



**TRANSFORMING AND BUILDING
RESILIENT ECONOMIES IN AFRICA:
RESETTING PRIORITIES FOR THE POLICY AGENDA
IN THE POST-COVID-19 ERA**

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ACET African Center for Economic Transformation

The **African Center for Economic Transformation (ACET)** is a pan-African economic policy institute supporting Africa's long-term growth through transformation. We produce research, offer policy advice, and convene key stakeholders so that African countries are better positioned for smart, inclusive, and sustainable development. Based in Accra, Ghana, we have worked in nearly two dozen African countries since our founding in 2008.

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ACRONYMS

ACET	African Center for Economic Transformation
AfCFTA	African Continental Free Trade Area
AGOA	African Growth and Opportunity Act
ATI	African Transformation Index
ATR	African Transformation Report
DEPTH	Diversification, Export competitiveness, Productivity increases, Technological upgrading, and Human well-being
FDI	foreign direct investment
GFC	Global Financial Crisis
GVCs	global value chains
ICT	information and communications technology
ILO	International Labour Organization
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
MDGs	Millennium Development Goals
PRSPs	Poverty Reduction Strategy Papers
RVCs	regional value chains
SAPs	Structural Adjustment Programs
SDGs	Sustainable Development Goals
SMEs	small and medium enterprises

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1. Introduction

This document presents priorities for an African policy agenda to steer the continent along a sustained path of growth, economic transformation, and resilience in the coming decades. It also provides a framework for domestic and international investors, African civil society, and external development partners to engage further with African governments to reorient and deepen collaborative efforts for sustainable development on the continent.

The Japan International Cooperation Agency (JICA) facilitated this study as part of a broad research process to support the formulation of a new policy agenda to help Africa realize strong growth recovery while building resilient economies in the post-COVID-19 era. The report was prepared for discussion at the August 2022 Eighth Tokyo International Conference on African Development (TICAD8), co-organized by the Government of Japan, African Union Commission, UN Office of the Special Adviser on Africa, UN Development Programme, World Bank, and African governments.

The main message in this report is clear: **economic transformation is the key to building resilient economies in Africa.**

For example, the COVID-19 pandemic, unlike other global shocks that have impacted African countries recently, triggered a sudden, deep decline in activity, with severe impacts that will take a long time to counter. To better withstand the negative impacts of such shocks—and to quickly and strongly recover from them—African countries must take steps to prioritize and implement policies that support transformation: to further diversify their economies; be more competitive in the export markets; achieve higher levels of productivity, especially labor; and upgrade technology to improve the production and export of high-value-added goods and services. And countries must ensure this is done in a way that improves human economic well-being, such as through better jobs and opportunities, greater female participation in the paid formal work force, and reduced income inequalities. The evidence shows that, despite notable gains in these areas, overall progress has been very slow—and since 2008 it has been dramatically reversed by global shocks, including the COVID-19 pandemic.

The report also finds that there is an untapped growth potential that could be realized by promoting manufacturing since the sector holds higher relative labor productivity than agriculture and services. Jobs remain a critical challenge to Africa's economic development, especially for the continent's booming youth population, and a coherent industrial policy is a key way for governments to ensure that more labor is helping expand manufacturing activities rather than moving into the low-wage, low-productivity informal sector.

The findings and recommendations presented in this report build on lessons from African development, focusing on the role of structural change and economic transformation in the growth process. They also take into account the implications of other current global and regional issues and megatrends that will impact Africa's economic transformation agenda.

The remainder of the introduction further addresses the need for a development policy reset and outlines the approach and methods used in this study. Subsequent sections of the report provide the general approach, methodology, and analysis; a review of the legacies and megatrends that shape current challenges, outcomes, and key lessons; and policy priorities for accelerating economic transformation and building resilience.

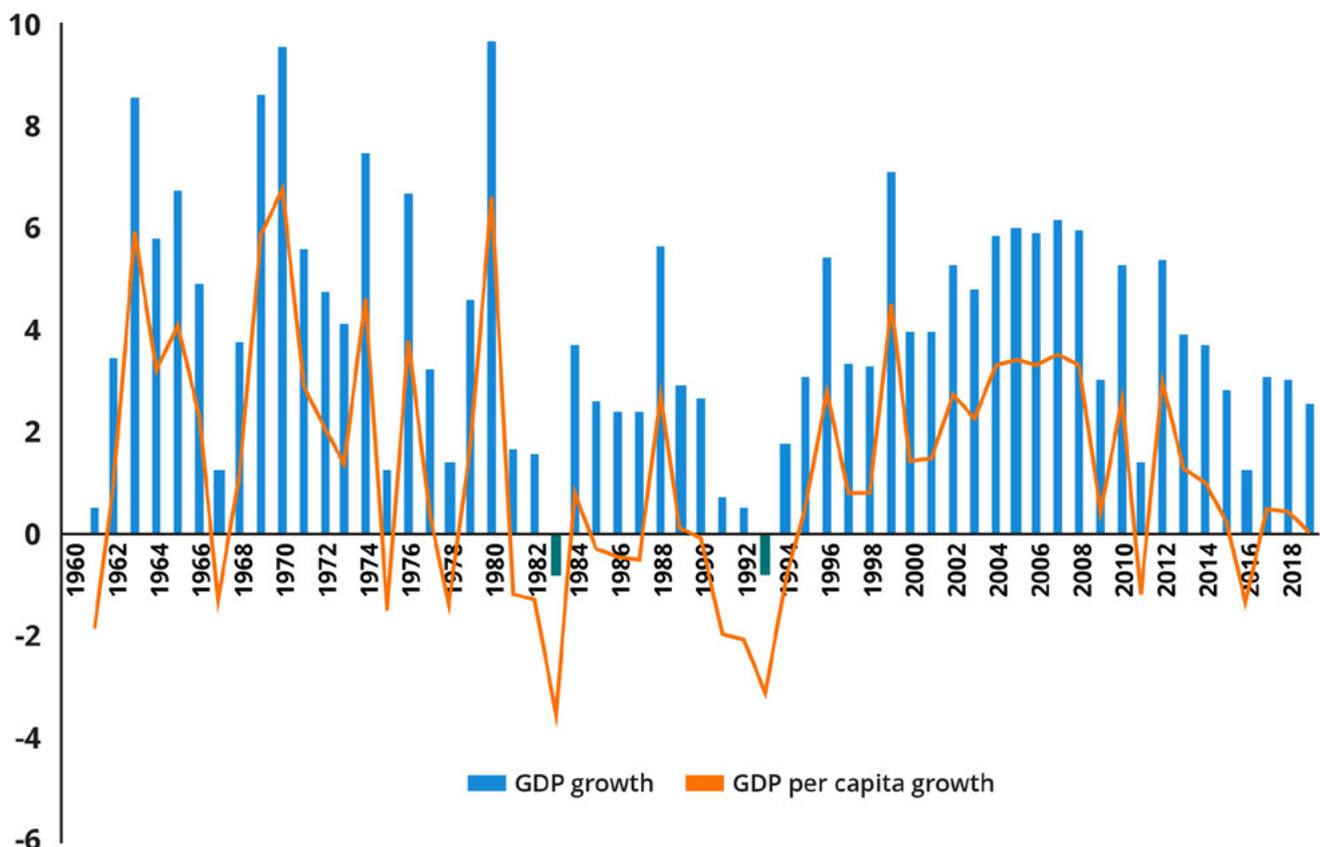
1.1. Why is a development policy reset needed in Africa?

Given today's global economy, geopolitics, and shifting trends, the policy approaches in most African countries are not sufficient to ensure the continent's long-term development or enable countries to withstand shocks—as the severe impacts of the COVID-19 pandemic proved. Several other facts concerning Africa's present reality underscore the need for a shift in policy priorities.

Growth has not been sustained. In the decade between the mid-1990s and the mid-2000s, Africa accelerated its pursuit of sustainable development. Strong growth performance at the start of this century brought hope that such development was at last in sight (Figure 1). However, the growth acceleration was driven by increased global demand for commodities that remained the backbone of Africa's economic structure—cocoa, crude oil and gas, coal, timber, metals and minerals, precious stones, and more. These exports were destined for foreign markets with little synergy with national and regional economies, and they did not create nearly enough decent jobs for a growing—and increasingly youthful—population.

As growth buckled under the impact of the 2007–08 Global Financial Crisis (GFC) and the end of the commodities boom, or “super cycle,” in 2014–15, the historic structural weaknesses of African economies resurfaced. Macroeconomic imbalances grew, fiscal deficits increased, and public debt deepened, all amid economic management failures and pervasive corruption. On the socio-political front, the Arab Spring movement in North Africa and increasingly frequent eruptions of social unrest elsewhere seemed to symbolize the disillusionment over Africa's lack of sustained, inclusive, and equitable growth.

Figure 1. Trends of economic performance, 1960–2018 (percent)



Source: ACET. Calculations based on data from the World Bank's World Development Indicators (2021).

The Sustainable Development Goals are off track. Despite the global commitment to achieving the Millennium Development Goals (MDGs), which were established in 2000, most countries fell short of expectations. Progress was made, but it was insufficient and not sustainable. As the MDGs expired, the global community coalesced around a new set of targets: the Sustainable Development Goals (SDGs), adopted by all UN member states in September 2015. The 17 SDGs were notable for underpinning poverty reduction goals with core tenets of economic transformation strategies. However, progress has not been promising. As UN Secretary-General António Guterres stated in the 2021 *Sustainable Development Goals Report*:

“Regrettably, the SDGs were already off track even before COVID-19 emerged. Progress had been made in poverty reduction, maternal and child health, access to electricity, and gender equality, but not enough to achieve the Goals by 2030. In other vital areas, including reducing inequality, lowering carbon emissions and tackling hunger, progress had either stalled or reversed.”

