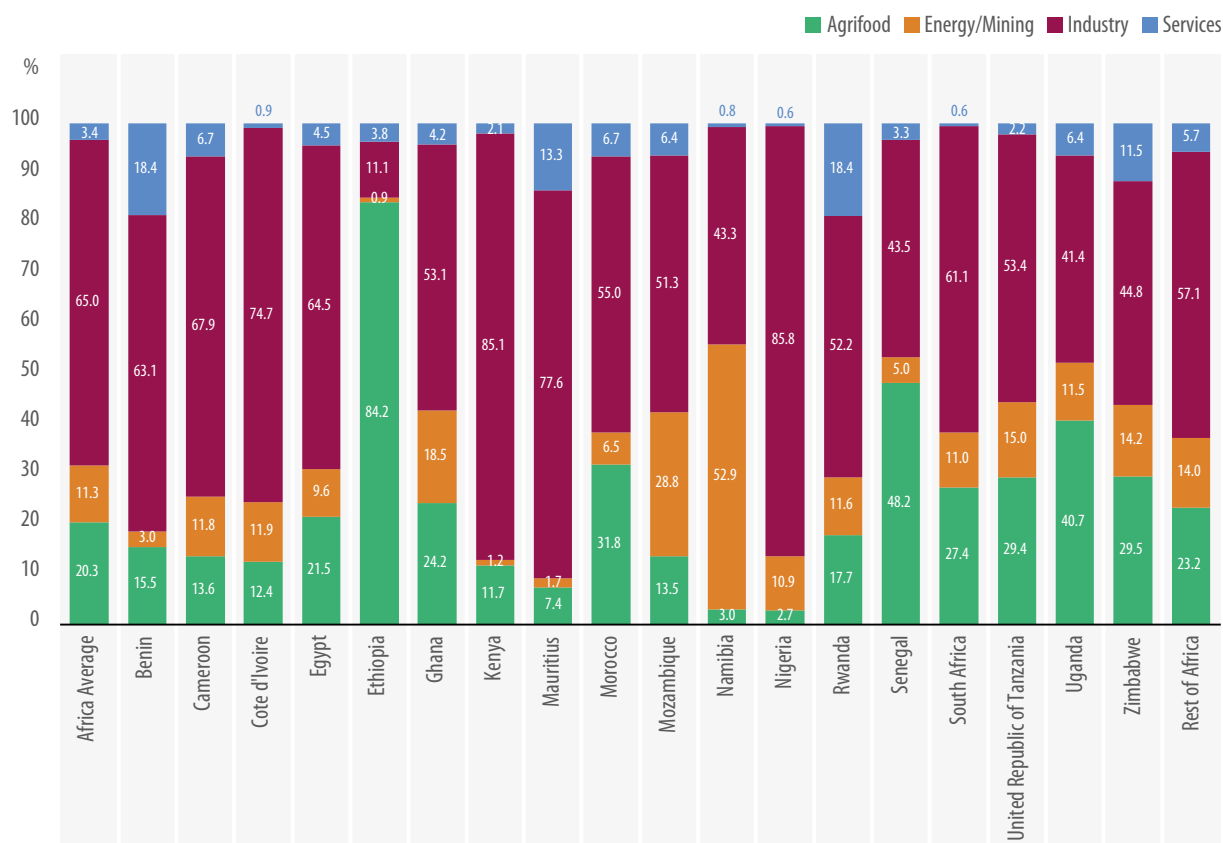
The AfCFTA is estimated to increase intra-African trade by around 35% by 2045, benefiting all main sectors.<sup>34</sup> Intra-African trade in agrifood, services and industry is expected to increase by around 49%, 38% and 36%, respectively, compared with energy and mining, which stand at about 19%. The AfCFTA is expected not only to help Africa industrialize but also to reduce the dependence on energy and mining. And since intra-African trade is currently dominated by manufactured goods, the AfCFTA stands to help Africa reduce its current dependence on manufactured imports since agrifood and industry have the largest portion of African gains from the agreement, apart from a few exceptions (FIGURE 2.16).

In February 2022, the Assembly of Heads of State and Government of the African Union directed that trading under the AfCFTA should begin since negotiations were nearing

“ The AfCFTA is estimated to increase intra-African trade by around 35% by 2045, benefitting all main sectors. ”

conclusion. This decision was further emphasized in June 2022 by the Council of Ministers, leading to the launch of the AfCFTA-Guided Trade Initiative (GTI) in October 2022 as a pilot project involving eight countries—Cameroon, Egypt, Ghana, Kenya, Mauritius, Rwanda, Tanzania and Tunisia. The GTI seeks to facilitate commercially meaningful trade among countries that have met the minimum requirements for trading under the Agreement. It is also expected to test the operational, institutional, legal and trade policy environment across the continent and encourage other countries to begin formal trading under the Agreement.<sup>35</sup>

**FIGURE 2.16** DISTRIBUTION OF ABSOLUTE GAINS BY MAIN SECTORS IN AFRICAN COUNTRIES' EXPORTS TO AFRICA WITH THE AfCFTA IMPLEMENTED (COMPARED WITH THE ABSENCE OF THE AfCFTA), 2045



Source: ECA 2022 calculations

# RECENT SOCIAL DEVELOPMENTS

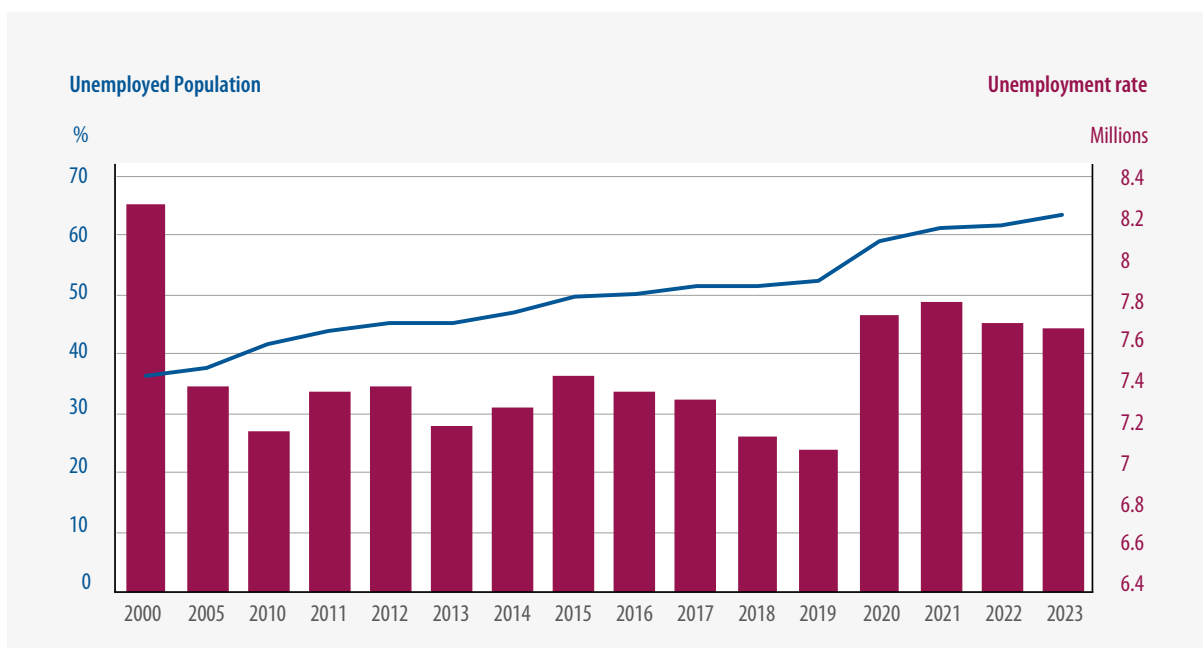
The deepening of poverty and widening of inequality amidst overlapping crises threaten to reverse the two decades of progress in Africa’s social development outcomes. Recovering from the adverse effects may take years if urgent global and national actions are not taken. Of particular concern is high informal unemployment, and the fact that the nonpoor are at high risk of slipping into poverty as shocks occur.<sup>36</sup> Both structural and emerging factors contribute to this pressing policy concern.

## THE RECENT CRISES HAVE EXACERBATED THE ALREADY HIGH LEVELS OF UNEMPLOYMENT IN AFRICA

Although the African economy has shown remarkable progress in the past two decades, it has not generated formal jobs for the millions of people who enter the job market every year. Nearly 83% of employment in Africa is informal, the backbone of the economy.<sup>37</sup>

Of the 820 million working-age population, 7.6%, or 63 million people, are projected to be unemployed in 2023 (FIGURE 2.17). Although the unemployment rate has declined in the past two decades from 8.2% to 7.6%, the absolute number of unemployed people has increased by 27 million representing a 42.0% increase. The economic downturn following the outbreak of Covid-19 exacerbated the level of unemployment, both formal and informal employment. Although there was a minor drop beginning in 2022, unemployment rose significantly by 13.9% (8.5 million people) after the Covid-19 pandemic.

FIGURE 2.17 UNEMPLOYMENT TRENDS IN AFRICA, 2000 TO 2023



Source: ECA computation using ILO and World Bank Database, 2023.

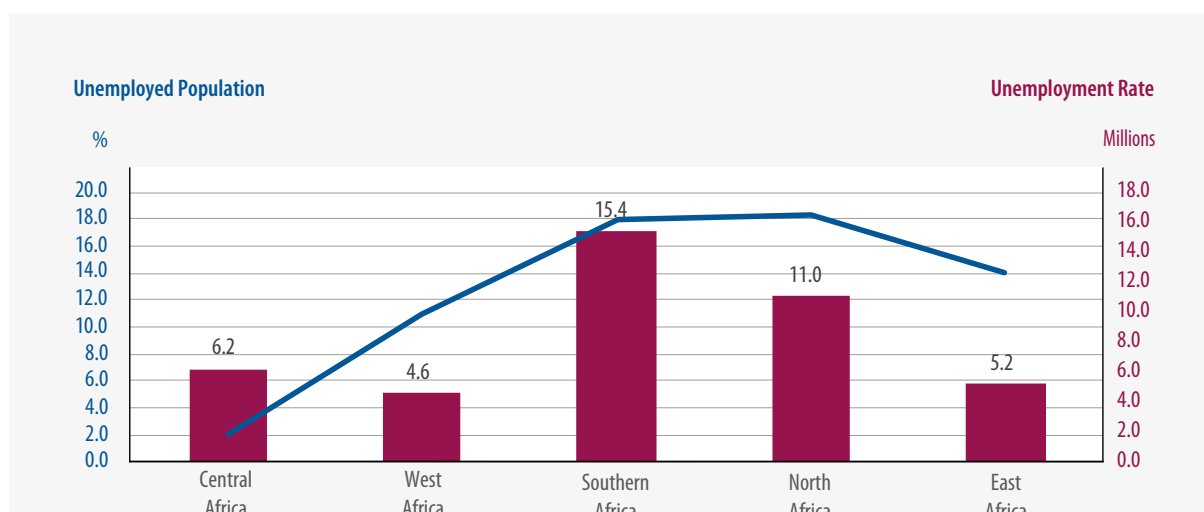
The highest unemployment rate is projected to be registered in Southern Africa (15.4%) in 2023, followed by North Africa (11%) (FIGURE 2.18). The lowest levels of unemployment are in West Africa (4.6%) and East Africa (5.2%). In absolute numbers, the highest unemployed population is in North Africa (18.36 million), followed by Southern Africa (17.1 million), while the lowest is in Central Africa (2.1 million) followed by West Africa (10.9 million). Among the top 10 countries with the highest unemployment rate in Africa, four are from Southern Africa (South Africa, Eswatini, Botswana and Namibia). Among the bottom 10 countries with the lowest unemployment rate, six are in West Africa (Niger, Benin, Cote d'Ivoire, Mali, Senegal and Liberia).

“ Africa has the youngest population in the world, with more than 400 million young people aged between 15 and 35. ”

Africa has the youngest population in the world, with more than 400 million young people aged between 15 and 35. In Ethiopia, 72% of the population is below the age of 30. However, the formal sector creates only one job per four young people entering the workforce, leaving an overwhelming portion of the population scrambling to find work. In most African countries, the unemployment rate for youths is twice that of adults, while 60% of Africa's unemployed are youths.<sup>38</sup> The highest youth unemployment rates in 2023 will be in Djibouti (77.6%), South Africa (51.3%), Libya (51.1%) and Eswatini (50.1%). So, youth unemployment is higher than general unemployment.

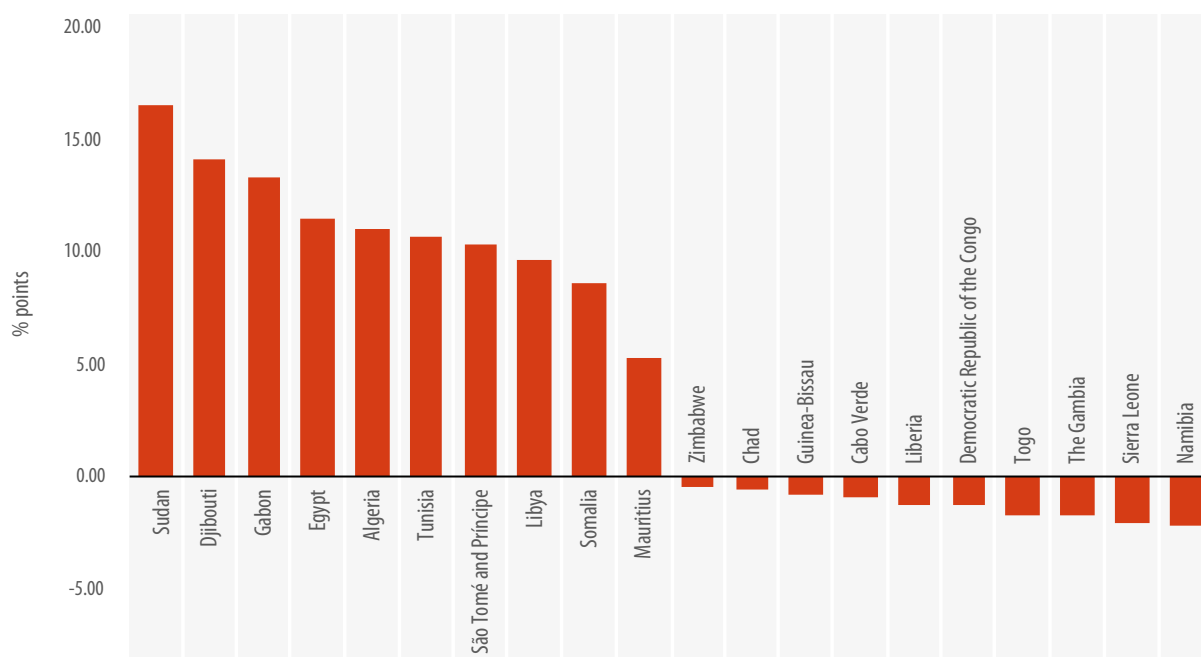
Female unemployment is higher than male unemployment, as in Sudan (29.9%) and Djibouti (36.7%). In 2023, the female unemployment rate in Sudan will be 16.5% higher than the male unemployment rate (FIGURE 2.19). Of the top 10 countries with the highest gender gaps in unemployment rates, five are in North Africa (Algeria, Egypt, Libya, South Sudan and Sudan). Higher female unemployment has implications for addressing poverty and inequality.

FIGURE 2.18 UNEMPLOYMENT BY SUBREGION, 2023



Source: ECA computation using ILO and World Bank databases, 2023.

**FIGURE 2.19 GENDER GAPS IN UNEMPLOYMENT RATES**  
(PERCENTAGE POINT DIFFERENCE BETWEEN MALE AND FEMALE)



Source: ECA computation using ILO and World Bank Database, 2023.

## STRUCTURAL AND EMERGING CHALLENGES DERAIL PROGRESS IN REDUCING POVERTY AND INEQUALITY

Africa's economic growth since the early 2000s only modestly reduced poverty and inequality. The mismatch between different sectors' growth and employment levels is one of the structural issues that continue to lower the impact of growth on poverty reduction—because the majority of the people are employed in the informal sector. Productivity is low in agriculture and service sectors, reflecting lower skill accumulation and lower contributions to growth. High population growth with fertility rates twice the world average delays the demographic transition, thus delaying the opportunity for a demographic dividend.

Residence remains a major driver of inequality in accessing public services, contributing to intergenerational transmission of poverty in rural areas and fuelling migration. Rapid urban growth amidst stagnant and weak growth in job-rich manufacturing and modern service sectors has led to the proliferation of poverty, inequality and informality in African cities.

Besides these structural factors are economic shocks, insecurity, political instability and migration, which lock millions

of poor people, mostly women and children, in vulnerable situations. Such factors make the fight against poverty and inequality more difficult, as public service delivery becomes strained. Leaving no one behind in the spirit of the 2030 Agenda on Sustainable Development and the basic tenets of AU Agenda 2063 requires protecting the vulnerable and providing equal access to opportunities.

The contraction in economic growth caused by the Covid-19 pandemic has had significant impacts on poverty and vulnerability, as the associated supply and demand shocks led to declines in economic activity and, subsequently, job losses and reduced incomes, adversely affecting households and their ability to manage risks. Global responses to Covid-19 and poverty through the different safety net programmes were successful in reducing the impact of poverty in 2021, but the Ukraine crisis, followed by very high inflation, is reversing the progress in tackling poverty.

Global extreme poverty is increasingly concentrated in Africa, which now accounts for 55% of the global poverty. In 2023, 30 African countries are estimated to have a poverty headcount of more than 50%. The region has reduced the proportion of people living in extreme poverty (below USD2.15 a day per person) from 55% in 2000 to 40% in 2019. In 2020, this

share rose to 43.6% of Africa’s population, with 62 million people pushed into poverty in just one year (2020) due to the pandemic. While the number of poor people declined between 2020 and 2021, it rose again by 19 million between 2021 and 2022, with 546 million people living in poverty (FIGURE 2.20). This number is expected to increase to 559 million people in 2023 due to the war in Ukraine, continuing effects of Covid-19 and climate change.

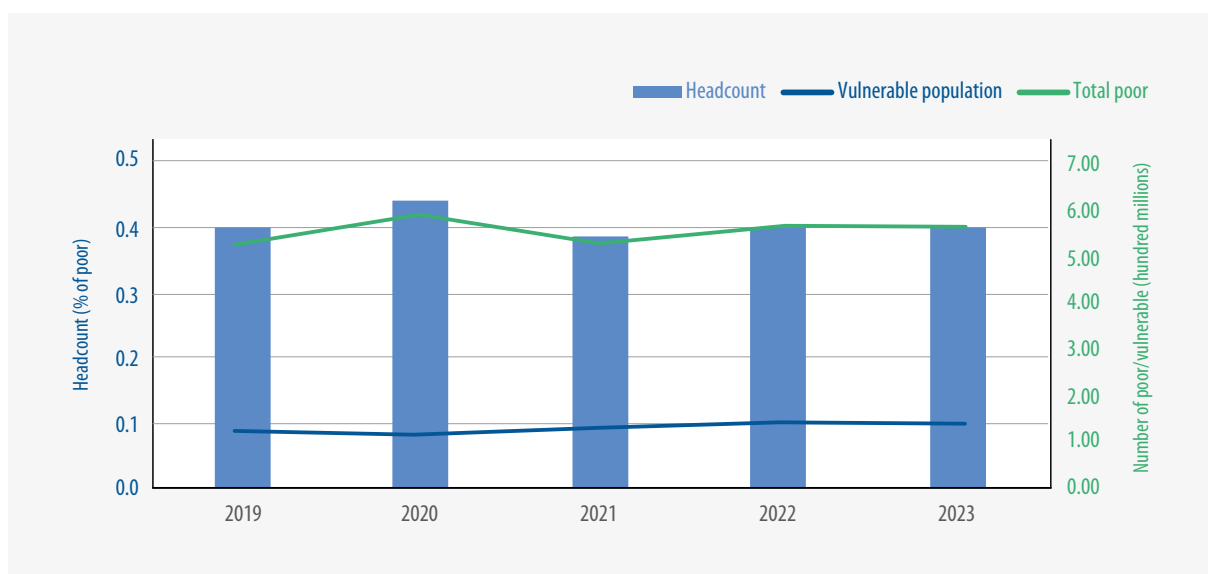
Prevailing shocks, combined with underlying structural factors, have compounded the risks of falling deeper into poverty for the poor and falling into poverty for the nonpoor. During the Covid-19 pandemic, the nonpoor, especially those just above the extreme poverty line of USD2.15 a day, slipped into poverty due to their limited ability to hedge the effects of shocks. Based on World Bank data and considering those who were 20% above the poverty line (USD2.58 a day), 144 million nonpoor people were at high risk of falling into poverty, implying that 10% of Africa’s population was vulnerable to falling into poverty in 2022. Part of this population will fall into poverty in 2023, putting the overall vulnerable population at 142 million in 2023.

Poverty and vulnerability in Africa are not uniformly distributed. In 2023, the highest proportion of poor people will be in Eastern Africa (51.4%) and Southern Africa (46.5%) (FIGURE 2.21). The lowest proportion will be in North Africa (6.8%), Central Africa (39.5%), and West Africa (41.4%). East Africa and West Africa will have the highest number of people

living in poverty, with 247 million (31.7% of regional poverty) and 177 million (44.2% of regional poverty), respectively. These two regions account for 63% of Africa’s population and 75.9% of its total poverty. North Africa will have the lowest number of people living in poverty (17.6 million, or 3.1% of regional poverty) in 2023, followed by Central Africa (24.1 million, or 4.3%) and Southern Africa (93.1 million, or 16.6%).

“Poverty and vulnerability in Africa are not uniformly distributed.”

FIGURE 2.20 POVERTY AND VULNERABILITY TRENDS IN AFRICA (NUMBER OF PEOPLE), 2019–23



Source: ECA computations based on the World Bank Poverty and Inequality Platform.

“Poverty in Africa is highly dynamic and transient ...”

Poverty in Africa is highly dynamic and transient, such that poor households move in and out of poverty due to shocks and the inability to manage uninsured shocks. West Africa and East Africa will have the highest number of vulnerable people in 2023, accounting for 72.5% of regional estimates (with 52.4 million and 50.9 million people, respectively). The lowest number of vulnerable people will be in Central Africa (5.6 million) and Southern Africa (15.8 million). Although

North Africa is the region with the lowest number of poor people, its number of people at risk of falling into poverty stands at 17.7 million (see **FIGURE 2.21**).

The top ten countries with the highest number of poor people account for 64.7% of the continent’s poor population. The first four countries—Nigeria (100 million), the DR Congo (67 million), Tanzania (36 million) and Ethiopia (33 million)—account for 42% of the poor population. But the highest proportion of poverty is registered in Burundi (80.6%), followed by Somalia (79.9%) and South Sudan (79.8%). This implies that the top three countries with the highest proportion of poverty (Burundi, Somalia and South Sudan) are not the ones with the highest number of poor population (Nigeria, DR Congo and Tanzania). Most countries with a high proportion of poverty are either low-income countries or have resource constraints. In 2023, the highest percentage of the poor population will be in the low-income countries (55.3%), followed by the middle-income countries (44%). Of the total poor population in Africa, poverty in 2023 is expected to be highest in conflict-prone countries (59%), oil-importing countries (69.6%), landlocked countries (69%), and non-resource-intensive countries (66%).

**FIGURE 2.21 POVERTY AND VULNERABILITY BY SUBREGION, 2023**



Source: ECA computations based on the World Bank Poverty and Inequality Platform.



## INEQUALITY IS WIDENING IN AFRICA

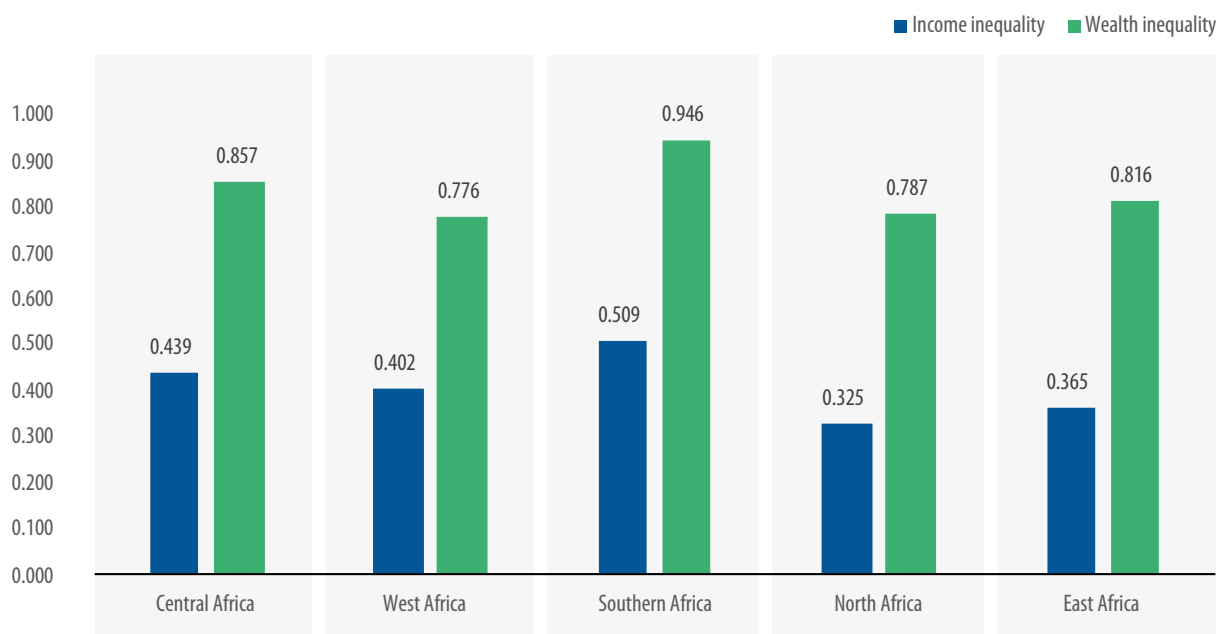
Inequality in Africa is showing a slight decrease in recent years, reaching its lowest level over a five-year period in 2023 with a Gini coefficient of 0.416. The highest recorded level of inequality in the last five-year period has been in 2021 (Gini coefficient of 0.419). Income inequality in Africa is highest in Southern Africa (FIGURE 2.22), led by the subregion's largest economy, South Africa (Gini coefficient 0.631), followed by Namibia and Zambia with Gini coefficients of 0.598 and 0.5744, respectively. In contrast, Algeria (Gini coefficient 0.274) has the lowest income inequality, with Egypt (Gini coefficient 0.316) and the Seychelles (Gini coefficient 0.321) having consecutively the second and third lowest income inequality levels. In terms of wealth inequality, Africa exhibits wider disparities between rich and poor than any other continent except Latin America.<sup>39</sup> On average, 78% of the continent's wealth is disproportionately hogged by the richest segment of society.

Following the outbreak of Covid-19, wealth inequality in Africa has been steadily growing with the advent of each new year since 2020, reaching its five-year high in 2023, with a wealth

index of 0.78 (see FIGURE 2.22). Income inequality in Africa is relatively consistent among subregions, with the lowest Gini coefficient recorded in North Africa (0.325) and East Africa (0.365) and the highest in Southern Africa (0.509). Unlike income inequality, wealth inequality is much higher and fluctuates significantly within subregions of Africa. Southern Africa (0.946) has the highest wealth inequality, followed by Central (0.857) and East Africa (0.816). West Africa (0.776) has the lowest wealth inequality despite having high income inequality.

Even though the sources of poverty and inequality vary from country to country, different types of crises—including climate change, Covid-19, the Ukraine crisis, domestic conflict and drought—are the major factors contributing to the increase in the number of poor people in Africa. Leaving no one behind requires protecting the vulnerable and providing them with equal access to opportunities. To achieve this, countries should promote peace, inclusive and sustainable economic growth, and resilience to the negative impacts of climate change, macroeconomic shocks, and health shocks. Strengthening global partnerships and promoting the AfCFTA would contribute much to reducing poverty and inequality

FIGURE 2.22 INCOME AND WEALTH INEQUALITY BY SUBREGION, 2023



Source: ECA computations based on the World Bank Poverty and Inequality Platform.

within and among countries.

# CONCLUSIONS AND POLICY RECOMMENDATIONS

To build sustainable and resilient economies, African governments need to enhance their efforts to design and implement credible macroeconomic frameworks. To boost socioeconomic transformation, they need to build production capacity, reduce transaction costs and promote structural transformation. And to reduce debt dependence, they should redouble their efforts to mobilize domestic resources through effective tax policies and other innovative mechanisms and instruments to reduce the cost of credit.

Rising costs of funding in US dollars pose a big risk not only to existing debt burdens but also to mobilizing resources to finance sustainable development projects. African countries should develop their domestic financial markets with sound and effective regulatory frameworks to lay a good foundation for the resilience of the overall financial system and to make monetary policies more effective.

Coordinating monetary and fiscal policy is critical to reducing inflation while shielding the most vulnerable households. To attain low inflation rates, a stable currency and accelerated growth, national authorities should shift their focus from cutting consumption to increasing output. Policies should increase investment, boost productivity and enhance capital allocation, all crucial for economic expansion and poverty alleviation.

The current international financial architecture needs to be reformed to enable African countries gain access to resources more easily and at a lower cost. Instruments such as the Liquidity and Sustainability Facility and the Common Framework could allow access to lower borrowing costs and save on interest costs.

African countries should tap into predictable financial flows from carbon markets and stimulate private sector investment in climate-resilient projects, building on the connection with investors established during the twenty-seventh session of the Conference of the Parties to the United Nations Framework Convention on Climate Change.<sup>40</sup> Debt-for-climate-adaptation swaps can help African countries restructure their existing debt portfolios and ease their burden of debt, which would allow them to pursue their industrial development.

To take advantage of the African Continental Free Trade Area to accelerate the industrialization and diversification of their productive sectors will require strengthening human capital, promoting jobs in high-productivity sectors and advancing digitalization. African countries should boost intra-African trade and build productive capacity and resilience to external shocks. Full government support implementing the AfCFTA is essential for accelerating inclusive and sustainable development in Africa.

As Phase II of the AfCFTA negotiations are being finalised now on the investment and competition protocols, active participation of all member states is necessary. Once finalised, member states will need to ensure that the agreements are implemented and national laws and rules aligned or, where necessary, modified to be in synch with the agreements. Much work is still required to raise awareness of the AfCFTA. For the agreement to work effectively, authorities should ensure that all stakeholders are aware of the AfCFTA, the rights and entitlements the agreement confers, and the corresponding obligations and duties.

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## ENDNOTES

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- 2 AfDB, 2022.
- 3 Calderon et al., 2022
- 4 UNCTAD, 2022a.
- 5 UNCTAD, 2022a.
- 6 ECA, 2022b.
- 7 ECA, 2022b.
- 8 UNCTAD, 2022a.
- 9 ChristianAid, 2022.
- 10 According to ECA (2017).
- 11 UNDESA. 2023.
- 12 AfDB.2023.
- 13 <https://dpee.sn/download/ref-annexe-a-la-loi-de-finances-2023/>.
- 14 Oxford Economics, 2022; IMF, 2022c.
- 15 UNDESA, 2023.
- 16 HCP, 2023.
- 17 Oxford Economics, 2022.
- 18 IMF, 2022a.
- 19 Inflation that would eventually prevail in the absence of economic slack, supply shocks, idiosyncratic relative price changes or other disturbances is referred to as underlying inflation. Underlying inflation is a useful monetary policy benchmark because it indicates the rate of price change that would be expected under “normal” conditions in an economy where resource utilization exerts neither upward nor downward pressure on inflation.
- 20 This is based on January 2023 estimates by ECA.
- 21 ECA, 2022a.
- 22 IMF, 2023a.
- 23 IMF, 2023b.
- 24 IMF, 2022b.
- 25 Reuters, 2022.
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- 33 UNCTAD, 2022b.
- 34 [https://uneca.org/sites/default/files/keymessageanddocuments/en\\_afcfta-info-graphics-11.pdf](https://uneca.org/sites/default/files/keymessageanddocuments/en_afcfta-info-graphics-11.pdf).
- 35 AfCFTA 2022.
- 36 ECA, 2022c.
- 37 UNDP, 2022; World Bank, 2020; ILO, 2018.
- 38 AfDB, 2015.
- 39 Wealth relates to differences in people’s stocks of assets—the value of houses or financial assets, including bank savings. Income is a flow concept, so income inequality relates to differences in people’s income flows from wages, dividends and rents.
- 40 See Climate Action Platform Africa, available at: <https://capa.earthrise.media/>.

CHAPTER 3

# IMPACT OF THE COVID-19 PANDEMIC ON AFRICAN ECONOMIES



More than three years since the first Covid-19 case was detected in Africa, the continent is still suffering from the pandemic's fallout, which has reversed earlier gains in poverty reduction. According to data from the United Nations Economic Commission for Africa (ECA) (2022), the pandemic's disruptions pushed an estimated millions of Africans into extreme poverty in 2020 and reversed more than two decades of progress in poverty reduction on the continent.<sup>1</sup> Poverty is not gender-neutral, and women and girls have been disproportionately affected because they earn less, save less and have less stable employment or live in or near poverty.<sup>2</sup> Globally, an estimated 383 million women and girls survive on less than USD1.90 a day, compared with 368 million men and boys. Of the poor population, 63% reside in Sub-Saharan Africa, and 21% in Central and Southern Asia. And while poverty rates had been generally declining in recent years, the pandemic halted a significant portion of the progress (BOX 3.1).<sup>3</sup>

The pandemic had a sudden and significant negative impact on the progress in recovering from the global financial crisis of 2008 and the subsequent shocks experienced in key commodity markets in 2015/2016. There is much apprehension about the potential diversion of social and economic

progress in Africa, necessitating robust and enduring measures to restore the continent to its previous trajectory of high growth before the crisis. The pandemic is more than a mere health problem, as its effects on the economy, politics and social fabric will have profound and lasting consequences.<sup>4</sup>

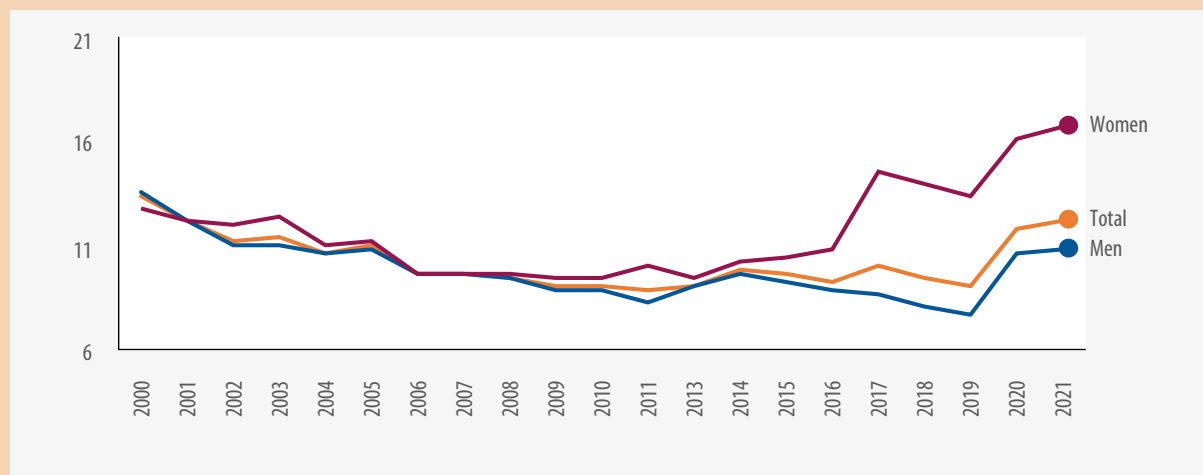
Before the pandemic, Africa had been struggling to recover from the impacts of slump in the prices of major export commodities, a slowdown in foreign direct investment flows and climate change-induced shocks. As a result, real GDP growth began slowing from a peak of 7.1% in 2010 to hit 1.4% in 2013, the lowest growth rate in two decades.<sup>5</sup> The road to recovery began in 2014, with modest growth of 3.3% in 2019.<sup>6</sup> As a result, other macroeconomic indicators—such as inflation, current account balances and budget deficits—also worsened during 2013–19. External debt service crossed conventional limits of 20% of export earnings in most countries. The reversal of fortunes exposed the structural fragility of growth in Africa and its vulnerabilities to transient shocks.<sup>7</sup> Covid-19 sent shockwaves into tourism, manufacturing and financial intermediation, compromising recovery. Several indicators from diverse studies indicated at the time that African economies may suffer significant economic contractions due to the Covid-19 pandemic.<sup>8</sup> The full impacts of the Covid-19 pandemic are yet to materialize.

### BOX 3.1 THE IMPACT OF COVID-19 ON EMPLOYMENT IN MOROCCO—A GENDERED ANALYSIS

Under the adverse effects of the crisis, the unemployment rate increased at the national level in 2020 by 2.7 percentage points, rising from 9.2% to 11.9%. This increase was similar for men and women, whose unemployment rate grew by 2.9 and 2.7 points, respectively,

rising for men from 7.8% to 10.7% and from 13.5% to 16.2% for women. Unemployment continued to rise in 2021, albeit at lower rates than in 2020. In fact, it increased by 0.4 points nationally, and by 0.2 and 0.6 points for men and women.

The evolution of unemployment during the crisis indicates that women (and youth) are the least resilient. This confirms the necessity of reinforcing programmes to improve the resilience of marginalized groups.

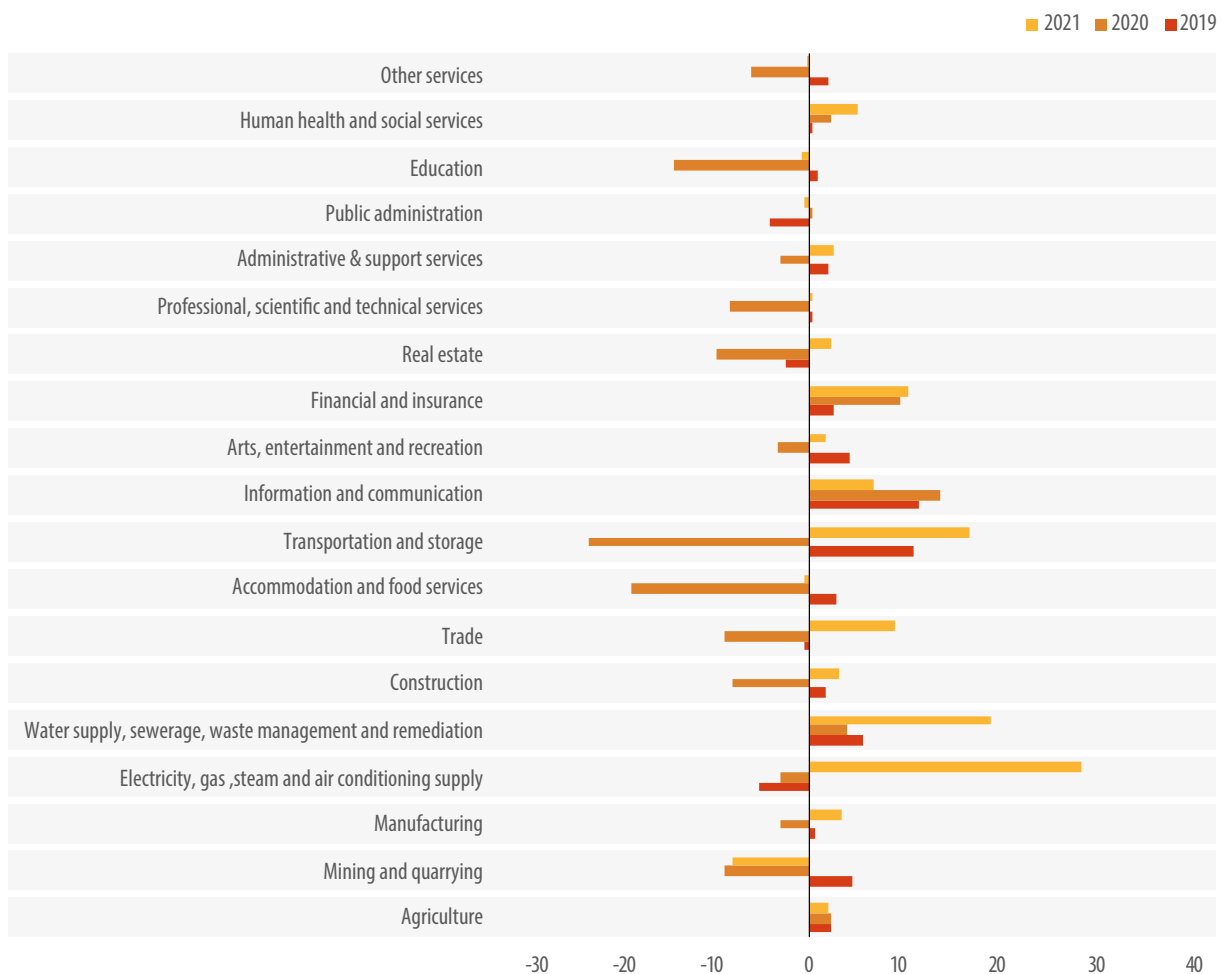


While Africa countries had experienced health epidemics before, such as Ebola and Cholera, Covid-19 was different. Its effects were deeper, more wider ranging and longer lasting, with high risks of scarring African economies. The pandemic's unique features may induce more magnified effects on African economies relative to other crises. First, the pandemic is a public health shock that gave rise to a simultaneous economic shock. The health shock had direct effects on the labor force and employment due to layoffs and firm closures, and on labor productivity due to worker illness and absenteeism. In 2020, formal employment in Africa might have fallen by up to 8.5%.<sup>9</sup> The health shock also had direct effects on fiscal balances as governments attempted to scale up expenditures to save lives and shore up the capacity of healthcare systems even as revenues were falling due to economic slowdowns.

Governments were forced fight a multifront war to save lives both from virus infections and from starvation due to disruptions to production and income generation sources.

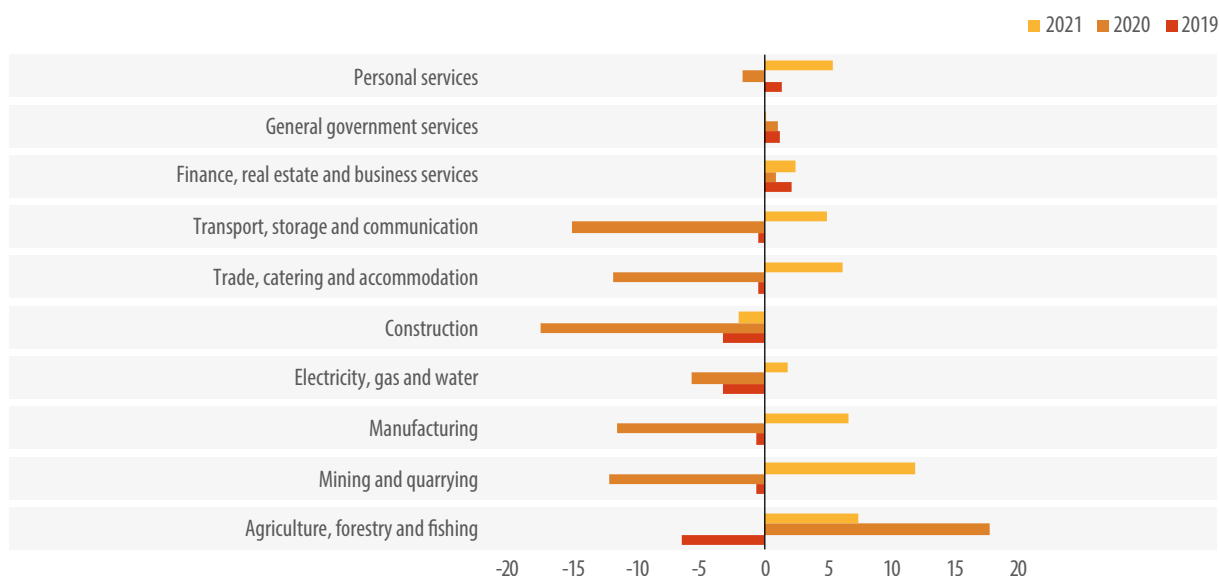
Second, the economic shock caused by Covid-19 tore through supply chain bottlenecks caused by lockdowns and disruptions of domestic and international transport systems. Recall the famous case of the Ever-Green container ship caught in the Suez Canal for six days in March 2021, putting transport in the region on standstill, with ramifications and ripple effects around the world.<sup>10</sup> The economic effects of Covid-19 shocks are worse and are heftier on some sectors than others (FIGURE 3.1 and FIGURE 3.2).