Unfolding “megatrends” pose long-term challenges. Ultimately, the success or failure of African countries to build resilient economies and achieve sustainable growth through transformation is dependent on how governments respond to an increasing number of critical challenges that transcend borders: climate change, population growth and urbanization, a surge in technological innovations and their applications, shifting trade and production patterns, and the COVID-19 pandemic and its aftermath. These megatrends must be faced against the background of increasing global policy isolationism, trade barriers, social inequality and insecurity, and more.

1.2. General approach and methodology

The study was undertaken using ACET’s Growth with DEPTH framework and its measurement tool, the African Transformation Index,¹ as the conceptual underpinning of the methodological approach, which consists of the following:

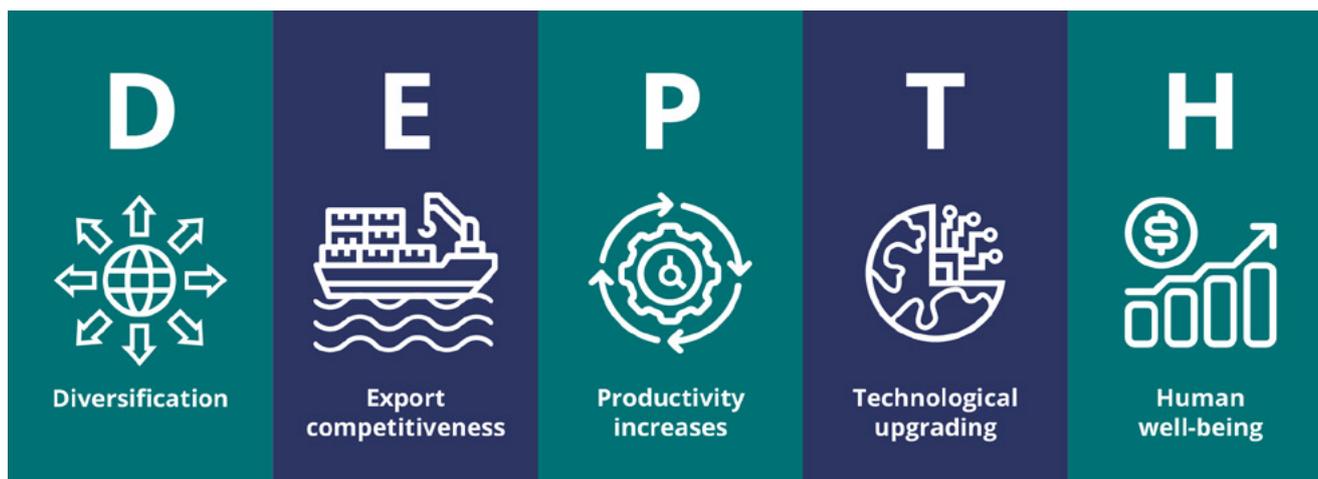
- An analysis of structural transformation, with a focus on sector labor productivity growth and contributions to economy-wide productivity.
- An analysis of economic resilience with a special focus on growth resilience.
- Cross-country case studies in Ghana, Kenya, Mozambique, Rwanda, Tunisia, and Zambia.
- A review of literature on other regions’ experiences.

The analysis led to the development of a country classification based on economic transformation metrics and growth resilience, combined with other metrics (such as income levels and vulnerability).

Growth with DEPTH framework

In its inaugural *African Transformation Report* in 2014, ACET defined economic transformation for Africa as “Growth with DEPTH,” which is shorthand for **D**iversification, **E**xport competitiveness, **P**roductivity increases, and **T**echnological upgrading—all to improve **H**uman well-being through better jobs and livelihoods:

1 There are other similar indices, some of which include dimensions not included in the ATI (for instance, Lin, J.Y., Monga, C. & Standaert, S. The Inclusive Sustainable Transformation Index. *Soc Indic Res* 143, 47–80 (2019)). For this study, the ATI is preferred as the empirical underpinning of the Growth with DEPTH framework. The ATI captures the contextual factors relevant to economic transformation.



“Recent economic growth, while welcome, will not by itself sustain development on the continent. To ensure that growth is sustainable and continues to improve the lives of the many, countries now need to vigorously promote economic transformation. Growth so far has come from macroeconomic reforms, better business environments, and higher commodity prices. But economic transformation requires much more. Countries have to diversify their production and exports. They have to become more competitive on international markets. They have to increase the productivity of all resource inputs, especially labor. And they have to upgrade technologies they use in production. Only by doing so can they ensure that growth improves human well-being by providing more productive jobs and higher incomes and thus has everyone share in prosperity.”

ACET’s framework builds on, and is consistent with, the structural analysis of economic development. However, Growth with DEPTH goes beyond the classical and neoclassical approach to structural change, which focuses on relative sectoral productivity and resource shifts, to emphasize other issues such as such as technology, exports, and human well-being.

To track the progress of economic transformation on the continent through the Growth with DEPTH framework, ACET also developed the African Transformation Index (ATI), which aggregates scores of variables capturing the DEPTH attributes. Findings from the 2022 edition of the ATI, measuring 33 African countries from 1999 to 2019, are used throughout this report.

The ATI tracks indicators of the five dimensions of the DEPTH framework.

- Diversification of production and exports measures capacity to produce and export a broad array of goods and services.
- Export competitiveness measures the share of nonextractive exports in country GDP as the ratio of the share of global nonextractive exports in global GDP.
- Labor productivity measures the value added per unit of labor.
- Technology upgrading measures the medium- and high-technology content in manufactured goods and services.
- And human well-being measures economic and social outcomes and enablers in terms of incomes and equality, employment, and female participation in formal labor markets.

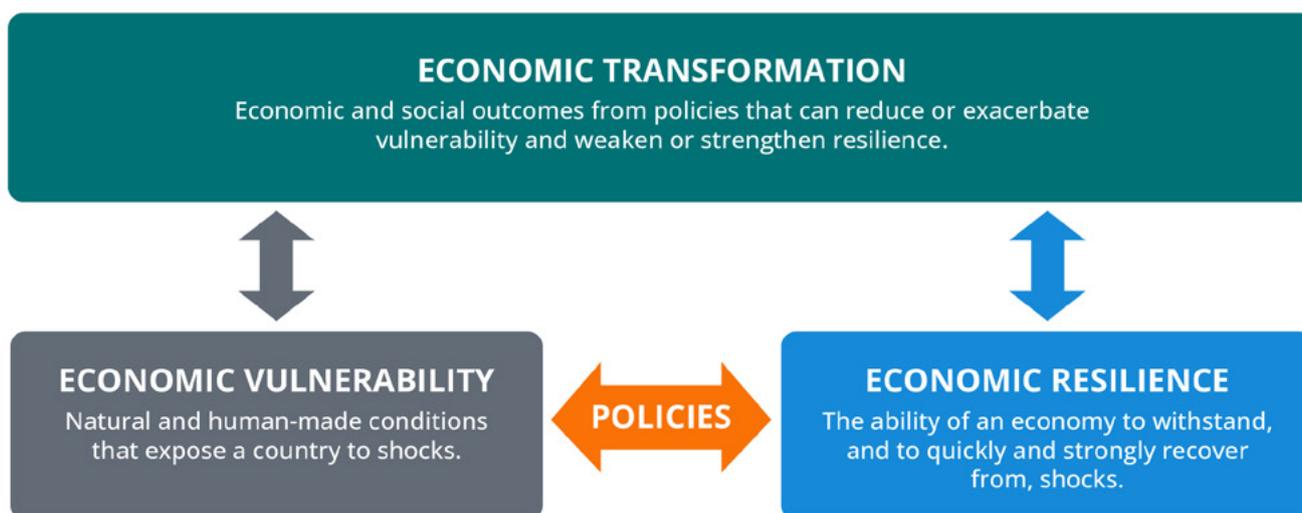
Defining resilience

There are various dimensions to measure a society's resilience: economic, social, and physical (infrastructure). And there are different levels of resilience: macro, sectoral, firm, household, and individual. The dimension and level of resilience would determine the nature and scope of policy response. The analysis in this study is rooted in economic resilience, which is defined as a country's ability to withstand and quickly recover from adverse shocks, minimizing growth output losses in the process. The concept of growth resilience is predicated on the notion that only when output grows can incomes grow sustainably and other aspects of human well-being improve.²

A metric for growth resilience that matches this concept should have two attributes: (i) a measure of how much time it takes for an economy to recover from shock and attain a level of growth above the immediate pre-shock period; and (ii) a measure of the loss in growth that occurs as a result of the shock. To measure growth resilience of African economies, the 2007–08 GFC was taken as an example of a negative exogenous shock that was not country specific.

The study also recognizes the relationship between resilience and vulnerability (i.e., exposure to risk factors). Policies that influence one may also directly or indirectly influence the other. This creates endogeneity, which must be considered when relating the two (Figure 2).