**FIGURE 3.1 REAL GDP BY SECTOR/INDUSTRY FOR NIGERIA (ANNUAL PERCENTAGE CHANGE)**



**Source:** National Bureau of Statistics, Nigeria, 2021, 2022. Nigerian Gross Domestic Product Q4 2021; Q4 2020. Available at: <https://nigerianstat.gov.ng/elibrary?queries=GDP>.

**FIGURE 3.2 REAL GDP PER SECTOR/INDUSTRY FOR SOUTH AFRICA (ANNUAL PERCENTAGE CHANGE)**



**Source:** Statistics South Africa, 2023. P0441–Gross Domestic Product (GDP), 1st quarter 2023. Available at: [https://www.statssa.gov.za/?page\\_id=1854&PPN=P0441](https://www.statssa.gov.za/?page_id=1854&PPN=P0441).

Most exposed were trade and travel dependent sectors such as transport and accommodation. Nigeria recorded a 22.3% decline and South Africa a 15.3% decline in transport. As African governments lacked sufficient resources to combat the pandemic, many wisely opted to close international air travel and strictly monitor ground cross-border travel. The immediate effect halted tourism activities, hurting tourism-dependent countries, and causing widespread shortages of key imported commodities such as petroleum. Economy-wide effects included spiking inflationary pressures due to rising production and transport costs.

On the policy front, African governments did not have enough resources to activate fiscal stimulus packages like those that helped advanced economies to battle the pandemic. Some African central banks implemented monetary easing. That meant maintaining a delicate balance with containing demand-driven inflation (especially from the fiscal side). For a continent where many economies depend on foreign aid, the pandemic put them in direct competition with increased domestic needs in donor countries, putting pressure on aid budgets. So the fiscal space to cushion the impact of the Covid-19 was severely limited across the continent.

**“Another reason the Covid-19 pandemic was especially challenging for Africa was that it directly exposed the structural weaknesses of public health systems and the “readiness deficits” across the continent.”**

Another reason the Covid-19 pandemic was especially challenging for Africa was that it directly exposed the structural weaknesses of public health systems and the “readiness deficits” across the continent. African governments were caught unprepared to procure basic preventive equipment and material such as masks and sanitizers. And they lacked the resources to procure the vaccines that helped advanced economies conquer the virus through greater general public immunity. Moreover, the continent witnessed what many characterized as “vaccine apartheid”, leaving a genuine vaccine desert as western governments continued to hoard vaccines in anticipation of future boosters. There were also issues on the demand side linked to weaknesses in public health infrastructure in terms of distribution and the limited trust of potential recipients.



Key measures that helped to fight the pandemic in advanced countries were simply not viable in Africa due to structural and social specifics and constraints. Lockdowns were not feasible in areas where the population relies on daily labor income in urban centers and on subsistence activity to survive in rural areas. Remote working was not a viable option where there is no internet or electricity and when work is mostly manual. Basic sanitation measures such as handwashing became a luxury where clean water was in short supply and homes were overcrowded in major city dwellings across the continent, even outside slums. In a continent with high levels of poverty and a large number of people in precarious living

conditions, it was nearly impossible to protect the population from a public health and economic shock of the magnitude of the Covid-19 pandemic in 2020.

This chapter presents evidence of the impact of the Covid-19 pandemic both at the macro level and the micro level. At the macro level, it examines the effects of the pandemic on economic growth and its key drivers, inflation and domestic and international macroeconomic balances. It points out the key factors of vulnerability for the countries and regions most affected by the pandemic. At the micro level, it presents evidence of the effects on employment and poverty.<sup>11</sup>

## COVID-19 PANDEMIC: AFRICA NOT SPARED

The exposure to Covid-19 in Africa has evolved and varied significantly over time and across countries. When the first case of Covid-19 infection was recorded in Egypt in February 2020, there was still a thick cloud of confusion about the nature of the virus, how it is transmitted and especially how to prevent it and treat those infected. Even advanced economies with arguably well-developed healthcare systems and advanced health science institutions were caught by surprise and discovered painfully how unprepared they were in front of an unprecedented pandemic.

The virus was indeed slow to reach Africa. Countries that were the first to be exposed, and which would eventually register the highest number of infections, are those that host major air travel hubs: North African countries (Egypt, Morocco and Tunisia), South Africa, Kenya and Ethiopia. These countries witnessed waves of infections that have reflected, with

lags, those in the rest of the world. The first peak occurred in mid-2020 in Egypt and South Africa—and later in the other African countries. South Africa experienced by far the most sustained waves of infections in numbers and in frequency, despite the fact that it also rolled out the most aggressive and comprehensive anti-Covid programme in Africa.

Going forward, the effects of Covid-19 may remain a problem for Africa. One lesson is that no one is ever sufficiently prepared for a major pandemic such as this one. So governments must spare no efforts and resources to build up their readiness capacity through investment in public healthcare infrastructure, scientific research, early warning systems and strong social safety nets to cushion the impacts of the shocks and be ready to intervene as soon as the next pandemic hits. What is uncertain is not whether another pandemic will hit the continent, but when it will hit.

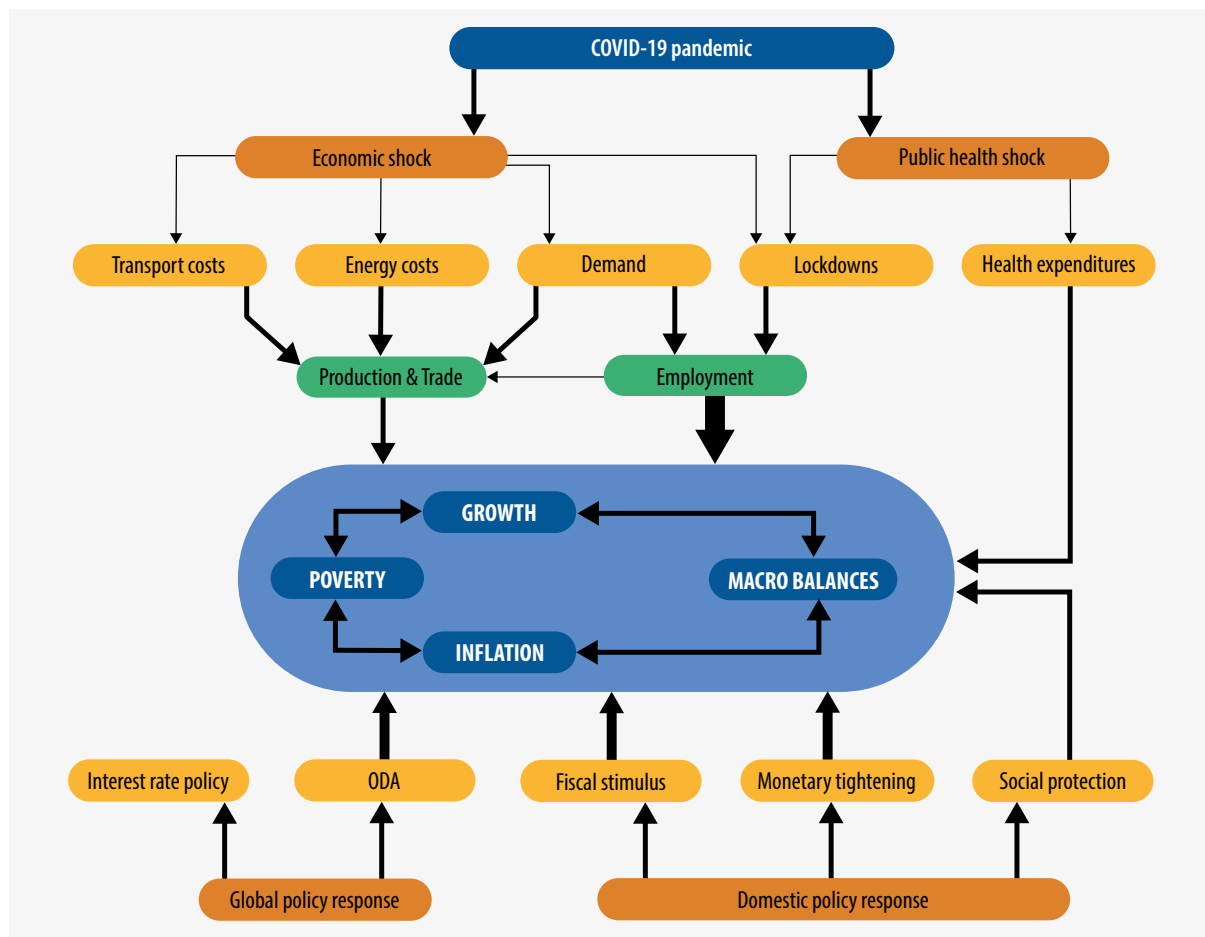
# MECHANISMS OF TRANSMISSION OF THE PANDEMIC'S IMPACTS

Covid-19 has been a genuine supply-side shock. But it was distinct from others due to it encompassing both a health shock and an economic shock. It has thus had a wide range of transmission channels affecting both directly and indirectly the performance of the economy and the well-being and even survival of the people. In each country, the severity and scope of the impacts depended on both the degree of exposure to the pandemic (infection cases; see CHAPTER 1 on the analytical framework) as well as government's readiness and capacity to roll out preventive and curative tools to minimize the effects on the economy and the population. There are two

main pathways of transmission of the impacts of Covid-19: one through the productive capacity of the economy; the other through health and employment (FIGURE 3.3).

The economic effects of the Covid-19 shock operated through both the supply side and the demand side of the economy, as well as through public health impacts—both human health status and health costs. On the supply side, Covid-19 disrupted national and global supply chains, resulting in a spike in transport and energy costs. The lockdowns and other restrictive measures imposed in China, Europe and North America not

FIGURE 3.3 TRANSMISSION MECHANISMS OF ECONOMIC IMPACTS OF THE COVID-19 SHOCK



Source: ECA construction.

only provoked a contraction in demand for Africa's commodity exports, but also a sudden halt of many production processes due to a scarcity of intermediate inputs and equipment. By raising production and transport costs, these disruptions severely affected manufacturing, a key driver of economies of scale and high-value internal linkages.

In addition, the pandemic was the primary cause of the decline in investment in Africa, hitting hardest the oil and tourism sectors. On a continental level, the pandemic curbed progress towards the effective implementation of the African Continental Free Trade Area (AfCFTA) Agreement, which has the potential to be a game changer for generating the financial resources to underwrite Africa's economic development and for strengthening resilience in the post-pandemic era.<sup>12</sup> This implies that the pandemic could have long-lasting impacts on trade integration, productivity and long-run growth in Africa. On the demand side, the pandemic provoked a contraction of the world economy, immediately affecting African economies through declining external demand for commodities and tourism, resulting in a slowdown in production, employment and foreign exchange earnings.

As a public health shock, the pandemic wreaked havoc on healthcare systems even in advanced economies. To minimize the transmission of infections, African governments needed to impose restrictions on international travel while also increasing budgetary allocations to finance prevention programmes. These measures exacerbated the supply-side effects on employment, while also increasing pressure on fiscal balances, already tight before the pandemic.

The immediate effects of the economic and health shocks caused by Covid-19 were aggravated by policy responses, which created indirect or second-round effects on the economies (discussed later in this chapter). In an attempt to minimize the impact of the pandemic, governments initiated fiscal stimulus programmes to support domestic demand at various levels, depending on each government's capacity. As in advanced economies, monetary policy remained cautiously accommodative or rather passive in most African countries wise, given the high pre-Covid inflationary pressures from food and energy inflation. Governments also initiated various forms of social protection programmes to support the population. South Africa probably had the most expansive programme in that respect (BOX 3.2).

### BOX 3.2 SOUTH AFRICA COVID-19 PROGRAMME

South Africa rolled out a roughly R500 billion economic fiscal support package that included support to micro, small and medium enterprises, tax deferrals, wage protection and grants. More than 80% of the funds were mobilized internally, and about 19% were obtained from the International Monetary Fund, World Bank and New Development Bank.

Healthcare and other frontline services received R20 billion immediately to enable disease treatment, population management, mass testing, contact tracing and PPE purchases. The government also quickly extended transfer schemes to help low-income people satisfy their basic necessities.

	R MILLION
Credit guarantee scheme	200,000
Job creation and support for SME and informal businesses	100,000
Measures for income support (tax deferrals, SDL holidays and ETI extensions)	70,000
Support to vulnerable households for 6 months	50,000
Wage protection (UIF)	40,000
Health and frontline services	20,000
Support to municipalities	20,000
<b>Total</b>	<b>500,000</b>

Source: National Treasury South Africa, 2020.

Weekly online meetings with finance members of the executive council, provincial treasuries, and metropolitan municipalities were just one example of the National Treasury's tight collaboration with provincial and local government to coordinate expenditure across all levels of government.

The National Treasury and Reserve Bank also worked with commercial banks to give government-guaranteed loans to small and medium-sized firms that might not be able to satisfy their financial obligations during the shutdown and when the economy reopens. The loan guarantee arrangement offered existing customers R200 billion in fresh loans. This is one of the initiatives that did not perform well. Loan structures through banks (for business) had issues with credit ratings not amended to reflect the Covid-19 situation.

In addition, the Reserve Bank of South Africa, financial sector regulators and private-sector banks introduced monetary policy and financial regulatory measures that included reduced interest rates, relaxed regulatory requirements to support credit to households and businesses and temporary payment holidays and other debtor support measures.

Source: National Treasury South Africa, 2020

On the external front, the donor community intervened by providing tailored support to combat the pandemic, notably by financing vaccination programmes, testing and tracking systems. While the amount of aid remained below the levels needed to meet the needs, this nonetheless helped contain the impact of Covid-19 prevention on national fiscal balances.

Developments in the global economy remain a major channel for African countries to continue to experience negative effects of Covid-19 on their economies. A conjunction of declining exports and reduced external capital inflows will compromise fiscal and external balances. Indeed, some countries have faced mounting risks of a balance of payments crisis, requiring urgent international assistance in the form of balance of payment emergency support and debt restructuring programmes.<sup>13</sup> The direct and indirect impacts of the pandemic on debt sustainability are a major concern for the continent's growth prospects and stability. The 1980s external debt crises and the lost decade that ensued should warn of potentially destructive consequences of an international tightening of monetary policies and contraction of external capital flows for highly indebted economies. This is especially concerning given the already high debt throughout the continent even before the pandemic.<sup>14</sup>

For some African economies, the macroeconomic effects of the pandemic were aggravated by internal instability—and vice versa, especially due to civil wars and social unrest. For example, the conflict in northern Ethiopia, which came to an end through a peace negotiation, poses a real threat to internal political stability, with escalating risks of instability in the region. Libya and the Democratic Republic of Congo are riddled with long-term conflicts that handicap economic recovery. These conflicts also have significant regional spillovers, notably through displacing large numbers of people and disrupting economic activity including intraregional trade. Clearly, achieving national and regional peace is a top priority.

The impacts of economic and health shocks caused by the pandemic are still evolving. It is difficult to anticipate the full impact of the pandemic in the near to long term. African economies will likely endure significant scarring effects from the pandemic, aggravated by subsequent crises, such as the ongoing war in Ukraine. This implies a significant challenge in any attempt to measure the impact on an evolving crisis and to isolate its impacts from those of the other unfolding crises.

The analysis in this chapter must be interpreted with these caveats in mind. The goal is not to present precise point estimates of marginal effects of the pandemic—it is to provide insights about proximate losses suffered by African economies both at the macro level and the micro level due to direct and indirect effects of the pandemic.

# IMPACTS OF THE COVID-19 PANDEMIC ON ECONOMIC GROWTH IN AFRICA

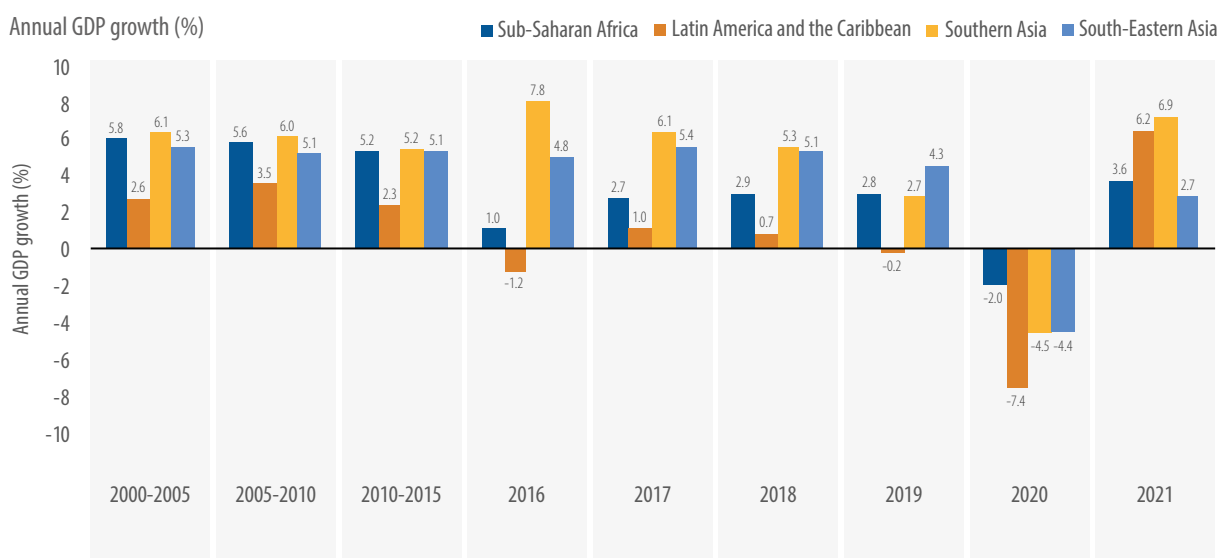
As expected, given the depth and scope of internal and external economic shocks, the pandemic had a profound impact on economic growth in Africa, as well as exacerbating underlying vulnerabilities of African economies. After a decade of fast growth since the turn of the century—mostly driven by a commodity export boom, strong performance of the agriculture sector and improved macroeconomic and political stability—Africa’s growth momentum was abruptly broken by the 2008/2009 global financial crisis (GFC), with the growth rate dropping from an average of 6.1% over 2005–07 to 3.8% in 2009 (FIGURE 3.4). As of today, the continent has not yet reached the pre-GFC growth levels. This illustrates the impact that a large external shock may have on Africa. And given the multiple and overlapping nature of current shocks, economic growth may be undermined in the long term.

As Africa was recovering from the effects of the GFC and subsequent shocks in international primary commodity markets, as well as other pandemics and climate events internally, the Covid-19 pandemic emerged, and dealt a heavy blow to Africa’s growth prospects. The pandemic year of

2020 was the first year that Africa recorded a net output loss (-2.7%) since 1993 (-0.8%). Indeed, Covid-19 had a bigger impact on African economies than the GFC. It was the worst crisis in almost half a century, with a more severe fallout than during the debt crises of the 1980s. Although Africa suffered a severe hit from the pandemic, it fared better than other developing regions, registering a smaller GDP decline than Latin America and the Caribbean (-7.4%), South Asia (-4.5%) and South-Eastern Asia (-4.4%).

**“ The pandemic year of 2020 was the first year that Africa recorded a net output loss (-2.7%) since 1993 (-0.8%). Indeed, Covi-19 had a bigger impact on African economies than the GFC. ”**

**FIGURE 3.4 GROWTH AND CRISES: AFRICA AND OTHER REGIONS OVER THE LAST TWO DECADES**



Source: UNCTAD database, 2023.

The impact of Covid-19 on growth has been uneven across Africa's subregions (FIGURE 3.5). Worst hit was Southern Africa with a net output loss of 5.8% in 2020. The subregion was also the worst hit by the GFC, registering a 3.7 percentage point decline in the growth rate in 2009 (1.3%) relative to 2008 (5%). In that year, all countries in Southern Africa registered a decline in GDP except for Zimbabwe (+0.8%).

In contrast, Eastern Africa recorded growth at 1.9% in 2020, thanks to perennial strong growers Ethiopia (6.1%) and Tanzania (4.7%), offsetting output losses in Seychelles (-10.8%), Madagascar (-7.8%) and South Sudan (-6.6%). In fact, the Eastern region has led the continent in growth in most years since 2009.

The immediate impact of Covid-19 on growth has varied substantially across countries (FIGURE 3.6). To illustrate this phenomenon, we focus first on the countries most affected by Covid-19 in the cumulative numbers of infections. The most hit countries were Tunisia, which recorded output loss of 8.6%, followed by South Africa (-7%) and Morocco (5%). In contrast, Egypt (+3.6%) and Ethiopia (+6.1%) grew, if slower than in 2019 (5.6% and 8.4%, respectively).

With a contraction of almost 60% in 2020, Libya was the worst hit by the pandemic, mostly due to its high dependence on oil exports and the intensified civil war that blocked major oil fields and halted production for several months. With the

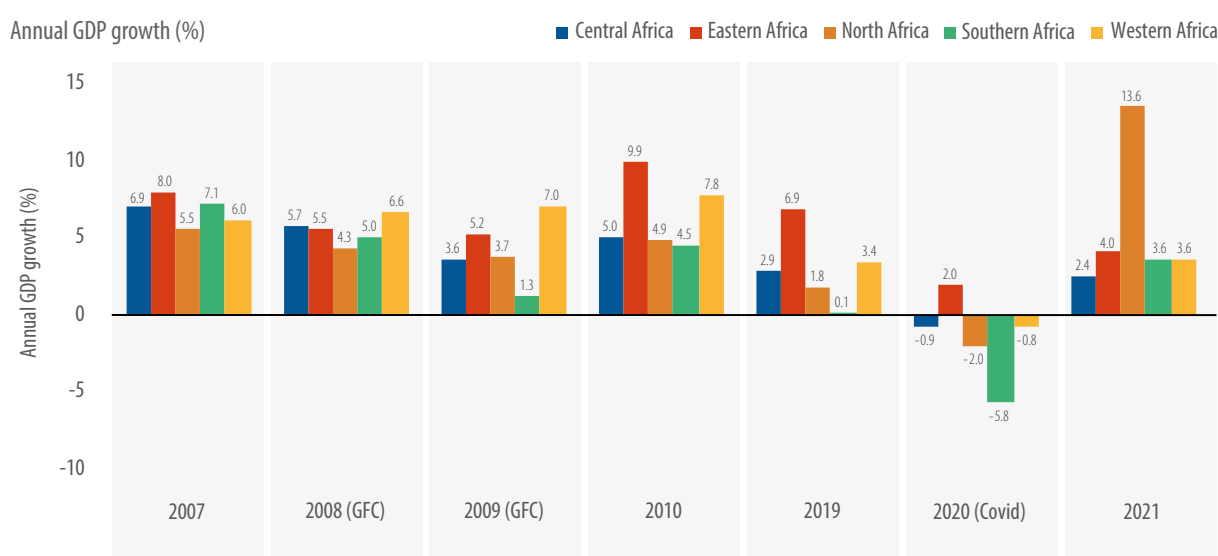
fall in international oil prices, it experienced a sharp deterioration of its fiscal and current accounts, with deficits of more than 60% of GDP.

Three of the most affected countries (Cape Verde, Mauritius and Seychelles) are small economies that depend heavily on tourism, one of the industries most affected by the pandemic. For Mauritius, tourism played a key role in its sustained growth and its steady ascent to high-income status. But with a net loss of output of 15% recorded in 2020, it fell back into the upper-middle-income status. Cabo Verde suffered a similar fate (14.8% GDP contraction), an economy where tourism represents 25% of GDP, employs around 10% of the workforce and is the main recipient of foreign direct investment.

The countries most hit also include some oil-dependent economies such as Algeria, Angola and the Republic of Congo, as well as exporters of minerals like Botswana, Namibia, South Africa and Zimbabwe. The economies of countries most hit by the pandemic have structural weaknesses that imply weak resilience to external shocks. These countries suffered from lack of diversification of their productive structures while being integrated in the international markets.<sup>15</sup>

At the top of the best-performing countries is mineral-rich Guinea, with a growth rate of 7.1% in 2020. The strong performance was mainly driven by the recovery of Chinese demand

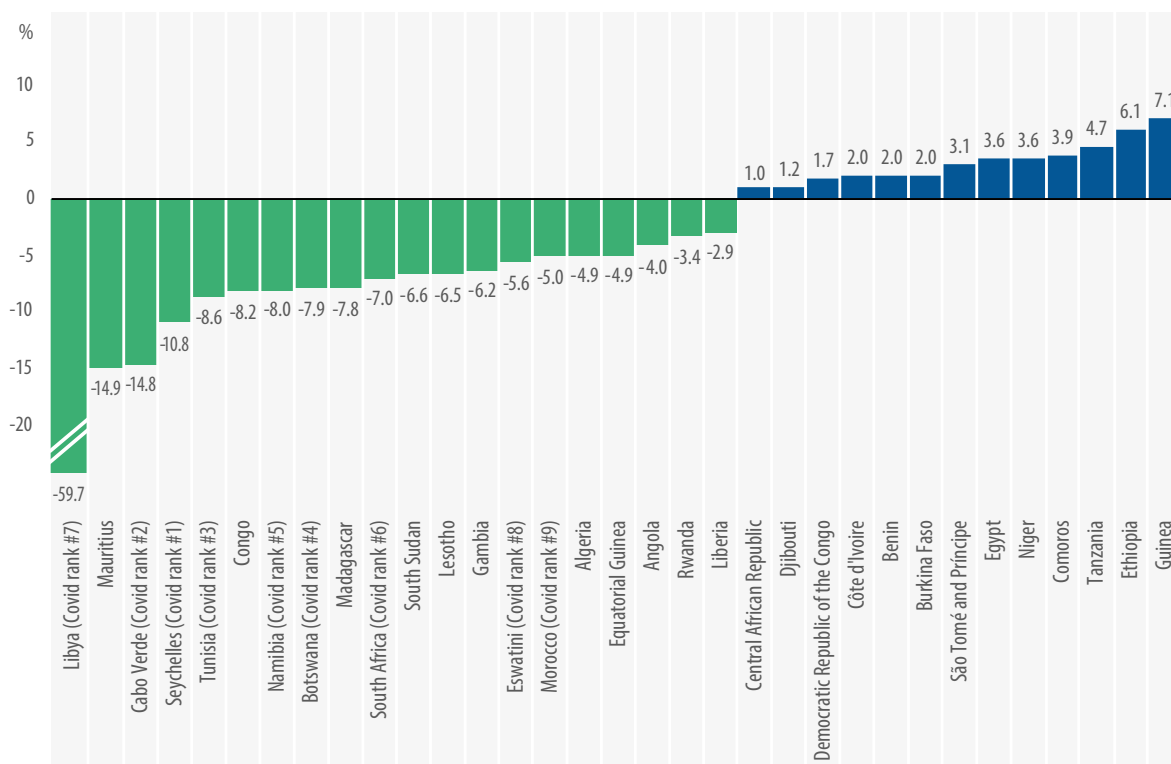
**FIGURE 3.5 GDP GROWTH BY SUBREGION IN AFRICA THROUGH CRISES OVER THE PAST TWO DECADES**



**Note:** In the ECA's subregional groupings, Burundi and DR Congo are classified in both Eastern and Central Africa, while Angola is classified in both Central and Southern Africa. The UNCTAD's regional groupings differ from ECA's grouping. For example, Eastern Africa is a rather extended grouping in UNCTAD's classification, including countries such as Zambia and Zimbabwe, which are classified in Southern Africa by all other international institutions.

**Source:** UNCTAD database using ECA's subregions with reclassification of Burundi (Eastern Africa), the DR Congo (Central Africa), and Angola (Southern Africa). <https://ecastats.uneca.org/data/countrybrowse.aspx#3125>.

**FIGURE 3.6 GDP GROWTH RATES IN COUNTRIES HIT MOST AND LEAST BY THE PANDEMIC IN 2020**



Source: UNCTAD database.

for bauxite and aluminium, two of Guinea’s leading exports. Although the pandemic struck other sectors hard, the expansion of the mining sector was sufficient to cushion the overall impact of the pandemic.

Next among the best performers, we find perennial high performer Ethiopia, a primarily agriculture-based economy with slowly emerging industrial and service sectors. Even

though it had among the highest cumulative number of Covid-19 cases, the numbers are low in per capita terms because of the large population. As its economic growth declined from 8.4% in 2019 to 6.1% in 2020, it weathered the economic storm better than other African countries. A bright light was Ethiopian Airlines (**BOX 3.3**). But it still faces non-Covid-related downsides—slow implementation of the G20 debt relief programmes and a significant decline of

**BOX 3.3 ETHIOPIAN AIRLINES SOARS DURING COVID**

The aviation industry was the hardest hit business because of the lockdowns. This forced the airlines to ground many aircraft and Ethiopian Airlines to operate at just 10% of its capacity, creating a huge financial burden on Ethiopian airlines. However, Ethiopian Airlines has a four-pillar growth strategy—human resource development, a modern fleet, infrastructure development and technology—that enabled it to respond to the challenges and seize opportunities. The airlines shifted its focus to cargo, maintenance,

repair and overhaul businesses. More than 40 aircraft from African and Middle East airlines received Ethiopian services that enabled Ethiopian to continue generating revenue.

The airline also reconfigured about 25 passenger aircraft into freighters to increase cargo capacity to respond to the mounting demand to transport medical supplies and personal protection equipment (PPE) across the globe. It operated more than 360 charter cargo flights and carried medical supplies to

over 80 countries. And it carried out more than 470 charter repatriation flights and reunited more than 63,000 citizens of different countries with families and loved ones. These charter cargo and repatriation flights—together with austerity measures—were instrumental in the fight to survive the pandemic. The airline joined the global COVAX initiative and has been transporting vaccines to and from different parts of the world.

Source: EUROCONTROL (23 June 2021), online available: <https://www.eurocontrol.int/article/impact-covid-19-ethiopian-airlines-recovery-preparedness-and-challenges>, (17 November 2022).

official development assistance. In addition to political instability, the severe droughts in the South and chronic shortages of foreign exchange continue to stand in the way of strong economic recovery.<sup>16</sup> The lesson is clear: economic diversification promotes resilience to economic shocks.<sup>17</sup>

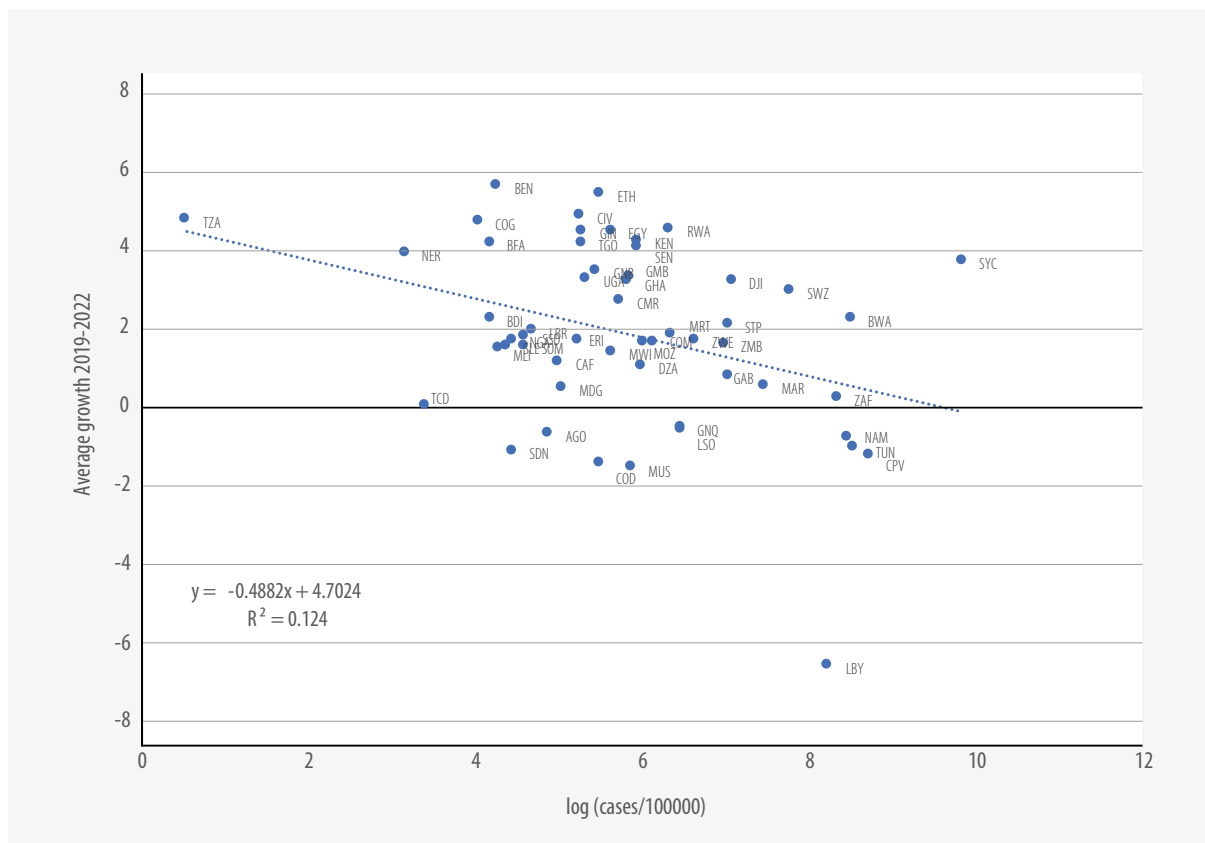
### POST COVID-19 RECOVERY IN 2021 BUT EARLY SIGNS OF SCARRING

In 2021, African economies benefited from vaccination programmes in trading partner countries and the lifting of most public health restrictions throughout the world. This led to a resumption of global economic activity, which translated into higher prices of primary commodities, including oil and minerals, which benefited African resource-exporting countries. And tourism activities resumed, boosting fiscal revenue

and foreign exchange earnings for tourism-destination countries. Economic activity rebounded strongly, and the continent registered a commanding 4.5% average GDP growth, but GDPs had not reached their 2019 levels.<sup>18</sup>

To gauge early signs of scarring effects, average growth rates over 2020–22 (2022 figures are forecasts) were investigated in relation to the prevalence of Covid-19 using cumulative numbers as of 6 January 2023. There is a significant negative relationship between the two variables, with the evidence suggesting that the Covid-19 pandemic has negative effects on growth beyond 2020, presaging persistent damage on African economies over the medium term and even the long term (FIGURE 3.7).

**FIGURE 3.7** AVERAGE GDP GROWTH OVER 2020–22 AND COVID CASES (CUMULATIVE, PER 100,000 PEOPLE)



**Source:** Covid data are from World Health Organization, Coronavirus Dashboard; GDP growth data are from the IMF World Economic Outlook database, October 2022.



# IMPACTS OF COVID-19 ON FISCAL BALANCES

There are widespread concerns that the Covid-19 pandemic will have deep and lasting effects on public finance in the continent, entrenching structural weaknesses in some dimensions—such as vulnerability due to export concentration—and undermining the gains from macroeconomic reforms aimed at fiscal consolidation. The concerns are exacerbated by the fact that the continent was hit by the pandemic at a time when it already had limited fiscal space due to low revenue growth and rising sovereign debt—both domestic and external. In this context, the pandemic is likely to affect both sides of the public finance balance.

On the one hand, the contraction of economic activity reduced public revenues, particularly for countries that rely heavily

on the export of a few commodities or tourism activities. On the other hand, governments increased public expenditure to strengthen the national health systems, to provide economic relief to households severely stressed by the fallout of the pandemic, and to support firms.

The increase in public debt poses serious insolvency and default risks associated with fluctuations in exchange rates and interest rates, aggravated by the war in Ukraine and the international monetary tightening. In the absence of additional non-debt-generating external funding, markets could lose confidence in African countries' solvency, triggering sudden stops of external capital flows (**BOX 3.4**).

## BOX 3.4 FISCAL AND MONETARY POLICIES IMPLEMENTED BY SELECTED COUNTRIES

*Uganda.* The government of Uganda passed a UGX304 billion (USD82.1 million) supplementary budget in April 2020, launching a domestic fundraising platform called the “national response fund to Covid-19” to raise additional funding for the Covid-19 response. The funding went to setting up national and regional treatment centres and vaccination of the population. To save businesses, the government directed affordable credit to SMEs through the small business recovery funds to the informal sector, and recapitalized big businesses through the Uganda Development Bank (UDB). Credit relief measures included liquidity windows to support vulnerable entities (loan

restructuring) and financial institutions that experienced weak balance sheets—and reductions of the reserve ratio for commercial banks. Government also supported producers of essential commodities and encouraged import substitution. Food relief to the vulnerable and cash transfers were also implemented, and direct social transfers were made to the vulnerable families through the mobile money platform. Monetary policy was accommodative, as the Bank of Uganda lowered its lending rate from 8% to 7% in June 2020.

*Nigeria.* The Executive, from the office of the Vice President, coordinated a holistic economic response to Covid-19, with the N2.3 trillion Nigeria Economic Sustainability Plan as the key policy response. This included fiscal and monetary measures, social safety nets to protect the most vulnerable and avoid further impoverishment, family and business palliatives, and emergency health-care. Nigeria retained access to finance both domestically and internationally. Strong domestic resources meant Nigeria could turn to domestic borrowing, especially since—as in most countries—monetary and fiscal policies were expansionary, so interest rates were low.

# OPEN-ECONOMY IMPACTS OF THE COVID-19 PANDEMIC IN AFRICA

## IMPACT ON CURRENT ACCOUNTS

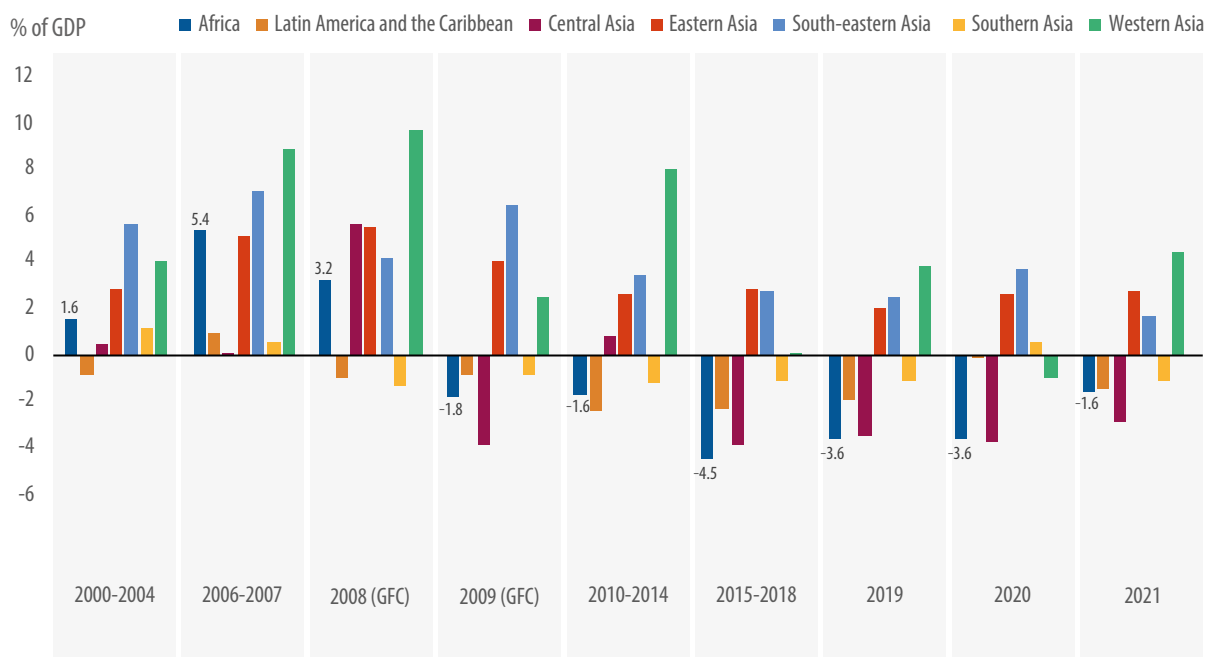
The decline in commodity exports and increased import bill due to higher food and energy prices resulted in a deep current account deficit at an average of -3.6% of GDP for Africa as a whole (FIGURE 3.8). That was the second worst after Central Asia (-3.7%). But in fact, the pandemic perpetuated a trend of current account deficits: -4.5% over 2015–18 and -4.6% in 2019. Compared with other regions, Africa had also recorded the deepest current account deficit in the aftermath of the global financial crisis, at -1.8%, worse only in Central Asia (-3.9%).

Of the 52 African countries with data, 41 recorded a current account deficit in 2020. Seychelles experienced the highest deterioration in its current account, with a staggering deficit of -29.4% of GDP, from -17.2% in 2019. The pandemic affected its two main sources of foreign exchange earnings: tourism and fish exports. Mozambique had the second largest deficit

in 2020 at -25.8%, due to a reduction in exports of aluminium and coal briquettes. As for Seychelles, Cabo Verde's high dependence on tourism was the key factor in the collapse of its current account deficit to -16.7% in 2020, from a surplus of 0.3% in 2019.

In 2020, Namibia recorded a current account surplus of 2.5% of GDP, remarkable given the external shocks caused by the pandemic. One year later, however, it had a current account deficit of close to -9% of GDP, due to three factors: a fall in tourism, a decline in international prices of minerals, specifically diamonds (accounting for 70% of its exports of minerals), and a decline in exports of fish and meat. The situation deteriorated so badly that, on 31 March 2021, the Executive Board of the International Monetary Fund (IMF) approved a purchase of USD270 million in Special Drawing Rights (SDRs) to Namibia to provide balance of payments refinancing, as well as resources for accelerating the vaccination campaign.<sup>19</sup>

FIGURE 3.8 CURRENT ACCOUNT BALANCE IN AFRICA AND OTHER REGIONS



Source: UNCTAD database.

In 2021, many countries recorded substantial improvements in their current accounts. Seychelles topped the list with an improvement from a large deficit in 2020 to a balance in 2021. Algeria also saw a considerable improvement as the world economy recovered, increasing the demand for oil and other hydrocarbons. Its current account deficit improved to -2% of GDP in 2021 from -12.3% in 2020. The story is similar for Botswana, whose current account deficit of -10.3% of GDP in 2020 nearly evaporated in 2021 (with a small deficit of -0.5% of GDP) as the market for diamonds recovered. On the deteriorating end are small open economies heavily dependent on tourism. In Djibouti, the dependence on transit trade from Ethiopia is a major source of vulnerability to shocks. Overall, the evidence reinforces the importance of diversifying exports to hedge against the impact of exogenous shocks on the current account.

## FOREIGN EXCHANGE RESERVES

Developments in trade and tourism are also reflected in the movement of foreign exchange reserves and thus the exchange rates, and the recovery of trade and tourism has been reflected in improvements in foreign exchange reserves.

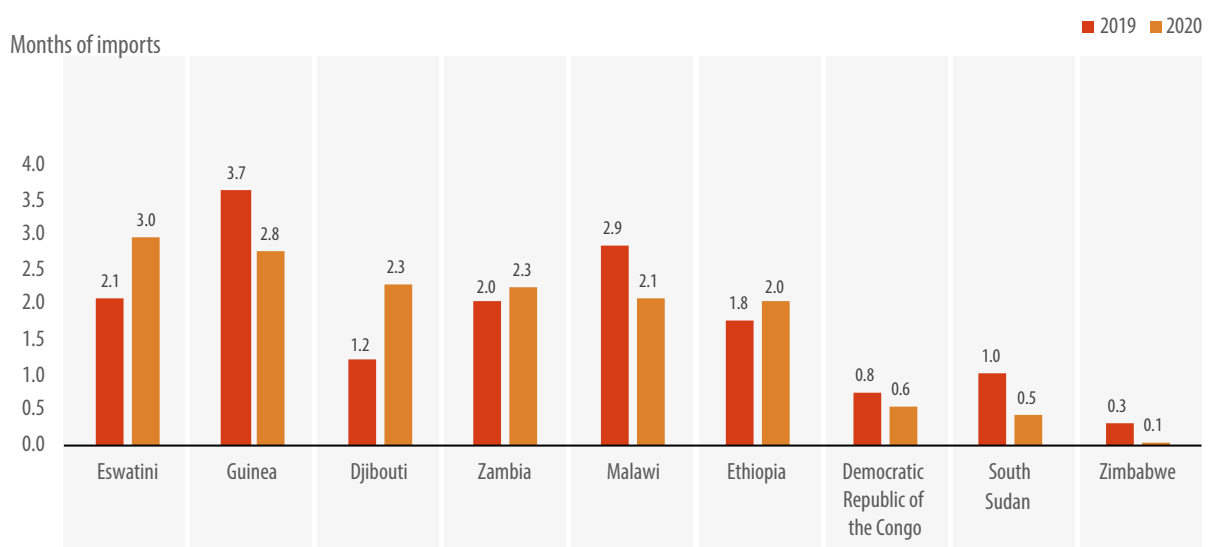
Some countries faced precarious conditions with foreign exchange reserves falling dangerously low relative to their import needs (FIGURE 3.9). Zimbabwe had foreign exchange reserves equivalent to 0.3 months of imports in 2019, which deteriorated even further to just 0.06 months of imports in

2020. It suffers from high inflation, unsustainable debt (76% of GDP in 2021), multiple exchange rates, and uncontrolled public spending. Complicating matters, a severe drought in 2021 significantly reduced food production, increasing the dependence on food imports. Despite the country's dismal macroeconomic situation, the IMF refused in September 2022 to provide financial support, arguing that "A Fund financial arrangement would require a clear path to a comprehensive restructuring of Zimbabwe's external debt, including the clearance of arrears; a reform plan that is consistent with macroeconomic stability, growth, and poverty reduction; a reinforcement of social safety nets; and governance and transparency reforms."<sup>20</sup> These stringent conditions are a steep hill to climb for the country, presaging a rough road ahead.

In the Democratic Republic of Congo, foreign exchange reserves were at a precarious 0.7 months of imports in 2019, and they dropped to 0.55 months of imports in 2020. Two major sources of vulnerabilities for the DRC are its heavy dependence on primary commodity exports and high political insecurity. The unending wars eat up the gains from its endowment in primary commodities, another manifestation of the "resource curse."

In South Sudan, whose economy is extremely reliant on oil (accounting for 70-90% of total exports), the plummeting oil prices in 2020 had a profound impact on foreign exchange earnings, with its reserves falling to less than half a month of exports in 2021. This was exacerbated by internal armed

**FIGURE 3.9 COUNTRIES WITH THE LOWEST FOREIGN EXCHANGE RESERVES (LESS THAN 3 MONTHS OF IMPORTS) IN 2020**



Source: World Bank Indicators.

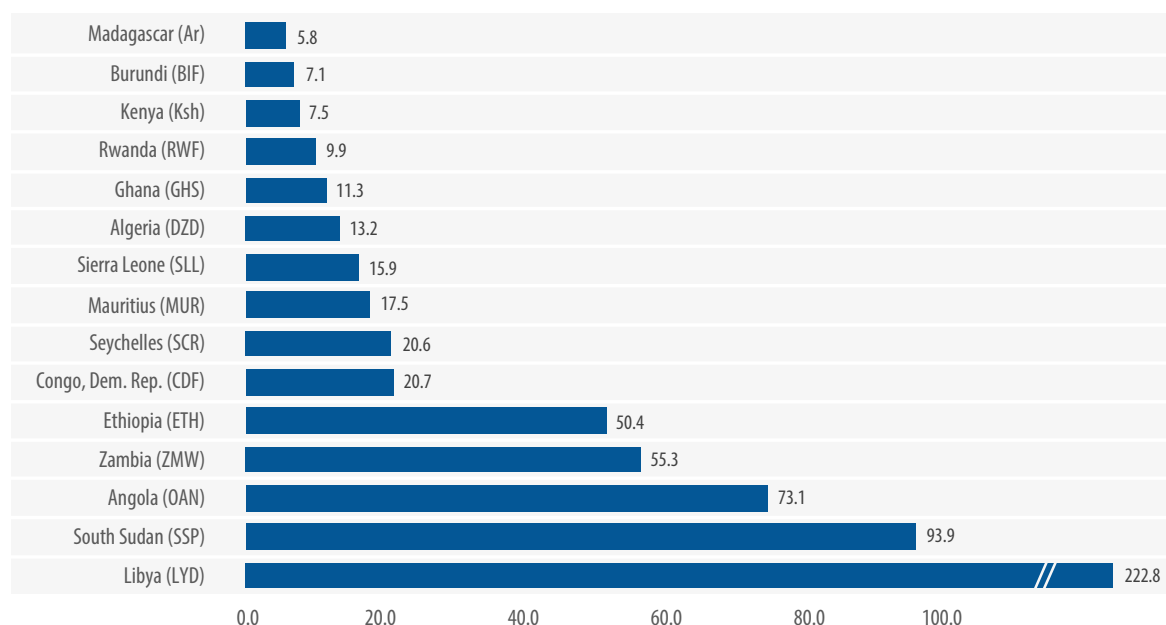
conflict that forced the closure of some of the most important oil sites, reducing South Sudan's production. Although the situation has somewhat improved thanks to a stabilization of the oil market and control of the armed conflict, the country still faces major challenges, including having around two-thirds of its 11.4 million inhabitants in need of humanitarian assistance.

## EXCHANGE RATE DEPRECIATION

The external shocks associated with the pandemic had negative repercussions on foreign exchange rates. Relative to the United States dollar over 2019–21, 27 African currencies depreciated while 22 appreciated. The countries that had the sharpest currency depreciations were Sudan (712%) and Libya (223%). The export structure of both countries relies on metals and oil.

Of the fifteen countries that had the largest currency depreciations, 11 are highly dependent on primary commodities or tourism (FIGURE 3.10). Once again, this stresses the fact that

**FIGURE 3.10 COUNTRIES EXPERIENCING THE LARGEST CURRENCY DEPRECIATION BETWEEN 2019 AND 2021 (%)**



Source: UNCTAD database.

high dependence on the export of a few goods and services increases the vulnerability of the country's productive and financial structure. Export diversification should therefore be a top priority in these countries.

# IMPACT OF THE COVID-19 PANDEMIC ON EXTERNAL FINANCIAL FLOWS

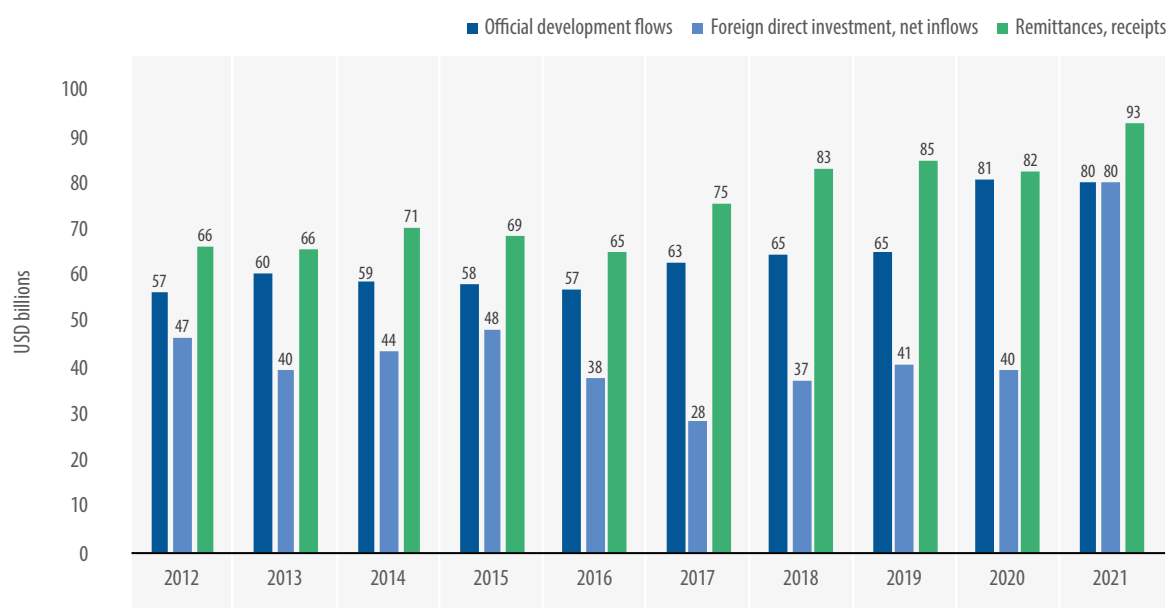
It was anticipated that the Covid-19 pandemic and associated shocks would have substantial adverse effects on external capital flows in Africa, notably foreign direct investment, official development assistance (ODA), and remittances. However, the impact varies by type of flow and across countries based on their economic structure, especially the dependence on tourism and primary commodity exports.

For the continent, the impact on the overall volume of financial flows in 2020 was mitigated, thanks to an increase in ODA mainly aimed at combating the pandemic but also, and most importantly, to support countries besieged by conflicts and natural disasters such as the droughts in the Horn of Africa. ODA increased by USD15.8 billion in 2020 relative to 2019 while FDI declined by USD1.2 billion and diaspora remittances declined by 2.6 billion, implying a net total increase in external resources of USD12.6 billion (FIGURE 3.11 and TABLE 3.1). In 2021, the inflows rebounded strongly, led by FDI which was higher by USD39.6 billion relative to 2019, followed by ODA (+USD15.4 billion) and remittances (+USD7.9 billion).

“ For the continent, the impact on the overall volume of financial flows in 2020 was mitigated, thanks to an increase in ODA ... ”

Across countries, the picture varies substantially. While most African countries recorded an increase in ODA (43 of 54 countries) in 2020 relative to 2019, fewer than half did for FDI (21/54) and remittances (24/49). The number of countries with higher inflows in 2021 relative to 2019 was higher for FDI (27) and remittances (28) and lower for ODA (34).

FIGURE 3.11 FINANCIAL FLOWS TO AFRICA, 2012–21



Source: ECA calculations based on FDI and remittances from UNCTAD database and ODA from OECD/DAC database ([www.stats.oecd.org](http://www.stats.oecd.org)).

**TABLE 3.1** VOLUMES AND CHANGES IN CAPITAL FLOWS TO AFRICA, 2019–21

	2019	2020	2021	2019–20	2020–21
<b>(BILLION USD) (%)</b>					
ODA	64.9	80.7	80.3	15.8	15.4
FDI	40.8	39.6	80.3	-1.2	39.6
Remittances	85.1	82.5	93.0	-2.6	7.9
<b>All flows</b>	<b>190.8</b>	<b>202.8</b>	<b>253.6</b>	<b>12.0</b>	<b>62.8</b>
<b>NUMBER OF COUNTRIES WITH INCREASING FLOWS</b>					
ODA				43/54	34/54
FDI				21/54	27/54
Remittances			24/49	28/49	

**Source:** ECA calculations based on FDI and remittances from UNCTAD database; ODA from OECD/DAC database ([www.stats.oecd.org](http://www.stats.oecd.org)).

## DIASPORA REMITTANCES

Over the past decade, diaspora remittances have emerged as the most important source of external funding for many countries, often exceeding FDI and ODA. In 2020, remittances represented 5.6% of Africa's GDP. In Africa, one in five people sends or receives international remittances. For Somalia, remittances make up approximately one-third of the overall GDP in 2022.

On the actual volume of remittances, the dynamics vary across countries. Some people emigrated to European countries, for example, where they were vaccinated, allowing them to continue working. And the governments implemented aggressive countercyclical policies, so they were able to keep their jobs and incomes. Those who migrated to these countries could help their relatives weather the pandemic by sending money back home. As a result, remittance flows to Africa proved more resilient. But those who settled in less developed countries were most exposed to job losses, reducing their capacity to send remittances to source countries.

## EXTERNAL DEBT—A CRISIS FORETOLD

Before the onset of the Covid-19 pandemic in early 2020, indications of an imminent debt catastrophe in Africa had become apparent.<sup>21</sup> By 2020, several countries in Africa were in severe debt distress, and many were trending towards that gloomy status.

Several factors pushed external debt to unsustainable levels. The first was a policy choice by African governments to gradually shift from concessional borrowing to more expensive debt. The second was that, while countries were accumulating larger fractions of high-interest debt, other simultaneous phenomena compounded the negative effects on the debt burden: an increase in world interest rates as advanced economies sought to tame inflation; an increasing share of US-dollar-denominated long-term debt; an appreciation of the US dollar against African currencies. Moreover, African countries' capacity to service the debt gradually eroded due to several factors, including a decline in foreign exchange reserves (due to rising import bills, reduced export earnings and deteriorating terms of trade) and the depreciation of national currencies. The problems of external debt sustainability are widespread across the continent. But the severity of the problems varies substantially, with some countries already forced to default, such as Ghana and Zambia (**BOX 3.5**).

### BOX 3.5 THE ZAMBIAN DEBT CRISIS

In 2020, Zambia defaulted on its Eurobonds, the first country to default on its external debt during the Covid-19 crisis, due to high existing debt levels and the additional pressure on the fiscus of dealing with the pandemic. It illustrates that countries need to build resilience to shocks to prevent dire situations.

#### POLICY SUGGESTIONS FOR ZAMBIA TO BUILD RESILIENCE

*Fiscal revenues and foreign exchange earnings from mineral exports.* A major part of the strategy for dealing with external debt in Zambia has been to enhance revenue mobilization from tax and rents from mineral exploitation and exports, and to improve efficiency and transparency in the management of foreign exchange earnings from mineral exports. The country has to leverage mineral demand and price booms to shore up its fiscal balances and foreign exchange reserves, reducing the need for borrowing while increasing its capacity to service existing debt.

*Fiscal consolidation.* Rationalizing public expenditure and reining in the monetization of budget deficits constitutes a major pillar of the strategy for moving the country back to a path of debt sustainability and strong and sustained growth.

*Prudential monetary policy.* With a steady increase in international interest rates resulting from monetary tightening to fight inflation in advanced economies and appreciation

of the US dollar, the Zambian central bank needs to strike an appropriate balance between raising interest rates to prevent capital flight to quality and currency depreciation on the one hand—and supporting domestic investment and exports by keeping a relatively accommodative stance for interest rate and exchange rate policies on the other. The key is to avoid frustrating the domestic drivers of economic recovery while taking advantage of the recovery of international demand for its exports and attracting foreign direct investment.

*Agriculture and climate resilience.* Ultimately the country's ability to overcome the debt crisis relies heavily on the performance of agriculture, which drives overall growth and is key to protecting the well-being of the population. The government must thus steadfastly scale up investments that promote productivity and climate resilience in agriculture as well as enhance safety net programmes in support of the rural population and low-income households in urban areas.

*Debt restructuring.* In the last year, the Zambian government has been engaged in high-level negotiations with its lenders for restructuring its debt. With the phasing out of the Covid-19 related initiatives such as the G20 Debt Service Suspension Initiative, it is imperative for the Common Framework of the G20 Creditors to deliver on its promises to alleviate the debt burden of developing countries such as Zambia. One challenge

for Zambia is getting all the creditors at the table and coordinating the conditions and tools of the debt restructuring. Multilateral lenders may be wary of a scenario where the proceeds from loan restructuring (including write-offs) may end up subsidizing the payment of private loans if private lenders play hardball in the negotiations. The country will need strong support from the official donor community to come up with a strategy for an effective solution to its debt crisis.

Debt restructuring and funding for sustainable development in Africa is one area that ECA is advocating in the global financial architecture. Specific reforms recommended, that may support countries like Zambia, include but are not limited to the overhaul of the G20 Common Framework for debt treatments beyond the Debt Services Suspension Initiative (DSSI), an expansion of the DSSI, the issuance of a second round of special drawing rights (SDRs) with changes to the allocation and frequency of allocation, the implementation of new lending facilities, and the recapitalization of multilateral development banks (MDBs), which play a unique role in addressing present-day global development challenges. These reforms are advocated by the High-level Working Group on the Global Financial Architecture, which is coordinated by ECA and comprises African ministers of finance, planning and economic development, the African Union, the African Development Bank, the African Export-Import Bank and the World Bank Group.

# IMPACTS OF POLICY RESPONSES ON MACROECONOMIC STABILITY, GROWTH AND HOUSEHOLD WELFARE

This section provides evidence that links the policy responses pursued by African governments to contain the spread of the virus directly to key macroeconomic indicators, such as real GDP growth and inflation and household welfare including job and income losses and food shortages. The policy responses pursued by most African governments included restricting the mobility of people, closing border crossing points and limiting air travel, both within and between countries. That caused many businesses to temporarily shut down and disrupted supply chains leading to soaring unemployment and inflation.

## KEY POLICY RESPONSES TO CONTAIN THE COVID-19 PANDEMIC

Most African countries heeded of the advisory notices released by WHO in the early stages of the Covid-19 pandemic, concerned about poor health systems and health infrastructure for coping with massive infections. Early in March 2020, most countries began taking serious measures to contain the movement of people. African governments begun the lockdown measures immediately after the WHO announced on 11 March 2020 that the SARS-Cov-2 virus that causes the Covid-19 disease is a global pandemic. The most significant decline in mobility was registered in transit stations (such as trains, bus stations and airports) followed by movements to retail stores and workplaces. Governments began easing mobility around June 2020, and most governments removed mobility restrictions in the last quarter of 2020.

At the height of the lockdowns, the loss of livelihoods, including income and jobs, was such that the popularity of the administrative measures declined fast in many countries, leading in some cases to a rise in lockdown-related violence, an unintended consequence of the policy responses to contain the spread of the virus.

## IMPACTS ON REAL GDP GROWTH AND INFLATION

One of the challenges of establishing a direct link between government actions to contain the pandemic and economic activity is the dearth of high frequency data in Africa. Most African countries release data on real GDP growth on an annual basis and very few on a quarterly basis. No country in Africa generates data on economic activity monthly. Recently, however, researchers started to use nightlight data as a reliable source to estimate GDP growth. As countries develop, the source of growth in GDP per capita tends to be technology intensive rather than labour intensive. One estimate of the elasticity of nightlight data growth with respect to GDP per capita for low-income countries is around 2.5%.<sup>22</sup> We apply this relationship to African countries and find a negative relationship between GDP growth and changes in people's mobility to stores. Specifically, countries that exhibited significant reductions in mobility of people to retail stores



(a reduction of 20% or more) recorded negative or very low GDP growth. A one standard deviation decline in mobility (about 20%) could lead to a 2% decline in real GDP growth. So, at the height of the pandemic, when mobility declined by an average of around 50%, real GDP growth fell by up to 2%.

## IMPACT ON POVERTY

The chapter uses two approaches to estimate the impact of the Covid-19 pandemic on poverty in Africa. The first approach is to explore the direct relationships between economic growth and poverty reduction, where income-based poverty is specified as a function of average per capita GDP, the poverty line and a measure of income inequality, the Gini coefficient. One can exploit the parameters of the Lorenz function underlying the distribution of income to estimate the percentage change in poverty for a 1% change in per capita income for a given level of income inequality.<sup>23</sup> Alternatively, cross-country regression models to generate elasticity estimates for subgroups of countries. Another straightforward method is to simply take the ratio of the growth rate of per capita income to the rate of poverty reduction for a country over a certain period and average it to get the elasticity estimates. This report uses the last two methods to estimate the impact of the Covid-19 pandemic on poverty through its impact on per capita GDP.

The second approach uses real time household surveys before and after the pandemic to infer directly from the survey respondents how the pandemic affected their income, employment, food availability in the household and other buffers available to them during the pandemic.

As reported earlier, real GDP growth in Africa in 2020 declined significantly to -3.4%, implying an unprecedented per capita GDP decline of about 6%. The corresponding estimated average

“ ... poverty in 2020 increased by more than 2 percentage points pushing approximately 20 million people into extreme poverty. The country distributions show that Mali, Liberia, Niger, Burundi, Sudan, and Senegal seem to have been the most affected countries by the pandemic. ”

elasticity of poverty with respect to growth is around -0.98 for Africa. This implies that poverty in 2020 increased by more than 2 percentage points pushing approximately 20 million people into extreme poverty.<sup>24</sup> The country distributions show that Mali, Liberia, Niger, Burundi, Sudan and Senegal have, in that order, been the most affected countries by the pandemic.

A grimmer picture emerges for household welfare. The World Bank launched a high frequency nationally representative phone survey in 10 African countries during the pandemic.<sup>25</sup> The data show that the pandemic led to substantial job losses, exceeding 50% in some countries. And among the self-employed, the loss of income was very large (BOX 3.6). The data also show that unemployment and income losses led to an increase in malnutrition and hunger. And community solidarity was a significant source of buffers and security.

### BOX 3.6 POLICY INTERVENTIONS TO CUSHION SMALL, MICRO AND MEDIUM ENTERPRISES AND INFORMAL SECTOR—SOUTH AFRICA

During the Covid-19 State of Disaster, the Department of Small Business Development (DSBD) launched the Debt Relief Fund (for businesses negatively affected, directly or indirectly, by the pandemic). It also launched the Business Growth and Resilience Facility for businesses to take advantage of supply opportunities resulting from the pandemic

or shortages of goods in the local market. And it restructured Small Enterprise Finance Agency Loans, providing a payment holiday of six months,<sup>26</sup> allocating R500 million for this relief.<sup>27</sup>

The DSBD, in partnership with Nedbank, aided spaza stores and general dealers affected by Covid-19 with R7,000 each.<sup>28</sup>

The township revitalization programme was also enhanced to ensure that the township economy kept working. Most informal workers, however, received no government or municipal financial support. The government's funding criteria prioritized formal company regulations including tax registration and income statements.<sup>29</sup>

# CONCLUSION AND POLICY LESSONS

The pandemic exposed the fragility and vulnerability of African economies. The decline in real GDP growth was the largest in the last six decades, vastly exceeding the economic slowdown suffered from the 2008 global financial crisis. As a result, the external and internal balances of many countries were off the charts, triggering debt distress and in some cases debt crisis. The relationship between health and economic growth has been demonstrated by the negative impacts of the pandemic, and it is now time to build resilient healthcare and health infrastructure across the continent in a post-Covid era.<sup>30</sup>

## DISCERNING OPPORTUNITIES DURING A CRISIS

The pandemic wiped out the balance sheet of governments, businesses, and households, but it also presented opportunities to draw substantial lessons. In the last two decades, many African governments committed to undertake reforms to accelerate structural transformation, through comprehensive strategies, with a focus on industrial policies and modernizing agriculture. Very few countries implemented these commitments, leaving economies vulnerable to shocks. They now need to revisit the strategies and take steps to implement reforms to build resilience, build buffers and minimize exposure to shocks.

## DEFRAGMENTING AFRICA'S POLICY RESPONSES—STRONGER REGIONAL AND SUBREGIONAL COORDINATION

One hallmark of the Covid-19 experience was the heterogeneity in the policy responses. Some countries took swift and comprehensive steps to thwart the pandemic's spread, while others were hesitant and unsure of what the optimal policy response would be. Delayed actions cost hundreds of thousands of lives. The lesson is that, in future crisis, African countries would benefit from effective regional coordination of policy responses and collaboration.

**“ The pandemic ...  
... also presented opportunities  
to draw substantial lessons. ”**

## LEVERAGING DIGITAL TECHNOLOGIES

The pandemic also tested the resolve of many African governments who mounted a surveillance mechanism using digital technologies. The capacity to identify, trace and isolate affected people was very effective in some countries, offering valuable information to prepare the healthcare systems, carefully choose stringency measures and target cash transfers to the neediest. African governments also found collective solutions to weather various secondary impacts of the pandemic, as exemplified by the Africa Trade Exchange (ATEX),<sup>31</sup> a business-to-business and business-to-government digital marketplace

created to enable the pooling of procurement of agricultural products, fertilizers and other basic food and beverage commodities. And the Pan-African Payment and Settlement System platform<sup>32</sup> supported wholesale and retail real-time payments and the connectivity of banks and payment service providers. These initiatives will bolster efforts towards the African Union's Digital Transformation Strategy for 2020–30.<sup>33</sup> Building on this experience is an important step in instituting an efficient and resilient system to tackle infectious diseases in the future. Countries need to harmonize their data gathering systems, build interoperability of platforms across agencies involved in the generation of data, and introduce legislations to design data governance policies.

## **STRENGTHENING SOCIAL PROTECTION PROGRAMMES**

Community risk sharing was significant during the pandemic. People who lost jobs, income and livelihoods relied mainly on close relatives and community members to survive the disruptions created by the pandemic. African governments could build on these informal risk sharing arrangements and support them with formal social protection programmes.

## **POOLING RISKS THROUGH BETTER REGIONAL INTEGRATION AND TRADE INTELLIGENCE**

The pandemic also exposed the fragility of Africa's value chains, which are primarily linked with economies outside the continent. Building regional value chains leveraging the AfCFTA would not only promote faster development prospects, but also offer a risk pooling mechanism, which is critically important as the ripple effects of global shocks tend to grow in severity and magnitude in the absence of effective risk mitigation. The Africa Medical Supplies Platform, a single online marketplace for Covid-19-related medical products in Africa, is a good illustration of how a continental approach can reduce common risks.

The AfCFTA-anchored Pharmaceutical Initiative is another illustration of the benefits of pooling risks. Piloted in 10 selected African countries, it pursues a three-pillar approach of managing pooled procurement of pharmaceuticals, facilitating local production of selected pharmaceutical products, and ensuring harmonized regulatory standards and quality assurance of medicines and related medical products.

Similar initiatives are under way. The Africa Vaccine Acquisition Task Force Team works to complement the COVAX and bilateral purchase agreements. The African Medicines Agency is an important step towards creating harmonized standards and regulatory policies for pharmaceutical products and medical equipment manufactured in Africa. The Partnerships for Vaccines Manufacturing aim to develop, produce and supply more than 60% of the total vaccine doses required on the continent by 2040. The Common African Pooled Procurement System serves to assist better planning and sustainability of universal access to relevant agriculture and pharmaceutical products. And the African Union Instrument for Pooled Procurement is in the pipeline to aggregate and pool medical products to leverage economies of scale.

The benefits of such initiatives can be maximized when combined with digital platforms. In the same vein, accelerating the AfCFTA implementation must be at the forefront of Africa's economic and developmental recovery. The Covid-19 crisis highlighted the need to strengthen the trade and health nexus in the continent. The AfCFTA will serve as a key driver for mainstreaming health security into regional integration and trade efforts, which is vital for building back better against future health crises and ensure progress on SDG 3—Good Health and Well-being.

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## ENDNOTES

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- 3 UN Women, 2023.
- 4 UNDP, 2023.
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- 7 Ndung'u and Shimeles, 2020.
- 8 See various regional reports by the World Bank and the IMF. See also OECD (2020).
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- 15 Banga et al., 2020; Mendez-Parra, 2020.
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- 31 See the ATEX official webpage for further information: <https://www.atex.africa/>.
- 32 See the PAPSS official webpage for further information: <https://papss.com/>.
- 33 See the following African Union page for further information: <https://au.int/sites/default/files/documents/38507-doc-dts-english.pdf>.



# CHAPTER 4

## IMPACT OF THE WAR IN UKRAINE



For the world community, the war in Ukraine is a major strategic and geopolitical concern. It opposes two major agricultural powers that supply vital food commodities, especially wheat and oil. It may change global trade forever, as Europe scrambles to wean itself from its dependence on Russia's oil (and minerals), while the West engages in an intensified scramble for Africa's oil and minerals resources. It is a crisis whose impacts are particularly difficult to assess. It broke out on the heels of a major health pandemic whose effects still reverberate through the world economy. For Africa, the crisis found its economies with particularly weak macroeconomic balances, limited fiscal space, burgeoning debt and food insecurity. All this makes it difficult to disentangle the effects of the war from the impacts of previous crises and chronic shocks, notably climate-induced disasters. Thus, there is a high risk that Africa economies may be "stuck in transition",<sup>1</sup> unable to fully recover from previous crises, with the risk of settling on a lower growth path for an extended period.

This chapter examines the key macro and micro manifestations of the war in Ukraine. Conceptually, it considers the key channels of transmission of the impact of the war. Higher commodity prices, notably food (wheat) and energy,

are exerting upward pressure on domestic inflation, deflating the purchasing power of incomes and dampening aggregate demand. Disruptions of trade, supply chains, and remittances are reducing business confidence and increasing investor uncertainty, with adverse effects on asset prices, leading to tighter financial conditions and capital outflows.

The war's particular impact on Africa is a result of its heavy dependence on wheat imports from Russia and Ukraine.<sup>2</sup> Africa imports up to 85% of its wheat supply, a third of that from Russia and Ukraine alone. So, both the disruption of supply from the two countries (due to reduced production and trade bottlenecks) and the general increase in the price of these commodities have direct effects on domestic inflation, food consumption and the welfare of people dependent on imported wheat. The first section elaborates on these transmission mechanisms. This is followed by a discussion on how Africa was in a much weaker position before the war than before previous crises, notably the global financial crisis and the Covid-19 pandemic, implying that the effects of the war may be severely pronounced if it prolonged. Next is an analysis of the impact of the war on inflation, with an emphasis on imported food inflation as a driver of overall inflation. Then the potential impact of the war in Ukraine on extreme poverty is explored.

## TRANSMISSION MECHANISMS OF THE EFFECTS OF THE WAR ON AFRICAN ECONOMIES

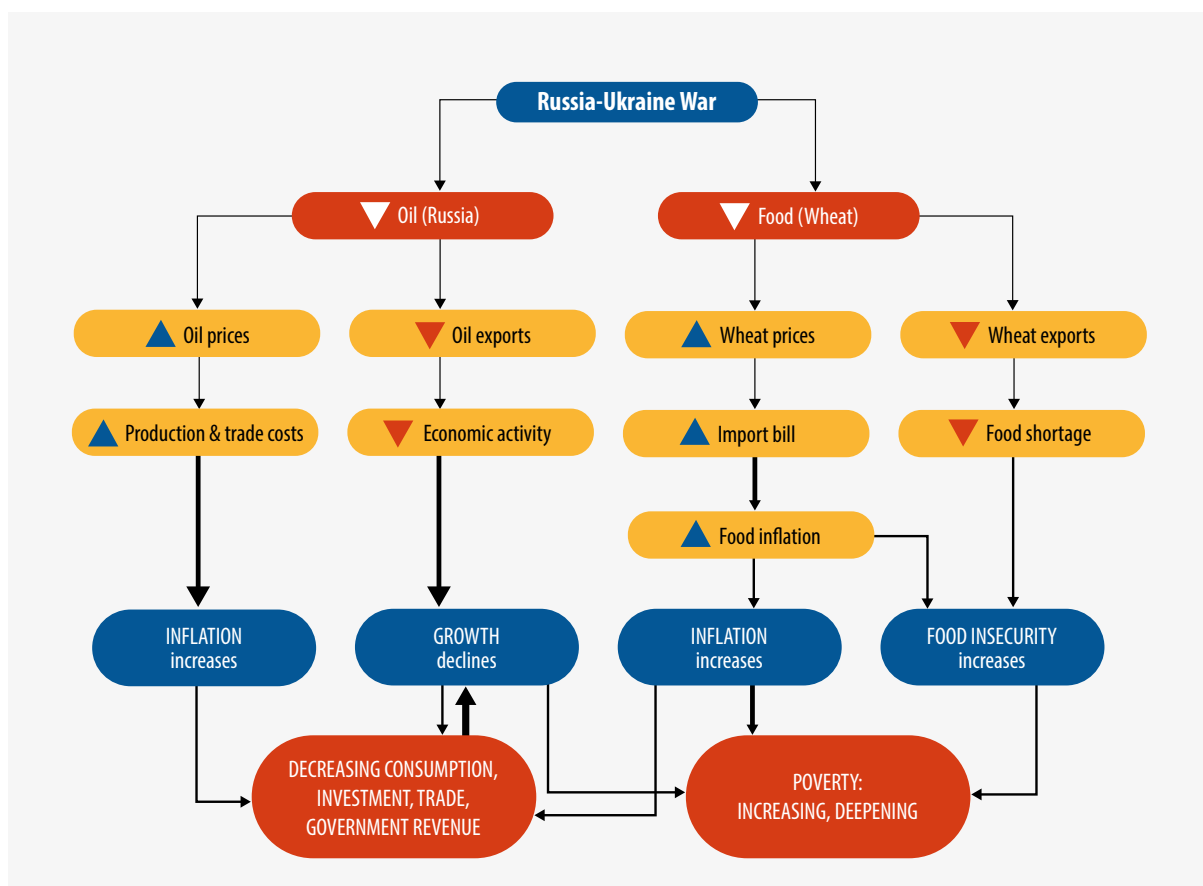
The significant and complex effects of the war in Ukraine on African economies will materialize through various channels. The key feature of the war is that it involves two countries that produce and sell two important strategic commodities—oil (Russia) and cereals, especially wheat (both countries). The impacts of the war on Africa thus stem from the shocks on the production, trade and prices of these commodities. Three key channels are at play: the quantity effects emerging from shocks on production and trade of oil and wheat, the

import price passthrough effects on domestic prices and the currency depreciation arising from the depletion of foreign exchange reserves caused by the higher oil and wheat import bill (**FIGURE 4.1**).

The net impact of the war in Ukraine on African economies will vary across countries depending on the structure of the local economy, its degree of exposure through trade with Russia and Ukraine, and pre-existing conditions, especially



**FIGURE 4.1** TRANSMISSION MECHANISMS OF THE IMPACT OF THE WAR IN UKRAINE ON AFRICAN ECONOMIES



Source: ECA construction.

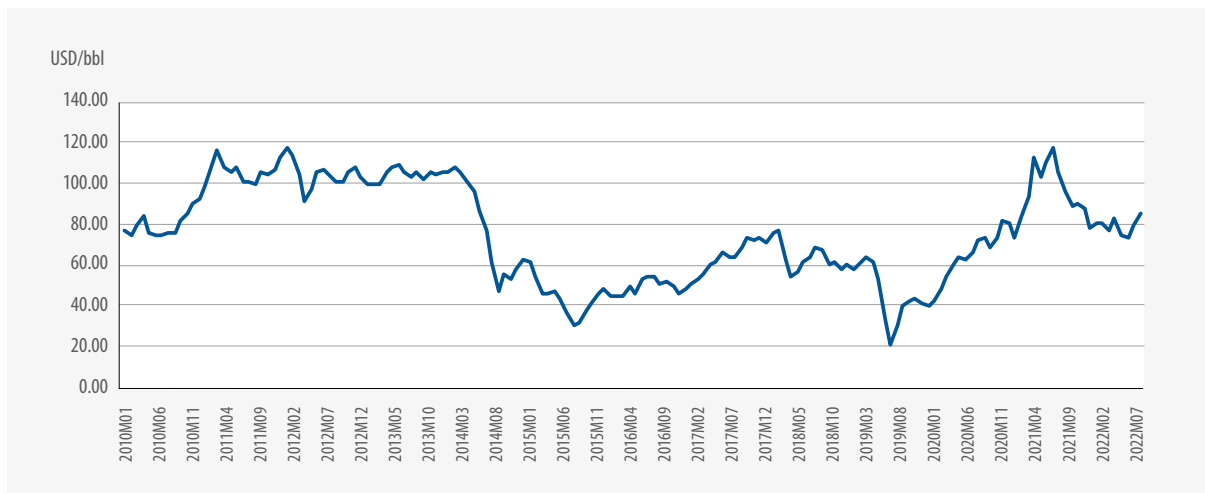
macroeconomic balances (fiscal balance, foreign exchange reserves, debt levels and so on), as well as government capacity and readiness to mitigate the impacts (through price subsidies, food buffer stocks and the like). For oil, the war has exerted upward pressure on prices due to actual supply shortages following sanctions on Russia's oil exports as well as the market's anticipation of higher prices. Targeted corrective interventions, including the United States decision to draw on its strategic reserves, have helped alleviate the pressures and even bring down international oil prices over the past months (FIGURE 4.2).

For oil-exporting African countries, the increase in oil prices is a bonanza; it enables them to accumulate foreign exchange reserves and fiscal revenues that can be used to sustain growth and fund mitigation initiatives to minimize the impact of the war on their economies. But for the majority of African countries, it translates into higher production and trade costs, leading to higher inflation. Raising inflation depresses consumption,

**“ The war’s particular impact on Africa is a result of its heavy dependence on wheat imports from Russia and Ukraine. Africa imports up to 85% of its wheat supply, a third of that from Russia and Ukraine alone. ”**

investment and trade due to heightened uncertainty and to higher interest rates resulting from the counter-inflation measures of central banks in Africa and advanced countries. In addition to oil-price effects, the reduction in the quantity of oil is a negative supply-side shock that slows economic activity, eroding the continent's growth prospects.

**FIGURE 4.2** WORLD OIL PRICES, BRENT CRUDE

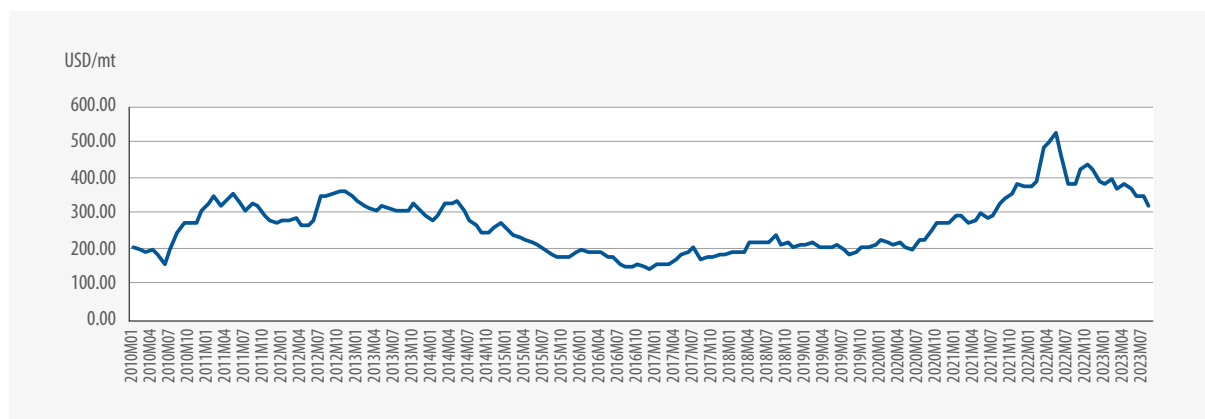


**Source:** World Bank, Commodity Market database (pink sheets).

The impact will also be felt through the price and quantity of wheat imported from Russia and Ukraine. Global grain prices were already on the rise before the war, and they remain much higher than historically (FIGURE 4.3). The higher prices of imported wheat put upward pressure on the prices of domestically produced wheat, other grains and other foods in general. Moreover, the reduction in wheat production, an immediate impact of the war on Ukrainian agriculture, further pushes the price of wheat and other food products higher, with drastic effects on domestic inflation.

Beyond inflation, the disruption of wheat production and trade has dire effects on African households as it reduces overall wheat consumption and calories and protein intake.<sup>3</sup> The shortage of wheat and other cereals and the rise in their prices reduce for food security in Africa. This is especially critical as cereals make up a substantial fraction of the food basket for most households in the continent. The effects are most pronounced in countries that are net food importers and those most dependent on imports from Russia and Ukraine.

**FIGURE 4.3** WORLD WHEAT PRICE



**Note:** Hard red winter export price (Gulf wheat ports).

**Source:** World Bank, Commodity Market database (pink sheets).

# PRE-CRISIS VULNERABILITIES IN AFRICAN ECONOMIES

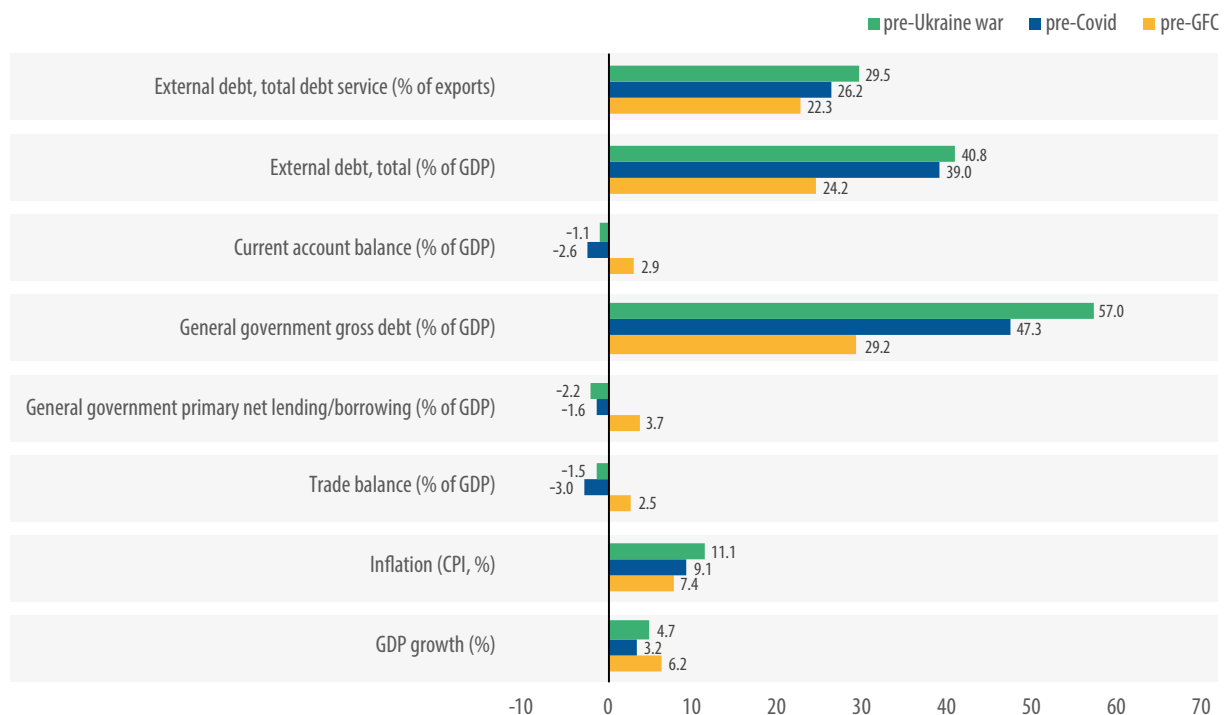
## STUCK IN TRANSITION: WEAKER MACROECONOMIC FUNDAMENTALS THAN IN PREVIOUS CRISES

When Russia invaded Ukraine in February 2022, Africa was still struggling to recover from the effects of the ongoing Covid-19 pandemic and the long-term impacts of previous crises, notably the 2008 global financial crisis (GFC) and the 2014–16 commodity price shocks. It was thus stuck in the transition from those crises, so it faced the war-induced crisis in much worse condition than in previous crises. This is visible in both domestic performance indicators and external balances. Before the war in Ukraine average GDP growth in Africa was 4.7%, a notable gain from the pre-Covid growth rate of 3.2%, but much below the 6.2% recorded during the pre-GFC period. In other words, the war in Ukraine and the Covid-19 pandemic derailed Africa's recovery, slowing the pace of reaching the pre-GFC growth rates.

The domestic macroeconomic balances were remarkably weaker before the war than before previous crises. Inflation was already on the rise partly because of Covid-induced supply bottlenecks as well as demand stimulus programmes initiated to sustain the economy. It reached 11% on average in 2021, up from 9.1% in the pre-Covid period (average over 2017–19) and 7.4% in the pre-GFC period (average over 2005–07). Fiscal deficits had deepened to an average of -2.2% of GDP in 2021 from -1.6% before Covid-19 and a surplus of 3.7% before the GFC. The current account followed a similar deteriorating pattern.

Weaker macroeconomic balances coexisted with worsening external debt burdens. Before the war, the gross government debt-to-GDP ratio reached a staggering 57% on average for the continent, up from 47% before the Covid-19 pandemic and 29% before the GFC.

FIGURE 4.4 AFRICA'S CONDITIONS BEFORE THE UKRAINE WAR AND BEFORE PREVIOUS CRISES



Source: IMF, World Economic Outlook.

The data clearly indicate that Africa was very poorly positioned to face the adverse effects of the war in Ukraine. With deteriorating macroeconomic balances, African countries were left with limited fiscal space to intervene and absorb the shocks from the war. Serious costs of the war are already emerging across the continent; the worst may be yet to come.