Figure 2. Economic transformation, vulnerability, and resilience



Analytical methods

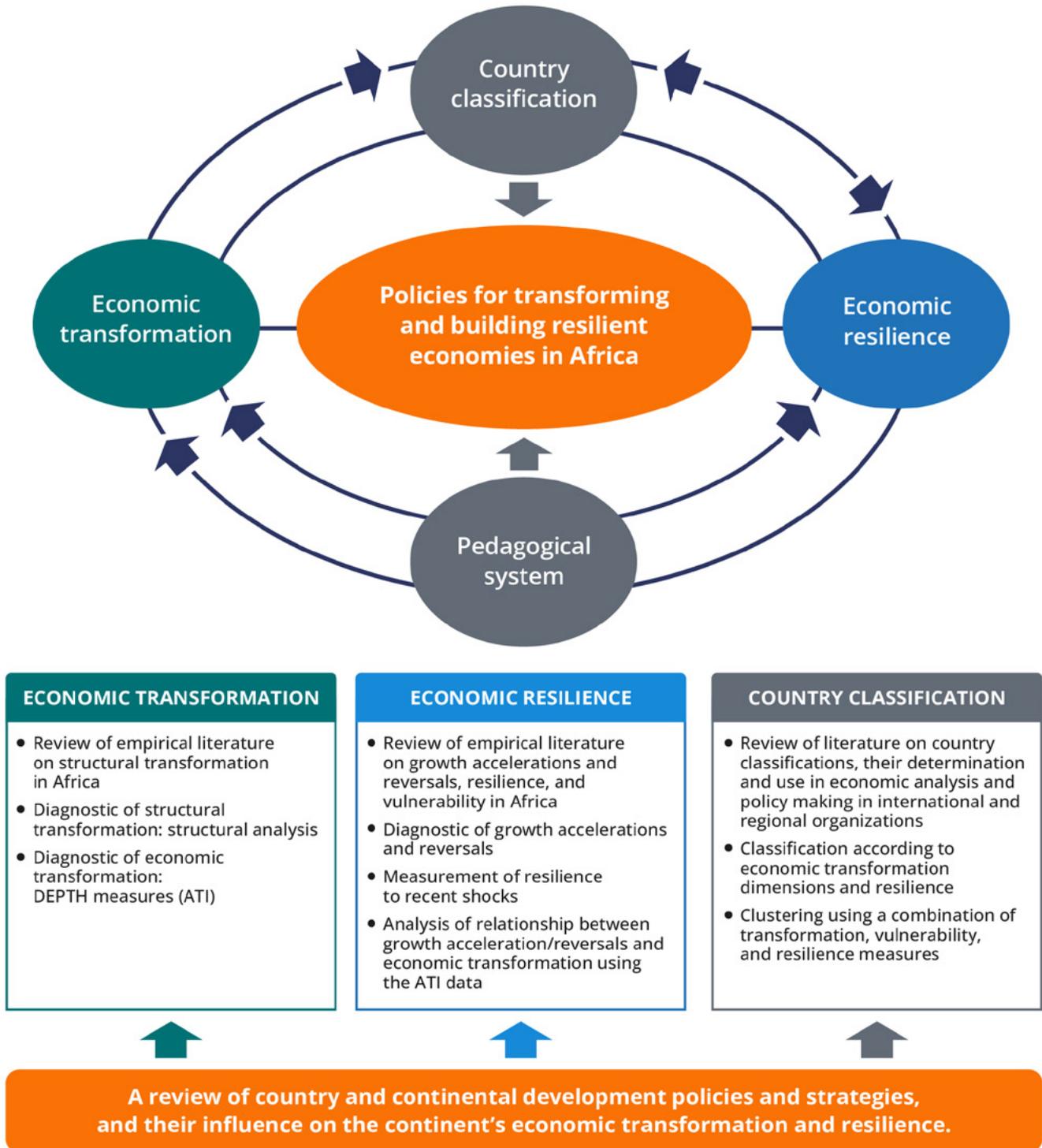
Figure 3 summarizes the analytical method used in the study. The analysis of the structural and nonstructural components of labor productivity growth gives a measure of the relative contribution of between-sector labor movements, which differs from within-sector labor productive growth. Within-sector growth is influenced by factors such as technological change or improvements in skills that do not involve resource reallocations.

Most of the empirical analysis included in this study covers the last two decades, but the review of policy experiences extends to the early 1960s and the immediate post-independence period in Africa. The focus of the analysis on the 2000s covers most of the latest growth acceleration that

² This approach is similar to that adopted by Sondermann (2016).

started in the mid-1990s, running until the onset of the GFC. By focusing the quantitative analysis primarily on these years, the study benefits from the availability of more consistent cross-country data from harmonized international data sets maintained by international organizations and established research institutions, which ACET has assembled into its 2022 ATI data subset. The six country case studies supplemented these sources with national databases where feasible.

Figure 3. Schematic view of analytical methods



2. Legacies and megatrends that shape current challenges and outcomes

2.1. Historical legacies

Africa's economic growth and transformation outcomes over the last two decades bear the scars of poor policy decisions in both the pre- and post-independence eras. Those policies specialized African economies in the production and export of primary commodities, and later in import-substitution industrialization. And governments played a direct role in the production, administrative allocation, and distribution of goods and commercial services beyond public goods (Stiglitz et al., 2017). There were initial successes; for example, value addition in manufacturing grew continent-wide from 4.5 percent in 1961 to 105 percent in 1968.³

Yet Africa's industrialization strategy largely failed as macroeconomic instabilities hindered the ability of governments to promote manufacturing as an engine of growth. Combined with other policy factors and weak governance, this failure ultimately contributed to Africa's inability to industrialize (Bevan et al., 1994; Ansu, 2013; Frankema and Van Waijenburg, 2018). For example, most of the African agro-industry stopped at the primary processing stage, without adding more or full value. A similar pattern occurred in the minerals sector.

Unsuccessful industrialization stifled the structural transformation of African economies. An inefficient and commercially uncompetitive manufacturing sector could not support the rural economy. It could not adequately supply the intermediate inputs, implements, and machinery necessary to make agriculture more productive. It also could not supply final consumer goods to make rural life prosperous. As a result, labor and other rural resources failed to find a path to more productive urban activities. Government-controlled prices and poor rural infrastructure created disincentives to produce cash crops and increase food surplus. And inadequate backward and forward linkages stifled innovation, technology upgrading, and productivity (Bevan et al., 1989; Noman and Stiglitz, 2015a). By pursuing extractive sector policies against the rural economy, the African states became de facto anti-development, destroying their revenue base. In doing so they undermined their own economic foundations (Bates, 2014; Robinson and Acemoglu, 2012).

As the continent's economic crisis became unbearable in the early 1980s, African governments turned to the World Bank and International Monetary Fund (IMF) for assistance. An era of macroeconomic stabilization policies and structural reforms followed, packaged in the Structural Adjustment Programs (SAPs) and informed by the neoclassical "Washington Consensus." These programs aimed to reorient fiscal and monetary policies to create a pro-growth development environment by opening markets, promoting the role of the private sector, and boosting foreign investment with associated technological transfers and business management capacity.

SAPs helped to revitalize some African economies, but their growth record did not match the immediate post-independence period. They lessened fiscal and balance of payments constraints and supported traditional export sectors through better producer price incentives, infrastructure rehabilitation, and export promotion. They also established Export Processing Zones in some countries to expand and upgrade production and exports of particular products (mostly primary commodities) and facilitated foreign direct investment (FDI) in the manufacturing sector. However,

³ Manufacturing value added (constant 2015 \$) extracted from 2022 World Development Indicators.

the socio-economic costs of adjustment were not adequately considered under the SAPs. This led to high unemployment, growing informality, and aggravated poverty and inequality. Poor sequencing of reforms also resulted in incompatible macroeconomic and sector policies that did not favor the development of the domestic private sector (Bevan et al., 1994; Nissanke and Aryeetey, 2003; Aryeetey and Moyo, 2012; Noman and Stiglitz, 2015b).

Perhaps most important, these programs did not address the fundamental structural challenges of African economies; rather, they reinforced the old production structures and trading patterns focused on primary commodities and import substitution. African economies remained largely vulnerable to external shocks, and growth volatility persisted.

The ensuing backlash against structural adjustment policies, which also marginalized African ownership over African development strategies, ushered in a new approach by the turn of the century: Poverty Reduction Strategy Papers (PRSPs), an attempt for a more collaborative, country-owned process. Introduced by the World Bank and IMF in 1999, PRSPs still emphasized the macroeconomic stabilization strategies of SAPs but aimed to refocus state budgets to also address social costs and enhance human well-being. Prepared by governments in consultation with civil society, they served as a framework for Bank and IMF financial support, supplemented by various other donor mechanisms and support.

The PRSPs also became the operational tool for articulating development strategy in the Heavily Indebted Poor Country initiative, which the Bank and IMF had launched a few years prior, and for implementing strategies to achieve the Millennium Development Goals (MDGs). Despite their more collaborative approach, the PRSPs and MDGs were limited largely to restructuring the existing aid architecture and did little to advance long-term poverty reduction strategies rooted in economic transformation. They also mostly failed to strengthen national policymaking processes (Whitfield et al. 2015).

The GFC and the end of the commodity super cycle exposed the weak foundations for growth that the SAPs, PRSPs, and MDGs had laid. Combined with other domestic and regional shocks—including natural disasters, civil and political unrest, and the Ebola epidemic—growth in many African countries began to buckle in the 2010s, and the continent veered off track in trying to achieve the follow-up to the MDGs, the Sustainable Development Goals (SDGs). Debt challenges reemerged, poverty reduction either stalled or reversed, and two decades of GDP gains were lost. Once the COVID-19 pandemic struck in early 2020, Africa was unprepared to face its impact, further bringing into focus the unresolved structural limitations that have undermined the continent's economic transformation and resilience in recent decades.

2.2. Emergent megatrends

Over the last 20–30 years, the world has experienced an increase in the intensity of some global and regional developments with far-reaching implications for growth and transformation in Africa. These megatrends include climate change and resource stress, rapid population growth and urbanization, technological progress and innovation, shifting trading patterns, and sweeping health crises. Addressing the challenges associated with these issues—and embracing the opportunities that they also bring—will go a long way in determining Africa's success at transforming economies and building resilience. Given their outsized importance to Africa's development future, understanding the megatrends and their impacts is crucial to resetting policy priorities in a way that will ensure growth resilience.