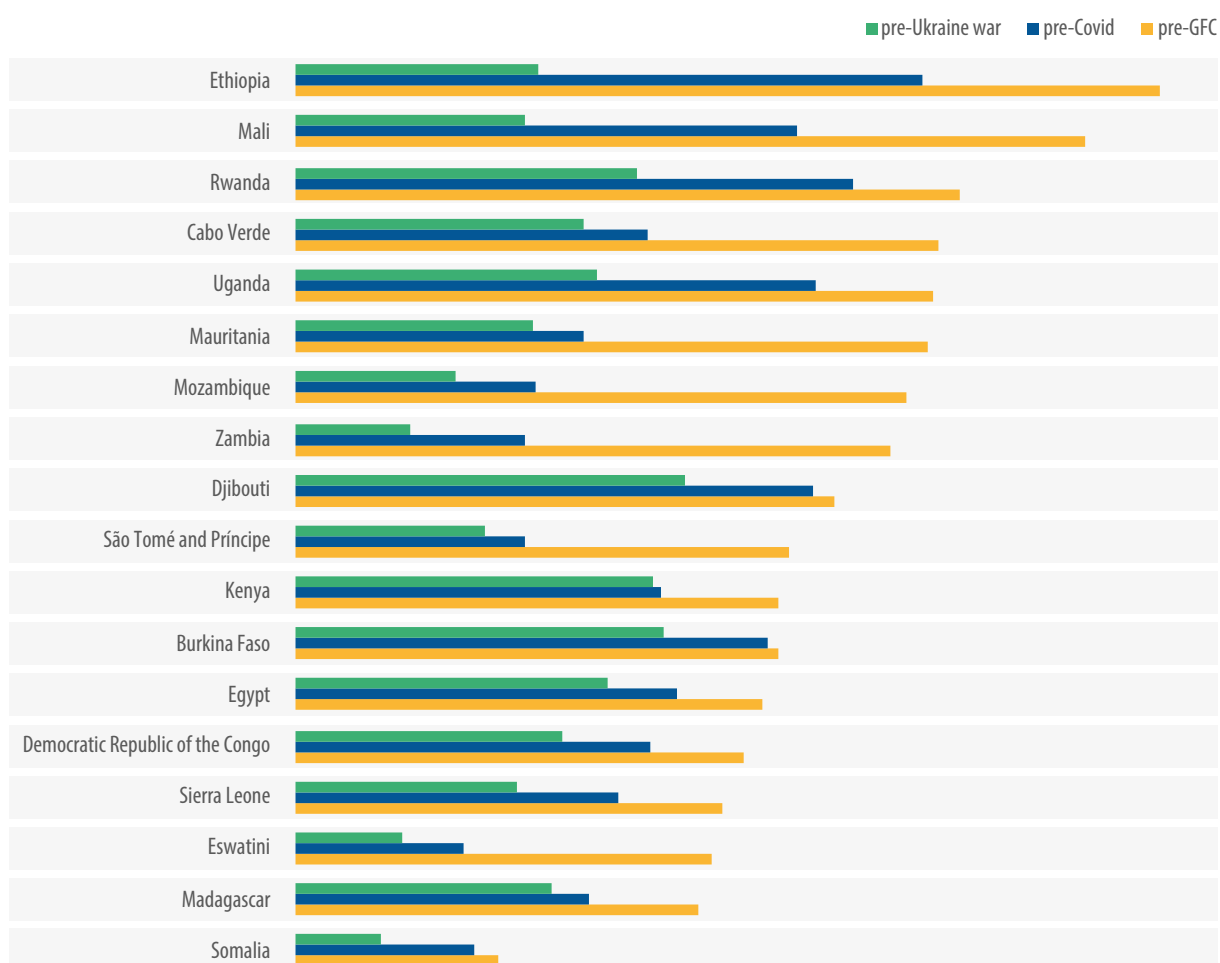
### CROSS-COUNTRY DISPARITIES: SOME COUNTRIES HIT MORE THAN OTHERS

The continental picture in **FIGURE 4.4** masks important disparities across countries. Some countries suffered more from the GFC and the Covid-19 pandemic, leaving them more vulnerable to the adverse effects of the war. In what follows, we present the case of countries at the bottom of the spectrum with the most deteriorating pre-crisis conditions. **FIGURE 4.5** presents African countries whose growth performance deteriorated during the period before the GFC, the Covid-19 pandemic and the war in Ukraine. While still posting fairly high growth

rates, Ethiopia, Mali and Rwanda suffered the greatest growth deterioration through the crises. This is mainly due to their exposure to food and oil imports, as well as the adverse effects of Covid-prevention policies (lockdowns in Rwanda). The list in **FIGURE 4.5** is quite diverse, including resource-rich countries (DR Congo, Egypt, Zambia), non-resource countries, small and large economies, fragile states (Somalia, Mali) as well as stable countries.

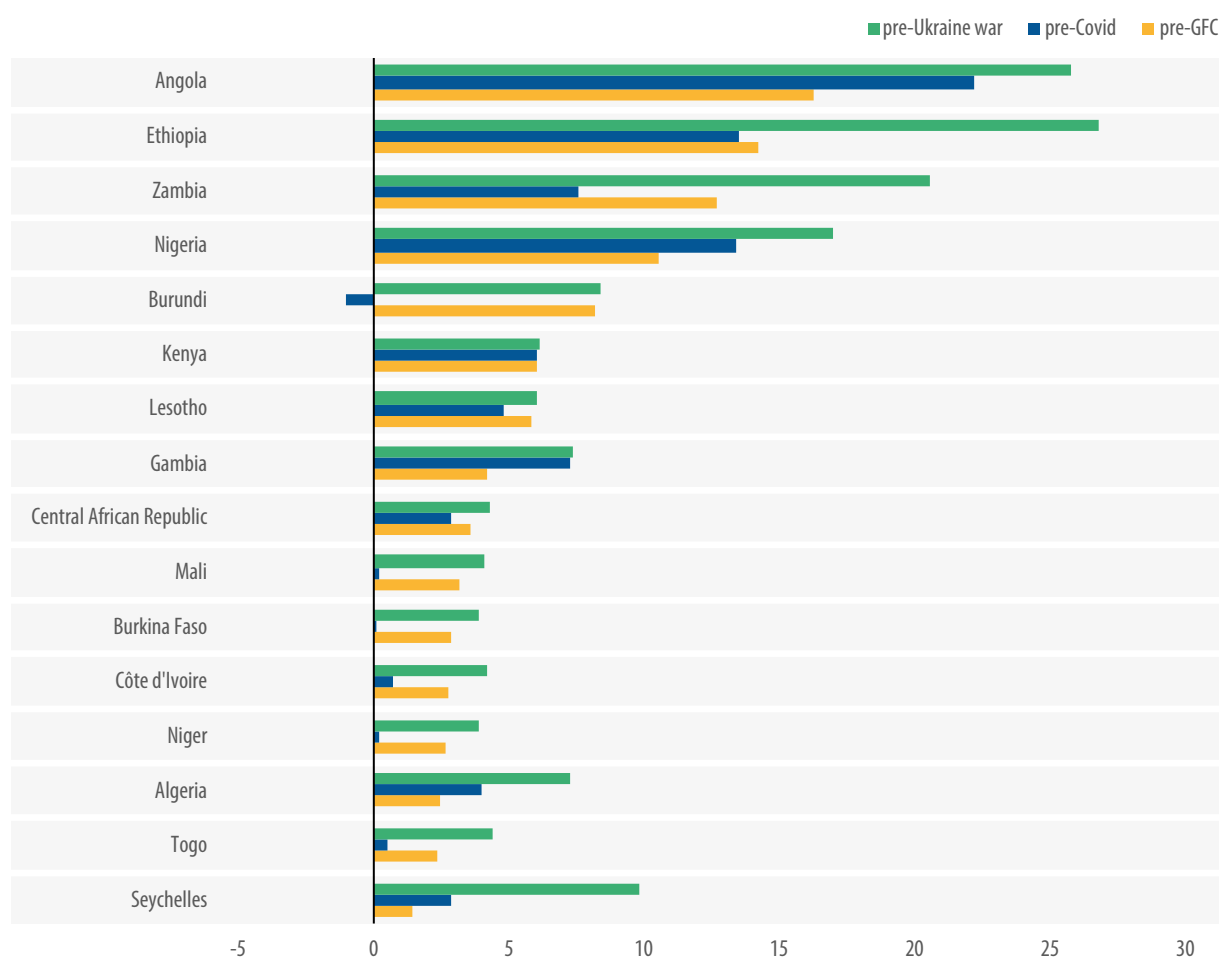
Ethiopia, Nigeria and Zambia top the list of African countries that have experienced the steepest increase in pre-crisis inflation (**FIGURE 4.6**), all characterized by heavy dependence on imported food, except Zambia. The case of Zambia is peculiar since its inflation rate has been decreasing during 2022, driven in major part by declining food inflation. Once again, this is a mixed group including both next oil exporters—Algeria, Angola and Nigeria—and net oil importers. Most of them have had high food inflation, driving overall inflation.

**FIGURE 4.5 CUMULATIVELY DETERIORATING PRE-CRISIS GDP GROWTH (ANNUAL %)**



Source: UNCTAD database.

**FIGURE 4.6 HIGHER PRE-WAR CPI INFLATION RELATIVE TO PRE-COVID AND PRE-GFC (ANNUAL %)**

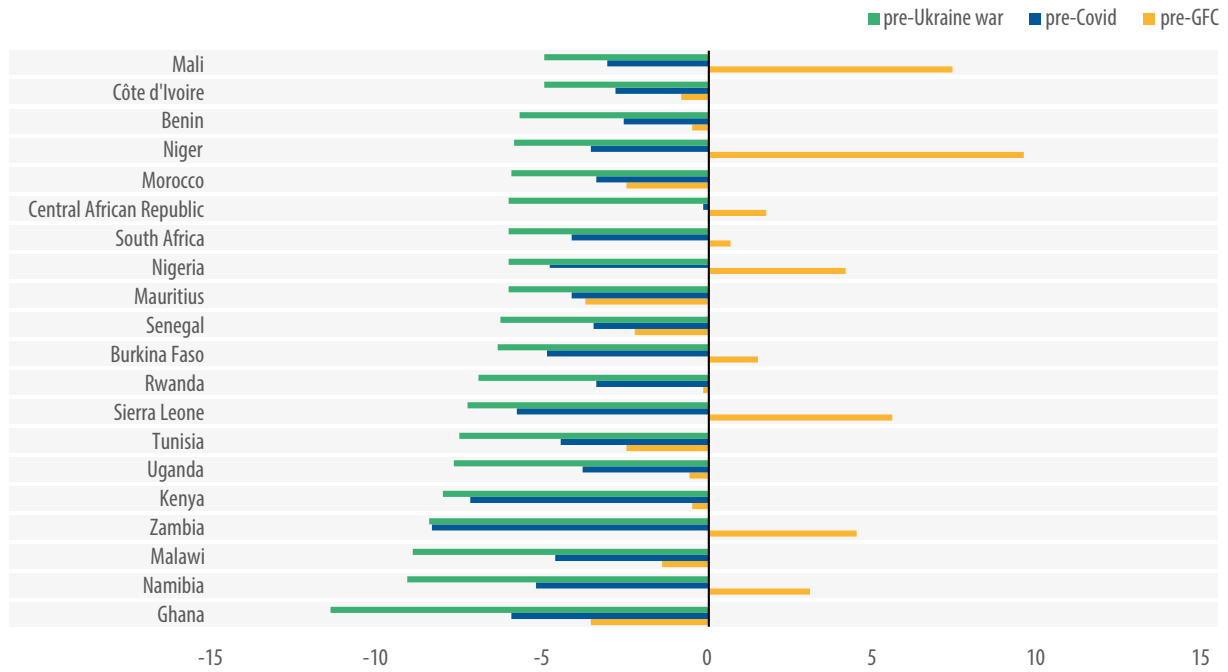


Source: UNCTAD database.

The war found many African countries with severely deteriorated fiscal balances because of declining revenues and increasing expenditures partly motivated by efforts to sustain the economies amid the Covid-19 pandemic (FIGURE 4.7). Some went from large fiscal surpluses pre-GFC to deep fiscal deficits in pre-Covid and pre-war periods (Mali, Namibia, Niger, Nigeria, Sierra Leone and Zambia). The list includes mineral and oil exporters such as Ghana, Nigeria, South Africa and Zambia. The weak fiscal balances meant that governments in these countries had limited fiscal space going into the war-induced crisis, implying limited capacity to mitigate the impact of the war on their economies.

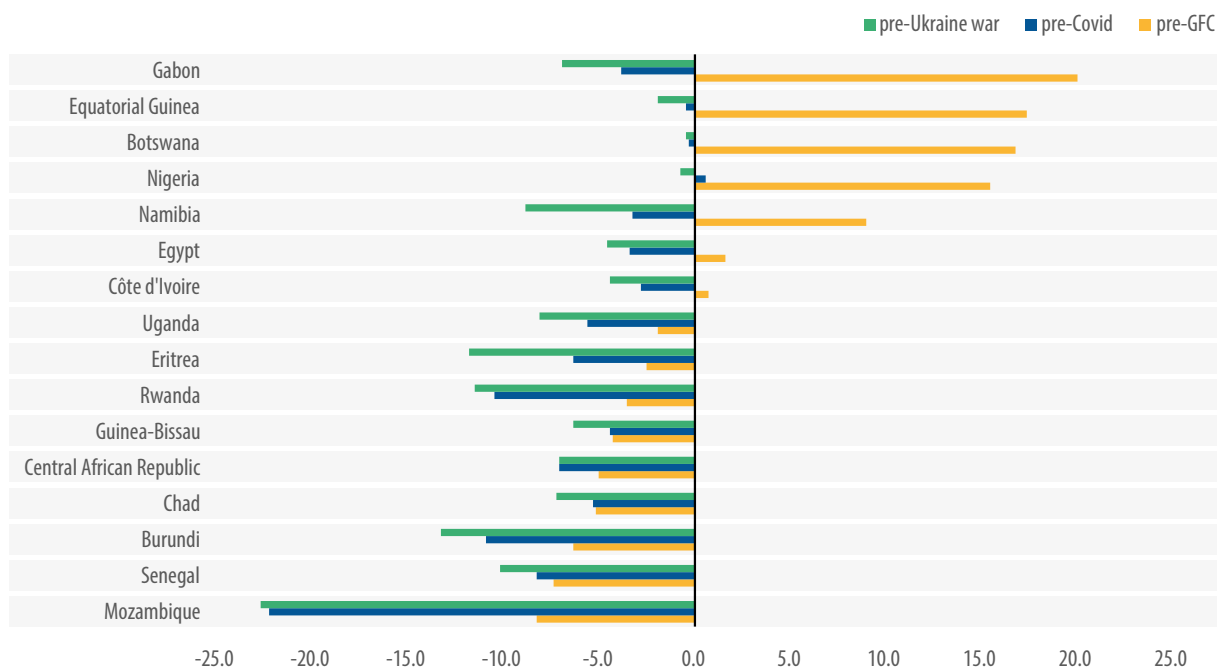
External positions were also weaker before the war for many African countries (FIGURE 4.8). Remarkably, some countries went from large current account surpluses (Botswana, Gabon, Guinea Bissau, Namibia and Nigeria) before the GFC to deficits before the Covid-19 pandemic and before the war in Ukraine. All these countries are net natural resource exporters. Non-resource-rich countries dominate the list, some with current account-to-GDP ratios worse than -10% before the war (Burundi, Eritrea, Mozambique, Rwanda and Senegal).

**FIGURE 4.7 CUMULATIVELY DETERIORATING GENERAL GOVERNMENT BUDGET BALANCES (WITH A RATIO WORSE THAN 5% IN 2021) (% OF GDP)**



Source: UNCTAD database.

**FIGURE 4.8 CUMULATIVELY DETERIORATING CURRENT ACCOUNT BALANCES BEFORE THE CRISES (% OF GDP)**



Source: UNCTAD database.

The weak external position of African countries before the war is also evident for external debt (FIGURE 4.9). Some recorded government debt-to-GDP ratios that were dramatically higher in the pre-Covid period and deteriorated even further before the breakout of the war in Ukraine. Various studies had raised concerns about the rise in external debt burden in African countries before the Covid-19 pandemic, warning of a “looming debt crisis” in the continent.<sup>4</sup>

The heavily exposed pre-war debt position means that African countries have little space to mobilize external resources, including foreign direct investment (due to deteriorated credit ratings) to finance crisis-mitigation programmes, and domestic investment needed to support economic recovery. High indebtedness therefore implies that the impacts of the war in Ukraine and the Covid pandemic on African economies are likely to worsen and last longer than those of previous crises.

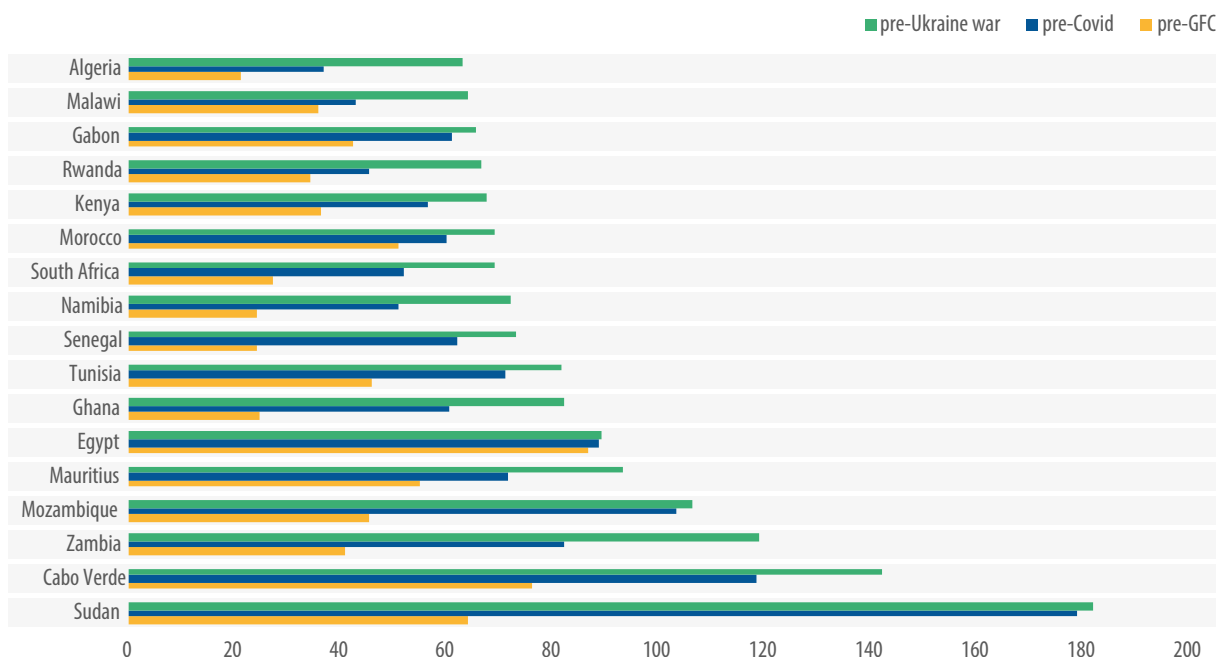
“ In 2021, 2.2 billion people were facing moderate or severe food insecurity in the world. Of those, 743.5 million were in Africa, ... ”

## PRECARIOUS FOOD SECURITY EVEN BEFORE THE WAR

In addition to pre-existing weak overall macroeconomic conditions, Africa was predisposed to suffer disproportionately from the war because of its weak food security. In 2021, 2.2 billion people were facing moderate or severe food insecurity in the world.<sup>5</sup> Of those, 743.5 million were in Africa, with 322 million severely food insecure. The bulk of global food insecurity is in Sub-Saharan Africa, which accounted for 667 million of moderate or severely food insecure people in 2021, of whom 293.8 million faced severe food insecurity.

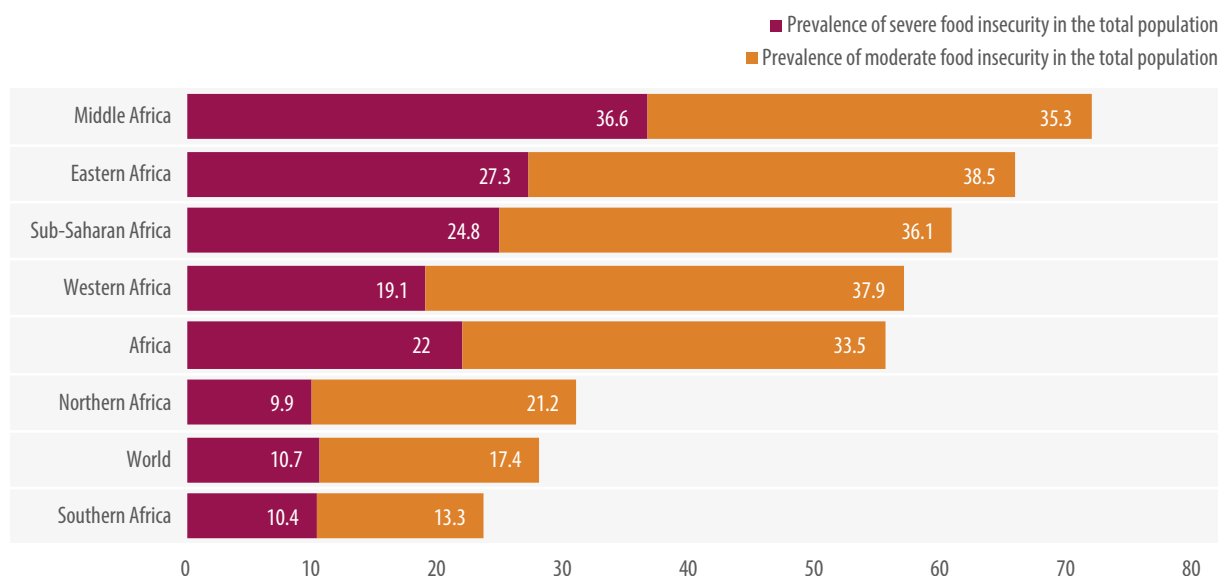
Further to the higher absolute numbers of food insecure people in Africa, the rates of food insecurity are much higher than in other regions (FIGURE 4.10): 55.5% in Africa and 60.9% in Sub-Saharan Africa, twice the world average of 28.1%. Food insecurity is most pronounced in Middle Africa (71.9% three-year average over 2019–21) and Eastern Africa (65.8%). In Middle Africa, the Central African Republic is the most affected, with about 62% of the population experiencing severe food insecurity. In Eastern Africa, the most affected countries are Comoros with moderate or severe food insecurity reaching 79.7%, the Democratic Republic of Congo (72%) and Ethiopia (57%).

FIGURE 4.9 DETERIORATING PRE-CRISIS GENERAL GOVERNMENT GROSS DEBT (WITH A RATIO OVER 60% IN 2021) (% OF GDP)



Source: IMF, World Economic Outlook.

**FIGURE 4.10** PREVALENCE OF FOOD INSECURITY IN THE TOTAL POPULATION, 2019–21  
(%, THREE-YEAR AVERAGE)

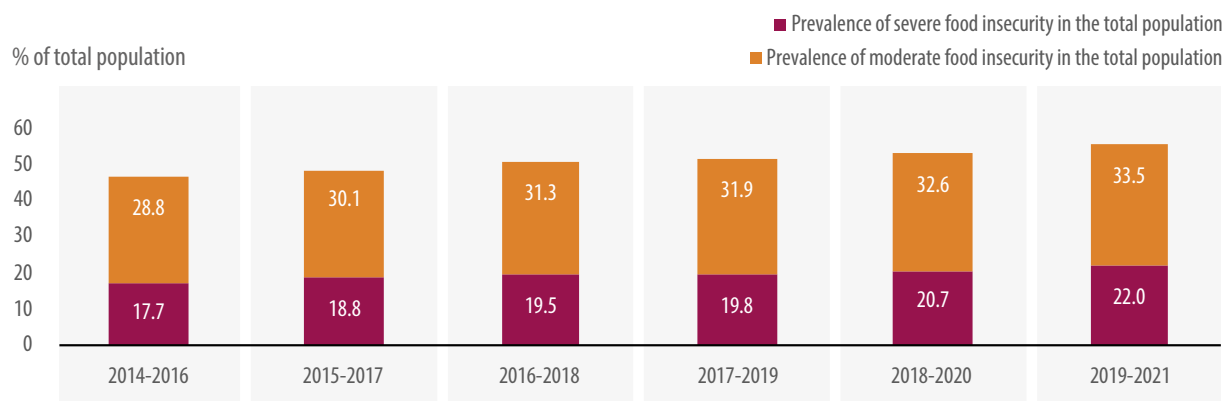


Source: FAOSTAT.

Food insecurity was on the rise in Africa even before the Covid-19 pandemic (FIGURE 4.11), with the share of the population suffering from moderate or severe food insecurity rising by a full percentage point from 46.5% over 2014–16 to 47.5% over 2019–21. This is an important concern in Africa because of the absence of formal social protection programmes. The ILO estimates that only 7% of the African population is covered by some form of social protection programme, and only 2% for children. This implies that too many children in Africa are exposed to severe food insecurity, with adverse effects on their well-being, such as malnutrition and stunted growth.

FAO’s simulations suggest that the number of undernourished people globally could increase by between 8 and 13 million in 2022/23, with the most pronounced increases in Asia-Pacific, followed by Africa. If the war continues, the impacts will last well beyond 2022/23. A more extreme scenario—simulating the severe export shortfall from Ukraine and the Russian Federation in 2022 and 2023—and assuming no global production response because of low affordability and access to fertilizers—suggests an increase in the number of undernourished by close to 19 million people in 2023.<sup>6</sup>

**FIGURE 4.11** PREVALENCE OF MODERATE AND SEVERE FOOD INSECURITY IN AFRICA



Source: FAOSTAT.



# PRELIMINARY ASSESSMENT OF THE IMPACT OF THE WAR ON AFRICAN ECONOMIES

The IMF summarizes the world growth outlook as follows: “The global economy continues to face steep challenges, shaped by the lingering effects of three powerful forces: the Russian invasion of Ukraine, a cost-of-living crisis caused by persistent and broadening inflation pressures, and the slowdown in China.”<sup>7</sup>

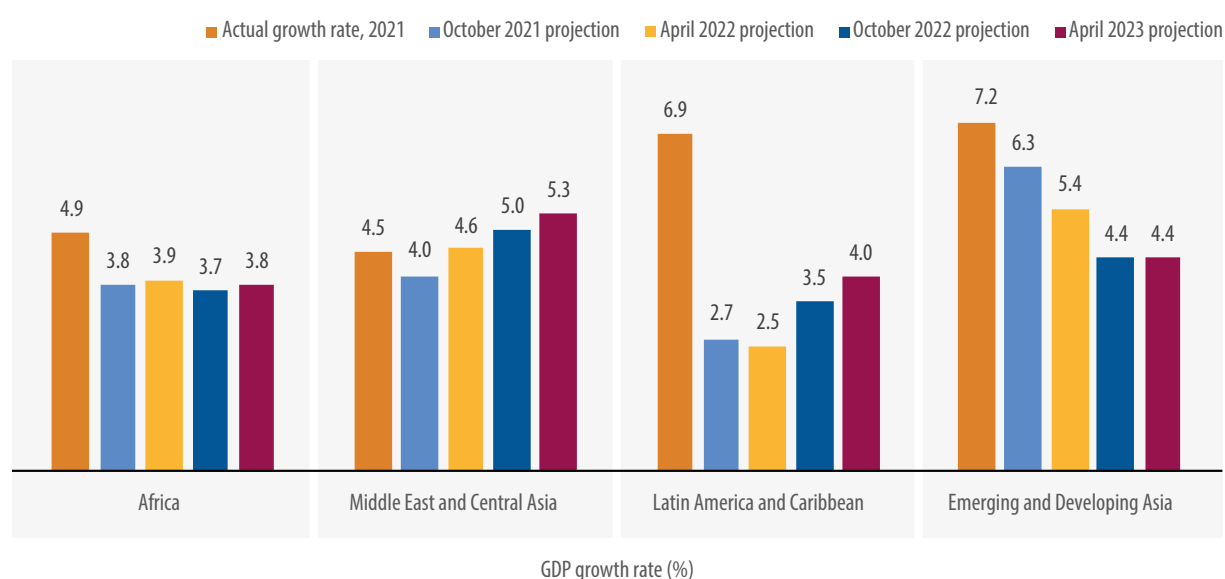
## AFRICA’S GROWTH PROSPECTS

While it is still early to make an accurate assessment of the impact of the war on economic growth in Africa, there are emerging signs that the output losses are likely to be large.<sup>8</sup> Already the growth forecasts for the continent have been downgraded substantially since the start of the war. Africa had been projected to grow at an average of 3.8% in 2022 back in October 2021 (FIGURE 4.12). Down from 4.9% in 2021, this is more than a full percentage point lower. In April 2022, the IMF projected the growth in 2022 at 3.9%, not taking account of the impact of Ukraine crisis, while in October 2022, the estimate had been revised down to 3.7%, reflecting the growth gap brought mainly by the war. By April 2023, the growth

projection has been revised slightly upwards to 3.8%, with expected growth of 3.7% in 2023.

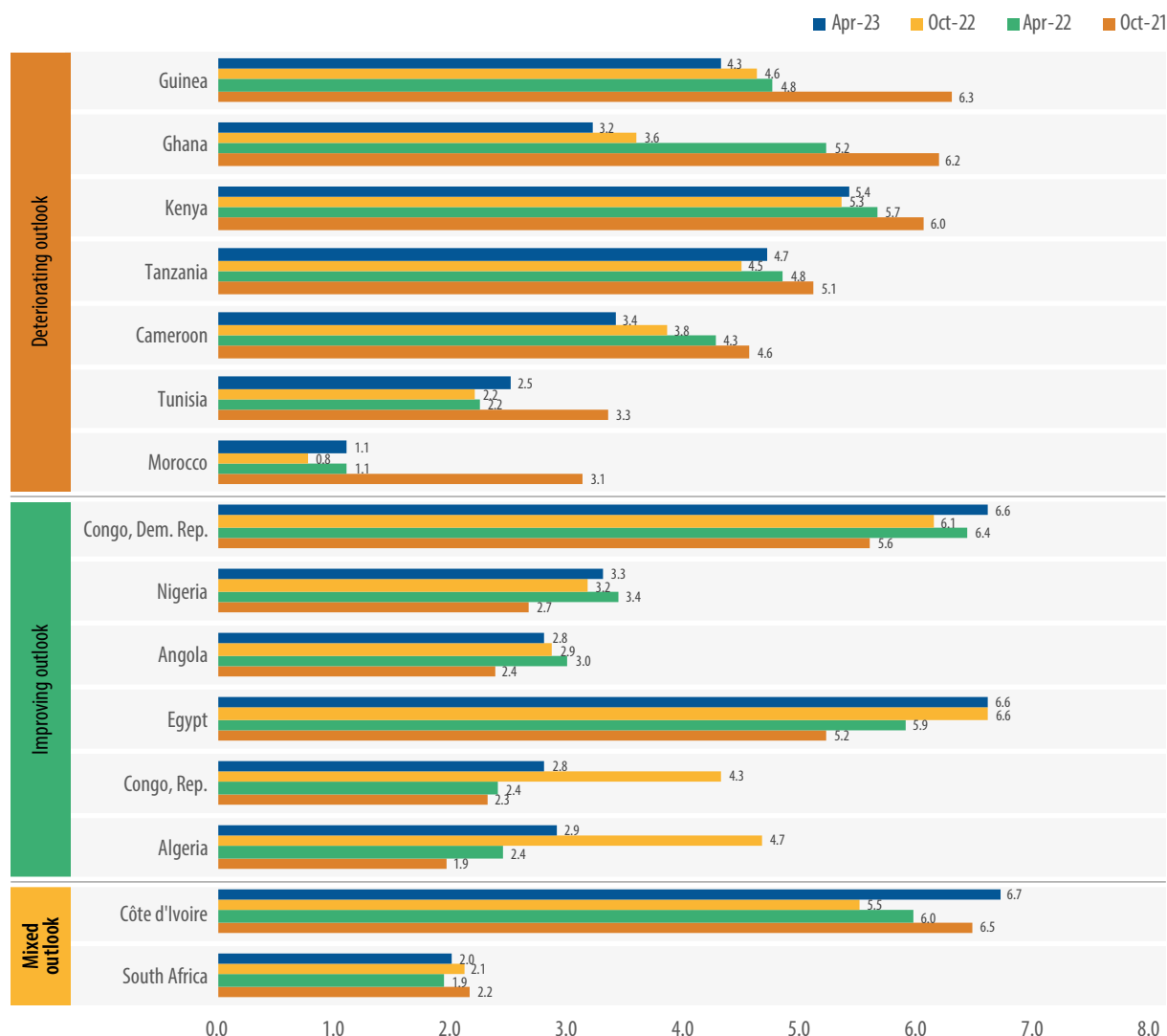
Continental averages hide substantial disparities in the growth prospects of African economies. The overall average is driven by the performance of the larger economies on the continent. The disparities can be illustrated by focusing on the 15 largest economies and the consecutive 2022 growth projections published in October 2021, April 2022, October 2022 and April 2023 in the IMF World Economic Outlook (FIGURE 4.13). The forecasts fall into three groups. The first group—the “deteriorating growth” category—includes countries that have experienced systematic growth downgrades since last year. The sharpest downgrade in absolute terms was suffered by Morocco, whose growth rate was downgraded by 2 percentage points from 3.1% (October 2021) to 1.1% (April 2023). But the biggest downgrade after the start of the war, between April 2022 and April 2023, was in Ghana, from 5.2% to 3.2%.

FIGURE 4.12 GROWTH PROJECTIONS FOR 2022 AND ACTUAL GROWTH IN 2021, BY REGION



Source: IMF, World Economic Outlook.

FIGURE 4.13 GROWTH PROJECTIONS IN THE 15 LARGEST AFRICAN ECONOMIES FOR 2022



Source: IMF, World Economic Outlook, projections of October 21, April 2022, October 2022 and April 2023

The second group—the ‘improving growth’ category—comprises countries that actually experienced an upgrade in their growth projections from October 2021 to April 2023. For Algeria, Democratic Republic of Congo and Egypt, their growth prospects have been systematically revised upward and peaked in the October 2022 projection. The growth was revised downwards slightly in April 2023 but still higher than the projections in October 2021 and April 2022 before the war started in February 2022.

Côte d’Ivoire and South Africa are in their own category with “mixed” evolution of the growth projections. There certainly are other countries with a similar pattern outside this sample. In April 2022, South Africa’s growth was downgraded to 1.9% relative to 2.2% posted in October 2021. In October 2022,

however, its growth outlook was revised upwards to 2.2%. This is still less than half the 4.9% growth posted in 2021, an incredible rebound from the contraction of -6.4% in 2020 as the economy was severely damaged by the impact of the Covid-19 pandemic. Note that apart from 2021, South Africa’s growth rate has not crossed the 2% mark since 2013. The war in Ukraine is likely to perpetuate the anaemic growth that the country has recorded in the past decade.

### EXPOSURE THROUGH TRADE WITH RUSSIA AND UKRAINE

The short-term impacts of the war on African economies can already be observed across the continent in various ways. The most vivid manifestation is the systematic rise in inflation

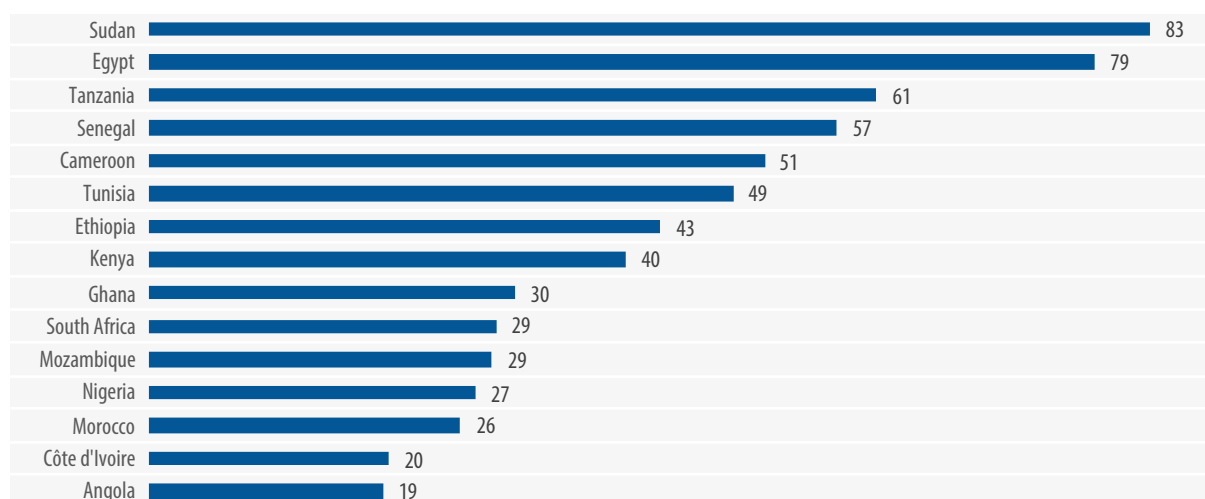
in the context of already high levels due to the Covid-19 pandemic and other structural factors specific to each country. Evidently, the full effects of the war will take time to materialize in the medium term. And some impacts will take even longer, notably scarring effects that may set productivity and growth trends on lower paths in the absence of strong mitigation measures and robust post-crisis rebuilding investments.

The inflationary effects arise from the exposure of African economies through trade with Russia and Ukraine. In particular, the dependence on wheat imports from the two countries constitutes a major channel of transmission of shocks to prices and production of wheat. Egypt is the top importer of wheat in the

world. About 79.6% of its imports come from Russia (57.5%) and Ukraine (21.5%) (FIGURE 4.14, TABLE 4.1 and BOX 4.1). For Sudan, the two countries account for up to 83% of its total wheat imports. Other countries also buy a high share of wheat imports from Russia and Ukraine: Tanzania (60.5%), Senegal (57.2%), Cameroon (51.1%) and Ethiopia (42.5%).

“ Egypt is the top importer of wheat in the world. ”

**FIGURE 4.14 SHARE OF RUSSIA AND UKRAINE IN WHEAT IMPORTS BY AFRICA'S TOP WHEAT IMPORTERS, 2017-21 (% WHEAT IMPORTS)**



Source: Authors' computations using data from UN Comtrade.

#### BOX 4.1 THE RUSSIA-UKRAINE WAR AND THE WHEAT CRISIS IN EGYPT

With Russia as the world's largest wheat exporter and Ukraine the fifth largest, accounting for a combined total of 30% of global wheat exports, prices are likely to remain elevated for the duration of the war.<sup>9</sup> The war took prices to unsustainable levels for Egypt, increasing the price of wheat by an additional 44% and that of sunflower oil by 32% virtually overnight. Even more troublesome, it also threatens Egypt's physical supply, since 85% of its wheat comes from

Russia and Ukraine, as does 73% of its sunflower oil. With activity at Ukraine's ports at a complete standstill, Egypt needs alternative suppliers.

The cost for Egypt goes beyond just the import price. Egypt allocates five loaves of subsidized bread per day to each recipient participating in its rationing system. The subsidized selling price of eish baladi is EGP 0.05 per loaf (approximately 0.3 U.S. cents at the 1 March 2022 exchange rate), representing

less than one-tenth the actual cost. The government's compensation to Egypt's bakeries costs it EGP 0.60 (3.8 cents) per eish baladi loaf.<sup>10</sup> With more than 88% of Egypt's population registered for the bread rationing system, Cairo allocated USD3.3 billion for bread subsidies in its 2021/22 budget, a 10% increase over the previous year. Egypt's new wheat purchases and subsidies will now become an even greater fiscal burden for the treasury to bear.

**TABLE 4.1 SOURCES OF WHEAT IMPORTS FOR AFRICA'S TOP WHEAT IMPORTERS, 2017–21**  
(% WHEAT IMPORTS)

<b>COUNTRY</b>	<b>SOURCE 1</b>	<b>SOURCE 2</b>	<b>SOURCE 3</b>	<b>SUM TOP 3 SOURCES</b>	<b>RUSSIA + UKRAINE</b>
<b>Angola</b>	France	Russia	Argentina		
	56.9	19.4	7.6	83.9	19.4
<b>Côte d'Ivoire</b>	France	Russia	Ukraine		
	70.8	15.8	4.1	90.7	19.9
<b>Cameroon</b>	Russia	Canada	France		
	51.1	20.6	19	90.7	51.1
<b>Egypt</b>	Russia	Ukraine	France		
	57.1	21.5	3.4	82	78.6
<b>Ethiopia</b>	Ukraine	USA	Romania		
	29.4	28.4	16.4	74.2	42.5
<b>Ghana</b>	Canada	Russia	Switzerland		
	54.4	30.4	3.7	88.5	30.4
<b>Kenya</b>	Russia	Argentina	Ukraine		
	29.7	23.1	9.9	62.7	39.6
<b>Morocco</b>	Canada	France	Ukraine		
	26.9	25.4	19.8	72.1	25.9
<b>Mozambique</b>	Russia	Canada	Poland		
	22.4	15.4	7.5	45.3	28.5
<b>Nigeria</b>	USA	Russia	Canada		
	25.9	20.3	17.3	63.5	27.1
<b>Senegal</b>	Russia	France	Ukraine		
	49.5	26.9	7.7	84.1	57.2
<b>South Africa</b>	Russia	Lithuania	Poland		
	25.7	12.6	12	50.3	28.8
<b>Sudan</b>	Russia	Romania	Argentina		
	79.4	6.1	4.1	89.6	83.2
<b>Tanzania</b>	Russia	Argentina	Ukraine		
	51.3	13.1	9.2	73.6	60.5
<b>Tunisia</b>	Ukraine	Canada	Russia		
	41.7	13.1	6.8	61.6	48.5

**Source:** Authors' computations using data from UN Comtrade.

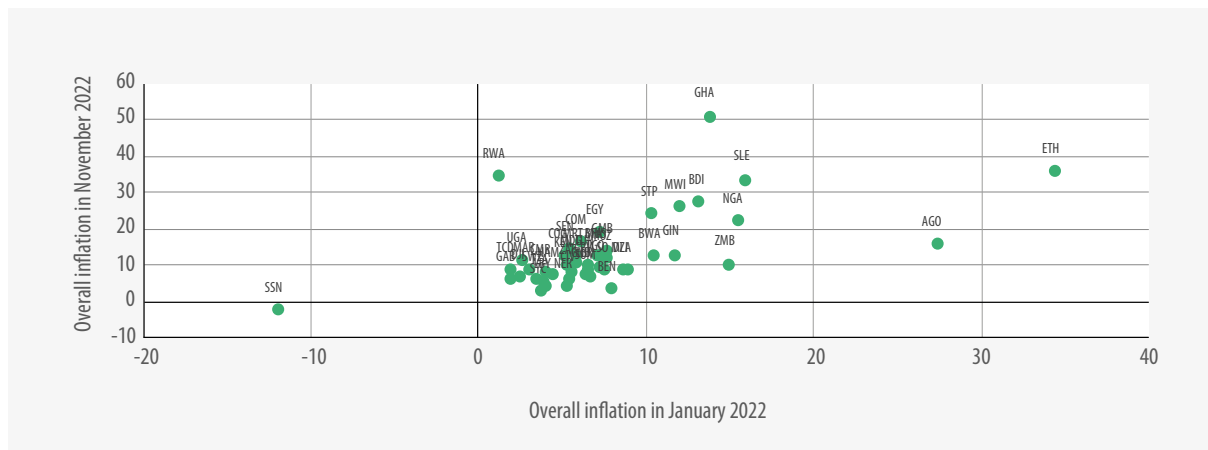
## FOOD INFLATION AND OVERALL INFLATION

All but 10 African countries have experienced higher inflation since the outbreak of the war (FIGURE 4.15). Countries that had high inflation before the war are still experiencing high inflation today. This suggests that the war has exacerbated inflationary pressures already rampant in most African countries, arising from the impacts of the Covid-19 pandemic, structural factors and anti-inflation policy measures in Africa and advanced countries. The 10 exceptions are Algeria, Angola, Benin, Côte d'Ivoire, Ethiopia, Guinea, Libya, Niger, Togo and Zambia where inflation has been stable or

declining. Angola and Ethiopia have had particularly high inflation rates, at 36.5% in October and 39.9% in November, respectively. Ethiopia's inflation was already very high at 30.7% before the start of the war, driven by food shortages and rising prices of basic commodities especially food items, conflict in the North and prolonged droughts.

In general, food inflation has been a major driver of overall inflation in African countries. This was so before the Ukraine war and has been exacerbated by the war through rising prices of wheat and other food items. FIGURE 4.16 exhibits a strong correlation between the change in overall inflation

**FIGURE 4.15 OVERALL INFLATION IN AFRICAN COUNTRIES IN JANUARY 2022 AND NOVEMBER 2022**



**Source:** Trading Economics,<sup>11</sup> originally from national statistical services.

**Note:** The graph excludes Zimbabwe for reasons of scale: inflation climbed from 63.3% to 376% between January and November 2022.

**FIGURE 4.16 CHANGE IN OVERALL INFLATION AND IN FOOD INFLATION BETWEEN JANUARY AND NOVEMBER 2022**



**Source:** Trading Economics, originally from national statistical services.

in November 2022 and inflation before the start of the war. The data show that countries experiencing rising food inflation also experienced rising overall inflation during the year.

Oil prices were rising globally prior to the full escalation of the war. When Russia attacked Ukraine, the price of crude oil in the global market skyrocketed from around USD76 per barrel at the start of January 2022 to more than USD130 per barrel in March 2022 (**BOX 4.2** and **BOX 4.3**).

Country experiences in inflation vary substantially, especially food inflation (**APPENDIX 4.1**). Many countries experienced a steady increase in food inflation in 2022. And for the majority of them, inflation was already high and increasing even before the war in Ukraine due to the Covid-19 pandemic and country-specific structural constraints, especially production bottlenecks and climate shocks in agriculture. Standing out as having sharp and steady increases in food inflation are Burundi, Rwanda, Ghana, Uganda (panel a) and Zimbabwe. The rest of African countries have experienced a mixed pattern of food inflation. For Algeria, Côte d'Ivoire, Nigeria and Zambia, food inflation has evolved around a flat and low trend. For Burkina Faso, it rose in the first half of the year and has been declining since July. Ethiopia stands out with remarkably high inflation, but its trend has been downward since May.

An important structural cause of food inflation and dependence on imported food, particularly grains, is the failure to raise productivity in agriculture. Indeed, the continent continues to lag other developing regions in yields for the main grains—wheat, rice, maize and sorghum (**APPENDIX 4.2**).

**“ When Russia attacked Ukraine, the price of crude oil in the global market skyrocketed from around USD76 per barrel at the start of January 2022 to more than USD130 per barrel in March 2022. ”**

The decline in productivity is a result of inadequate investments in infrastructure, lack of systematic regeneration of plants and seeds, and low penetration of modern technology in agriculture. African governments continue to allocate insufficient shares of the budget to agriculture, much below the targets stated in various conventions. For example, the key decision in the 2003 *Maputo Declaration on Agriculture and Food Security in Africa* by the African Union General Assembly was the “commitment to the allocation of at least 10% of national budgetary resources to agriculture and rural development policy implementation within five years.”<sup>12</sup> This became one of the 20 goals (goal 5) of the AU’s Agenda 2063. The continent’s performance on this goal is the second worst (8%) ahead of goal 12—“Capable institutions and transformed leadership in place at all levels” (4%).<sup>13</sup> Clearly implementation of development targets remains a major constraint to both achieving sustained strong growth and containing inflationary pressures arising from food imports in the continent.

#### **BOX 4.2 NIGERIA AND THE RISING OIL PRICE INDUCED BY THE UKRAINE WAR**

Nigeria relies on crude oil for most of its foreign exchange and two-thirds of government revenue. It is Africa’s largest crude oil producer, with the second-largest proven oil reserves on the continent and the world’s seventh-largest oil exporter in 2020. It exported USD30 billion worth of oil, about 4.7% of the global total.

Over the years, however, Nigeria’s strength as an oil-producing country has been continually threatened by its inability to refine crude oil for domestic consumption locally. It has been unable to benefit for increasing global prices as a result of Russia’s

invasion of Ukraine due to theft, vandalism and insecurity in supply chains. The oil price rally meant an increase in crude export revenues for the country, but this was offset by higher petrol subsidy costs incurred by the Nigerian National Petroleum Company. In addition, Nigeria relies heavily on refined petroleum imports. The two countries from which Nigeria imports most of its refined petroleum, Netherlands and Belgium, import a large portion of their crude from Russia, like most of Europe, thus disrupting Nigeria’s refined petroleum supply. From late January until early April 2022, there were long queues at filling stations due to a shortage in the

supply of the products, which are largely imported due. The country is making more money selling crude but losing the same amount, if not more, from importing refined products.

In August 2022, OPEC raised Nigeria’s crude production quota from 1.77 million barrels per day to 1.83 million for September. However, Nigeria has recorded significant economic losses and decreased oil output due to oil theft, aging infrastructure and a decline in new investments. Indeed, it has been unable to meet this quota and boost oil revenues.

**Source:** Ajala, 2022.

The three impact channels for the war to affect the agrifood sector—world food, fuel and fertilizer prices—affect different parts of the agrifood system. The fertilizer shock is the most important driver of agrifood system losses as it has the most direct impact on primary agricultural production costs and productivity.<sup>14</sup> This causes problems further downstream in the agrifood supply chains. Because food price shocks increase the cost of imported inputs (such as domestic wheat grain milling), they have a more direct and disproportionate effect

on agroprocessing. By contrast, the delivery of food generally is disproportionately hit by spikes in fuel prices. The rising cost of food and gasoline has a direct impact on primary agriculture as well. For instance, as consumers shift to locally sourced agrifood goods, rising food costs may be advantageous to primary agriculture. But fuel prices increase farm production costs in nations where agriculture makes extensive use of fuel-powered tillers, tractors and irrigation.

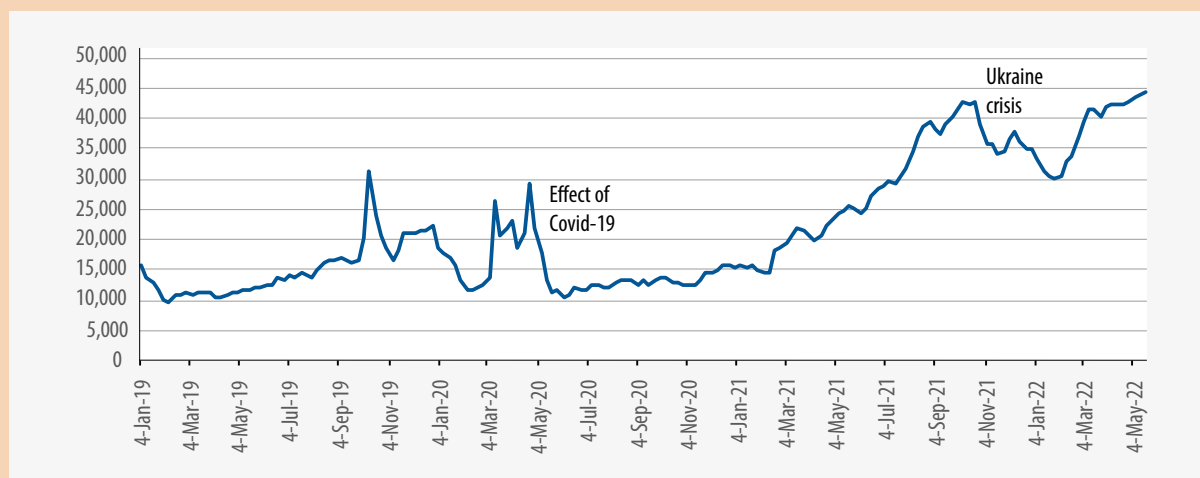
### BOX 4.3 RISING SHIPPING COSTS, ESPECIALLY FOR SMALL ISLAND COUNTRIES

The Covid-19 pandemic and Ukraine war have led to logistics disruption, trade restrictions and increasing fuel prices. They also made the world's shipping and trading environment more expensive and unreliable. Many countries have been forced to search

longer distances for grain, gas and oil. As a result, shipping distances, transit times, and expenses increased (BOX FIGURE 1). The Baltic Dry Index, a measure of dry bulk freight rates around the world, rose 59% for the first half of 2022. This might produce

an additional global increase of 3.7% in consumer food costs. Higher transport expenses driven by increasing freight rates and longer distances account for about half this rise.

**BOX FIGURE 1 THE CLARKSEA INDEX SKYROCKETS (USD A DAY)**



**Source:** UNCTAD, based on data from Clarksons Research through 8 April 2022.

**Note:** The series tracks average vessel earnings across the major shipping sectors, including tankers, bulkers, containerships and gas carriers, weighted by the number of ships in each segment.

Small island developing states (SIDS) are hurt most by the rising cost of shipping. They have modest trade volumes and severe trade imbalances (ships frequently return empty). They are serviced by a small number of shipping companies. They depend heavily on imports of energy and consumer goods, and they spend two to three times more on import transport than the rest of the globe.

Mauritius is one of the countries hit heavily by soaring shipping costs. It is a net importer of food, manufactured goods and fuels, and the rising costs of freight, fuel and food due to the Russia–Ukraine war could heavily increase its import bills and living costs. Its transport CPI peaked in June 2022 at 141, a 20% increase over January 2022. China and India respectively account for 18% and 16% of Mauritius's total imports. The cost of

moving a container from China to Mauritius rose fivefold, from USD1,300 in January 2020 to USD7,500 in February, up almost sevenfold.<sup>15</sup> Adding to the freight costs is a weaker rupee. The Mauritian rupee has been depreciating against the US dollar since the beginning of Covid-19. Between the end of March 2020 and end of September 2022, it depreciated by 15%.

**Source:** UNCTAD 2022.

# CURRENCY DEPRECIATIONS

African countries have experienced substantial currency depreciations since the Covid-19 pandemic, exacerbated by the war in Ukraine. For some countries, the national currency has been

in free fall, and the depreciation is likely to persist for some time due to pre-existing structural weaknesses (BOX 4.4)..

## BOX 4.4 GHANA, NAVIGATING INTERTWINED CRISES WHILE HEAVILY INDEBTED

For Ghana, the war in Ukraine has thrown cold water on recovering from the Covid-19 pandemic. It had a strong recovery in 2021, posting 7% growth in the fourth quarter. But the war in Ukraine changed that, affecting key sectors of the economy, including agriculture through increasing costs of imported fertilizers and equipment, leading to a spike in food inflation. The industries most affected: tourism, banking and finance.

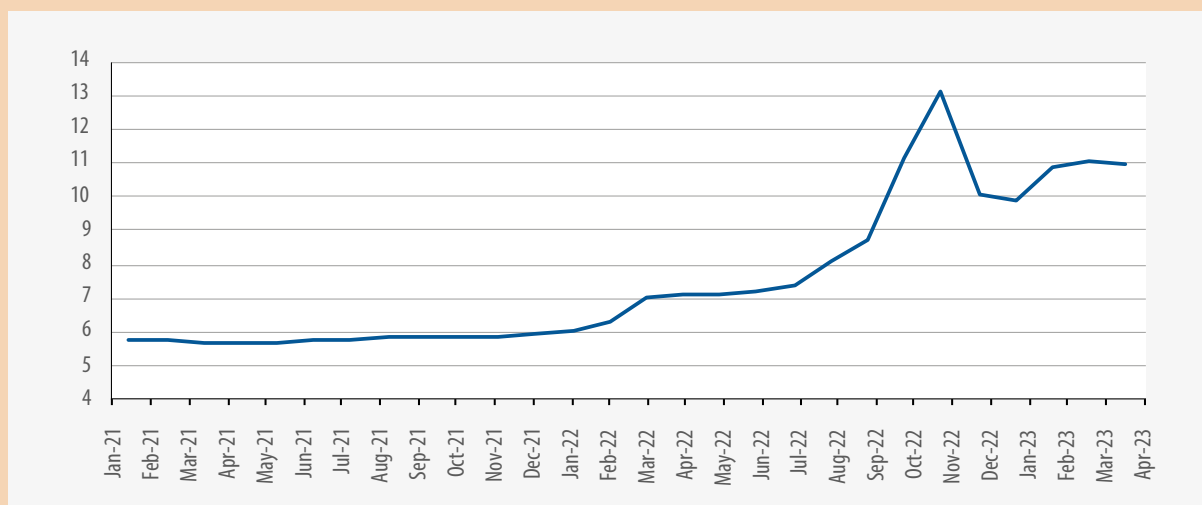
### THE WAR IN UKRAINE HAS EXACERBATED INFLATIONARY PRESSURES

The upward pressures on inflation due to the disruption of global logistics and the supply of key commodities such as wheat and fertilizer resulted in exploding food prices. Food inflation broke into two-digit territory in 2020, cooled in 2021, but then took off in 2022, reaching an all-time high of 60% in December. Besides the increase in the cost of imports due to logistics and supply constraints, the depreciation of the cedi puts further pressure on the cedi. With most of the pressure coming from the supply side, there is not much that monetary policy can do, except avoid exacerbating the recession through contractionary interest rate policy.

### LID BLOWN OFF BY CURRENCY DEPRECIATION PRESSURES

At the beginning of 2022, the cedi began a free fall after a long period of stability (BOX FIGURE 2). The causes: rising demand for and cost of imports, declining foreign exchange reserves, strengthening the US dollar and rising world interest rates as advanced economies push the brakes to cool aggregate demand and tame inflation. The cedi's depreciation exacerbates the inflationary pressures through imported inflation, creating a spiral of depreciation. As uncertainties prevail in the economy, with a weak international financial position due to unsustainable debt and deep trade deficits, depreciation pressures are likely to persist, and monetary policy may have limited power to alleviate them.

**BOX FIGURE 2** EXCHANGE RATE OF THE GHANA CEDI AGAINST THE US DOLLAR, 2021-23 (CEDIS PER DOLLAR)



Source: Central Bank of Ghana.



The preceding sections outlined in detail the key macroeconomic indicators that could be affected by the ripple effects of the war in Ukraine. **APPENDIX 4.3** summarizes results from a global vector auto-regressive model that consisted of 44 African countries and 30 non-African trading partners for the period 1980-2022. The model simulates impulse responses to key macroeconomic indicators, including real GDP growth, inflation, exchange rates, and others.

## THE WAR'S MICROECONOMIC AND SECTOR EFFECTS ON EXTREME POVERTY

There is a direct relationship between macroeconomic indicators and household welfare, and hence poverty, in a first-order approximation of the impact. It is possible that the impact could be further amplified through second-round effects, where shocks propagate through other channels such as labour markets, private investment and productivity changes. This section focuses not on these general equilibrium effects but on the immediate impacts, to capture the path of poverty in the aftermath of the macroeconomic shocks.

The direct relationship between poverty and macroeconomic indicators can be estimated using linear models. The key macroeconomic indicators selected for this purpose include real GDP growth (approximated by real per capita consumption expenditure), inflation, the primary fiscal balance, the current account balance and public debt (**TABLE 4.2**).<sup>16</sup>

The results from the regression analysis show that growth in real per capita consumption has a large and significant impact on poverty. A 1% increase in per capita expenditure could lead to a 1.13% reduction in extreme poverty. The elasticity of poverty with respect to per capita consumption growth measures the extent to which growth is effective in reducing poverty.<sup>17</sup> Because of high initial inequality and low per capita GDP, the elasticity of poverty tends to be low for African

countries. An increase in the debt burden and a deterioration of the current balance increase poverty, but their impact is relatively small. These results can be used to infer the order of magnitude of the impact of the war in Ukraine on poverty.

It should be recognized, however, that isolating the impact of the Ukraine war from other shocks—such as the lingering Covid-19 pandemic, climate change and other idiosyncratic shocks—would be very difficult in the absence of a structural macroeconometric model. Instead, this section considers a descriptive method that relies on the variance of projections on key macroeconomic indicators by the IMF before the war (October 2021) and after the war (October 2022). As shown in the previous section, the variance in projections for key macroeconomic indicators such as real GDP growth, inflation, the fiscal deficit, and the current account balance exhibited significant deterioration in 2022 and 2023. Using these variances and the regression results in **TABLE 4.2**, it is possible to estimate the potential impact on extreme poverty of changes in macroeconomic indicators due to the war.

The macroeconomic indicators were showing some signs of recovery in 2021 as countries started opening their borders, eased mobility restrictions and allowed businesses to resume their normal activities following the availability of vaccines

**TABLE 4.2** ASSOCIATION BETWEEN THE RATE OF CHANGE IN EXTREME POVERTY AND KEY MACROECONOMIC INDICATORS IN AFRICA (1980–2019): FIXED-EFFECTS PANEL DATA REGRESSIONS WEIGHTED BY POPULATION

EXPLANATORY VARIABLE	COEFFICIENT (T STATISTICS)
Per-capita consumption expenditure	-1.132*** (-28.98)
Public debt (% of GDP)	0.000178* (-2.18)
Current account balance	-0.00144*** (-3.88)
Country fixed effects	Yes
Time effects	Yes
Within R <sup>2</sup>	0.46
Between R <sup>2</sup>	0.29
Overall R <sup>2</sup>	0.48
Total observations	1127
Number of countries	51

**Note:** The dependent variable is the rate of change in extreme poverty.

**Source:** ECA computations based on data from Povcalnet and World Development Indicators.

against Covid-19. As a result, real GDP growth was forecast in 2021 to rebound from the recession in 2020 (TABLE 4.3). The proportion of the population living in extreme poverty increased from around 39.8% in 2019 to 43.6% in 2020 due to the pandemic and declined slightly to around 38.8% in 2021. The war, however, caused a deterioration of the outlook for real GDP growth of around 1 percentage point in 2022 and 0.5 percentage point in 2023, leading to a projected increase, respectively, to around 39.2% in 2022 and 39.5% in extreme poverty.

“The macroeconomic indicators were showing some signs of recovery in 2021 as countries started opening their borders, eased mobility restrictions and allowed businesses to resume their normal activities following the availability of vaccines against Covid-19.”

**TABLE 4.3** TRENDS AND CHANGES IN EXTREME POVERTY IN AFRICA, 2019–23

	2019	2020	2021	2022	2023
Real GDP growth (%)	3.07	-2.50	4.7	3.5	4.4
Projection variance (%)	-46	0.70	-1.09	-92	-0.45
Extreme poverty levels and changes (%)	39.8	43.6	38.8	39.2	39.5

**Note:** Real GDP growth is based on IMF World Economic Outlook October 2022. The projections variances are differences between the projections in October 2022 (after the war in Ukraine) and October 2021 (before the war), which approximate the potential impact on real GDP growth. Extreme poverty is the headcount ratio weighted by population for 51 African countries.

**Source:** ECA computations based on data from IMF World Economic Outlook and Povcalnet.

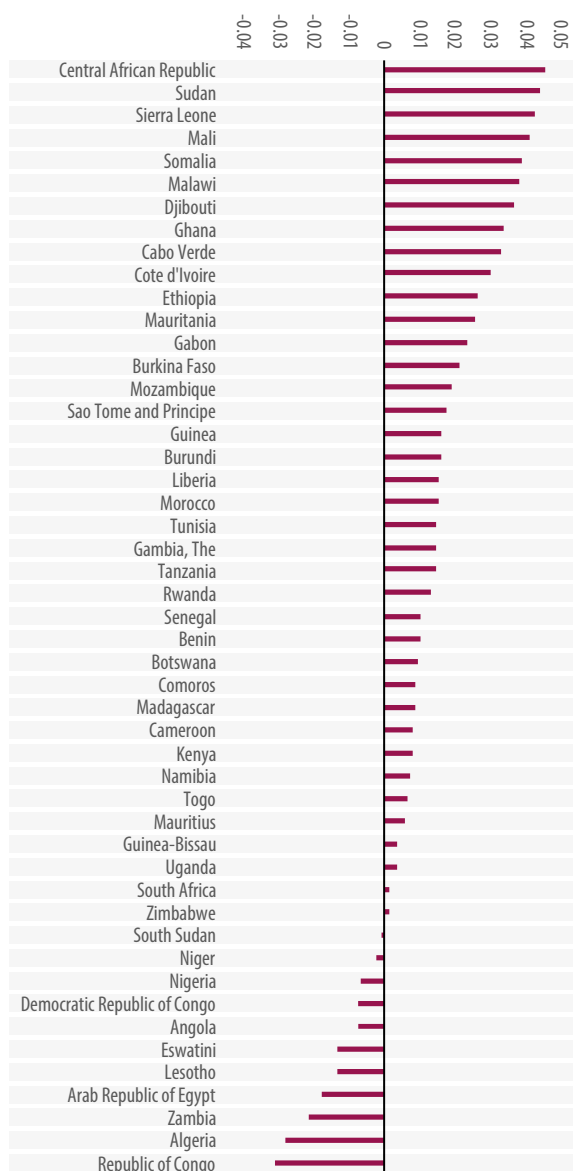
Central Africa Republic, Mali, Sierra Leone, Sudan and others that have significant trade relationships with either Russia or Ukraine tended to suffer more from the ripple effects of the war (FIGURE 4.17). There is a slight change in 2023 in the composition of countries projected to be affected most by the ongoing war. Mauritania, Mozambique, Niger, Senegal and Sudan are expected to witness a significant increase in extreme poverty as a result of the war (FIGURE 4.18).

Whenever a shock came, women and youth were the hardest hit, especially when more people are pushed back into poverty. As the war in Ukraine continues, millions of children in North Africa at increased risk of malnutrition amid food price hikes.

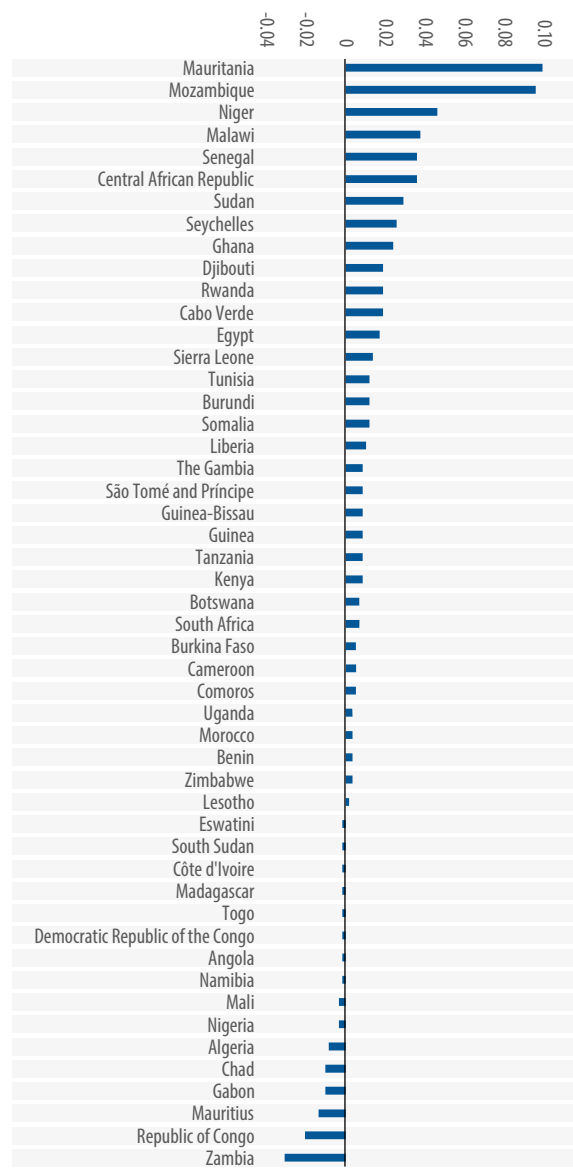
Companies that use natural gas as a fuel to create chemicals or fertilizers are having trouble as a result of the price increase. Due to the continuing reliability issues with the national grid, many firms that self-generate electricity have had to bear additional costs. While consumers struggle with lower purchasing power, producers, retailers and small businesses in the informal sector have had to hike prices for goods and services. These firms rely on petrol and diesel to operate their machines.<sup>18</sup>

In summary, the link between extreme poverty and macroeconomic indicators illustrates the vulnerability of many African countries to the ongoing war. And other macroeconomic

**FIGURE 4.17 CHANGE IN EXTREME POVERTY IN AFRICA DUE TO THE WAR IN UKRAINE, 2022 (PERCENTAGE POINTS)**



**FIGURE 4.18 PROJECTED CHANGE IN EXTREME POVERTY IN AFRICA DUE TO THE UKRAINE WAR, 2023 (PERCENTAGE POINTS)**



indicators likely to be affected by the war have independent impacts on extreme poverty. For example, fiscal deficits and deteriorating current account balances tend to worsen extreme poverty through other channels, such as transfers, subsidies and prices. So, the assessment here most likely understates the full impact of the war's shockwaves on extreme poverty among African countries.

Some countries tend to benefit on a net basis from the war, particularly oil-exporting countries such as Algeria, Angola, Congo, Gabon and Nigeria. For Egypt, the high oil prices helped

to partially offset the negative impact of its heavy dependence on wheat imports from Ukraine. Furthermore, after Russia, South Africa is the world's second-biggest producer of palladium and is positioned to benefit from the sanctions on Russia as supply concerns grow. The price of precious metals has also surged to a peak due to sanctions on Russia.<sup>19</sup> With many turning to gold as a safe haven, this could benefit South Africa as a major gold exporter.<sup>20</sup> The EU has been formulating contingency measures to stop its reliance on Russia and look South, as Africa also has gas and coal reserves.

## POLICY IMPLICATIONS

The war in Ukraine has exacerbated the effects of previous crises notably the Covid-19 pandemic. African economies that will suffer the most are those most exposed to trade with Russia and Ukraine for key commodities, notably oil and wheat. This carries policy lessons for African strategies to promote sustainable growth.

A key lesson from the analysis in this chapter is that African countries need to design national and regional policies to reduce their dependence on imported basic foods, notably cereals, and energy (oil and gas). Reducing food inflation will require a sizable and sustained increase in the productivity of key food commodities. This calls for scaling up productivity-enhancing physical investment and technology penetration in agriculture to finance the infrastructure needed for production, conservation, value chain development, market integration and transport of agricultural and related outputs. Today, most African governments spend much less than even the minimum that they have committed to in various continental conventions. The 10% budget allocation to agriculture contained in the Maputo Declaration should be seen as a baseline minimum for each country.

The second aspect of the strategy is to increase intra-African trade of food commodities. It is estimated that implementing

the African Continental Free Trade Area (AfCFTA) will increase intra-African trade in the agrifood sector by 49% in 2045, compared with the situation without the Agreement. Within the agrifood sector, products like cereals and crops, milk and dairy products, sugar, processed food, rice and meat have had the most notable increases.<sup>21</sup> Thus, the Agreement represents a critical opportunity to maximize potential benefits of such platforms through the progressive reduction and removal of tariffs and nontariff barriers (**BOX 4.5**). African countries can significantly reduce their food import bill by reorienting their import sources toward intra-Africa trade.

One way to increase intra-Africa food commodity trade would be to create and operate an African food commodity trading platform. A key advantage of this platform is that it would facilitate the pooling of production surpluses across countries to better meet continent-wide food demand, store crops to minimize food shortages during lean seasons, and very importantly, anonymize the source of the products—hence resolving constraints associated with political economy sensitivities (such as countries unwilling to buy crops from politically antagonistic states). Another important advantage of this platform would be to take advantage of subregional currency unions to avoid problems due to currency depreciations that raise the food import bill.

#### BOX 4.5 CAMEROON'S POLICY RESPONSE TO SOARING FOOD PRICES

A reduction by 80% of the value of transport reference for the calculation of tariffs and custom fees has been decided, and additional specific measures, particularly for wheat importers, have been set to mitigate the short-term effects of soaring prices.

Import quotas have been granted for some basic commodities like oilseeds to make up for the deficit of local production. The government has also decided to maintain subsidies for stabilizing oil prices at the pump despite sharp increase in international prices. The

Central Bank has decided to tighten monetary policy by increasing, from 28 March 2022, its interest rates by 50 basis points to maintain monetary stability and limit inflation pressures.

This innovative initiative could provide an impetus for accelerating arrangements for common regional currencies, notably in East Africa and Southern Africa. Expanding monetary integration at the continental level will help maximize the gains from trade integration. Successful regional integration in trade and financial markets is a potential solution to Africa's problems of food-driven inflation and food insecurity.

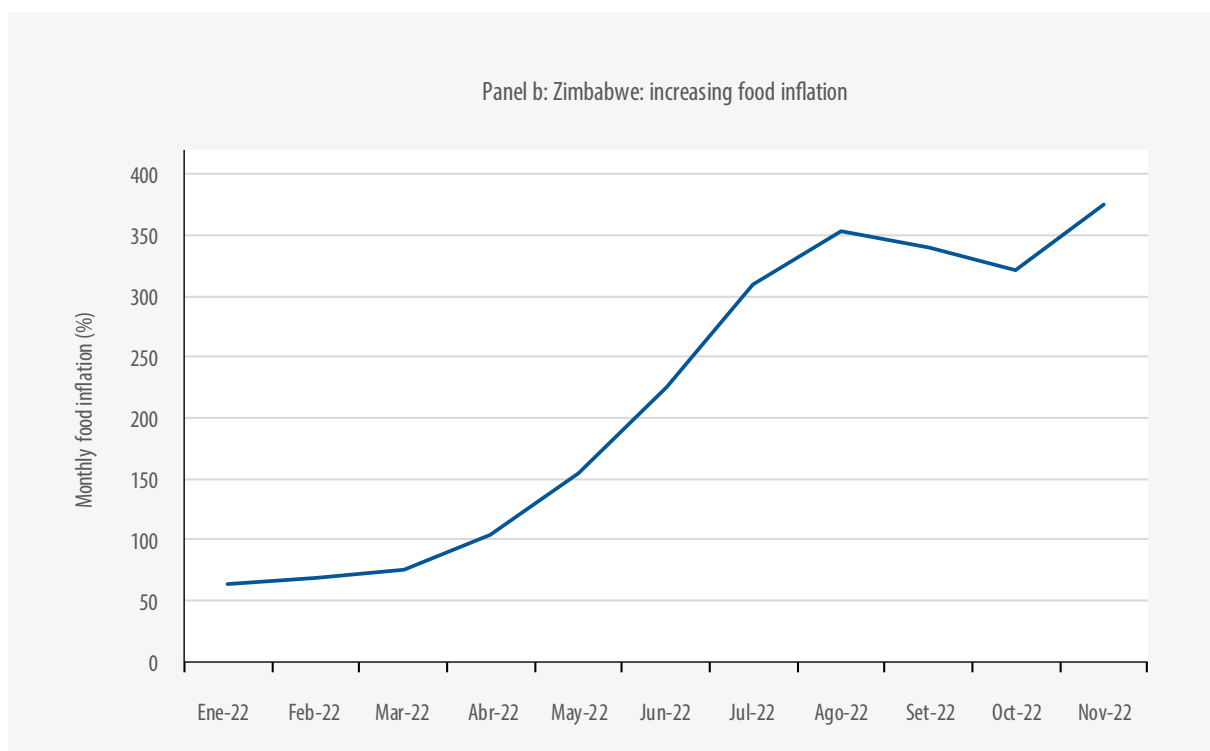
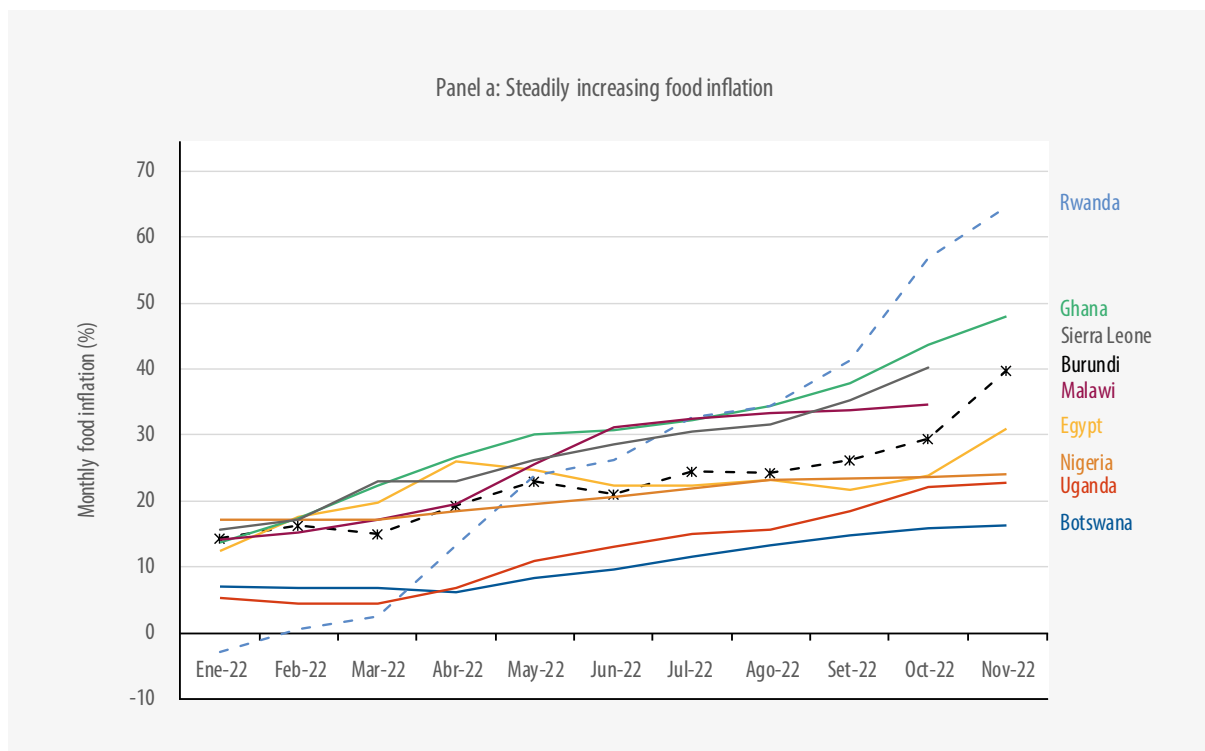
Leveraging information technology will be key to the success of regional and continental integration of trade and finance. The Africa Trade Exchange (ATEX) was developed to this effect by the ECA, in collaboration with the AU, to serve as a business-to-business and business-to-government digital marketplace.<sup>22</sup> In the medium term, ATEX is focused on responding to the agricultural and input scarcity resulting from the Russia-Ukraine conflict. It is geared towards accelerating food sovereignty by connecting the demand for main agricultural commodities and inputs to major suppliers. It is a good illustration of an African solution to a more resilient regional value chain and increased intra-African trade, which are critical to the continent's sustainable economic growth.

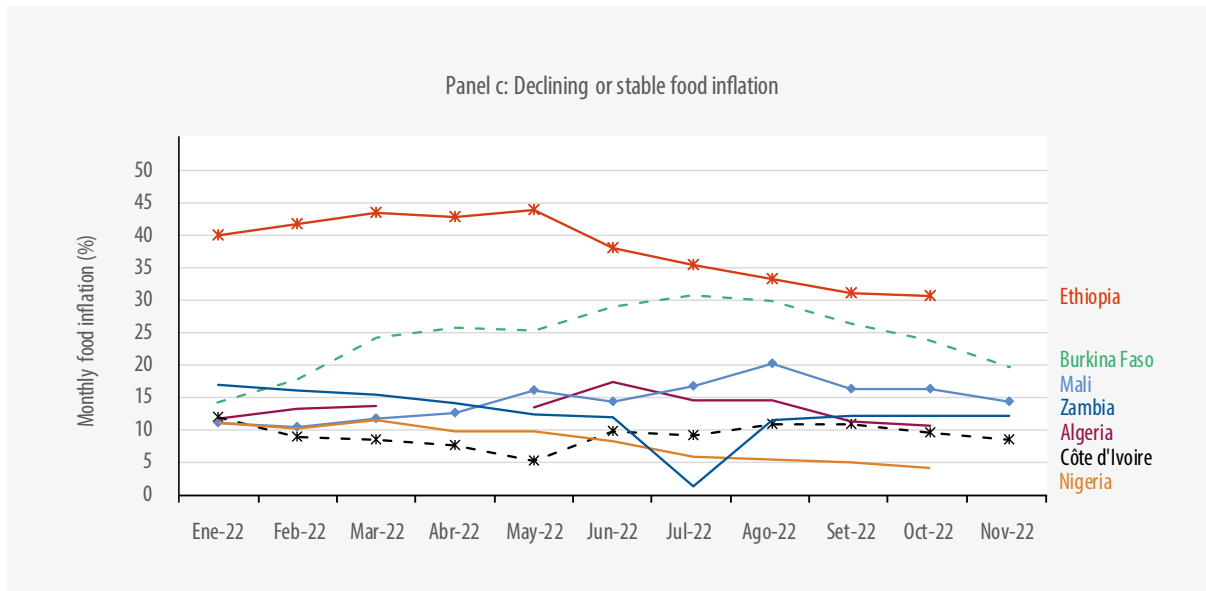
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# APPENDIX 4.1 TREND IN FOOD INFLATION IN 2022 IN SELECTED AFRICAN COUNTRIES

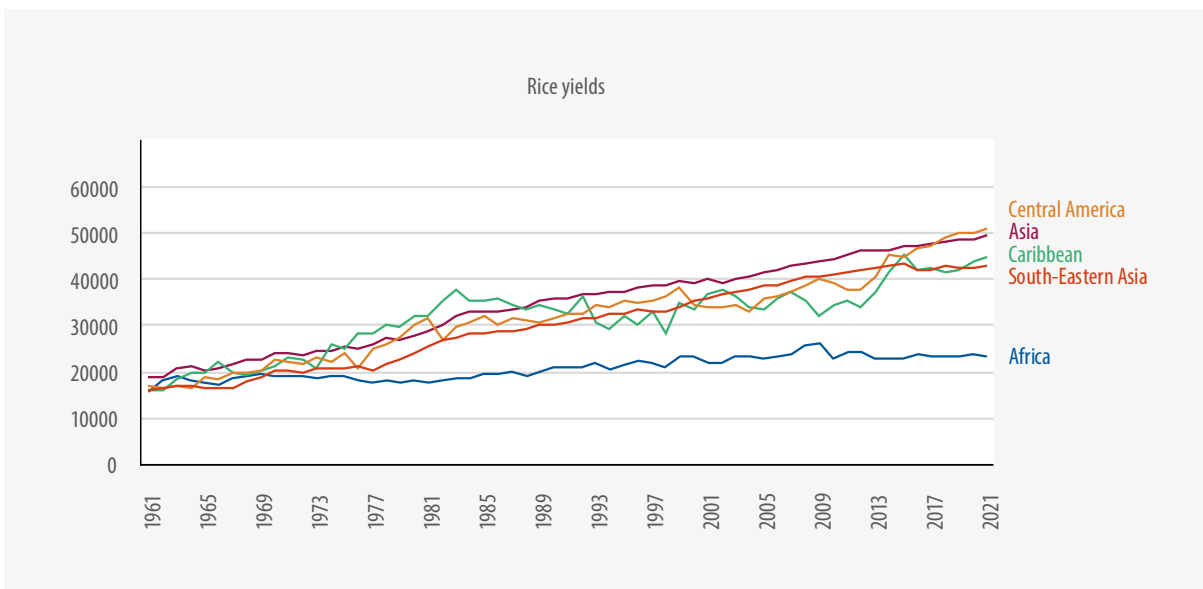
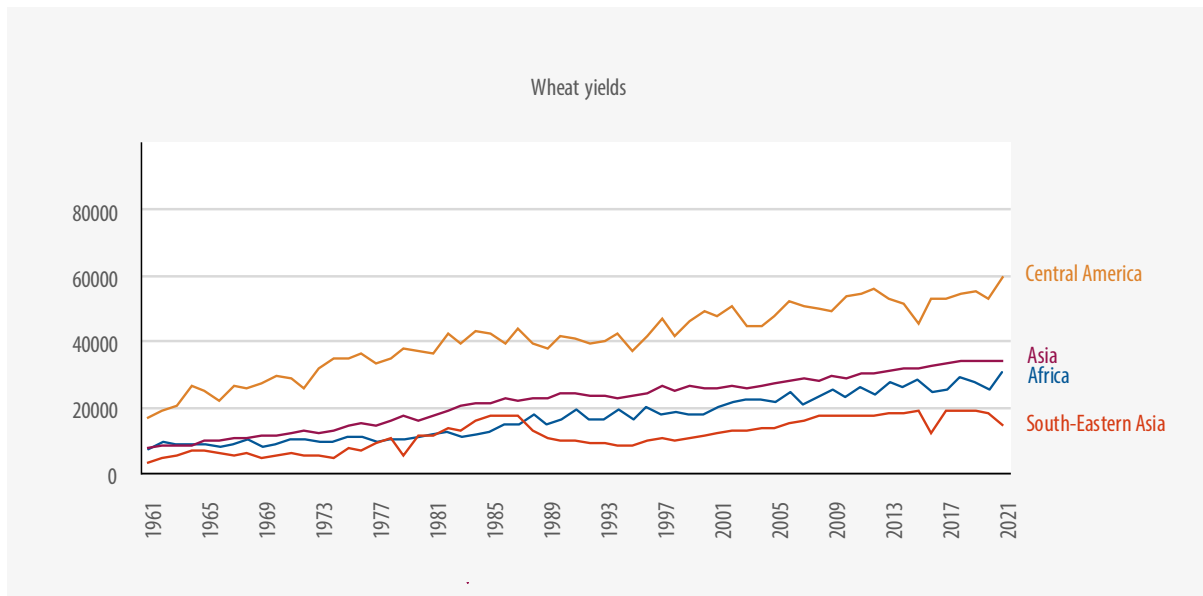


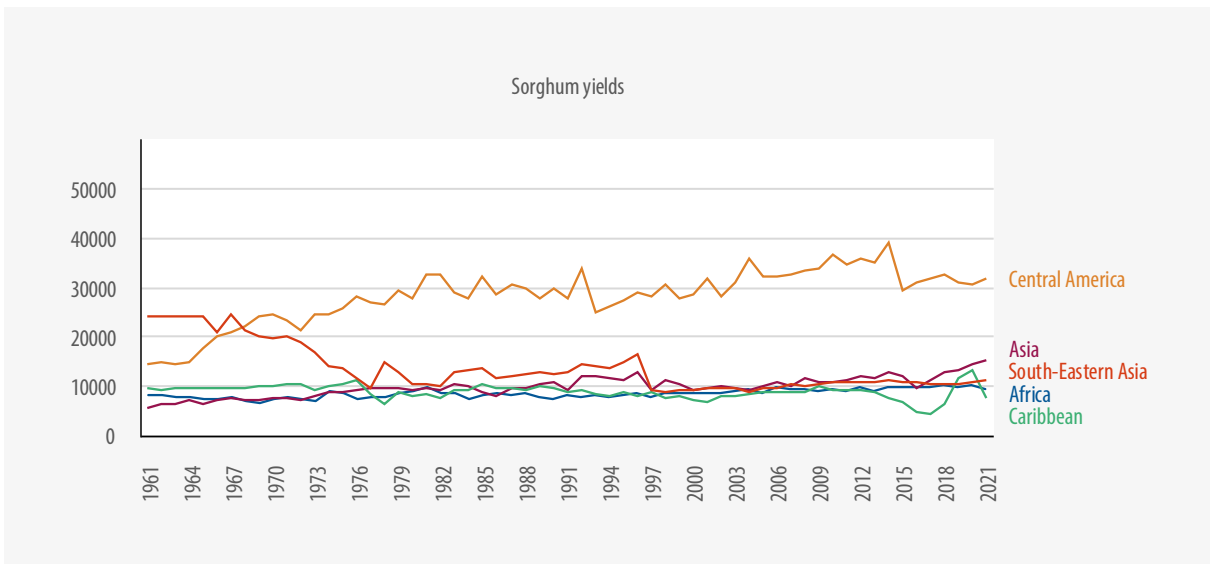
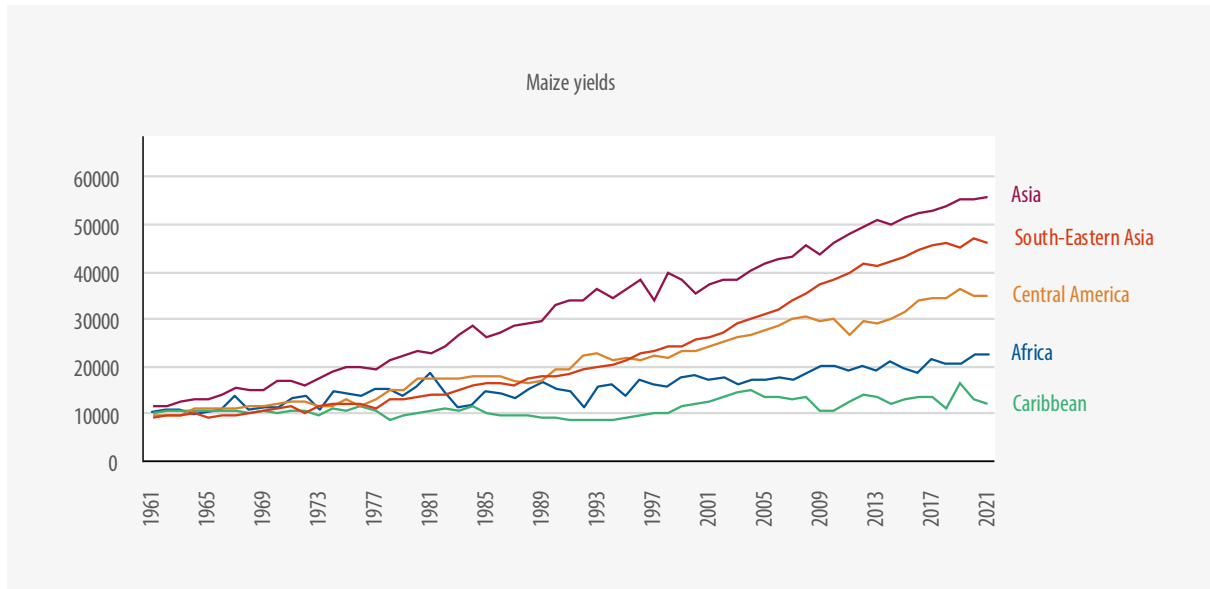


Source: Trading Economics, originally from national statistical services.