Climate and resource stress

Although Africa has contributed only 3.8 percent of total global emissions, it has borne the brunt of climate change. According to the African Development Bank, Africa loses between \$7–\$15 billion per year because of climate-related issues. This figure is expected to rise to \$50 billion by 2040. In 2020, parts of Malawi, Mozambique, and Zimbabwe were hit by Tropical Cyclone Idai, followed closely by Cyclone Kenneth. Around 3 million people were adversely affected, and some 600 people died because of these storms. In 2022, the area was again hit, as Tropical Cyclone Eloise caused severe flooding and more deaths. Other parts of the Sahel and East Africa have suffered from extensive climate-related events, such as droughts, floods, and dangerous locust swarms. The Sixth International Panel on Climate Change (IPCC) Assessment Report (AR6), *Climate Change 2022*, underscores that the impacts of climate-related events on food security and livelihoods in Africa are particularly severe—and that these impacts will intensify in the coming decades.

Notwithstanding these challenges, climate change offers encouraging opportunities for innovation and growth so long as governments and societies focus on finding the appropriate responses. Investing in more resilient and green infrastructure and developing and scaling up renewable energy will help build low-carbon economies with diversified and more cost-efficient energy sources. Sustaining blue ecosystems for healthier marine life could help combat pollution, strengthen food systems, and reduce environmental risks. And promoting climate-smart agriculture will help farmers increase productivity and lower costs while improving resilience to protect livelihoods and combat food scarcity.

As climate change and environmental sustainability issues become more intertwined in the global development agenda, adaptation and mitigation will gain prominence. Annual adaptation funding was roughly \$5 per capita between 2014 and 2018, totaling less than \$5.5 billion per year (Imasiku et al., 2020). This is only about half the adaptation amount aimed at reducing emissions. However, African governments estimate that they will need much more financial support, reaching into the tens of billions of dollars per year by 2050, to mitigate the impact of climate change.

Population growth and urbanization

Africa's population is a little more than 1.3 billion and is set to rise to 1.9 billion in 2035 and 2.5 billion in 2050. The continent already boasts one of the world's largest and youngest workforces, a comparative advantage that will only increase. Africa's lack of structural transformation, however, significantly limits the ability to absorb new entrants into the labor market, which has led to a youth unemployment crisis across the region. But as manufacturing wages in other countries rise Africa stands to gain, with a chance to become the world's main workforce—if the supply of skills meets the demand of industry.

An accelerated demographic transition could create a window of opportunity in which the change in age structure will generate long-term labor market outcomes if accompanied by strong investments in human capital, aligned with technology adoption and increased female participation in the workforce. This will have a reinforcing effect in helping to create a “virtuous cycle” of sustained economic growth.

Africa's growing urban centers will offer tremendous opportunities for modern infrastructure and give rise to a new middle class, leading to potential shifts toward more high-value consumer goods and services (Moriconi-Ebrard et al., 2020). For example, greater demand for digital and mobile

services will facilitate technology upgrading and productivity increases. If well managed, population growth and urbanization can be positive factors of economic transformation by creating positive agglomeration effects and access to skilled populations.

However, uncontrolled population growth and urbanization without matching formal employment, as has been the case historically in Africa, may further magnify the risks associated with low wages, unemployment, and poor living conditions that can lead to social and political instability (Adepoju et al., 2020).

Technology and innovation

Innovation and digital technologies are critical to productivity growth in farming, manufacturing, and service provision. They are also critical for acquiring and accumulating modern knowledge capital, a building block for transforming countries. Tech hubs and new electronic platforms are rapidly spreading across Africa,⁴ as technology investments have helped narrow gaps in financial management and inclusion. Cashless payment systems such as mobile money and M-Pesa, digital banks, and cryptocurrency platforms are some of the ways in which organizations have developed innovative financial service solutions and better payment systems.

But, to fully realize the potential of technology and innovation, governments must adopt policies that also encourage and enable the private sector to develop the needed infrastructure and to promote digitalization, which can enhance productivity and competitiveness of firms (ACET, 2021a). Over the last decade, the average intensity of jobs in the information and communications technology (ICT) sector has increased by 26 percent in South Africa, while high ICT intensity in all formal sector employment increased by 6.7 percent in Ghana and 18.4 percent in Kenya (Leopold et al., 2017).

The major challenge to speeding up and expanding digitalization in Africa is accessibility and affordability. Evidence shows that, in 45 African countries, one gigabyte costs more than 6 percent of monthly average income, ranging from a low of 0.5 percent in Egypt to a high of 27 percent in Guinea Bissau.⁵ In early 2020, Sub-Saharan Africa had 477 million subscribers to mobile services and 272 million mobile internet users. Yet internet adoption is still low. Sub-Saharan Africa is one of the least connected regions of the world, with only 28.3 percent of individuals using internet in 2019 compared to a global average of 51.4 percent (UNDESA, 2021). While expanding access is necessary, it must be noted that the overall quality of African education systems also affects the effectiveness of digitalization. Hundreds of millions of Africans will need training or retraining in digital skills to capitalize on technological advancements, especially in the job market.

Achieving universal access to broadband in Africa will be critical to further progress in technology upgrading and innovation. However, it will require public investment and policies that target incentives to operators to offer solutions to accelerate internet connectivity and affordability. Since equity schemes are not primarily directed at innovation, developing venture capital markets becomes vital for technology firms seeking resources to expand and grow. Such investment funds range from grants and informal lending to higher-risk investments that can be obtained from private equity or public markets (Rigby and Ramlogan, 2013).

4 Countries that have made particularly notable strides include Cameroon, Egypt, Ethiopia, Ghana, Kenya, Nigeria, Rwanda, Seychelles, Somalia, South Africa, Tunisia, Uganda, and Zimbabwe.

5 See "The Most Expensive Data Prices in Africa," *Connecting Africa*, December 2019.

Shifting trade and production patterns

Global and regional value chains (GVCs, RVCs) are reshaping global production and trade structures, creating challenges and opportunities for advancing Africa's transformation. One key challenge is the difficulty that domestic firms face in meeting standards imposed by lead firms (such as cost, quality, lead time, and batch size) and governments (such as compliance and nontariff barriers). The ability of African firms, especially small and medium enterprises (SMEs), to comply with these requirements often is constrained by the poor domestic business environments in which they operate—poorly functioning financial markets, inefficient infrastructure, limited human capital, and weak local industry networks. Another challenge is the limited backward and forward linkages in the domestic economy, which limits RVC linkages to the rest of the African economy and creates incentives for efficiency-seeking investments to go elsewhere. These constraints increase the risk of African firms becoming trapped in low-value-added and less sophisticated segments of the value chains, with little opportunity for innovation or technological upgrading.

Notwithstanding these challenges, participation in GVCs and RVCs offers African firms opportunities for increased access to skills, technology, markets, and finance. Firms can acquire specific skills and enter or expand the production of medium- and high-technology goods without creating entire industries. African SMEs can participate in global and regional markets without having all the technological knowledge necessary to produce a globally competitive final product. A potential efficiency gain for African firms comes from the opportunity to access larger markets and benefit from economies of scale in production and in the provision of support services and infrastructure needed to connect national service providers to supply chains. However, to realize the full benefits of participating in the value chains, African governments must create a conducive business environment to attract FDI, help domestic firms interact effectively with multinational corporations, and leverage Africa's vast labor supply.

For example, China's labor-intensive manufacturing competitiveness is waning. According to Justin Lin,⁶ China is forecast to possibly lose up to 85 million labor-intensive manufacturing jobs within the next decade. Wages for unskilled workers in China are set to increase fourfold in 10 years. Wage inflation and rising production costs will over time force China's manufacturers to focus on higher-value outputs. This can create opportunities for low-income economies with nascent manufacturing sectors, such as many of those in Africa, to increase manufacturing productivity and generate employment, assuming the labor supply is adequately skilled.⁷

Regional integration

ACET's 2021 African Transformation Report (ATR), *Integrating to Transform*, was built around a single question: Why have African countries not seen growth with DEPTH? The report's conclusion: too many are working in isolation, and their ability to transform will depend on collaborative efforts to build synergies and allow economies to scale. Most African markets are small and not diversified, which has a direct bearing on their trade volume. These countries cannot generate enough high-quality export, nor can they attract significant foreign investment. Low value addition in products and the lack of intra-African trade limit the development of regional production networks.

⁶ From the article "What China's economic shift means for Africa," published by World Economic Forum, March 11, 2015.

⁷ There are, however, emerging competitors for the continent's manufacturing aspirations; the Philippines, Thailand, and Vietnam stand out in terms of labor costs.

Africa's quest for regional integration has been hampered by poor infrastructure, such as unreliable energy and poor roads, and administrative inefficiencies—customs authorities that create unnecessary barriers, for example. There are also the challenges of peace, security, and governance. In many African countries, crossing the border to trade means exposing life and assets to significant risk.

Enhanced regional integration offers immense socio-economic gains, starting with the African Continental Free Trade Area (AfCFTA), which offers expanded markets for SMEs and employment opportunities for the growing labor force. Being in a common market allows businesses setting up in the region to be treated in the same way as domestic firms. This further extends to service providers from one country to another without any restrictions. As long as migration policies and educational systems are aligned to the aims of the AfCFTA, labor mobility can benefit both workers and firms by pooling and sharing skills and employment opportunities. And removing barriers to imports can lead to lower prices for consumers and a wider variety of products in domestic markets.

But, to integrate faster and deeper, countries should go beyond trade and markets and collaborate to deliver regional public goods such as by building transport corridors, managing river basins, establishing cross-border digital connectivity, and controlling outbreaks of pests and disease. The disruption of regional and global supply chains due to the COVID-19 pandemic points to the need for stronger regional and subregional supply chains and rapid cross-border movement of goods and services to ensure the sustainability of critical industries.

3. Contextual analysis and key lessons

The analysis in this report uses data from the African Transformation Index (ATI), which aggregates scores of variables capturing the dimensions of ACET’s Growth with DEPTH framework. The ATI “core index” is measured on a scale of 0 to 100; it is an aggregate of four sub-indices capturing diversification, export competitiveness, productivity, and technological upgrading. To track the five dimensions of the Growth with DEPTH framework, indicators of human economic well-being are added to the core index. The overall Africa average score is weighted by the share of each country’s GDP in the total GDP of the 33 African economies that constitute the ATI sample.