# APPENDIX 4.2 TREND IN CEREAL YIELDS IN AFRICA AND OTHER DEVELOPING REGIONS





Source: FAO statistics.

# APPENDIX 4.3 THE IMPACT OF THE WAR IN UKRAINE IN AFRICA: RESULTS FROM A GLOBAL VECTOR AUTO REGRESSIVE (GVAR)

The summary herein draws from the study by Gurara, D., S. M'boueke, D. Ngui Muchai & A. Shimeles (2023), "The Echoes of Conflict: Analyzing the Potential Impacts of the Russia-Ukraine War on Africa", AERC, May, that applied the GVAR model for 44 African countries and 30 non-African trading partners to capture the impacts of the war in Ukraine on African economies. The analysis basically covered nearly 90% of the world economy assuming key macro-economic indicators to be determined within the model including real GDP growth, inflation, exchange rates, etc. The GVAR models simulate the impulse responses of commodity terms of trade, consumer price inflation, real GDP and the domestically deflated dollar exchange rate to global food, oil, and fertilizer price shocks. GVAR models have emerged as powerful tools for capturing the international transmission of shocks in an increasingly interconnected global economy. They are designed to consider not just domestic economic conditions but also the influences of external trading partners and decisions by major economic powers that influence key global macroeconomic indicators. The study assumes that these price increases are entirely due to the war, and the key results that emerged from the estimations are as follows:

- Following the oil-price shock:
  - Oil-exporting countries will experience an improvement in their commodity terms of trade persisting beyond 3 years. However, the negative growth spillovers from the global economy will likely counterbalance the resulting increase in oil export revenue, leading to a net decrease in real GDP. On the other hand, oil-importing countries will face a deterioration in their commodity terms of trade, lasting anywhere from 3 quarters to over 3 years. Inflation is expected to increase in most countries and to persist beyond 3 years. The domestic purchasing power of the U.S. dollar (as measured by the domestically deflated exchange rate), is expected to decrease in most countries because of the combined effect of inflation and commodity terms-of-trade deterioration.
- Regarding the food price shock:
  - most countries will face a prolonged deterioration in their commodity terms of trade because they are net food importers. This effect will likely persist for more than 3 years. Inflation will increase in approximately half of the countries with available data, while all countries will experience a minor decrease in real GDP. As with the oil price shock, the domestic purchasing power of the U.S. dollar will decrease in almost all countries.
- Finally, the fertilizer price shock will lead to:
  - insignificant effects on the commodity terms of trade for most countries. Increased but transient inflation in a few countries. Mild effects on real GDP in the short run, but they become more pronounced in the long run.

Overall, these findings underscore the heightened vulnerability of African countries to external shocks, particularly in the face of global price hikes in critical commodities like oil, food, and fertilizers. The policy messages are clear. To build resilience, African countries need to pursue food self-sufficiency and security; diversification of energy sources; substitute fertilizer imports through domestic production; implement countercyclical monetary policies and strengthen regional economic integration.

## ENDNOTES

- 1 Duho et al., 2022, p. 1.
- 2 Kammer et al., 2022, p. 5.
- 3 Mottaleb et al., 2022.
- 4 Ndikumana et al., 2020. Also see, among others, Coulibaly et al. (2019) and Ndulu and O'Connell (2021).
- 5 FAOSTAT: <https://www.fao.org/faostat/en/#data/FS>.
- 6 FAO, 2022.
- 7 IMF, 2022.
- 8 See, among others, Kammer et al. (2022) and various IMF's reports.
- 9 Tanchum, 2022.
- 10 Tanchum, 2022.
- 11 <https://tradingeconomics.com/country-list/inflation-rate?continent=africa>, originally from national statistics services and central banks.
- 12 AU and NEPAD 2003.
- 13 <https://www.nepad.org/caadp/publication/au-2003-maputo-declaration-agriculture-and-food-security>.
- 14 Arndt et al., 2023.
- 15 Bloomberg, 2022.
- 16 The table reports results from a linear model where the rate of change in poverty is postulated to be affected directly by growth in real per capita consumption, public debt as a ratio of GDP (to proxy the primary fiscal balance), and the current account balance as a share of GDP. The data on extreme poverty are from World Bank's Povcalnet, which contains data on poverty over 1980–2019. In this report, extreme poverty is defined as the proportion of a population that lives below a poverty line of USD2.15 in purchasing power parity (PPP) a day per person. Per capita consumption expenditure was obtained from the same data source, based on household budget surveys (<https://pip.worldbank.org/home>). A panel data fixed-effects model is estimated, controlling for unobserved country-specific and time effects, offering a short-term relationship between poverty changes and macroeconomic indicators in each African country.
- 17 Fosu, 2008; Bigsten and Shimeles, 2006.
- 18 UNDP, 2022.
- 19 <https://www.reuters.com/markets/europe/gold-prices-dip-russia-ukraine-ceasefire-talks-underway-2022-03-01/>.
- 20 <https://www.nasdaq.com/articles/south-african-rand-set-for-weekly-gain-as-ukraine-crisis-lifts-gold>.
- 21 ECA and CIREM, forthcoming.
- 22 ECA, 2022.

CHAPTER 5 THE ENVIRONMENT,  
CLIMATE CHANGE AND  
AFRICA'S ECONOMIC  
DEVELOPMENT



At the 2022 United Nations 27th Conference of the Parties (COP27) in Sharm el-Sheikh, Egypt, the UN Secretary-General António Guterres clearly stated that humanity, without decisive corrective measures, is facing imminent catastrophic consequences of climate change. He stressed that the current production and consumption systems are not sustainable and are gravely accelerating the march to a catastrophic scenario: “We are on a highway to climate hell with our foot still on the accelerator.”<sup>1</sup>

Stressing the risks associated with global warming due to pollution and other damages to the environment, he said: “The science is clear: any hope of limiting temperature rise to 1.5° means achieving global net zero emissions by 2050.”<sup>2</sup> He added that while various efforts—including those in the context of the Just Energy Transition Partnerships—give hope for positive change, more is needed. Achieving the goals in the Paris Agreement (COP21 of 2016) would require global greenhouse gas emissions to peak before 2025 and then decline by 43% by 2030, ultimately reaching net zero by 2050.<sup>3</sup> Under the current scenario of voluntary national commitments to climate action, greenhouse gas emissions are likely to rise by nearly 14% by 2030.<sup>4</sup> Clearly, business as usual is not an option for the world community if it is to avert the worst consequences of climate change.

Cognizant of the urgency of decisive action, the Secretary-General took the opportunity of COP27 to call for a historic pact for the world community—a *Climate Solidarity Pact*. The pact calls on every country individually and all countries to collectively invest in programmes aimed at reducing greenhouse gas emissions to achieve the 1.5° goal. In his assessment, “It is either a Climate Solidarity Pact—or a Collective Suicide Pact.”<sup>5</sup>

These statements by the UN Secretary-General give a clear picture of the urgency of dealing with climate change. It is in this context that the Economic Report on Africa 2023 (ERA 2023) engages this topic in discussing the performance of African economies in the recent past and their growth prospects in the medium term. Climate change and environmental sustainability have taken an even more urgent character given new major shocks (such as the Covid-19 pandemic and the war in Ukraine) hitting developing countries that further exacerbate the challenges caused by climate shocks. Analysing the impact of those shocks requires taking into account the joint and simultaneous effects on African economies, which implies identifying and designing effective policy responses to these shocks.

This chapter addresses two aspects of the interplay between climate change and African economic development. The first covers long-term and transitional relationships between economic activity and the environment in general and climate change in particular. This includes the dual goal of accelerating growth in a continent that lags in most development targets, while protecting the environment. It deals with transition from primary commodity-based economies to medium- and high-technology manufacturing and services, and the implications for greenhouse gas emissions and strategies to mitigate them. The second deals with the short-term impacts and possible long-term implications of specific climate shocks to which African economies are disproportionately exposed because of their geographical locations (desert, arid areas, flood-prone coastal areas) and the nature of their production systems (such as rainfed agriculture).

# LONG-TERM AND TRANSITIONAL LINKAGES BETWEEN CLIMATE CHANGE AND ECONOMIC DEVELOPMENT IN AFRICA

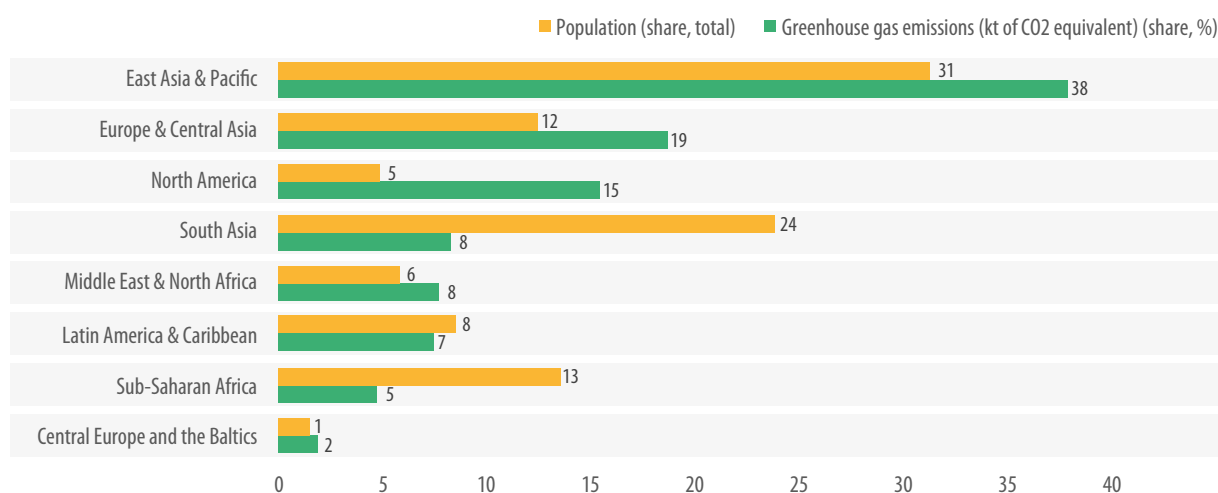
## THE DUAL GOAL OF GROWTH AND ENVIRONMENTAL PROTECTION

For developing countries and African countries in particular, the decarbonization of growth is particularly challenging given their situation and development imperatives. To begin with, developing countries contribute a relatively small share to global environment degradation associated with economic activity. But they also suffer disproportionately heavy costs of pollution and other climate degradation, most importantly because they are less equipped for climate change mitigation. During 2010–19, Africa, excluding the north subregion, accounted for only 5% of world greenhouse gas emissions, while hosting 13% of the world population (FIGURE 5.1). By comparison East Asia and Pacific accounted for 38%, Europe and Central Asia 19% and North America 15% of world greenhouse gas emissions, while respectively hosting 31, 12, and 5% of world population.

While African countries contribute very little to global greenhouse gas emissions, they must heed the call for concerted global efforts to mitigate the pace of climate change and protect the environment. This means that African countries do not have the luxury of following the path of early industrializers in designing their industrialization and growth strategies. Indeed, the advanced countries developed their industrial base when there was little concern about the impact of economic activity on the environment; they were able to take full advantage of their natural resource endowments in expanding their productive capacity and accelerating growth.

In contrast, African countries today must pursue a dual goal of accelerating growth while protecting the environment—or more precisely, accelerating growth while minimizing the adverse impact of economic activity on the environment. These challenges were exacerbated, however, by the setbacks from

**FIGURE 5.1 REGIONAL SHARES IN GREENHOUSE GAS EMISSIONS AND POPULATION, 2010–19**  
(% OF WORLD TOTAL)



Source: World Development Indicators.

the recent crises. This raises serious questions about the path and pace of structural transformation, the nature of industrial policy and the strategy for leveraging natural resource endowment to boost growth and transition to green growth.

## NATURAL RESOURCE ENDOWMENT, CLIMATE CHANGE AND THE ENVIRONMENT

The challenges inherent to the dual goal of sustained economic growth and environmental protection are even more complex in countries endowed with exhaustible natural resources. The majority of African countries are classified as: “commodity dependent developing countries (CDDCs) in the sense that primary commodities account for more than 60% of their total merchandise exports.”<sup>6</sup>

### PRIMARY COMMODITY DEPENDENCE

As noted above, the two-way relations between commodity dependence and greenhouse gas emissions are very important considerations. The exploitation and processing of primary commodities has a negative impact on biodiversity, water and soils and increases greenhouse gas emissions. But climate change and the resulting pressure to deal with the degradation of the environment create challenges for the viability of the primary commodity-driven growth model. Climate change causes a reduction in productivity, which ultimately reduces tax and export earnings from primary commodity exploitation. And the ability of primary commodities to drive growth is hindered by reduced global demand for these products through substitution of traditional carbon-intensive commodities with less carbon-intensive alternatives, as well as pressure from advocates to preserve the environment and mitigate climate change.

That raises the empirical question of a relationship between natural resource endowment, climate change and environmental degradation. The question has been investigated by examining empirically whether there is a correlation between commodity-driven growth and greenhouse gas emissions (GHGs). To explore this question, the chapter examines the elasticity of GHG emissions with respect to output growth, to see whether commodity-dependent African countries exhibit higher elasticities or carbon intensity of growth.

### EMPIRICAL EVIDENCE: GREENHOUSE-GAS-EMISSION GROWTH ELASTICITIES

This section explores the elasticity of GHG emissions relative to GDP growth in African economies, country by country and by commodity dependence type (agriculture, fuel, minerals).

In the first stage of the analysis, real GDP and GHG (both in logarithms) are decomposed into their respective trend and cycle components, using the standard Hodrick-Prescott filter.<sup>7</sup> In the second stage, trend and cyclical elasticities are estimated using simple OLS and fixed-effects regressions for group estimates, and simple OLS regressions for country estimates, respectively. Trend elasticities are obtained by estimating the following empirical model:

$$\text{GHG}_{it}^{\tau} = \beta_0 + \beta^{\tau} y_{it}^{\tau} + \varepsilon_{it}^{\tau} \quad (1)$$

Where, for country  $i$  at time  $t$ ,  $\text{GHG}$  and  $y$  are the trend components of the log of greenhouse gas emissions and the log of real output,  $\beta^{\tau}$  is the estimated trend elasticity of GHG emissions with



respect to output and  $\epsilon_{it}^c$  is a random error term. The intercept  $\beta_0$  accounts for the fact that countries may start at different levels of output and emissions over the sample period.

The following model estimated to obtain cyclical elasticities is the:

$$GHG_{it}^c = \beta^c y_{it}^c + \epsilon_{it}^c \quad (2)$$

where  $GHG^c$  and  $y^c$  are, respectively, the cyclical components of the log of greenhouse gas emissions and log of real output for a country, and  $\beta^c$  is the estimated cyclical elasticity of GHG emissions with respect to output.

The data on greenhouse gas emissions are from the European Commission's Emissions Database for Global Atmospheric Research (EDGAR) database.<sup>8</sup> Data on GDP come from the UNCTAD statistical database.<sup>9</sup>

### ELASTICITY ESTIMATES BY GROUP

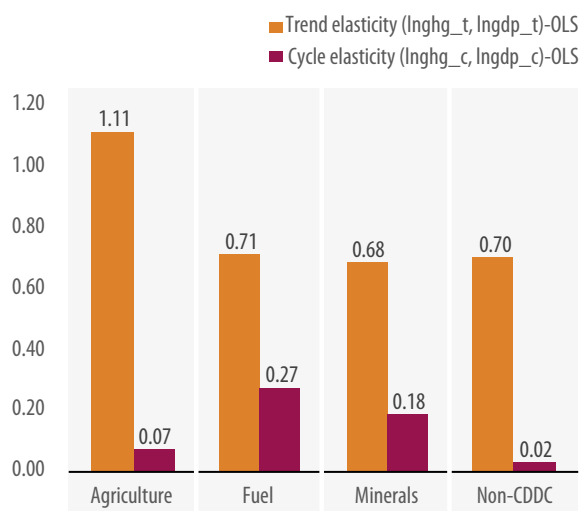
FIGURE 5.2 presents estimates of the elasticity of greenhouse gas emissions with respect to output obtained using the OLS regression method while estimates in FIGURE 5.3 are obtained using fixed-effects regressions. The OLS regression results suggest that for agriculture-dependent economies, in the long run, growth leads to rising greenhouse gas emission, and there is no sign of decoupling as illustrated by the coefficient that is greater than unity (1.11). For the fuel and mineral dependent economies, in contrast, the coefficients are less than unity,

indicating no intensification of greenhouse gas emissions because of economic growth. The group of mineral dependent economies is not distinguishable from non-CDDCs on the intensity of the impact of economic growth on GHG emissions.

When country fixed effects are incorporated in the regressions, no group has an estimated elasticity above unity, suggesting no intensification of GHG emissions because of economic growth (FIGURE 5.3). In this case, the fuel-dependent economies have the highest estimate (0.94), but it is less than unity. Once again, the elasticity estimates are similar for the group of mineral dependent economies and non-CDDCs.

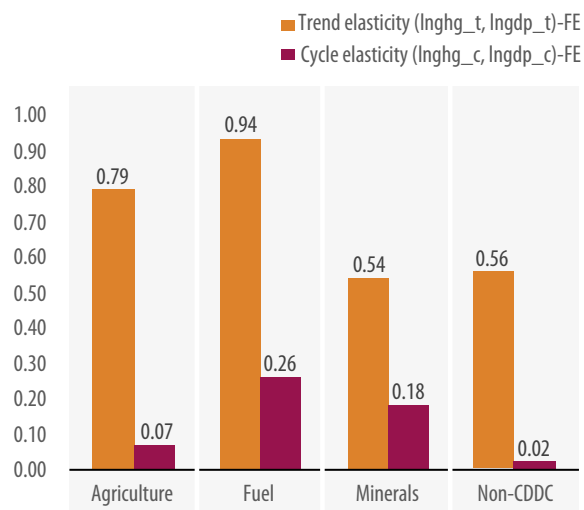
“... today African countries must pursue a dual goal of accelerating growth while protecting the environment— or more precisely, accelerating growth while minimizing the adverse impact of economic activity on the environment.”

FIGURE 5.2 OLS ESTIMATES OF ELASTICITY OF GHG EMISSIONS



Source: Authors' estimations.

FIGURE 5.3 FIXED EFFECTS ESTIMATES OF ELASTICITY OF GHG TO OUTPUT



## ELASTICITY ESTIMATES BY COUNTRY

The group elasticity estimates provide only average trends and thus hide disparities across countries. **FIGURE 5.4** presents the estimates for each country in the sample, and **TABLE 5.1** the results for representative countries in each group.

The country estimates indeed exhibit wide disparities in intensity of greenhouse gas-growth linkages. About 14 countries exhibit elasticities of GHG emissions to output growth above unity, implying intensification of GHG emissions by growth acceleration. Except for Somalia and Cape Verde, these are commodity-dependent countries, and they include all three types of products—agriculture, fuel and minerals.

The estimated elasticities of GHG emissions to output vary even within commodity groups (see **TABLE 5.1** and **FIGURE 5.3**). So, in the agriculture-dependent group, Madagascar has the second highest elasticity estimate (1.7) after Somalia, and it has three times the estimate for Ethiopia, which also depends on agriculture. In the mineral-dependent group, the Democratic Republic of Congo has a very small elasticity (0.2), one-third that of Zambia (0.6). The small elasticity for the DRC is due to the strongly non-linear trend of real GDP, while for Mauritius, a flat trend of GHG emissions and an upward trend of real GDP led to a negative elasticity estimate, suggesting decoupling.

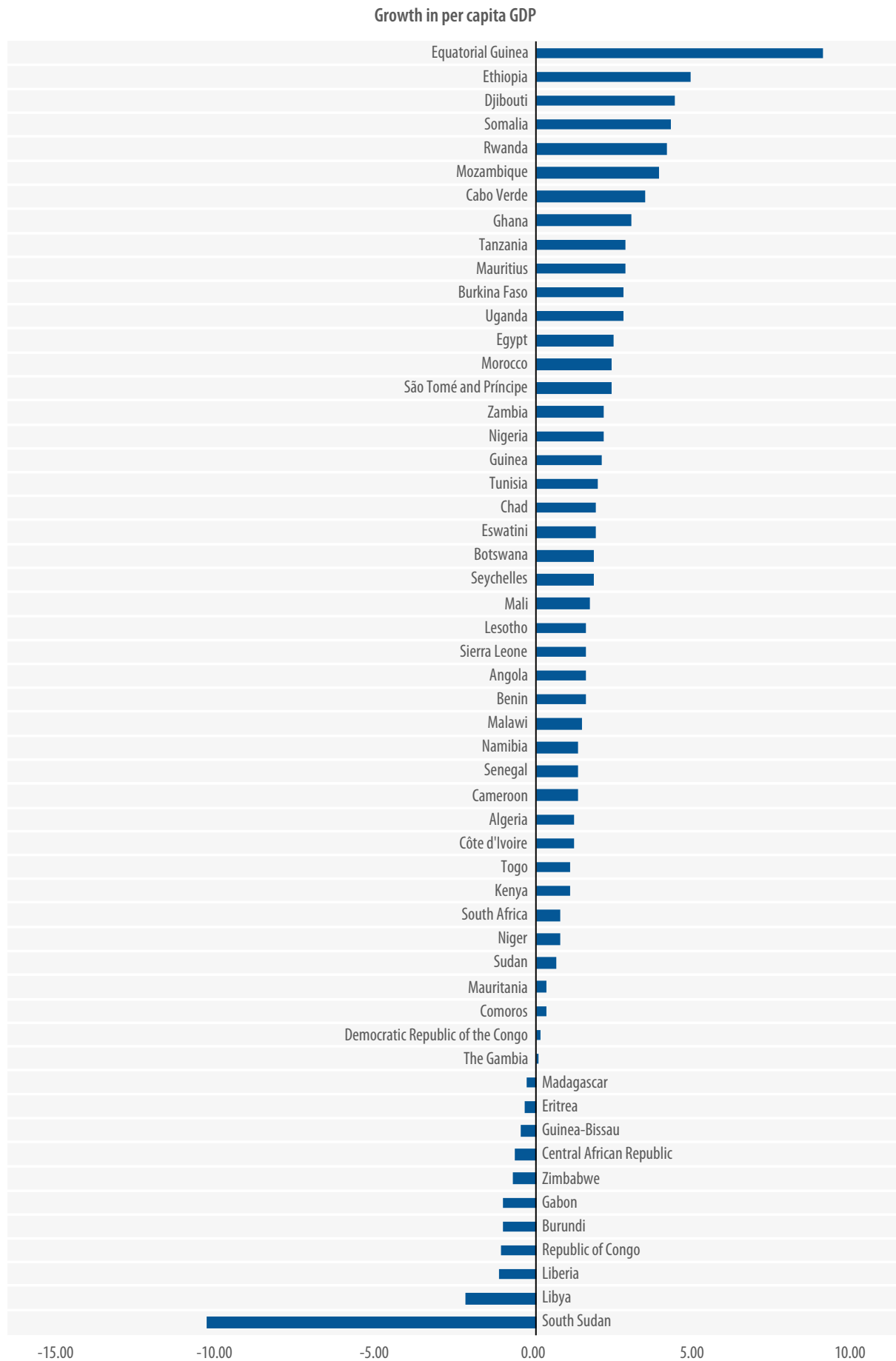
Overall, the results suggest that the linkages between carbonization and economic growth in Africa are rather weak, as illustrated by the low elasticities of greenhouse gas emissions

**TABLE 5.1** TREND AND CYCLE ELASTICITIES OF GREENHOUSE GAS EMISSIONS TO OUTPUT IN SELECTED COUNTRIES, BY CDDC TYPE (PRODUCT)

CDDC AGRICULTURE	TREND ELASTICITIES	CYCLE ELASTICITIES
Côte d'Ivoire	0.957	0.255
Ethiopia	0.527	-0.181
Kenya	0.72	0.333
Madagascar	1.668	0.139
Uganda	0.496	-0.078
CDDC FUEL	TREND ELASTICITIES	CYCLE ELASTICITIES
Algeria	1.033	0.665
Angola	0.521	0.162
Gabon	1.444	0.414
Nigeria	0.641	0.223
CDDC MINERALS	TREND ELASTICITIES	CYCLE ELASTICITIES
Botswana	0.583	0.138
Congo, Dem. Rep.	0.234	0.126
Ghana	0.552	0.431
Zambia	0.639	0.624
NON-CDDC	TREND ELASTICITIES	CYCLE ELASTICITIES
Egypt	0.794	0.502
Mauritius	-0.070	0.286
Morocco	0.941	0.185
South Africa	0.661	0.871
Tunisia	0.901	0.478

Source: Authors' estimations.

FIGURE 5.4 TREND ELASTICITIES OF GREENHOUSE GAS EMISSIONS TO GDP



Source: Authors' estimates.

to output growth. This holds when the analysis is by grouping countries based on commodity dependence as well as on a country-by-country basis. The evidence does not, however, imply that African countries should ignore climate change in their long-term growth strategies. Instead, they must worry because what matters is not just the impact on the climate from their own economic activities but the effects of other regions' carbonization. And being at the lower scale of carbonization and being "late on the industrialization path" implies that African countries have room to innovate in their design of industrial policy to minimise the impact of their industrialization on the climate—basically, doing it better than the early industrializers.

## IMPACT OF CLIMATE CHANGE AND SHOCKS ON AFRICAN ECONOMIES

### EXPOSURE AND VULNERABILITY TO CLIMATE SHOCKS

Most African countries are exposed and highly vulnerable to climate shocks due to their geography, their economic structure and their limited capacity for preventing and mitigating climate shocks. A country's risk for climate-related damage depends on such factors as its exposure, vulnerability and susceptibility to climate shocks, and the lack of coping and adaptive capacities to climate change and disasters.

Africa has a higher risk with a median score of 4.33, above the average global risk (median of 4.11).<sup>10</sup> In particular, Africa is characterized by high indices of vulnerability, susceptibility and lack of coping capacities, and a remarkably high index of lack of adaptive capacities. North Africa has the highest risk (a median of 10.21), followed by Central Africa (4.72) and East Africa (3.86). Vulnerability is the highest in Central Africa, exposure in North Africa and susceptibility in East Africa. Southern Africa has the lowest exposure and vulnerability, and it has the highest coping capacities in the continent (TABLE 5.2).

TABLE 5.2 RISK, EXPOSURE AND VULNERABILITY TO CLIMATE-RELATED SHOCKS IN AFRICA BY REGION

	WORLD RISK INDEX	EXPOSURE	VULNERABILITY	SUSCEPTIBILITY	LACK OF COPING CAPACITIES	LACK OF ADAPTIVE CAPACITIES
<b>World</b>	4.11	1.05	20.39	15.86	11.77	44.35
<b>Africa</b>	4.33	0.7	31.26	30.18	14.8	60.43
<b>Central Africa</b>	4.72	0.86	51.21	33.12	58.49	62.89
<b>East Africa</b>	3.86	0.55	32.74	34.12	15.38	61.93
<b>North Africa</b>	10.21	3.91	37.38	21.72	49.12	47.74
<b>Southern Africa</b>	1.82	0.14	25.04	26.37	11.96	54.19
<b>West Africa</b>	3.58	0.44	29.74	30.79	13.46	61.3

Source: Compiled from the World Risk Report (2022: 47).

## DAMAGE CAUSED BY CLIMATE-RELATED DISASTERS IN AFRICA

Climate change imposes substantial socioeconomic costs on African countries, notably through major agricultural and property losses due to natural disasters. Historically, Southern, Eastern and Western African countries have experienced more intense natural disasters than Central and Northern African countries.<sup>11</sup> The major types of climate change-related disasters in Africa are floods, storms, droughts and insect infestations. Since 2000, Africa has experienced 760 droughts, 207 storms, 157 droughts and 157 insect infestations.<sup>12</sup>

Depending on their geolocations some countries experience more catastrophic events than others. According to EM-DAT, South Africa experienced 71 catastrophic events after 2000, followed by Kenya and Mozambique (each with 65) and Madagascar (63).

Climate-induced catastrophic events have led to severe humanitarian crises. Between 2000 and 2022, EM-DAT data indicates that a total of 407.5 million people in Africa were affected by natural disasters. During this time, 4.2 million people became homeless, 53,610 people died and 52,205 were injured. Ethiopia, Kenya, Niger, Somalia and South Africa

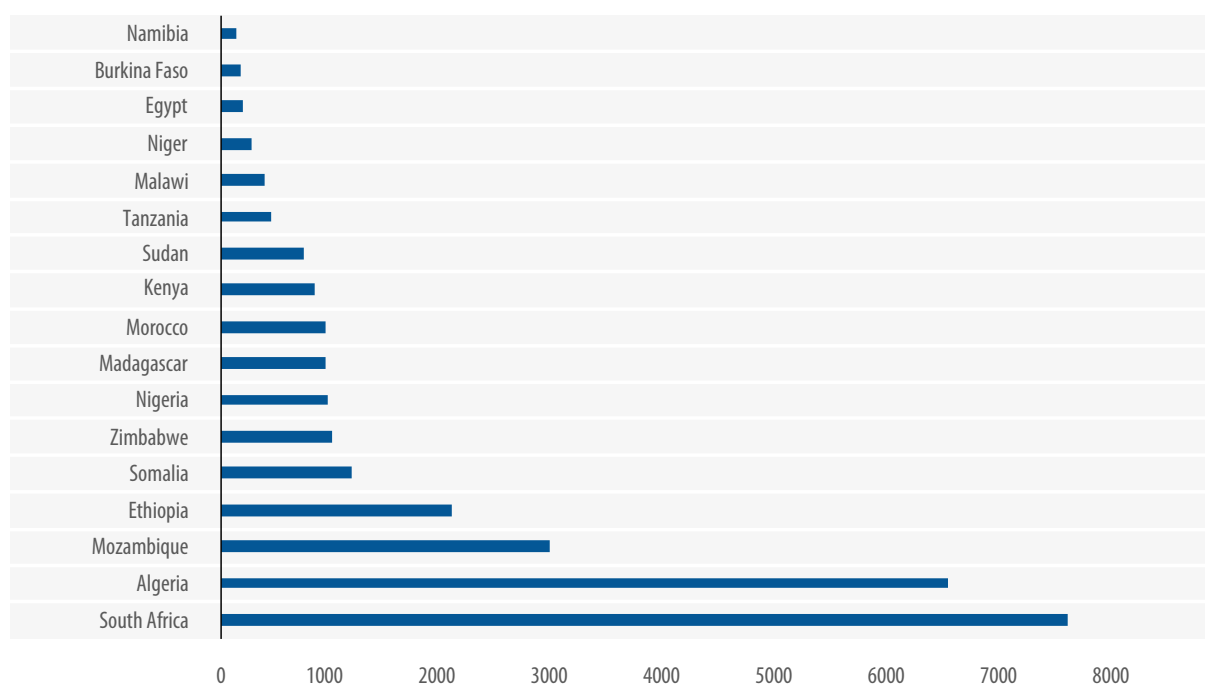
are the top five countries with the highest number of people affected by natural disasters.

While exact estimates are difficult to obtain, the reality is the high cost of natural disasters. South Africa incurred the highest cost among African countries, with around USD7.5 billion in total damages, followed by Algeria, with about USD6.5 billion. Mozambique incurred a cost of around USD3 billion, and Ethiopia's around USD2 billion in total damages (FIGURE 5.5).

## DAMAGES FROM CLIMATE SHOCKS TO GDP GROWTH

Natural disasters have adverse effects that may last for an extended period with spillover effects throughout the country, even the region. The trend of real GDP for countries that have experienced a severe disaster event is 15.8% lower than those that did not have any natural disaster.<sup>13</sup> The losses in output are due to disruptions of economic activity, with multiplier effects, as well as displacements of the people. For example, climate change-induced disasters are responsible for most of the internal displacement in East Africa and the Great Lakes region. In 2019, an estimated 60% of all internal displacements in East Africa were due to such disasters.<sup>14</sup>

**FIGURE 5.5 CUMULATIVE COSTS OF CATASTROPHIC EVENTS IN AFRICA OVER 2000–22 (USD MILLION)**



Source: Compiled from EM-DAT, CRED International Disaster Database (2022).

Another important cause of growth contractions is the adverse effects of rising temperatures. Temperature anomalies, relative to the 1910 to 2000 average, fluctuated between 0.45° and 1.46° Celsius, and those in Africa closely track the global averages.<sup>15</sup>

Climate change depresses growth through its negative impacts on healthcare systems, agriculture, ecosystems, infrastructure and water and energy resources.<sup>16</sup> According to an ECA (2021) report, in 2019, African countries spent 2–9% of GDP to deal with the impact of climate change. The report also indicates that a 1°C temperature increase will lead to a 2.2% loss in Africa's GDP in 2030 (TABLE 5.3). West African countries are the most affected, and North African countries the least affected.

**TABLE 5.3** ANTICIPATED CLIMATE CHANGE-INDUCED GDP LOSSES BY 2030 FOR TEMPERATURE INCREASES BETWEEN 1°C AND 4°C

AFRICAN SUBREGION	GDP (% CHANGE/YEAR) AT TEMPERATURE INCREASES OF BETWEEN 1°C AND 4°C	
	1°C	
Northern (7 countries)	-0.76 ± 0.16	
Western (15 countries)	-4.46 ± 0.63	
Central (9 countries)	-1.17 ± 0.45	
Eastern (14 countries)	-2.01 ± 0.20	
Southern (10 countries)	-1.18 ± 0.64	
Africa	-2.25 ± 1.52	

Source: ECA, 2021:13.

Agriculture is the sector hit hardest by climate change in Africa mainly due to dependence on rainfall.<sup>17</sup> As agriculture is the main economic activity and a source of livelihood for 7 of 10 Africans, the consequences of climate change are dire, notably where shocks cause crop failure. Climate shocks affect Africa disproportionately more than other regions because of the higher proportion of the population that depends on and is exposed to agriculture: 55–62% of the African workforce is in agriculture, and 95% of cropland is rainfed. In rural Africa, poor and female-headed households face greater livelihood risks from climate hazards.”<sup>18</sup>

Climate shocks are a key factor for the observed secular decline in African productivity, having fallen by more than 31% since the early 1960s. Crop production is expected to decrease by up to 5% for each 1° Celsius temperature increase.<sup>19</sup> Production of maize, sorghum and millet in Africa is predicted to decline by 22%, 17% and 17% respectively by 2050.<sup>20</sup> And an increase in temperature by 4°C could

shrink crop seasons by as much as 20%. The effect of a temperature increase is less severe on the production of millet and sorghum and has its worst effects on wheat and rice.<sup>21</sup>

Temperature increases also affect agricultural production by fostering crop pests and diseases. A 2°C Celsius increase in temperature in Africa could lead to 8% less in maize production, and around a 1% loss in wheat and rice production.<sup>22</sup> Globally, wheat, maize and rice yield losses are predicted to increase from 10% to 25% per degree of global mean surface warming.

These are dire predictions given the major role of agriculture as a source of employment, nutrition and livelihoods in Africa. Indeed, the continent is facing a major threat of food insecurity due to the adverse effects of climate change and environmental disasters. According to the Economist's Global Food Security Index, most African countries ranked at the bottom of the foodsecurity environment list. The global

ranks from 82 to 110 are mostly populated African countries, except Pakistan and Venezuela. Countries with the least food-secure environment in Africa are Burundi, Madagascar, Nigeria and Sierra Leone, ranking 108, 110, 108 and 110.

The Index divides the foodsecurity environment and ranks countries based on food affordability, availability, quality and safety, and sustainability and adaptation. Among African countries, food affordability is higher in Botswana, Ghana and South Africa while food availability is better in Benin, South Africa and Tanzania. Kenya, South Africa and Ethiopia are on top of the list for food quality and safety while Malawi, Uganda and Guinea are better ranked for sustainability and adaptation.

Food is the least affordable in Nigeria followed by Zambia and Burundi, while it is the least available in Cameroon followed by Sierra Leone and Nigeria. Food quality and safety are relatively worse in Madagascar, Guinea and Sierra Leone. For sustainability and adaptation, Botswana, Sudan and Chad rank at the bottom, among African countries.

## IMPACTS OF CLIMATE-RELATED SHOCKS ON MACROECONOMIC STABILITY, GROWTH, DEBT AND POVERTY IN AFRICA

How could climate-induced shocks affect African real GDP growth, poverty and political stability? The analysis here brings home the message that the world and Africa have reached the cusp of irreversible climate-induced catastrophes, so procrastination is no longer a viable strategy.

### IMPACT ON REAL GDP GROWTH

One of the indicators of climate change that causes extreme weather—such as drought, flooding and other shocks—is a rise in average temperature over time. The average temperature has been rising rapidly and steadily in Africa, with the rate of increase crossing the 1°C mark in 2010. If the situation continues untamed, significant disruptions will rain on African economies. For example, up to 15% of GDP per capita growth could be lost due to climate-induced risks.<sup>23</sup> For 1960–2009, a rise in temperature beyond 1°C reduced real GDP growth by about 0.67 percentage points.<sup>24</sup>

This section of the report presents new evidence using the most recent data (1990–2021) and decomposing real per capita GDP growth into cyclical and long-term components using the Kalman filter. The assumption is that an increase in the cyclical component of GDP growth likely to be influenced more by vagaries of weather such as drought, floods, earthquakes, and other disasters than the long-term trend. The analysis is based on the following linear model:

$$g_{it} = \alpha + \beta T_{it} + \theta T_{it}^2 + X_{it}\Gamma + \vartheta_i + \varphi_t - \epsilon_{it} \quad (3)$$

Where  $g_{it}$  stands for real GDP growth,  $T_{it}$  is annual change in temperature from baseline,<sup>25</sup> and its square  $T_{it}^2$ , and  $X_{it}$  are control variables that include political stability and quality of institutions.<sup>26</sup> The composite error term includes time-variant  $\varphi_t$  and time-invariant  $\vartheta_i$  unobserved factors, and a white noise  $\epsilon_{it}$ .

Real GDP growth responds negatively to a rise in temperature beyond a certain level (TABLE 5.4). Most important, climate shocks generally are highly correlated with the cyclical component of real per capita GDP growth but not with the long-term trend or the actual figures, which suggests that part of the volatility observed in growth emanates from climate-induced shocks. The results

in column 2 suggest that a temperature increase beyond a threshold of a 1.05° change starts to reduce real per capita GDP growth. At about a 2° centigrade change in temperature, which is expected to prevail by 2030 (if current trends persist), we could expect a 0.2 percentage point decline in real per capita GDP growth, eroding the benefits from positive shocks, such as commodity price booms, and amplifying the impact of negative shocks.

**“Climate change in Africa tends to derail poverty reduction and, in some cases, destroy the livelihoods of millions of people who mainly rely on agriculture and small businesses.”**

The relationship between the rise in temperature and real GDP growth may run both ways, so identifying causation requires specifying a structural econometric model. To minimize some potential endogeneity issues, the regression reported in **TABLE 5.4** used a one-year-lagged annual change in temperature in degrees centigrade. The working hypothesis is that rising temperature causes extreme weather such as droughts, floods and other forms of natural disasters that could disrupt livelihoods and affect economic activities.

## IMPACT ON POVERTY

Climate change in Africa tends to derail poverty reduction and, in some cases, destroy the livelihoods of millions of people who mainly rely on agriculture and small businesses (**BOX 5.1**). Droughts, floods, frosts and other natural events that lead to crop failure affect the welfare of households in rural areas and small towns. For policy purposes, it is important to distinguish between short-term and long-term impacts as households struggle to cope with immediate needs and recover from the losses in the long term. For example, severe droughts could lead to significant loss of life, particularly of infants and children, as well as harvest, livestock and other sources of income, pushing rural households into hunger, malnutrition and other health hazards. To recover from the shocks, households may

**TABLE 5.4** EFFECT OF TEMPERATURE CHANGE ON REAL GDP GROWTH IN AFRICA, 1990-2021

EXPLANATORY VARIABLE	DEPENDENT VARIABLE		
	REAL GDP GROWTH	CYCLICAL REAL GDP GROWTH	LONG TERM REAL GDP GROWTH
Lag change in temperature	0.0209 (1.4)	0.0186** (2.93)	0.00231 -0.16
Squared lag change in temperature	-0.0119 (-1.71)	0.00884** (-3.00)	-0.00304 (-0.46)
Constant	0.0229 (1.89)	0.00766 (1.49)	0.0152 (1.32)
Political economy controls	Yes	Yes	Yes
Country and year fixed effects	Yes	Yes	Yes
Observations	990	990	990
Overall R-square	0.061	0.062	.051
Within R-square	0.02	0.01	0.01
Between R-square	0.10	0.02	0.08

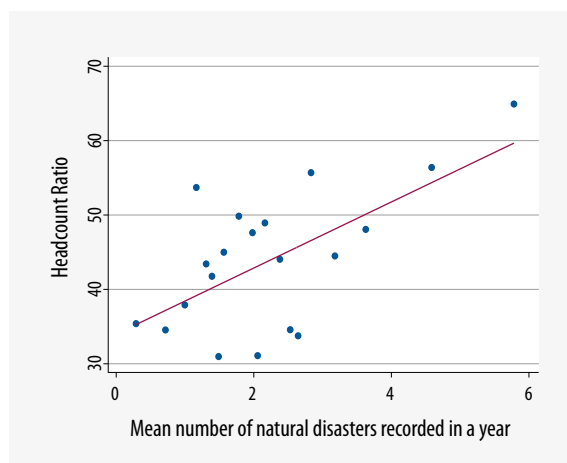
**Note:** The dependent variable is real GDP per capita growth with its cyclical and long-term components obtained using the Kalman filter, t-statistics are in parentheses; degree of significance is indicated by: \* p<0.05, \*\* p<0.01, \*\*\* p<0.001



in the long-term resort to selling assets, removing children from school and other drastic measures that could propagate poverty across generations in the absence of sufficient support from the government.

**FIGURE 5.6** illustrates these potential relationships between natural disasters and poverty in Africa using correlation analysis between average incidence of natural disasters and average incidence of poverty. It controls for variations in real GDP and other important dimensions of resilience such as real GDP, government fiscal space and overall governance (government effectiveness, corruption, rule of law). The strong association between extreme poverty and frequency of natural disasters suggests that an increase in natural disaster frequency by one unit would increase the percentage of households living in extreme poverty by 4.4 percentage points.

**FIGURE 5.6** EXTREME POVERTY AND NATURAL DISASTER FREQUENCY IN AFRICA, 1995–2020



**Source:** Authors' computations based on data from FAOSTAT and World Bank POVCALNET.

### BOX 5.1 WOMEN'S VULNERABILITY TO CLIMATE CHANGE

Women are considered more vulnerable to climate change than men. A closer look at African men's and women's vulnerability to climate change points to significant differentiation beyond its geographical position.

Women constitute the largest percentage of the African's poor, and they are most affected by a changing climate. Young girls and elderly women are particularly vulnerable. With increased ecosystem degradation as a result of climate extremes, household burdens on women and girls will likely increase, forcing them to search for resources in insecure areas, increasing their

exposure to greater poverty. These threats are even higher where families are displaced by climate change-related disasters such as flooding and drought. In 46 of African countries, women represent 40% or more of the agricultural workforce. And agricultural work is particularly vulnerable because rain-fed agriculture in Africa is susceptible to climate change—but also because it frequently lacks formal employment with contracts and income security. In this context, the human threats inherent in climate change are crucial, and may be more serious for women in certain occupations and regions.

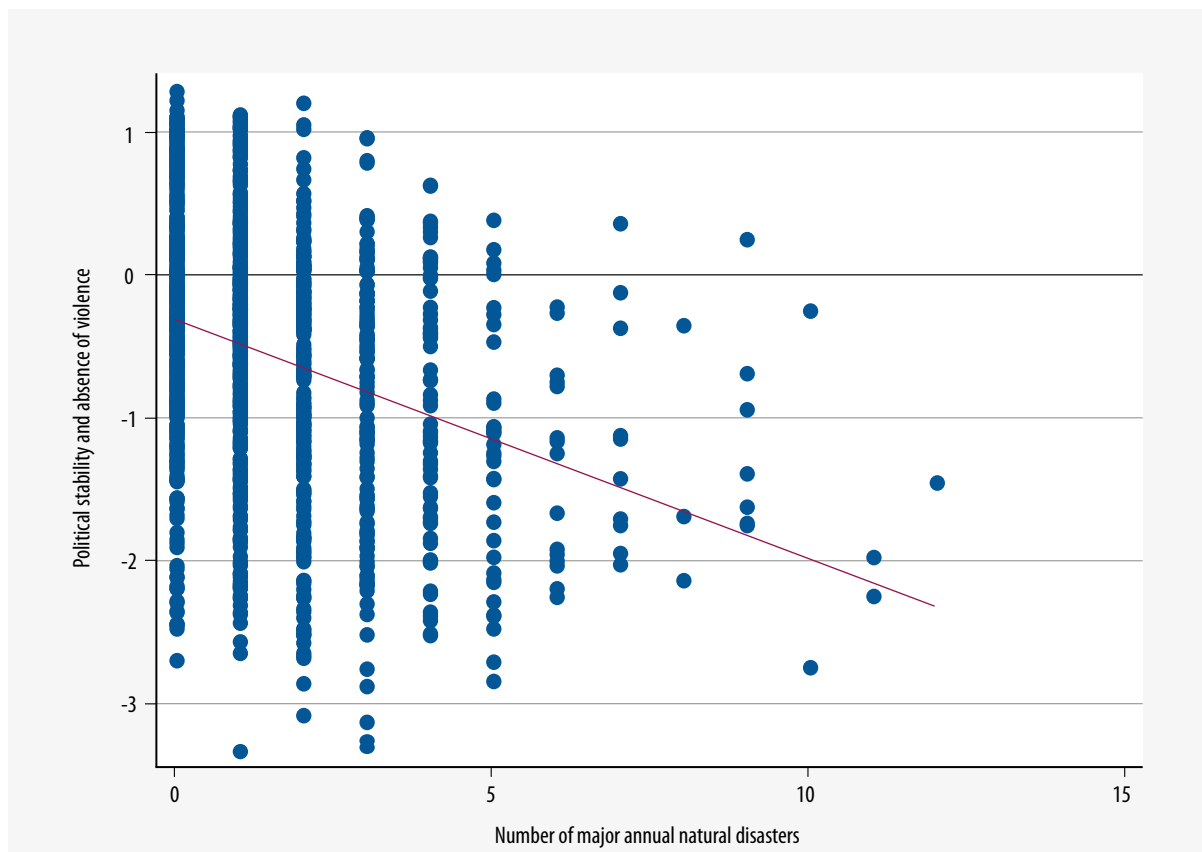
That is why gender considerations and analysis need to be included in all stages of national development plans, policies and projects on climate change. National institutions should attach greater priority to and provide resources for gender considerations in risk analysis, mitigating strategies and national budgets. Women already make use of local mitigating strategies, such as village savings and loan groups that provide safety nets when climate impacts hit. Both adaptation and mitigation planning can draw on these communal skills in their planning, and having women steer such efforts is critical.

**Source:** ECA, 2020a.

### IMPACT ON POLITICAL STABILITY

**FIGURE 5.7** presents the correlation between the number of major natural disasters<sup>27</sup> recorded in Africa every year since the 1990s and the incidence of conflict and political instability. Countries that suffer frequent natural disasters also exhibit high incidences of violence and political instability, a channel for economic activity to be disrupted by climate-change-induced natural disasters (**BOX 5.2**).

**FIGURE 5.7** NUMBER OF MAJOR NATURAL DISASTERS AND POLITICAL INSTABILITY/CONFLICT IN AFRICA



**Source:** Authors' computations based on data from World Development Indicators

#### **BOX 5.2** GEOPOLITICAL CRISES, CLIMATE CHANGE AND FOOD INSECURITY—A TRIFECTA OF DOMESTIC SHOCKS IN NIGERIA

Insurgency and significant conflict in many parts of Nigeria produce widespread displacements, food insecurity, and many victims of violence, including contests in the Niger Delta, banditry in the northwest, herder-farmer conflicts in the north and the Boko Haram conflict in the northeast—which has spilt over borders, alongside other cross-border instability, particularly with Cameroon.

Conflicts and contests for resources also compound external shocks. The oil crises

in Nigeria are as much domestic as international, with militancy and oil theft in the Niger Delta, reducing oil production, such that Nigeria is unable to meet its OPEC quota (its OPEC quota has come down from 1.2 million barrels per day to 1 million).

Conflict dynamics are also compounded by climate change, which is aggravating traditional conflicts, with seasons of drought and flooding affecting rainfed agricultural activities. This is interwoven with unresolved

identity-based conflicts, with desertification in the north increasing the movement of cattle herders to the south from as far as Mali, resulting in frequent clashes between herders and farmers, who are already at a crisis point. In other areas, conflict is further compounding food insecurity, as in Borno State in the Lake Chad basin, where Islamic State West Africa Province (ISWAP) and Boko Haram control farming areas, leaving people unable to farm.

## IMPACT ON FISCAL SPACE

Climate-change induced shocks deplete government financial resources as they respond to catastrophic events and other less obvious hazards such as pollution that adversely affect health conditions. The shocks erode government revenue by disrupting economic activity, shrinking fiscal space. Capturing the full impacts of these shocks on public finance requires an economy-wide model and detailed data linking fiscal deficits with shocks, which is beyond the scope of this report. But preliminary results show that the frequency of natural disasters increases public debt directly. A unit increase in natural disasters could lead to a 0.25 percentage point increase in the ratio of net public debt to GDP (TABLE 5.5).

“ preliminary results show that the frequency of natural disasters increases public debt directly. A unit increase in natural disasters could lead to a 0.25 percentage point increase in the ratio of net public debt to GDP. ”

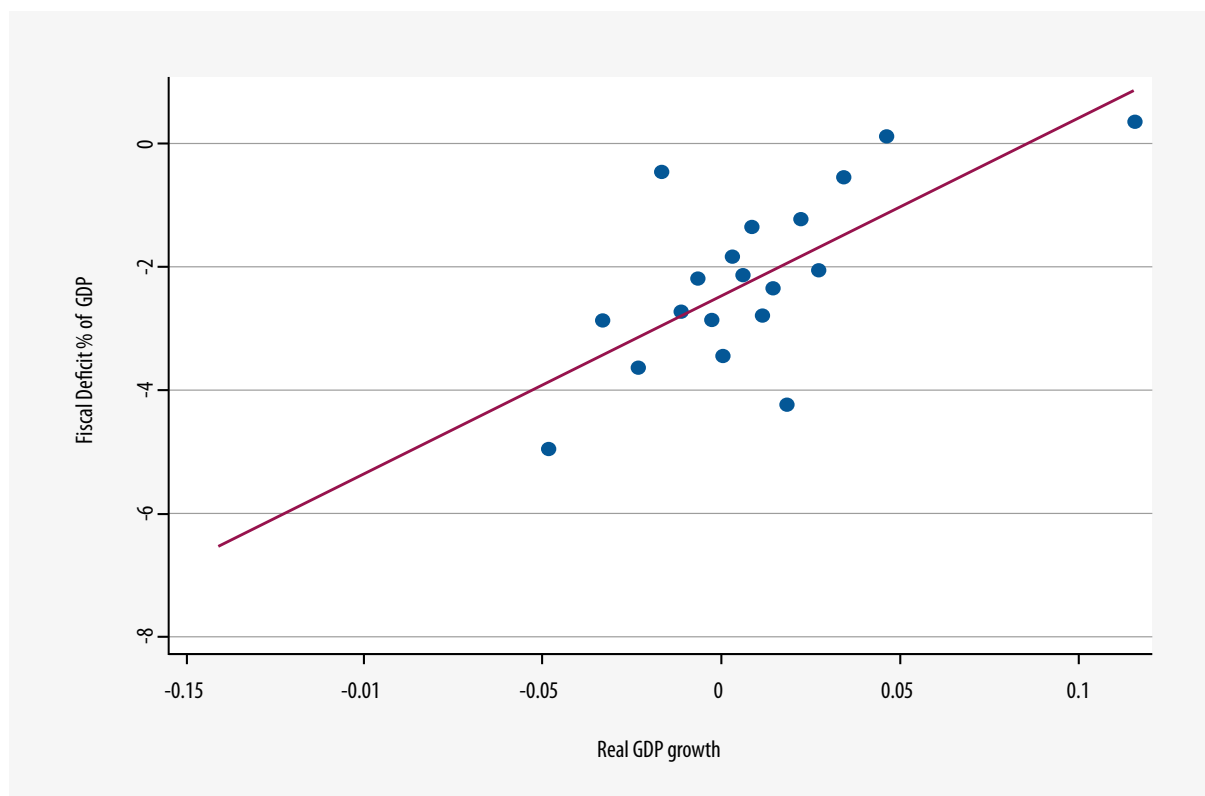
TABLE 5.5 IMPACT OF NATURAL DISASTERS ON GOVERNMENT DEBT IN AFRICA, 1995–2020

	GOVERNMENT DEBT (% OF GDP) (OLS REGRESSION)	GOVERNMENT DEBT (% OF GDP) (FIXED-EFFECT PANEL REGRESSION)
<b>One period lagged number of disasters</b>	0.210*	0.254*
	(2.34)	(2.36)
<b>Inflation</b>	0.000106	0.0000138
	(1.83)	(0.08)
<b>Growth rate in volume of exports of goods and services</b>	0.00751	0.0102
	(0.52)	(1.43)
<b>Constant</b>	-2.951***	-3.051***
	(-9.66)	(-10.17)
<b>Observations</b>	850	850
<b>(F (3, 846) (P-values)</b>	0.01	0.04
<b>R<sup>2</sup></b>	0.007	0.01

Source: Authors' computations based on data from FAOSTAT and World Development Indicators.

The other possible channel in which public finance could be degraded due to climate-change induced shocks is through the impact on long-term real GDP growth, given the positive relationship between GDP growth and fiscal balances: growth losses would worsen fiscal deficits and vice versa (FIGURE 5.8).

**FIGURE 5.8** CORRELATION BETWEEN REAL GDP GROWTH AND GOVERNMENT FISCAL DEFICIT IN AFRICA, 1990–2020



## POLICY IMPLICATIONS

Climate-change induced shocks undermine macroeconomic stability, reduce long-term growth, threaten debt sustainability, worsen poverty conditions and induce political instability. The analysis in this section carries important lessons while raising important puzzles about how African countries must incorporate climate change in the design and implementation of their long-term growth strategies. They must leverage

their natural resource endowments to stimulate economic growth while gradually reducing the intensity of carbonization associated with economic activity, especially production, transport and consumption. This requires embracing green industrial policy as they design and implement national development strategies.

## DELIVERING A GREEN TRANSFORMATION

### GREEN ENERGY TRANSITION

Many African countries have developed and submitted nationally determined contributions (NDCs) that outline their vision and associated climate-change-related actions, including renewable energy targets. All—except Angola, Eritrea, Libya and South Sudan—have ratified the Paris Agreement with ambitious NDCs, which the countries themselves have estimated would require close to USD3 trillion of conditional and unconditional finance for implementation, a sum close to one year's worth of Africa's GDP.<sup>28</sup>

A pressing requirement for African nations lies in the imperative to address the energy infrastructure deficit and expedite the energy transition, which requires adequate financial resources. Despite the fact that large-scale investments in renewable energy will contribute to sustained economic growth—including strengthening local value chains, supporting local employment and expanding energy capacity and access—scaling up renewable energy requires larger volumes of affordable, and frequently concessional, sources of finance in Africa.<sup>29</sup> More investments in grid enhancement, interconnections, storage, and flexibility solutions are urgently required for an effective and accelerated deployment of renewables.

These challenges are not impossible to overcome. However, to effectively resolving financing issues necessitates a synchronized and resolute effort including both the public and private sectors. There is a pressing need for a significant transformation to effectively leverage both public and private financing. The allocation of risks between the public and private sectors would result in a larger proportion of global financial assets being directed into green energy transition projects.

### GREEN INDUSTRIAL POLICY

The justification for green industrial policy in African countries is that the traditional path of carbon-intensive industrialization that early industrializers followed during their growth take-off is no longer viable. Yet to diversify away from natural resource dependence, African countries must industrialize. But they must industrialize differently: they must transition to low-carbon economies through a fundamental transformation of production systems in industry, manufacturing, energy and transport.

This implies sector-level and system-wide changes in modes of investment in production systems, all supported by productivity-enhancing and carbon-minimising technological innovation. Investments in natural resource exploitation must seek to optimise direct and indirect gains in decarbonization over time. For example, copper-rich Zambia and the Democratic Republic of Congo would seek to attract investments not just in copper extraction but also in local manufacturing of electric batteries from lithium. This would reduce pollution associated with the transport of minerals to Europe and Asia for processing. It would also help to develop local capabilities to produce green technology, thus empowering Africa to grow while reducing the impact of growth on GHG emissions.

The increasing push for decarbonization in advanced and emerging economies will result in a gradual reduction in the market value of carbon-intensive natural resource exploitation. So, investing in new environment-friendly technologies and production systems will preserve the market value of Africa's natural resources and strengthen their ability to support green industrialization.

**BOX 5.3 THE GLOBAL TRANSITION TOWARDS GREEN ENERGY AND RAPID DECARBONIZATION**

Africa's metals are essential to the rapid transition of energy systems away from fossil fuels. It holds 19% of the global reserves of metals required to make a standard battery-powered electric vehicle. It has at least a fifth of the world's reserves in a dozen minerals critical for the energy transition, with Morocco holding 70% of the world's phosphate reserves, DRC 50% of the world's cobalt, Gabon up to 15% of the world's manganese and South Africa 91% of the world's platinum, 46% of its yttrium, 22% of its manganese, 35% of its chromium and 16% of its vanadium.<sup>30</sup> Additionally, the Democratic Republic of the Congo and Zambia are home to substantial untapped lithium resources,

used primarily in the production of lithium-ion batteries for electric vehicles and grid-scale storage.

The shift to clean energy is set to drive a huge increase in the demand for these minerals, as the energy sector emerges as a major force in mineral markets. Production of graphite, lithium and cobalt will need to be ramped up to 3.1 billion tons by 2050, up more than 450% from 2019 for energy and energy storage technologies.<sup>31</sup>

To take full advantage of this boom in demand for critical metals, Africa needs to invest in three crucial stages of the value chain. First, it has to develop quality mining projects to

meet the increase in global demand (multiplying by 20 of the estimated demand for lithium and graphite by 2030, by 10 for cobalt and by 5 for manganese). Second, it has to develop refining capacities. Third, it has to manufacture on African soil the batteries necessary for the energy transition.

The battery initiative between DRC and Zambia, supported by ECA, can help them and climb the ladder of global value chains, including the production of battery precursors (USD271 billion by 2025), battery cells (USD387 billion by 2025), cell assembling (USD1.18 trillion by 2025) and, ultimately, electric vehicles (USD7 trillion by 2025).<sup>32</sup>

**FACILITATING PRIVATE INVESTMENT IN THE GREEN TRANSITION**

Several initiatives have been implemented to increase participation of the private sector in the green transition. They provide common standards and cooperation platforms for private investments. The Green Bond Tool Kit gives African capital markets the opportunity to leverage private capital, but the green bond market has yet to achieve its full potential. The Sustainable Stock Exchanges promote investments in sustainability, and 16 African countries have joined. Botswana, Egypt, Kenya, Nigeria and South Africa are issuing annual sustainability reports, and Namibia, Nigeria, South Africa and Zimbabwe made ESG reporting a prerequisite for listing on their stock exchanges.

International financial institutions, private investors and African governments are only scratching the surface of potential financial innovation. Financial institutions in Africa should expand and diversify the offerings of green products, with green shares as an example. Public-private partnerships combine the skills and resources of the public and private sectors while distributing the associated risks. African countries should also develop carbon pricing, which most governments have listed in their nationally determined contributions, as it carries great potential. Adopting best-in-class regulatory frameworks for green finance will pave the way for financial innovation.

**MOBILIZING FINANCE**

Green and blue bonds direct financing to projects with positive climate and environmental outcomes across energy, transportation, construction, agriculture and water sectors (**BOX 5.4**). They raise financing for projects and assets with positive social outcomes; and for environmental projects and assets aligned with the achievement of the Sustainable Development Goals. Green bonds in Africa and the Middle East are just 1% of the total global issuance.

Debt-for-nature swaps—climate and nature transactions with positive environmental impacts—can also contribute to Africa's debt sustainability and provide countries with additional fiscal space to invest in climate resilience and adaptation. They would facilitate debt buybacks, and re-issuance at cheaper rates would be a key factor in allowing countries to sustainably restructure expensive existing debt and invest the savings in climate resilience.

Blended finance attracts private capital and combines it with development funding to scale up financing for development projects. Developed countries can use official development aid to de-risk and mobilize large blended and concessional financial flows to Africa's emerging and frontier markets, resulting in positive financial, environmental and social impacts for investors and recipient countries. ECA supports the operationalization of the Sustainable Debt Coalition initiative, which assists in addressing Africa's debt management challenges.

#### BOX 5.4 EGYPT'S RECENT EXPERIENCE WITH GREEN BONDS

Egypt issued a sovereign green bond in September 2020. The five-year bond led to a peak orderbook surpassing USD3.7 billion, a seven-fold oversubscription for the USD750 million transaction. Thanks to investor demand, the coupon rate was reduced by 50 basis points, opening at 5.75% and closing at 5.25%. The bond was priced at 12.5 basis points below the regular new issuance premium and achieved the lowest ever five-year coupon for Egypt.<sup>33</sup>

The issuance was a result of a long preparation journey, started back in 2019, when a joint committee was formed under the chairmanship of the deputy minister of finance for macro finance and institutional reforms, and deputy minister of ministry of planning and economic development with high-level representatives from the Ministry of Finance, the Ministry of Environment, the Ministry of Electricity & Renewable Energy and Ministry of Petroleum.

Egypt's first sovereign green bond set a benchmark for other African countries in the green financing market. But there are challenges in providing common disclosure frameworks for each asset class of green bonds, compounded by the technical nature of "green" disclosure data points. Many jurisdictions lack a clear legal definition of what qualifies as a green bond. And issuers should, as standard practice, include robust risk factor disclosures in green bond offerings to mitigate securities law liability concerns.

**Source:** Egypt Ministry of Finance, 2022.

As part of the mitigation measures, participation in international carbon markets and offsetting schemes (such as REDD+ and CDM) requires a credible system for measuring, reporting and verifying emissions. But many African countries have been unable to accurately measure and report the carbon sequestered in their forests. Africa needs to continue pushing for more capacity building and technical assistance in global policy forums and conventions. Improvements are also needed in forest governance and land tenure. Forest governance in Africa suffers from poor institutional capacity and performance and insecure or weak land and forest tenure by local communities. Less than 2% of Africa's forests are estimated to be legally owned or designated for use by local communities.<sup>34</sup> Land tenure reforms are urgently needed to enable indigenous and local communities to claim property rights in forest land to benefit from payments from carbon trading and offset schemes.

Burkina Faso, Côte d'Ivoire, Nigeria, Rwanda and Senegal have expressed interest in advancing carbon pricing at a domestic level. There is also interest in carbon pricing at the regional level. For example, two new regional groups—the West African Alliance on Carbon Markets and Climate Finance, and the East African Alliance on Carbon Markets and Climate Finance—have expressed interest in regional carbon pricing initiatives. This could lead to the implementation of a regional carbon tax. But it would require significant regional collaboration and leadership. For example, regional collaboration would be required to amend and enhance legal frameworks to facilitate the implementation and administration of the scheme. Capacity and expertise are needed to assess carbon pricing options and implement the mechanisms.

**“ Debt-for-nature swaps ...  
... would facilitate debt  
buybacks, and re-issuance  
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- 3 See [www.unfccc.int](http://www.unfccc.int).
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- 5 Nkurunziza et al., 2017; UNCTAD, 2019.
- 6 Also see Koidu (2022).
- 7 The analysis follows the empirical model and methodology used in Cohen et al. (2018) and Pickbourn et al. (2022).
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- 21 ECA, 2021.
- 22 Deutsch et al., 2018.
- 23 Baarsch et al., 2020.
- 24 Abidoye and Odusola, 2015.
- 25 Temperature data reflect annual change in degrees from the baseline of climatology prevailing during 1951–80.
- 26 Political economy control factors include rule of law, political stability and macroeconomic stability (inflation).
- 27 The frequency of natural disasters and greenhouse gas emissions are highly correlated: a 1% increase in per capita CO<sub>2</sub> emissions is associated with an increase of about 0.75% in natural disasters, suggesting a nexus between natural disasters and climate change (ECA calculations, 2023).
- 28 ECA, 2020b.
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CHAPTER 6 CHALLENGES AND PROSPECTS FOR BUILDING RESILIENCE TO SHOCKS



**A**frican economies have in the last two decades been through rough patches due to multiple and recurring global shocks affecting key macroeconomic indicators, with fragile recoveries in many cases. The global financial and economic crisis of 2008/09, the collapse of commodity prices in 2014/16, the Covid-19 pandemic that began in early 2020 and the war in Ukraine (2022–present) have led to various patterns of recovery across African economies, with some recovering faster and more robustly than others. In the case of Covid-19 pandemic, African economies recovered from a recession of around -1.8% in 2020 to an estimated GDP growth rate of 4.6% in 2021 and 3.6% in 2022.<sup>1</sup> The same recovery trend is expected from the war in Ukraine. But the frequency and intensity of multiple shocks could erode economic fundamentals and cause long-term damage that could take years to mend. The war in Ukraine, on the heels of Covid-19, precipitated inflationary pressures, increased debt-service burdens, further disrupted global value chains and elevated the risk of another recession in many African countries.

Most important, the frequency and severity of climate shocks are increasing in Africa. The average temperature in Africa crossed the 1-degree centigrade annual increase in 2015 from a baseline of climatology prevailing during 1950–80 and continues to rise. The impact on GDP growth is large and significant. A 1C rise in temperature after 30C could lead to a 2 percentage points decline in real GDP growth, undermining the gains from positive shocks, such as commodity price booms, and amplifying the impacts of negative shocks<sup>2</sup> and diminishing domestic resource mobilization, thus increasing debt.

That the economic fundamentals of most African economies have not changed much in the last three decades is a major concern for the continent’s capacity to withstand and recover from shocks. Investment, domestic savings, government revenue and economic structures remained unchanged, while urbanization, population density and unemployment were rising.<sup>3</sup> Also observed today are an overstretched resource envelope to mitigate Covid-19, low productivity in agriculture due in part to climate change, low value addition from manufacturing and persistent trade barriers. The outcome is declining economic activity and rising poverty and inequality. Indeed, Covid-19 wiped out the gains in the last two decades in the fight against extreme poverty. In this regard, the attainment of the key targets stipulated in the Sustainable Development Goals—such as the elimination of extreme poverty, malnutrition and hunger, and the provision of universal health care and education—has become increasingly improbable.

This chapter discusses the challenges of building resilience to shocks and identifies short-term to long-term strategies that could help African countries fight transient shocks (pandemics, war) and chronic shocks (climate change, political instability) through the lens of risk-pooling prospects, structural reforms, global cooperation and enabling social protection programmes. It also details the policy implications.

**“ ... the damage caused by shocks could cause other shocks, such as political instability and conflict, undermining recovery and future resilience. ”**

# CHALLENGES OF BUILDING RESILIENCE TO SHOCKS

The previous chapters presented evidence on the impacts of multiple and recurring shocks on African economies that have significant implications for building resilience. The first lesson is that shocks have played a major part in shaping the path of economic performance in the last several decades, undermining Africa’s aspirations for sustained growth and rapid economic transformation that could benefit from shifts in demographic (youth bulge) and geographic (urbanization) megatrends. This is clearly shown in **TABLE 6.1** where shocks explained over 20% of the variation in real per capita GDP growth during 1998–2022. In this regard, negative shocks in 1995–2000 and 2013–20, characterized by deteriorating terms of trade, high debt burdens and other shocks, including the Covid-19 pandemic contributed to negative per capita growth rates. And positive shocks—buoyed by the commodity price supercycle (2002–13), debt relief, low interest rates and strong demand in the major African trading partners—supported per capita GDP growth, which ended around 2009.

The second lesson is that successive shocks have had scarring effects, making it difficult for African economies to recover fully even after a short-lived shock such as the global financial crisis. More important, the damage caused by shocks could cause other shocks, such as political instability and conflict, undermining recovery and future resilience.<sup>4</sup> The third lesson is that recent global shocks are compounding in their occurrence and recurrence such that it is difficult to isolate the individual impacts to draw specific policy implications. For example, the war in Ukraine took place as countries struggled to recover from the Covid-19 pandemic, whose aftereffects are still present and felt in some economic sectors. In the same vein, some countries have been dealing simultaneously with the hazards of natural disasters such as extreme droughts, locust invasions, floods and conflicts. These features of the shocks make the task of building resilience very challenging while offering an opportunity to develop a comprehensive and robust strategy to deal with future shocks.

**TABLE 6.1** CORRELATION BETWEEN REAL PER CAPITA GDP GROWTH AND ITS CYCLICAL COMPONENT  
(FIXED EFFECTS PANEL DATA REGRESSION)

<b>Cyclical component of per capita GDP growth</b>	1.175*** (16.49)
<b>Constant</b>	-0.0272 (-0.15)
<b>Number of observations</b>	1232
<b>Number of countries</b>	54
<b>R-square</b>	0.30

**Note:** Cyclical per capita GDP growth (%) was computed using the Kalman filter on the per capita GDP growth series for all African countries for the period 1998–2022. . The table reports results from a fixed-effect panel data regression where the dependent variable is annual per capita real GDP growth and independent variable is the cyclical component of real per capita GDP growth. The regression controls for time-invariant and time-varying unobserved factors; t statistics are in parentheses; degree of significance indicated by \* p<0.05, \*\* p<0.01 and \*\*\* p<0.001.

**Source:** ECA computation based on data from World Development Indicators.

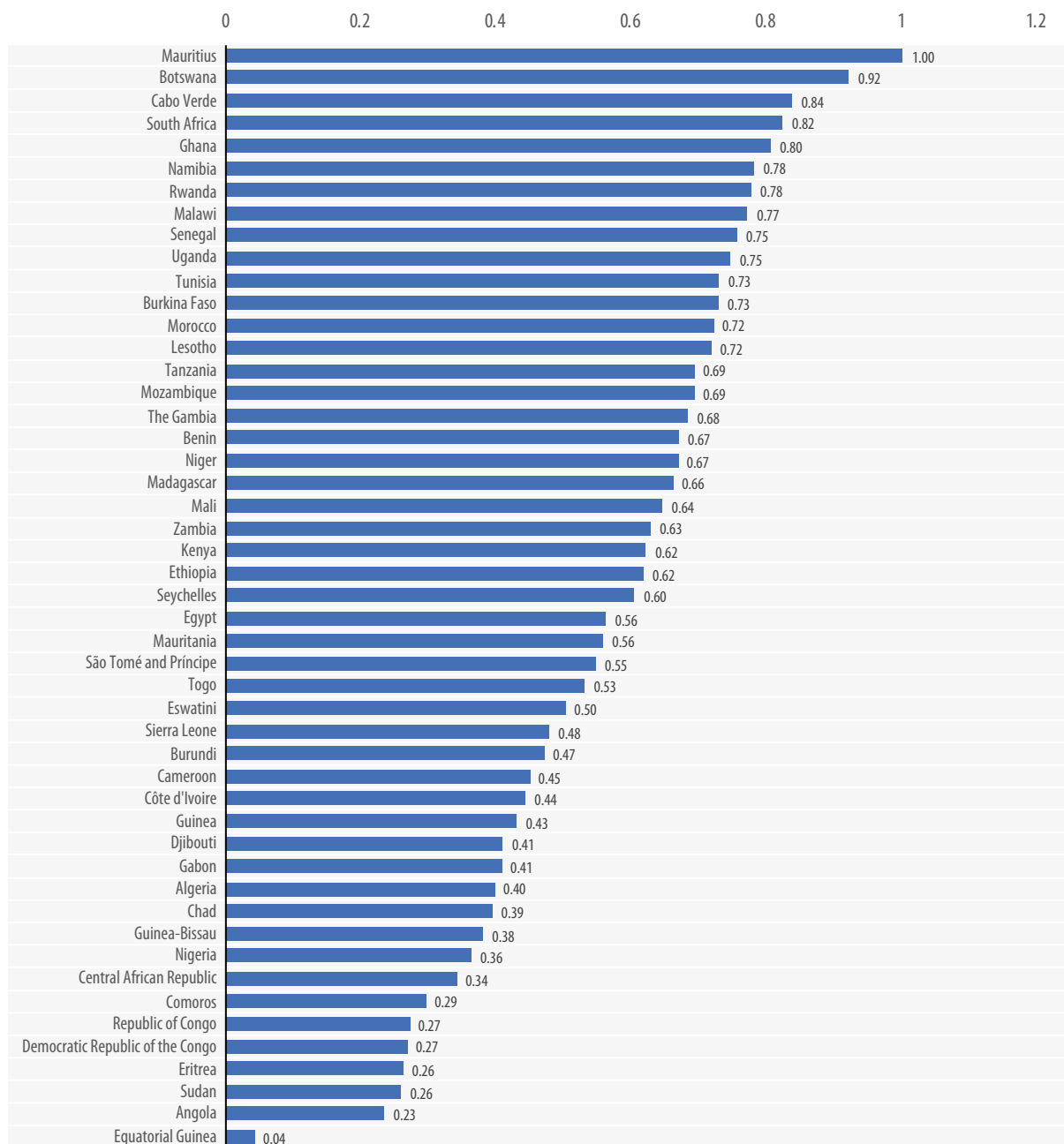
## BENCHMARKING RESILIENCE TO SHOCKS IN AFRICA

Conceptualizing and measuring resilience helps to develop strategies for countries to counter and manage future shocks. Resilience can be defined broadly as the ability of a country/household/business to minimize the impacts of exogenous shocks on human lives and economic activities, the capacity to recover speedily and the preparedness to anticipate and mitigate future shocks. Resilience thus constitutes a wide range of policy responses that include timeliness in buffering shocks (instantaneity) to reduce the losses of lives, production and consumption, and the depletion of assets. It also encompasses dynamism to develop and execute recovery strategies that also include measures to mitigate the occurrence of future shocks.<sup>5</sup> In a sense, shocks and vulnerability to shocks partly signify an inherent feature of a country for which it has limited control while resilience is primarily a result of policy choices.

A classic example is the Singapore Paradox, which describes a situation where Singapore is one of the most vulnerable countries to frequent shocks (particularly to climate-change induced shocks) yet achieved one of the fastest growth rates sustained over several decades due to the resilience of the economy to shocks.<sup>6</sup> Its resilience is thus a result of conscious decisions by policymakers and the public to manage the impacts of shocks effectively and efficiently.

Some of the markers of resilience include good institutions (effectiveness of government, rule of law, quality of regulations and so on), availability of sufficient public and private resources (share of government revenue in GDP, savings), and redistributive policies that include a system of social protection that provides buffers to households during economic downturns caused by shocks. A Resilience Index comprising these indicators for African countries for the 1996–2020 is normalized between 0 (no resilience) and 1 (strong resilience) (FIGURE 6.1). The Resilience Index is free of potential biases

**FIGURE 6.1 RESILIENCE INDEX FOR AFRICAN COUNTRIES: AVERAGE OVER 1996–2020**



Source: ECA computations based on data from WDI, WEO and Povcalnet.

arising from differences in per capita GDP, and all the individual indicators are comparable across countries.<sup>7</sup> Mauritius, Botswana, Cabo Verde and South Africa have the highest resilience capacity by the measure of institutional strength. Equatorial Guinea, Angola, Eritrea, the Democratic Republic of Congo and the Republic of Congo have very low resilience. Similar illustrations in **CHAPTER 1**, using frequency of natural disasters as a measure of shocks, indicated strong relationships with the Resilience Index constructed here.

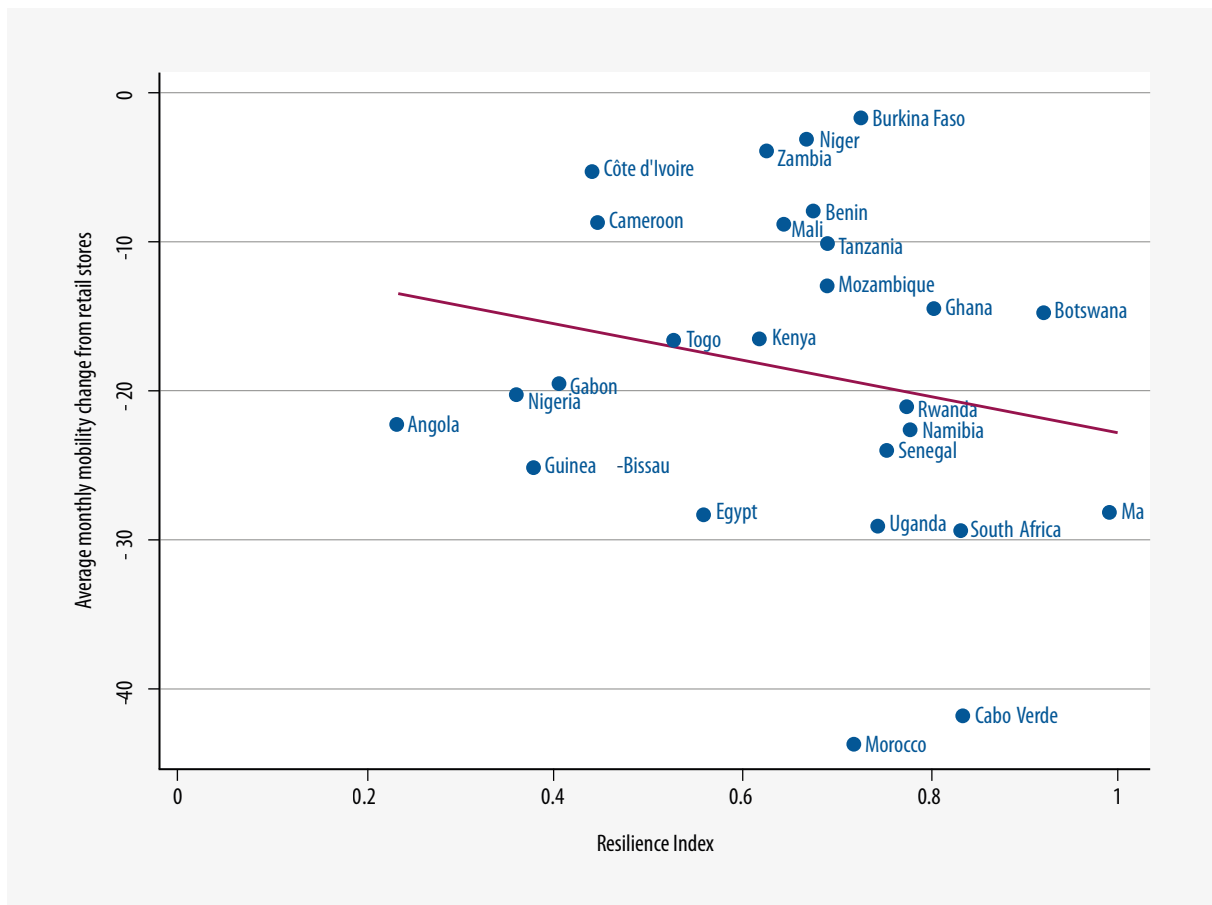
It is also possible to see how the resilience capacity played out during the Covid-19 pandemic. Countries with strong resilience enforced lockdown restrictions better. It is also possible to see heterogeneity in the success of lockdowns for the same level of resilience. For example, Cabo Verde and Morocco had an index value closer to Namibia, South Africa, and Botswana, but succeeded significantly in enforcing lockdowns (FIGURE 6.2). Some of these variations could also be differences in the policy responses towards lockdowns and

other mobility restrictions. Still on average, the resilience-policy response relationship is strong.

The effectiveness of resilience in reducing the spread of the Covid-19 pandemic indicates that the rate of infection during the height of the pandemic (all of 2020) was much lower in countries with high resilience (FIGURE 6.3). Certainly, there may be other confounding factors such as geography and underreporting of confirmed cases. Heterogeneity as well in the achievements between countries with equal resilience capacity reveal that the shock-resilience nexus is complex.

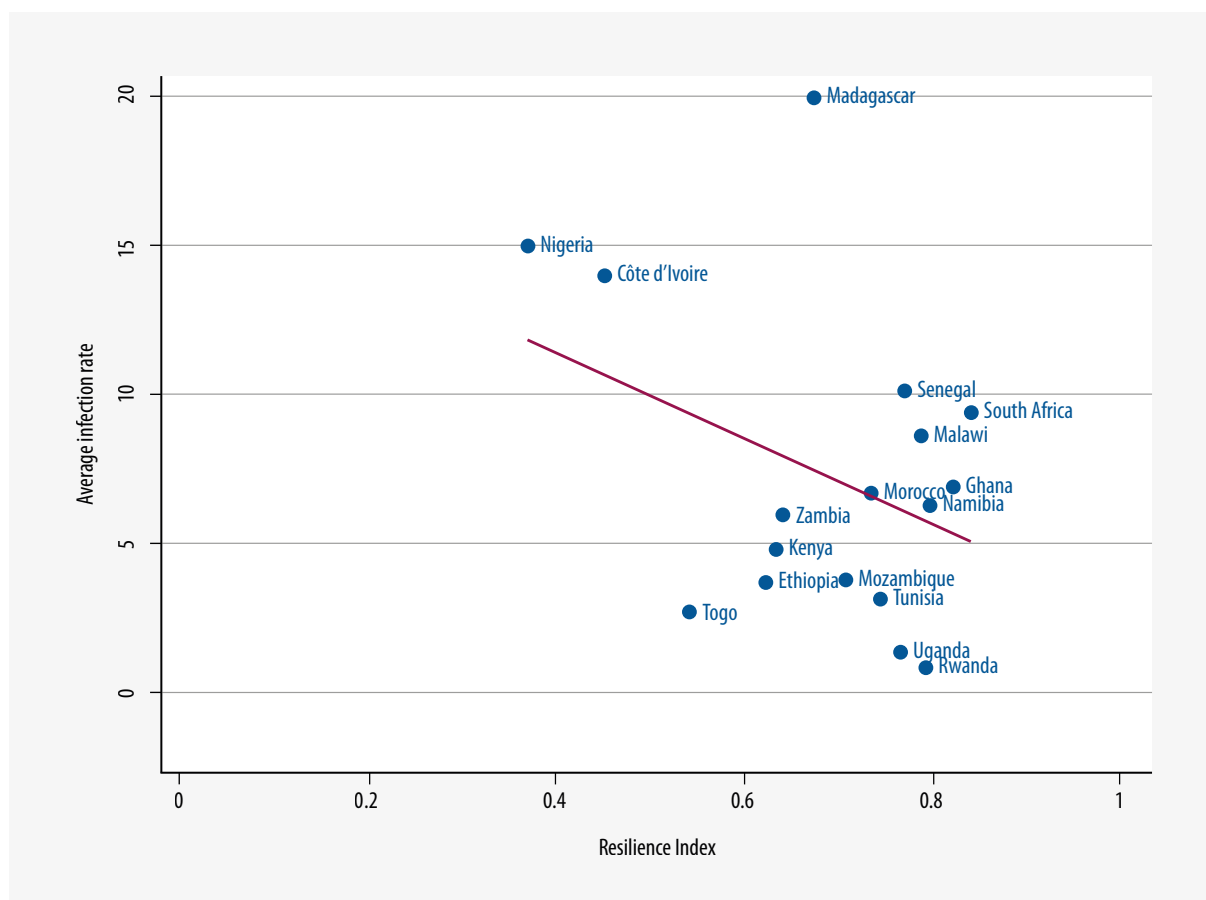
All this raises the question: What factors impede countries from achieving strong resilience to shocks?

**FIGURE 6.2 RESILIENCE AND POLICY RESPONSES TO FIGHT THE COVID-19 PANDEMIC IN SELECTED AFRICAN COUNTRIES**



Source: ECA computations based on data from Google, World Economic Outlook database, World Economic Indicators and Povcalnet.

FIGURE 6.3 SPREAD OF COVID-19 PANDEMIC AND RESILIENCE OF COUNTRIES



Source: ECA computation based on data from Worldometer, World Economic Outlook database, World Economic Indicators and Povcalnet.

## CHALLENGES TO BUILDING RESILIENCE

### FRAGILITY OF ECONOMIC SYSTEMS AND INSTITUTIONS

Good institutions are necessary for building strong resilience to shocks and forging sustainable development. Early research on African economies attributed the fragility of economic systems and poor macroeconomic management to government policies fraught with rent-seeking behaviour that undermined market development and weakened incentives to invest and efficiently manage Africa's scarce resources.<sup>8</sup> As a result of weak institutions, most countries are unable to weather shocks and take advantage of opportunities provided by globalization and technological advances to promote economic transformation. Chronic corruption is rife and a force behind mismanagement of resource windfalls through procyclical macroeconomic policies.