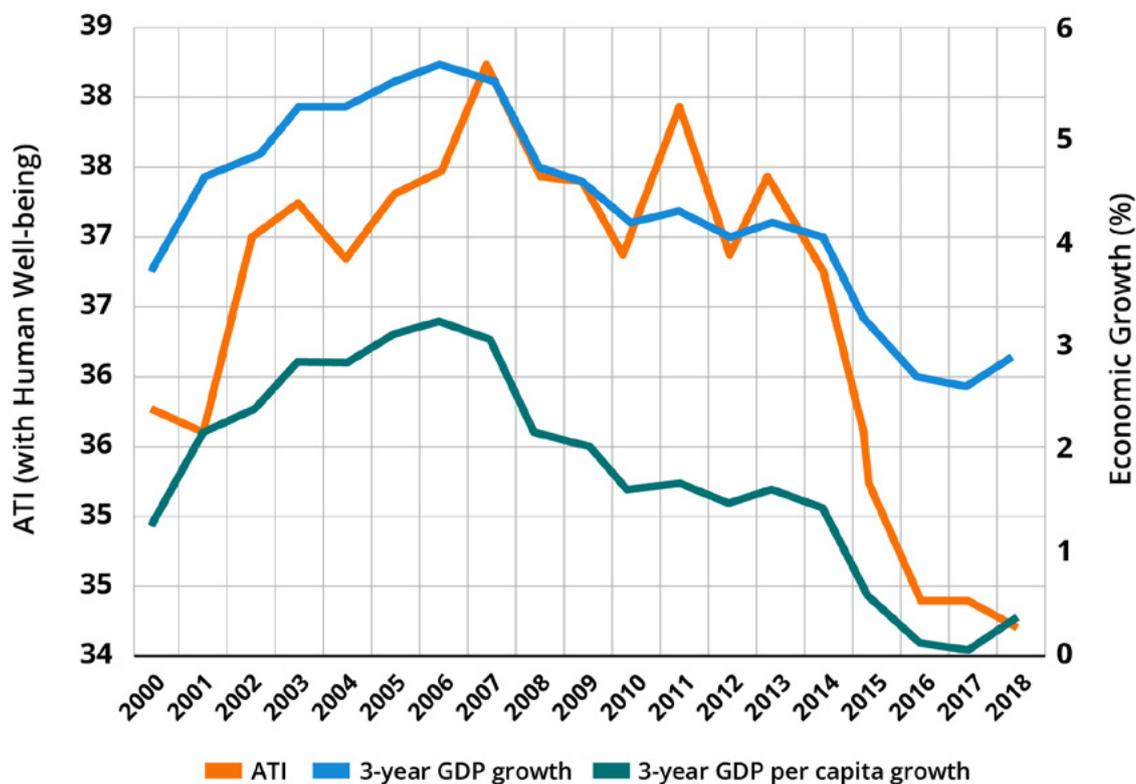
ATI data points are computed on the basis of three-year moving averages of the sub-components so that, for instance, data values for 2000 are an average of values for 1999–2001. Values for 2018 are averages of 2017–19. Thus, the sample for the ATI covers the period 1999–2019.

The 33 countries that make up the ATI accounted for almost 90 percent of Africa’s total GDP in 2017–19.

3.1. Transformation gains and losses: recent patterns in Africa

Africa’s growth volatility is closely associated with poor transformation outcomes. For most African economies, economic transformation peaked just at the onset of the Global Financial Crisis in 2007 with an ATI score of 35.5, followed by a continuous decline that grew sharper in 2014 (Figure 4).

Figure 4. Aggregate GDP growth and economic transformation, 2000–19 (ATI countries)



Source: ACET ATI project team. Calculations are based on data from various data sets incorporated in the ATI data set, including data from UNIDO, ILO, COMTRADE, and the World Bank’s World Development Indicators (2021).

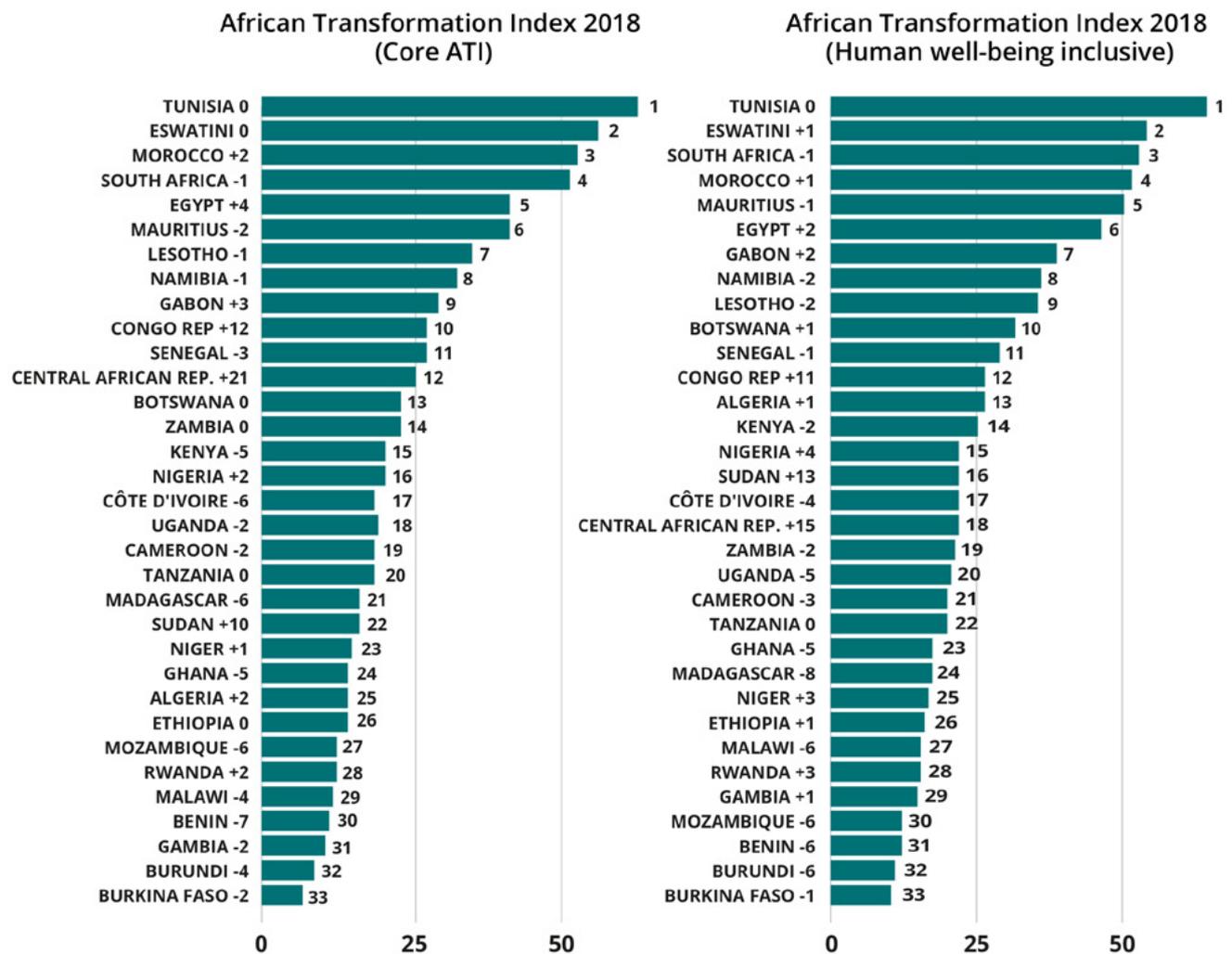
However, there is substantial heterogeneity in transformation outcomes across Africa. Figure 5 shows country rankings, based on results of the 2018 ATI with human well-being included, along with each country's score from previous years. Figure 6 compares the scores including human well-being with scores from the core ATI, which does not include the human well-being dimension.

Figure 5. African economic transformation per ATI scores, 2000–18

ATI COUNTRY RANK		2018 SCORE	2007 SCORE	2000 SCORE
1	Tunisia	65.5	72.5	55.6
2	Eswatini	54.5	62.5	60.4
3	South Africa	53.1	64.6	59.4
4	Morocco	51.9	50.6	43.1
5	Mauritius	50.7	61.0	56.8
6	Egypt	46.9	40.2	42.6
7	Gabon	38.2	38.0	37.8
8	Lesotho	35.5	42.9	32.6
9	Namibia	35.4	46.0	35.8
10	Botswana	31.7	32.3	27.4
11	Senegal	28.8	33.6	33.5
12	Congo Rep.	26.3	17.8	13.5
13	Algeria	26.2	26.9	24.8
14	Kenya	25.1	30.4	25.5
15	Nigeria	22.2	20.9	14.9
16	Sudan	21.8	16.4	17.3
17	Côte d'Ivoire	21.8	28.9	27.8
18	Central African Rep.	21.5	7.9	7.0
19	Zambia	21.4	22.5	22.6
20	Uganda	20.7	23.2	14.9
21	Cameroon	20.2	22.0	18.8
22	Tanzania	19.8	18.7	19.5
23	Ghana	17.4	20.2	21.0
24	Madagascar	16.9	23.1	19.4
25	Niger	16.4	16.4	20.0
26	Malawi	15.5	18.8	14.2
27	Rwanda	15.3	13.2	11.0
28	Ethiopia	15.3	16.5	12.8
29	Gambia	14.6	15.2	18.5
30	Mozambique	12.1	17.6	19.1
31	Benin	12.0	16.7	13.5
32	Burundi	11.2	16.6	9.9
33	Burkina Faso	10.4	11.8	13.4
All Africa		34.2	38.2	35.7

Source: ACET ATI project team. Calculations based on 2018 ATI with human economic well-being included.