Resource-rich countries saw unprecedented increases in prices of their export commodities during 2002–13, yet most found themselves in debt distress once prices started falling. Why? Most of the gains from favourable terms of trade were used up mostly on non-productive activities, including consumption and inefficient public investment projects.<sup>9</sup> Still, there has been notable progress in the last decades in reforming institutions and building political accountability across Africa, and that needs to be sustained and strengthened.<sup>10</sup> Building resilient and strong institutions is one of the growth fundamentals required for economic transformation.<sup>11</sup>

### RESOURCE DEPENDENCE AND FAILED INDUSTRIALIZATION

Africa's capacity to build resilience to shocks is challenged by dependence on extractive industries that are capital intensive and have limited capacity to generate decent jobs to meet the needs of the growing labor force and transform the rest of the economy through backward and forward linkages. Africa's



abundance in natural resources is an inherent challenge to policymakers with high discount rates to invest in the future that brings forth industrialization using the revenues extracted from natural resources.<sup>12</sup> Some form of structural change moving labor from low productivity sectors (agriculture) to high productivity sectors (manufacturing) mainly took place in countries where dependence on natural extractive sectors was low. Government-driven industrialization efforts in the early decades after independence sorely failed as they relied on unsustainable subsidies and protections from competition.<sup>13</sup>

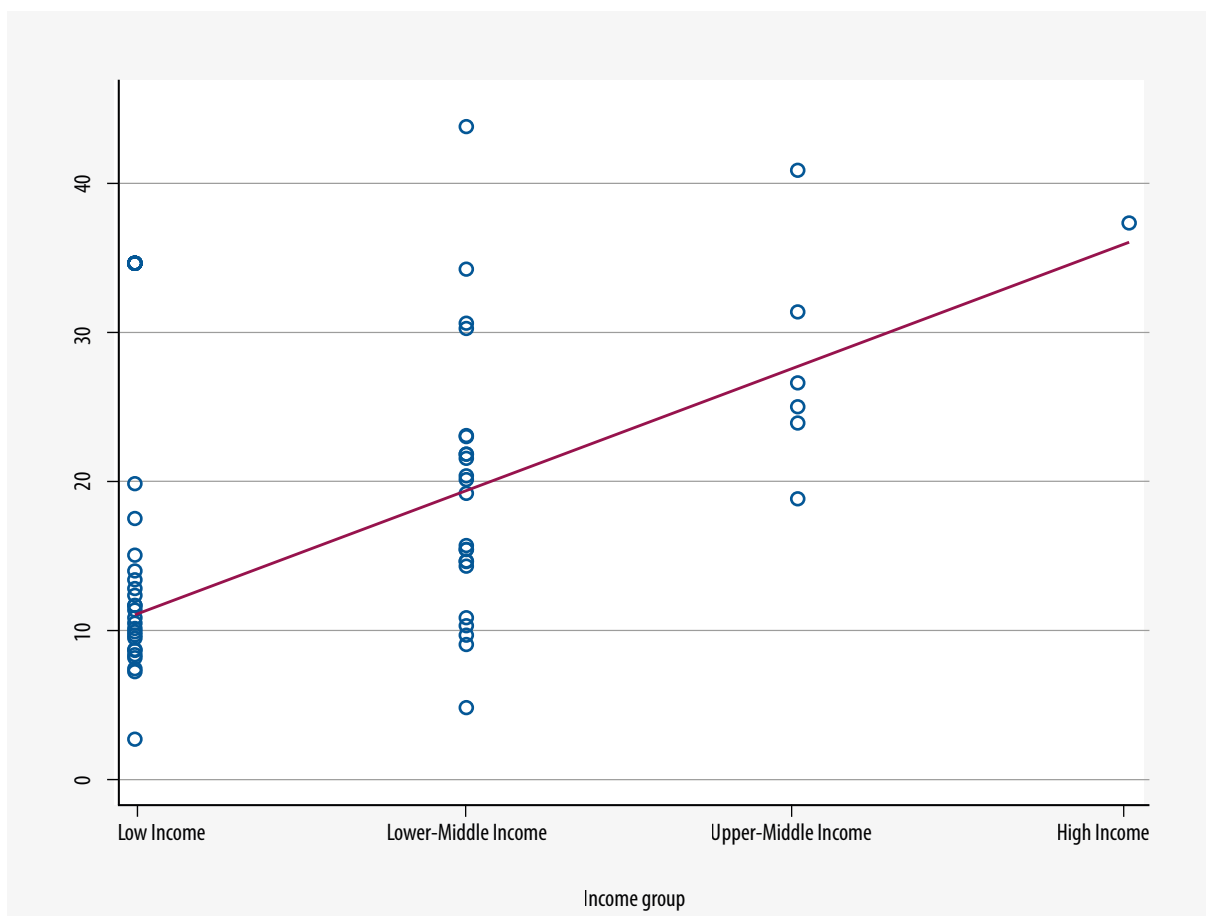
The past two decades witnessed a renewed emphasis on industrial policy anchored on the experiences of Asian countries, including establishing industrial zones to bypass institutional and infrastructure bottlenecks. The impacts of these policies are yet to be ascertained. But there are signs of premature deindustrialization in several African countries, where the share of the manufacturing sector in both employment and

value added in GDP declined.<sup>14</sup> Most African economies are weakly integrated in global value chains, which have suffered significant disruptions due to the Covid-19 pandemic and the war in Ukraine. Many African economies still rely on primary commodity exports, resulting in unfavourable terms of trade. So, building a thriving modern sector (with or without smokestacks) in Africa is both a necessity and utmost urgency.

## WEAK FISCAL CAPACITY

The capacity of African governments to mobilize taxes is the most important source of revenue for governments and economic development to evolve together.<sup>15</sup> Typically, countries mobilize more taxes per dollar of GDP as they become richer.<sup>16</sup> For a sample of African countries, the same pattern is observed over the long run, when poorer countries tended to mobilize less taxes as a share of GDP compared with high-income countries (FIGURE 6.4).

**FIGURE 6.4** TAX REVENUE AS A SHARE OF GDP FOR SELECTED AFRICAN COUNTRIES BY INCOME GROUP, 1980–2021



**Note:** The tax-GDP ratio (excluding grants and social contributions) for each country is the mean over 41 years. The country classification is the latest according to the UNWIDER data set.

**Source:** ECA computations based on UNWIDER tax data available at <https://www.wider.unu.edu/project/government-revenue-dataset>.

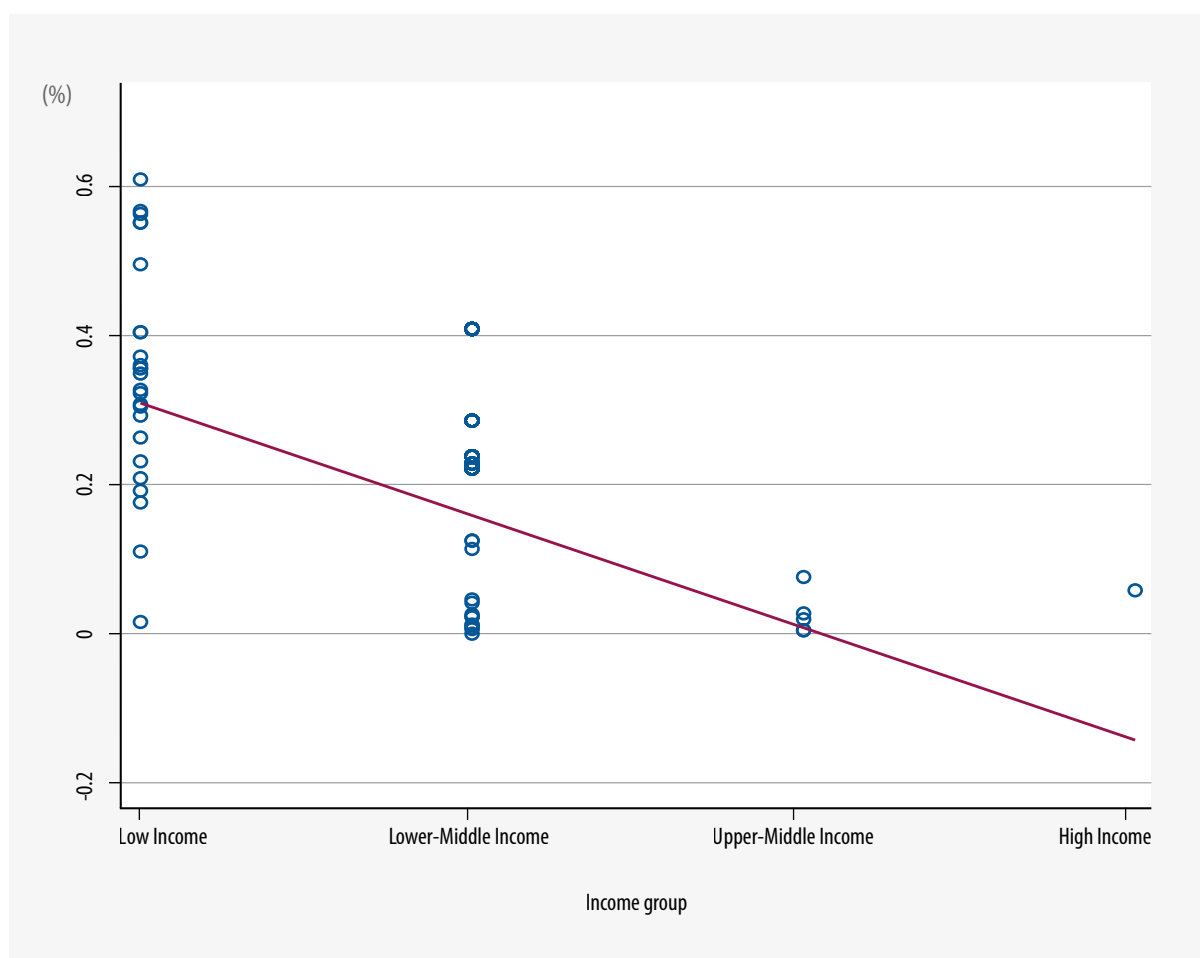
Two main factors tend to affect the capacity of governments to mobilize taxes. One is the structure of the economy, which depends on the stage of economic development, and the other is the set of institutional preferences shaped by history and political precedents, though both factors feed each other to a degree.<sup>17</sup> For many low-income countries, the preponderance of the informal sector with limited product processing capabilities and market organization poses a challenge to government efforts to institute an efficient tax mobilization scheme. This situation is expected to resolve itself during economic development, as witnessed by today's developed countries. Structural transformation, is not self-evident, and its pace and depth are determined by institutions and the incentive structures of the political class. So, informality may remain the default position for longer than is necessary. As a result, a significant portion of economic activities escapes the tax net and, in the process, creates the political economy conditions resisting the transformation into a

modern, competitive and formal economy with well-defined property rights, rule of law and incentives.

Many countries in Africa mobilize much less tax than warranted by the economy's potential, and citizens generally consider governments as corrupt, and so do not feel compelled to pay taxes.<sup>18</sup> This has led many governments in poor countries to rely mainly on grants, loans and other sources of revenue to finance their budgets, and chronic structural deficits compromise macroeconomic stability (FIGURE 6.5).

The spread of Covid-19 and the war in Ukraine exposed the underlying weaknesses in public finance in many African countries. Deficits soared as governments lost significant revenue, introduced tax relief and provided subsidies for necessities to cushion the impacts of the shocks. On the expenditure side, there is a general perception among experts that African governments tend to be less efficient and equitable in the

**FIGURE 6.5** SHARE OF GRANTS IN TOTAL TAX REVENUE FOR SELECTED AFRICAN COUNTRIES BY INCOME GROUP, 1980–2021



Source: ECA computation based on UNU-WIDER tax data. Available at: <https://www.wider.unu.edu/project/government-revenue-dataset>.

“A new approach to debt-sustainability needs to consider the severity of the compounding and recurrent shocks experienced by African countries.”

## WEAK OR ABSENT SOCIAL PROTECTION SYSTEMS

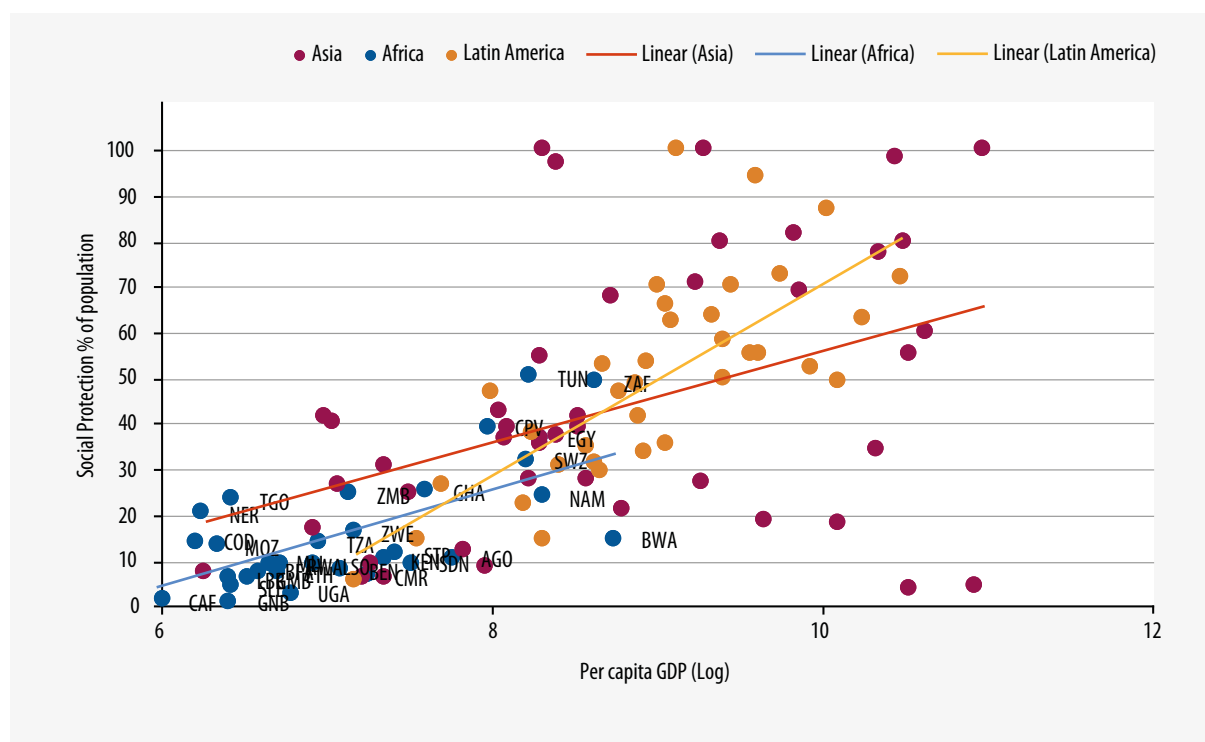
Social protection systems are important buffers against shocks to minimize the suffering of households and businesses. According to ILO data, nearly 83% of Africans lived without any form of social protection in 2020, a slight improvement from 87% in 2019.<sup>21</sup> This contrasts starkly with Asia and Latin America, which have close to 50% of the population covered with at least one form of social protection. Africa performs poorly in social protection coverage because the continent is poor.

provision of public services.<sup>19</sup> The pandemic also provided a unique opportunity for governments and citizens to appreciate and recognize the importance of having a strong healthcare system, including its financing, and comprehensive social protection programmes.

The erosion of fiscal capacity has led to significant debt burdens for many African countries. The average debt-GDP ratio for Africa increased from about 63% in 2019 to over 73% in 2020, though it is projected to fall back to around 61% by 2024.<sup>20</sup> The number of countries at high risk of debt distress and default has increased significantly. The approach so far pursued by creditors is business as usual: debt restructuring and reprofiling, followed by an IMF programme, an approach that has failed multiple times. A new approach to debt-sustainability needs to consider the severity of the compounding and recurrent shocks experienced by African countries.

Regardless of the level of per capita GDP, which predicts a country’s ability to afford social protection for its citizens, Africa performed poorly in comparison with Asia and Latin America. This alone suggests a lack of institutional and policy readiness to protect households from shocks, rather than a shortage of resources. But it also demonstrates the huge potential for African governments to mobilize more resources, notably through taxes to institute vigorous and well-functioning social protection programmes in the future.

FIGURE 6.6 SOCIAL PROTECTION COVERAGE IN DEVELOPING REGIONS AND BY PER CAPITA GDP



Source: ECA computations based on data from ILO.

# STRATEGIES TO IMPROVE RESILIENCE TO SHOCKS

What policy reforms could move African countries progressively to a state where the impact of shocks is minimized through various buffer mechanisms while reducing the recurrence of shocks in the future? Following the analytical framework proposed at the beginning of the report, the guiding principle is to develop strategies that enable African countries to move to a state where the magnitude and recurrence of shocks are minimized through mitigative and adaptive actions—and to build resilience that alleviates the impacts of shocks and speeds the recovery. As more countries move to a low-shock/high-resilience scenario, the better the continent will manage and overcome shocks. The elements of development finance articulated in the Addis Ababa Agenda for Action agreed at the Third International Conference on Financing Development in 2015 in Addis Ababa include domestic public resources, international development cooperation, international trade and finance including regional integration, and economic transformation supported by science and technology.<sup>22</sup>

## DEVELOPMENT PLANNING AND GOOD GOVERNANCE

Building a country’s resilience to shocks requires strengthening of capacities to design development plans that anticipate shocks and devise proactive response measures. National development plans provide a coordinated framework for countries to design, implement and track strategies that promote their development priorities in line with their global commitments. Appropriately designed plans must anticipate and proactively respond to shocks, with response strategies appropriate for the nature of the shock.

**“Appropriately designed plans must anticipate and proactively respond to shocks, with response strategies appropriate for the nature of the shock.”**

Systemic or known shocks are predictable and lend themselves to response measures that are both mitigative and adaptive. Such shocks can be addressed through strategic interventions and industrial policies that promote value addition, generate employment and incomes, and reduce poverty. To the extent that such measure minimize exposure to systemic shocks, they can be described as mitigative responses to commodity price shocks. But even in the best-case scenario, some sections of society will be hurt by systemic shocks. So, mitigative measures can be complemented by adaptive measures such as social protection programmes to cushion vulnerable groups in the short to medium term.

Shocks that are unanticipated (“known unknowns” such as the Covid-19 pandemic) are challenging to predict or forestall. However, through contingency planning informed by scenario modelling, policymakers can design programmes to evaluate the likelihood of such events as well

as their impacts. Based on such information, measures can be designed to mitigate the impacts of such shocks and soften their effects on vulnerable groups. However, when such predictive measures fail, resilience to such shocks depends on the robustness of existing infrastructure and institutions in key areas such as health and education. In Africa, the Covid-19 pandemic and the Ukraine–Russia conflict unmasked yawning gaps in the productive capacities of countries, particularly in agriculture, health and pharmaceuticals.

Shocks characterized by rare events (“unknown unknowns”) that are completely off the radar of policymakers are almost impossible to plan for. So, the key policy responses are largely adaptive and include the design of disaster risk programmes and the creation of emergency funds.

Whatever the nature of a shock, resilience-enhancing national development plans are informed by a diagnostic of the socioeconomic and environmental landscape of a country. Such assessments include an analysis of the drivers of shocks, the structural impediments to responding to shocks and the potentially game-changing interventions that mitigate exposure to such shocks as well as their impacts. Based on such assessments, inclusive and resilient growth strategies can be devised, funded and continually tracked. Note that shocks can be either negative or positive. So, development plans must be perceptive in building resilience to adverse shocks while strategically leveraging the benefits of positive shocks.

A number of factors are critical for the design of resilience-enhancing national development plans. The first is the capacity to undertake robust analysis of the nature and source (domestic and external) of shocks and to establish the resilience baseline of a country with respect to its historical exposure to shocks. This requires credible data, but data gaps in planning can be mitigated through improved coordination among national planning entities and between national and subnational planning entities. Often subnational entities have access to data not readily available to national entities. Strengthening coordination can improve data access. In parallel, investing in spatial planning can ensure more effective targeting of interventions that address the plight of vulnerable groups and leverage local resources for development.

As discussed in previous chapters, shocks and resilience are dynamic. The severity and frequency of shocks may change over time, necessitating adaptive and proactive response measures to strengthen resilience. In this context, strengthening capacities for modeling the likely causes and impacts of new shocks can improve the scientific basis for identifying, prioritizing and sequencing policy interventions that are catalytic, mutually reinforcing, adaptive and consistent with achieving sustainable development.

In effect, resilience-building can be hard-wired into national planning framework through the design of risk-informed macroeconomic and sector strategies. It is important that macroeconomic strategies support sectoral growth without elevating debt vulnerabilities. And sectoral growth strategies must promote and sustain growth without undermining macro stability.

## **STRUCTURAL TRANSFORMATION THROUGH SMART INDUSTRIAL POLICIES**

As indicated in the analytical framework chapter, achieving sustainable growth and building resilience require a process of structural transformation that fosters the mobility of labour from low to high productivity sectors. Such endeavours are encapsulated in SDG 8 (Promote strong, inclusive, and sustainable economic growth and decent work for all) and SDG 9 (promote sustainable industrialization). They also involve the following shifts: “(1) a declining share of

agriculture in gross domestic product (GDP) and employment, (2) the rapid process of urbanization as people migrate from rural to urban areas, (3) the rise of a modern industrial and service economy, and (4) a demographic transition from high to low rates of births and deaths.”<sup>23</sup> African economies have met the first two conditions but not the second two. So, structural transformation has remained elusive.

The movement of labour from low productivity subsistence agriculture to low productivity, predominantly informal service sector has taken place in many African countries. But manufacturing is still at its formative stage. The commitment to industrialize is evident by the plethora of industrial policies rolled out across the continent and the institutional backing of regional organizations—such as the AU (Africa 2063), African Development Bank (2017), and the UN (Agenda 2030)—that firmly rally behind the idea. So, the question now is not whether Africa should industrialize, but how?

Studies of successful industrial policies suggest the following conditions:<sup>24</sup>

- Effective political settlement across the interest groups that implement and participate in the industrialization programme. This includes credible coalitions of political elites, state bureaucracy and investors.
- Coordination across different government ministries and departments.
- Careful selection of subsectors and industries with high potential for success and expansion.
- Hands-on policy instruments or tools to incentivize, nudge and discipline entrepreneurs and businesses to stay focused on the long-term interests rather than short-term rent-seeking.

**“ ... the current global economic architecture, despite the many challenges, also affords opportunities for African countries to leapfrog and accelerate industrialization efforts through careful experimentation of what has worked elsewhere and adopting it to their local conditions. ”**

It can be inferred that successful industrial policy requires both a sectoral focus and getting the basics right. Separating the two may be hard, but it is essential for countries to identify optimal combinations of policy actions to nurture an industrial programme. The broad lessons are that the current global economic architecture, despite the many challenges, also affords opportunities for African countries to leapfrog and accelerate industrialization efforts through careful experimentation of what has worked elsewhere and adopting it to their local conditions. Firm survival and growth in Africa are closely linked with exporting, with foreign direct investment and with international or global firms, which help transfer knowledge and adopt managerial norms and standards. These elements come in different shades depending on firm types and technology intensities. Broadly, however, three economic fundamental gaps require attention to get the basics right: skill gaps, infrastructure gaps and overall institutional quality gaps.<sup>25</sup>

## REGIONAL VALUE CHAINS

More than one billion people in Africa live connected by a large land mass. The African continent exhibits one of the highest intraregional migration and labour mobility in the world. Yet it is also one of the most fragmented continents where national identity supersedes Pan-Africanism. As a result, covariate shocks tend to be more fatal and persistent than they would be if the potential of regional economic integration were fully realized. Since independence, African leaders have aspired to greater economic and political integration. Yet that aspiration is yet to be realized. And the experiences of recent global shocks could be an opportunity to accelerate this vision. Promoting value chains and enhancing global cooperation is imperative to improve resilience to shocks.

Africa's aspiration for greater integration found expression in the African Continental Free Trade Area (AfCFTA) signed in 2018 by AU member states.<sup>26</sup> The agreement has five key elements: eliminate tariffs and nontariff barriers to trade in goods progressively; liberalize trade in services progressively; cooperate on investment, intellectual property rights and competition policy; cooperate on all trade-related areas; cooperate on custom matters. The AfCFTA builds on previous efforts to promote intra-Africa trade with a proposal for deep integration in trade and investment that could create millions of jobs and reduce poverty significantly. Such are the expectations portrayed in various reports and studies published by regional and specialized UN organizations,<sup>27</sup> multilateral development financing institutions and other international organizations.<sup>28</sup> But other opportunities are less explored in the AfCFTA, which could build enormous resilience to shocks and provide opportunities for accelerating Africa's drive for industrialization and agricultural transformation.

The first is the potential for engaging in regional value chains, of high significance in the current atmosphere where global value chains have been severely disrupted by the Covid-19 pandemic and the war in Ukraine. In addition, the simmering multipolar geopolitics could also create potential disruptions for which African countries need to be prepared and take advantage of emerging opportunities rather than suffer from the fallout.

Some sectors amenable to value chains are already emerging, where collaborations in services, particularly those driven by technological advances could be harnessed. African countries have a relative comparative advantage to engage in trade in services, which could be elevated in collaborations to create frontier services through regional IT-hubs.<sup>29</sup>

There is also good potential for regional value chains in agro-processing and light and medium manufacturing. In the current trade system, the continent is extremely exposed to shocks from beyond its borders, far more than is necessary. For example, nearly 65% of uncultivated global arable land is in Africa, but it is a net food importer and severely food insecure. Imports of wheat, fertilizers and other commodities from Russia or Ukraine by some African countries right before the onset of the war exceeded 80%, underscoring their vulnerabilities. Going forward, countries could collaborate in creating regional agricultural commodity markets that would help to connect surplus economies with net importers for key commodities such as wheat, sugar and rice. This would reduce dependence on Russia and Ukraine.

**“ The AfCFTA builds on previous efforts to promote intra-Africa trade with a proposal for deep integration in trade and investment that could create millions of jobs and reduce poverty significantly. ”**

Financial integration could protect the continent from the vicious cycle of debt distress and liquidity crunches through the development of regional bond markets that would enhance savings mobilization, risk pooling and funding for regional and national infrastructure.

## GLOBAL COOPERATION

Africa could expand its capacity to build resilience by creating a common front to benefit from global economic cooperation. Countries currently engage bilaterally with the rest of the world, in a context where development assistance increasingly shifted away from productive activities to the management of humanitarian crises. While development assistance at its best can catalyse development, it does not sustain it. So, global cooperation that focuses on equity and equal partnership could benefit Africa. The world is learning that climate change risks are equally catastrophic, and pandemics do not discriminate poor and rich regions. So, there is a good opportunity for Africa to forge a new global cooperation framework that brings collective prosperity and advancement.

**“ African countries need to seek for an avenue for a new debt-sustainability framework that is forward-looking, predicated on accounting for the country potential and vulnerability to future shocks so that the cost of borrowing is commensurate with the development and resource potential. ”**

In the current situation, African economies have suffered severely from global shocks, putting many countries in high risk of debt distress or in risk distress, while the globe is still lush with excess liquidity. It is time to seek and explore new mechanisms for Africa’s debt resolution. The war in Ukraine has further complicated the situation by increasing the risk of debt repayment, leading many countries to risk default.

How can the ongoing discussion on the global financial architecture<sup>30</sup> help countries accelerate recovery and move to a path of inclusive growth? This is the time for Africa to engage in the discussion on reimagining and reconfiguring the current global financial architecture that measures up to Africa’s developmental challenges and aspirations. African countries need to seek an avenue for a new debt-sustainability framework that is forward-looking and predicated on accounting for the country potential and vulnerability to future shocks so that the cost of borrowing is commensurate with the development and resource potential.

## EMPLOYMENT STRATEGIES, ESPECIALLY FOR YOUTH EMPLOYMENT AND OFF-FARM RURAL EMPLOYMENT

Africa accounts for only 7.8% of global wage employment, but 14.3% of the global labour force.<sup>31</sup> And 62% of the world’s working poor live in Africa, the largest concentration.<sup>32</sup> Wage employment is concentrated in a few countries, such as South Africa. The average share of wage employment in Sub-Saharan Africa is a mere 13%, suggesting that self-employment is the major source of employment in Africa. It is a well-established fact that the youth suffer disproportionately in being unemployed and earning low wages or income from self-employment. So, the employment challenge is primarily about creating jobs that also pay decent wages.



Policymakers in Africa have pursued active labour market policies to promote youth employment and address the challenges of creating decent jobs through vocational training, wage subsidies, job-search and matching assistance and other programmes. Such policies focus on the supply side of the labour market—on schooling, upgrading skills and similar interventions. It may however be worthwhile for governments to turn their attention to the demand side of the labour market, where removing the constraints faced by firms could bring a major return in terms of the quality and quantity of jobs created.

Competition and innovation govern the pattern of exit and entry of firms allowing the most productive ones to thrive, while the inefficient ones readjust or exit the market. This process also creates the conditions for jobs to be created and destroyed, the net result of which depends on how quickly and sustainably constraints to firm growth are addressed and resolved. A survey of 18 African countries found access to finance and electricity, political instability, corruption and poor property rights to be stumbling blocks for the growth of firms.<sup>33</sup> For the impact on employment growth, the probability of exit is low and highly correlated with constraints related to corruption, licensing and permit challenges and poor property rights, particularly for land ownership, and delays in court cases. Because of these challenges, firm entry rate has been low in Africa and could be responsible for the loss of close to 3 million jobs annually, about 25% of the labour force entering the labour market every year.

## **ROBUST DOMESTIC RESOURCE MOBILIZATION TO FINANCE SUSTAINABLE DEVELOPMENT**

Mobilizing domestic resources for development has been one of the most debated and studied subjects in Africa's development. Regional organizations, academics and decisionmakers advocate for a robust domestic resource base to finance economic development in Africa. The reality, however, is that progress has been extremely low, and things have gotten even worse in some countries. Here the focus is on a few topics that resonate well with the task of building resilience to shocks.

### **STEMMING CAPITAL FLIGHT**

In the past five decades, more than USD2 trillion was lost due to capital flight from Africa.<sup>34</sup> So, Africa is not a capital-scarce—it is capital-stripped, as economic logic dictates that capital should flow to regions and areas where it bears high rates of return. But the destination of African capital has been predominantly to capital-abundant countries and regions. Such unnatural upstream flows are enabled by weak institutions in Africa and greed in the recipient countries, predominantly Africa's development partners.

It is estimated that reversing capital flight alone would bring close to USD40 billion a year that could finance enormous public and private projects, more than official development assistance, to greatly stimulate Africa's growth. Based on preliminary estimates, stemming capital flight

**“ It is estimated that reversing capital flight alone would bring close to USD40 billion a year that could finance enormous public and private projects, more than official development assistance, to greatly stimulate Africa's growth. ”**

fully would add close to 1.3 percentage point to current investment as a share of Africa's GDP. Noting that a one percentage point increase in investment would add at least a 0.02 percentage point increase in long-term growth, it is possible to imagine the enormity of growth lost due to capital flight in the last five decades.<sup>35</sup> Moreover, when compared with the total external debt the continent owes to its creditors, the amount lost to capital flight is more than sufficient to expunge Africa's debt and make the continent debt-free.

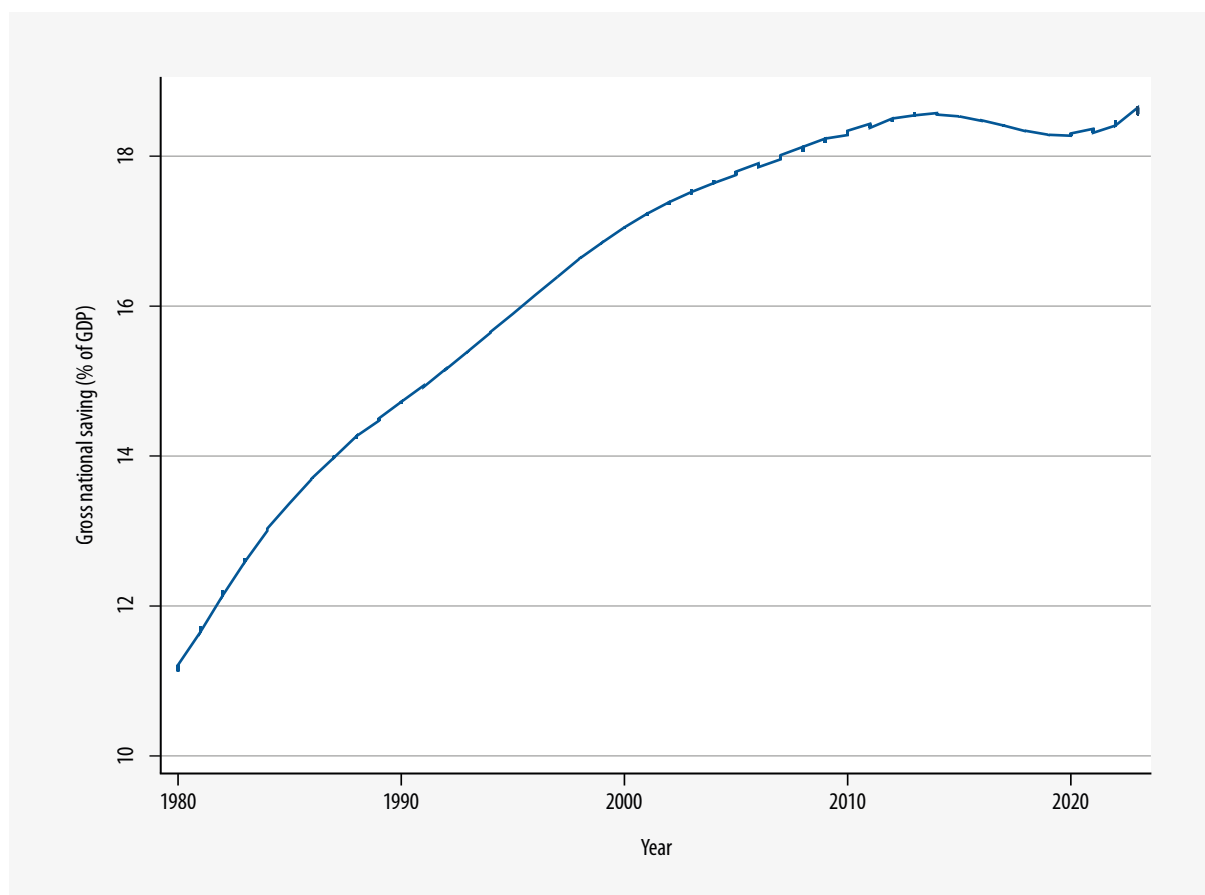
The widespread prevalence of capital flight suggests deeply seated institutional and policy deformities that could fundamentally derail Africa's prospect of prosperity. In fact, more than half of the external debt borrowed is siphoned back to the lending countries through capital flight, making debt a double burden to African countries servicing debt that has left their shores.<sup>36</sup> Various strategies could be implemented to stem capital flight, starting by establishing verifiable measures to ensure that debt is used for its intended purpose and other mechanisms of debt transparency. For example:

- *Centralize all debt data and management activities in a debt management office.* This would help build a comprehensive view of the country's contractual debt obligations. Such centralization would also allow countries to dynamically manage their debt positions, by improving, for instance, the matching of debt currencies with expected export or FDI receipts (thus reducing exposure to foreign exchange risk). Ideally, debt management should be accompanied by an early warning system to alert the country of any slippage in debt sustainability levels. Equally important is to make sure that the debt management office has appropriate human and financial resources for effective delivery of its mandate. The creation of such an office should centralize all debt data and management activities and provide capacity-building at all levels of government, including subnational authorities where relevant.
- *Increase transparency by committing to make public in real time all data on old and new debt.* This will require efforts to standardize data-gathering practices, to develop data collection systems, to address data gaps (notably in the accounting of state-owned enterprises-related liabilities and contingent liabilities arising from sovereign guarantees to individual projects) and to consolidate government accounts across regional levels, agencies, ministries and institutions. Comprehensive debt data would increase the accuracy of fiscal policy projections. While data standardization efforts have already been undertaken in most African countries, all countries need to adhere to best practices in reporting and making publicly available information on public and publicly guaranteed debt.<sup>37</sup>
- *Consolidate public revenue and expenditure management.* This would go a long way in reassuring multilateral lenders and private investors, in reducing leakages in the use of public funds and in fighting corruption and embezzlement of government funds.

## DOMESTIC SAVINGS AND TAX MOBILIZATION

In the past several decades, private consumption has played a significant role in driving economic growth in Africa. One would expect, however, that for low-income countries, investment and perhaps next exports should be the underlying drivers of growth, as witnessed in fast-growing economies in Asia at the early stage of their development. The constraints facing many African countries are weak financial intermediation, informal saving, low finance for small businesses and farming, a preference for big government by policymakers and politicians, and widespread corruption that erodes the tax base. There has been some progress to mobilize savings across Africa in the last two decades, from 11% of GDP in 1980 to about 18% in 2020 (FIGURE 6.7). But this progress is neither substantial enough to push investment required to achieve high and sustained growth, nor sufficiently complementary to remove the foreign exchange constraint of most African countries.

FIGURE 6.7 GROSS NATIONAL SAVINGS IN AFRICA, 1980–2023



Source: ECA computations based on World Economic Outlook data.

In dealing with shocks, savings play a lifesaving role for households, businesses and governments by smoothing consumption and avoiding disruptions in production. As noted in previous chapters, millions of households in Africa experienced serious hunger during the Covid-19 pandemic for lack of savings, even though food availability was not disrupted at the aggregate level. Governments could increase savings and taxes by implementing reforms that leverage digital technologies to reach millions of households through mobile banking and making tax administration fair, transparent and equitable.<sup>38</sup> Such measures instil trust and confidence in the government, and thus increase tax compliance.

### DIVERSIFYING FINANCIAL INSTRUMENTS TO FINANCE LONG-TERM INVESTMENT

A big challenge is the lack of financial instruments to translate savings into productive investment. As a result, large public investments remain largely unfunded for lack of suitable

financial instruments. Most financial instruments in Africa are short to medium in term and concentrated in few geographic areas, such as South Africa, which accounts for more than 80% of the capitalization of Africa's stock markets. The financing gap estimated by OECD to meet the SDGs globally is around USD2.5 trillion, since revised upwards by another USD1 trillion because of the Covid-19 pandemic. Most of these unmet financial gaps are for African countries.

The amount of global assets held by institutional investors that have the capacity to lend long term crossed the mark of USD120 trillion in 2022, most of which is held by pension funds and similar investors. For far too long, African countries have not had an opportunity to tap into this global saving glut, partly because of perception bias towards Africa, which alone increases borrowing costs by more than 2 percentage points. African governments could work closely with rating agencies to improve their credit worthiness by taking concrete and credible measures to reduce risk perceptions of institutional

investors. This includes strong macroeconomic management, transparent debt management, credible public investment programmes and plans and a demonstrable capacity to implement growth strategies and development visions.

As African economies transition to middle-income status and as domestic private savings increase, public debt can provide a safe long-term outlet for excess savings, if public expenditure does not crowd out private investment, fuelling inflation and financial repression. The role of public debt as a safe asset is most relevant when domestic financial markets remain largely undeveloped, to avoid inefficient capital flight and unproductive hoarding of liquidity. Public liabilities should be viewed in that context as kickstart engines for flourishing private funding instruments in equity and bond markets.

## PANDEMIC PREVENTION, EARLY WARNING SYSTEMS, AND SOCIAL PROTECTION

The Covid-19 pandemic provided valuable lessons about the preparedness of Africa's health systems to counter deadly infectious diseases. The health systems of most African countries were unprepared to deal with the pandemic, and the response has also been very slow.<sup>39</sup> The most serious shortcomings were a lack of health services needed for the pandemic, inadequate resources and equipment, and limited testing ability and surge capacity. And among the most common impacts of the Covid-19 pandemic were reducing the flow of patients and missing scheduled appointments. Health system responses include telephone consultations, re-purposing available services, establishing isolation centres and providing Covid-19 guidelines in some settings. Even countries and regions with one of the most advanced and elaborate health-care systems could not cope with the pandemics because of inadequate preparedness. A recent report by McKenzie (2022) identified preparedness as epidemic prevention, threat identification and surveillance, emergency preparedness and encompassing response operations, emergency manufacturing, procurement, and supply chain management, and access to innovation.

**“ A recent report by McKenzie (2022) identified the following elements that encompass preparedness: epidemic prevention; threat identification and surveillance; emergency preparedness and response operations; emergency manufacturing, procurement, and supply chain management; and access to innovation. ” ”**

These elements thrive in an environment supported by technology and data, robust public communication and finance and effective partnerships. Beyond the healthcare systems, the Covid-19 pandemic also exposed the fragility of livelihoods to such shocks in the absence of adequate social protection systems. African countries could build on the informal social protection and risk-sharing mechanisms to have more robust, sustainable and resilient systems to protect households and businesses from succumbing to the pressures of global shocks.

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## ENDNOTES

- 1 ECA calculations, 2023.
- 2 Asafu-Adjaye et al., 2022.
- 3 Between 1990 and 2021, the share of gross capital formation in GDP remained almost flat hovering around 22% with huge variation across countries (<https://data.worldbank.org/indicator/NE.GDI.FTOT.ZS?locations=ZG>). The same for domestic savings (<https://data.worldbank.org/indicator/NY.GDS.TOTL.ZS?locations=ZG>) and revenue which remained unchanged over the last three decades.
- 4 Miguel et al., 2004.
- 5 Hallegate, 2014.
- 6 Briguglio et al., 2004.
- 7 The Resilience Index is constructed using a combination of the following indicators: rule of law, government effectiveness, quality of regulations, share of government revenue as % of GDP and share of savings as a percentage of GNP and the Gini coefficient. The first three indicators provide information on the institutional capacity of national governments to deal with shocks. The indicators on government revenue and savings capture the potential of existing in the economy to mobilize financial resources available to counter and overcome shocks. The Gini coefficient approximates the economy's sensitivity to income distribution issues, including effectiveness of various redistribution programmes. The data for the governance indicators, as well as savings and government revenue were obtained from World Development Indicators averaged over 1997-2019. Data on the Gini coefficient were obtained from Povcalnet. Each of the indicators is regressed on log per capita GDP, and the residual is retained to isolate the influence of per capita GDP on these indicators. A single index is generated using the Principal Components Analysis commonly used for the purposes of reducing data dimensions. In this report, the Resilience Index was constructed by reducing the six indicators into a single index. Many other indicators could be included and checked for the robustness of this index. An attempt was made to retain the whole indicators by adding initial per capita GDP to control for initial conditions. The correlations were strong.

- 8 Bates et al., 2004.
- 9 Morsy et al. (2019) show that debt-financed public investment projects in Africa have had much less impact on GDP growth than their peers in other developing regions.
- 10 World Bank, 2017.
- 11 Rodrik, 2013.
- 12 Rodrik, 2013.
- 13 Newman et al., 2016.
- 14 AEO 2019; Borat 2022.
- 15 Besely and Presson 2014.
- 16 Besely and Presson 2014.
- 17 Besely and Presson 2014.
- 18 Boly, Konte and Shimeles 2019.
- 19 African Development Bank, 2020.
- 20 IMF, 2022.
- 21 According to ILO (2004), “social protection is defined as the set of public measures that a society provides for its members to protect them against economic and social distress caused by the absence or a substantial reduction of income from work as a result of various contingencies (sickness, maternity, employment injury, unemployment, invalidity, old age or death of the breadwinner), the provisional health care and the provision of benefits for families with children” (p. 3).
- 22 See <https://www.un.org/sustainabledevelopment/financing-for-development/>.
- 23 Timmer, 2012, p. 2.
- 24 Walter, 2021.
- 25 Shimeles, 2017.
- 26 AU, 2018.
- 27 ECA, 2018; UNCTAD, 2021.
- 28 Echandi et al., 2022; World Bank, 2020; AfDB, 2020.
- 29 ECA, 2021.
- 30 See the compelling discussion on SDR reallocation by Herman (2020) and Gallagher, Ocampo and Volz (2020).
- 31 Bhorat and Oosthuizen, 2020.
- 32 Borat et al., 2022.
- 33 Woldemichael and Joldowski, 2019.
- 34 Ndikumana and Boyce, 2022.
- 35 ECA computations based on fixed-effects panel data regression model covering the period 1980-2020 with a sample of 49 African countries. The regression controls for unobserved time-varying factors and unobserved country specific factors.
- 36 Ndikumana and Boyce, 2011.
- 37 The IMF has taken steps to improve the transparency and openness of member countries, including setting standards for the voluntary release of economic and financial data. These standards are voluntary and are intended to provide guidance to members who have or may have access to international financial markets when providing economic and financial data. All but three African countries-Somalia, South Sudan, and Eritrea-have signed up for the data platform, but most still do not provide up-to-date data. See <https://www.imf.org/en/About/Factsheets/Sheets/2016/07/27/15/45/Standards-for-Data-Dissemination>.
- 38 Ali et al. 2021; Mascagni and Neil 2021.
- 39 Tessema et al. 2021.

The theme of the 2023 Economic Report on Africa is “Building Africa’s Resilience to Global Economic Shocks.” The report focuses on the impact of multiple and recurring global shocks on African economies and the extent to which these shocks impede Africa’s prospects for achieving the targets set in the Sustainable Development Goals. The principal lessons are that shocks of various magnitude, duration and recurrence have played a major part in shaping economic performance in the last several decades, undermining Africa’s aspirations for sustained growth and rapid economic transformation that could benefit from demographic (youth bulge) and geographic (urbanization) trends. In addition, successive shocks have had scarring effects that have made it difficult for African economies to recover fully even after a short-lived shock such as the Global Financial Crisis. More important, the damages caused by shocks could morph into other domains such as political instability and conflict, undermining recovery and resilience to future shocks. The report also emphasizes the opportunities presented by the shocks to implement long overdue structural and public finance reforms that take full advantage of such regional initiatives as the African Continental Free Trade Area.