Figure 6. ATI country rankings — Core ATI vs. human well-being inclusive



Source: ACET ATI project team. Calculations based on data from the World Bank’s World Development Indicators (2021).

Note: Vertical axis shows the changes in rankings between 2007 and 2018; ranks are 1 = best and 33 = worst; (+) rank improvement and (-) rank loss; horizontal axis is the percentage score. The chart on the left measures that change with the core ATI index only. The chart on the right measures the change with the human well-being dimension added.

For example, South Africa ranked fourth on the core ATI but moved up to third once human well-being was added, meaning that the country is shown to have more positive transformation outcomes when human well-being is considered. The opposite happened to Mozambique, where the human well-being outcomes were unfavorable enough to drop the country’s ranking from 27 to 30.

Countries at lower levels of economic transformation tend to show relatively more progress on the transformation trajectory. The Central African Republic went from being the least transforming economy in 2007 to 12th in 2018, a gain of 21 positions. Other risers include Sudan (up from 32nd to 22nd position), Egypt (from 9th to 4th), and Gabon (from 12th to 9th). Morocco, Algeria, and Rwanda each gained two positions.

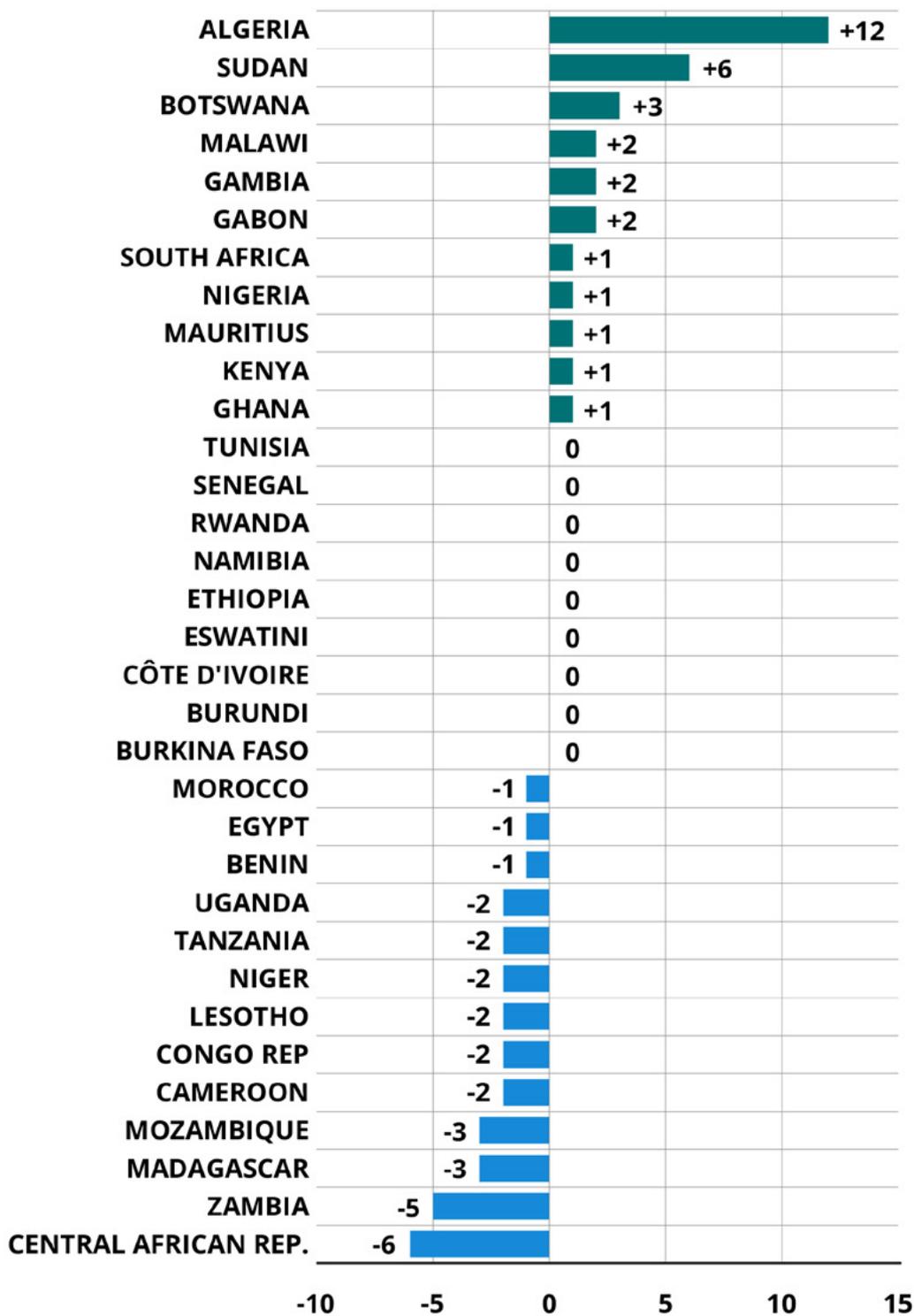
Countries that experienced the biggest setbacks in their economic transformation outcomes since 2007 include Benin (dropping seven positions, from 23rd to 30th), Madagascar and Mozambique (each dropping six positions, from 14th to 21st and 21st to 27th, respectively), and Kenya and Ghana (each dropping five positions, from 10th to 15th and 19th to 24th, respectively). Senegal fell three positions; Mauritius, Uganda, Cameroon, Gambia, and Burkina Faso each dropped two; and South Africa, Lesotho, and Namibia each dropped one.

Tunisia and Eswatini remained at the top among the high economic transformers with no change in position. Also unchanged: Botswana, Zambia, and Tanzania in the group of middle transformers, and Ethiopia in the group of low transformers.

Differences in ranking given by the core ATI and the ATI with human well-being included indicate a country's possible policy bias toward or against policies supporting the economic aspect of human well-being. Here too, wide heterogeneity is apparent (Figure 7). The Central African Republic and Zambia, followed by Madagascar and Mozambique, stand out as countries that rank worse when the human well-being dimension is considered. In the case of the Central African Republic, for example, this suggests that, even though substantial transformation progress was made, the progress was proportionately less in the area of human well-being. In total 13 countries share this characteristic.

By contrast, Algeria and Sudan, followed by Botswana, stand out among the countries that improve when the human well-being dimension is considered, suggesting development policies appear more favorable to human economic well-being in these countries. In total, 11 countries share this characteristic.

Figure 7. Changes in Core ATI rank (+/-) after the inclusion of human well-being, 2018

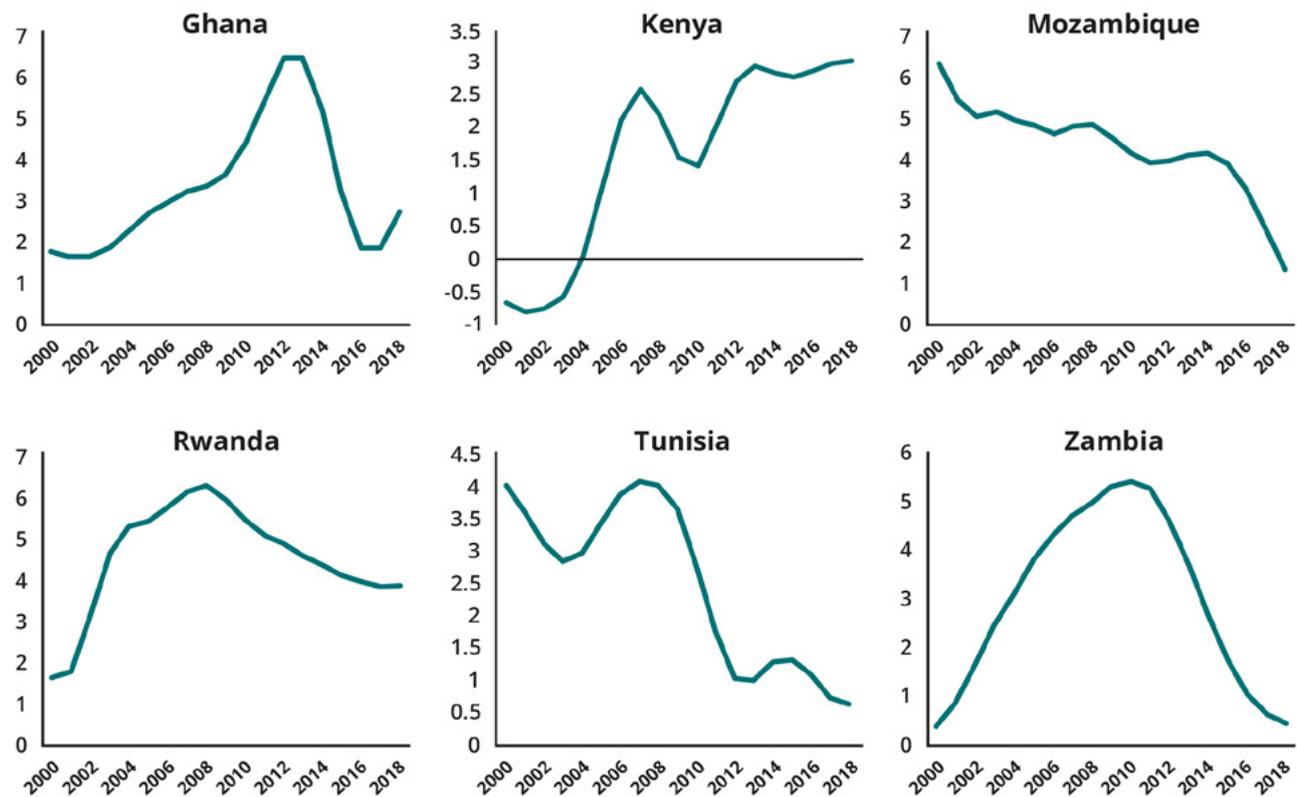


Source: ACET ATI project team.

Note: Positive (green) means a country's ATI rank improves against its core ATI rank when the human well-being dimension is added. For example, Algeria's rank with human well-being is 12 positions better than when the country is ranked by the core ATI only. By contrast, a negative number (red) means a country's ATI rank is that much worse with human well-being considered.

The diversity seen among the 33 ATI countries is partly illustrated in the examples of Ghana, Kenya, Mozambique, Rwanda, Tunisia, and Zambia—the six country case studies undertaken for this report. These countries are highly heterogeneous in their growth and transformation experiences, but all of them—with the exception of Kenya—have seen steep growth deceleration, or even collapse, in recent years (Figure 8).

Figure 8. Per capita GDP 5-year rolling growth rates — country case studies, 2000–19 (percent)

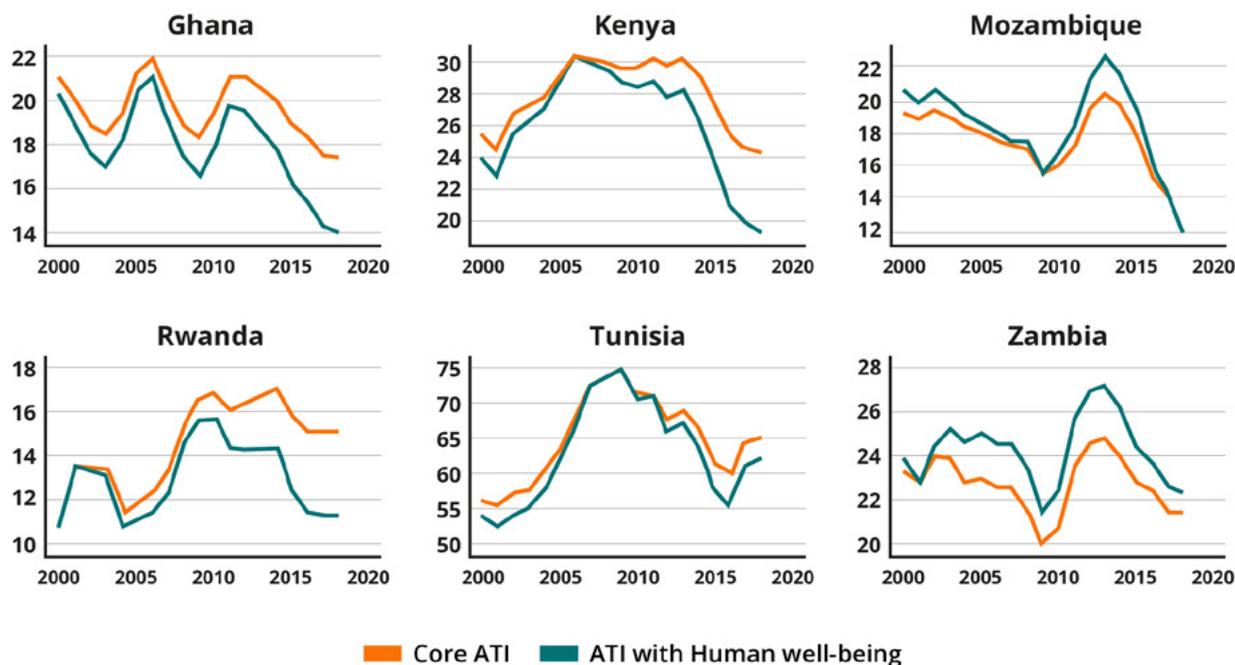


Source: ATI, 2022.

The transformation trend among all the country case study countries over the last decade is downward, and in some cases severely downward (Figure 9). Tunisia is the top economic transformer among the case study countries as well as the full ATI sample. The country ranks high on economic diversification, technology upgrading, export competitiveness, and human well-being. Yet its transformation progress has declined, a weakening performance due in part to political upheaval (including the Arab Spring and the Bardo National Museum attack, which led to the collapse of tourism, the third-largest sector of Tunisia's economy), women's low participation in the workforce, declining labor productivity in the manufacturing sector, and a lack of progress transitioning from low- to high-technology intensity manufactured exports.

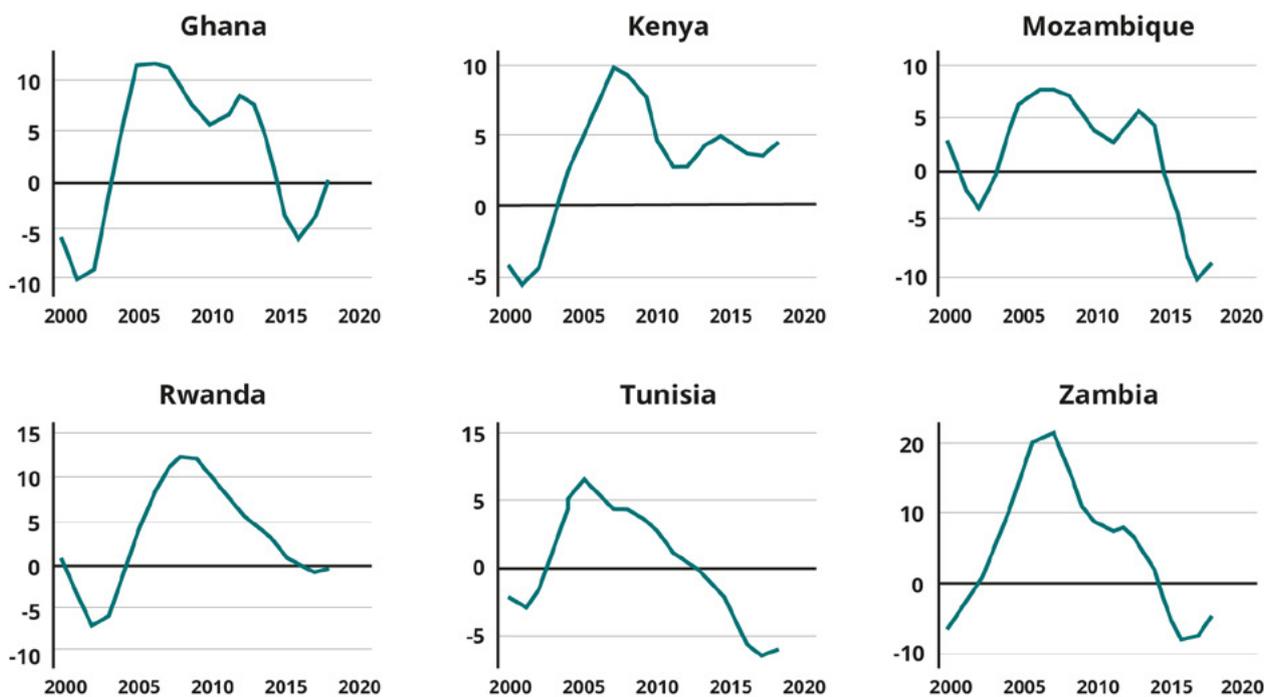
With the exception of Kenya, labor productivity growth has also turned negative (Figure 10).

Figure 9. ATI total scores — country case studies, 2000-19 (percent)



Source: ATI, 2022.

Figure 10. Labor productivity 5-year rolling growth rates — country case studies, 2000-19 (percent)



Source: ACET ATI project team. Calculations based on data from UNdata and ILO data sets.

3.2. The link between labor productivity and structural change

The poor growth of African economies is closely related to weak productivity growth of labor. In 1975, manufacturing value added per worker in Africa (\$9,214) was almost double that of comparator countries (\$4,678)—Brazil, Chile, Indonesia, Malaysia, Pakistan, Singapore, South Korea, Thailand, and Vietnam. By 2018, the relationship had inverted, with the productivity in comparators becoming more than four times that in Africa (\$40,446 versus \$9,841).

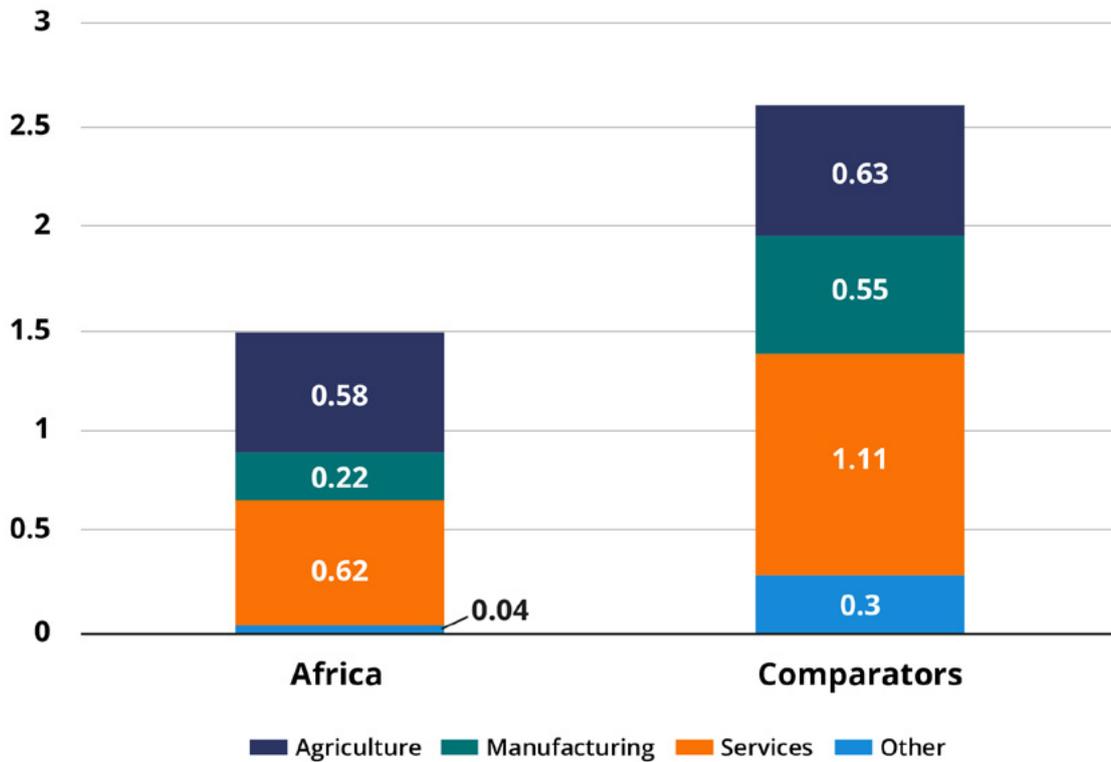
According to the International Labour Organization, agricultural value addition per worker in comparator countries in 1995 was about 4.22 times more than that of African countries. By 2018, the ratio had increased to 5.25. Economy-wide labor productivity in Africa increased by 30 percent in 20 years, from \$4,350 per worker in 1991 to \$5,655 per worker in 2019. This is equivalent to an average annual growth rate of 1.5 percent—well below the comparators of Asia and Latin America, which recorded 2.5 percent per year over the same period.

To assess progress, Africa's labor productivity performance in the 2000s can be measured against a subset of comparators (Brazil, Chile, South Korea, and Thailand) during the period they were undergoing structural transformation. The gap in economy-wide labor productivity between African economies during 2000–18 and these comparators during 1965–79 was only 0.8 percent. However, a close look at the sectoral patterns of these countries reveals striking differences between them and Africa's recent development (Figure 11). For instance, manufacturing labor productivity in the comparators subset was growing at an annualized rate of 7.1 percent during 1965–79, which is five times as much as manufacturing labor productivity in Africa during 2000–18. Another area of difference is in the role of services, where annualized labor productivity growth was 0.1 percent (1965–79) in the comparators against 1.6 percent in Africa (2000–18).

Africa's poor productivity performance and reversals in growth and transformation have taken place in a context of limited structural change (Figure 12). This is because virtually all gains to economy-wide labor productivity between 2000 and 2019 were attributed to the "within-sector" component—the growth in labor productivity of a sector, given that sector's share of total employment—versus the "structural" (or "between-sector") component—the movement of labor from low- to high-productivity activities.

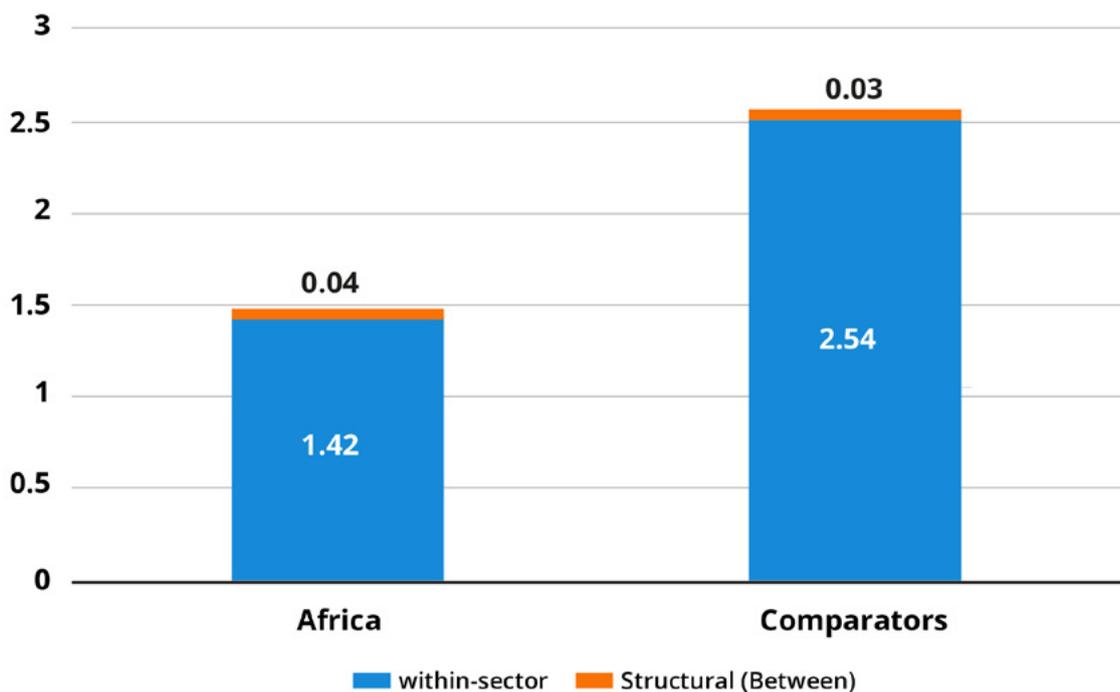
These patterns of within-sector and between-sector contributions are similar to those observed in the comparators in the same period, which is mostly due to the fact that by the 2000s the comparators had realized much of the potential gains from the structural changes they implemented during the 1960s and 1970s.

Figure 11. Contributions to economy-wide labor productivity growth, total and by sector — Africa and comparator countries, 2000–18 (percent)



Source: ATI, 2022.

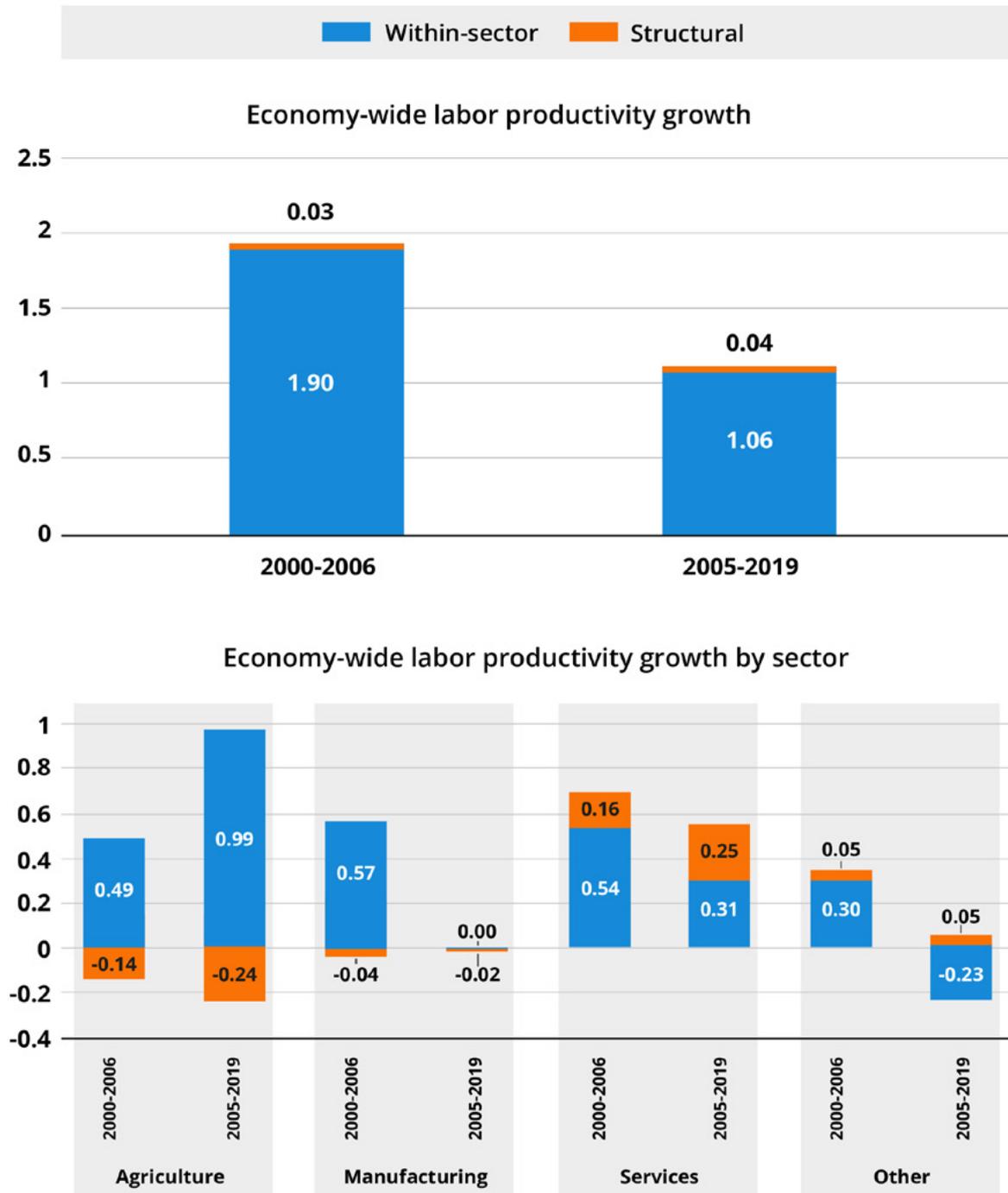
Figure 12. Contributions to economy-wide labor productivity growth, within-sector and between (structural) components, 2000–18 (percent)



Source: ATI, 2022.

Despite country heterogeneity in productivity growth, the structural component has made very little contribution to Africa’s economy-wide labor productivity. Modest growth came mainly from services and a few other sectors, primarily mining, utilities, and construction. Critical sectors such as agriculture and manufacturing have made negative or almost no contribution (Figure 13). This has significant ramifications for the creation of productive jobs.

Figure 13. Components of Africa’s economy-wide labor productivity growth (percent)

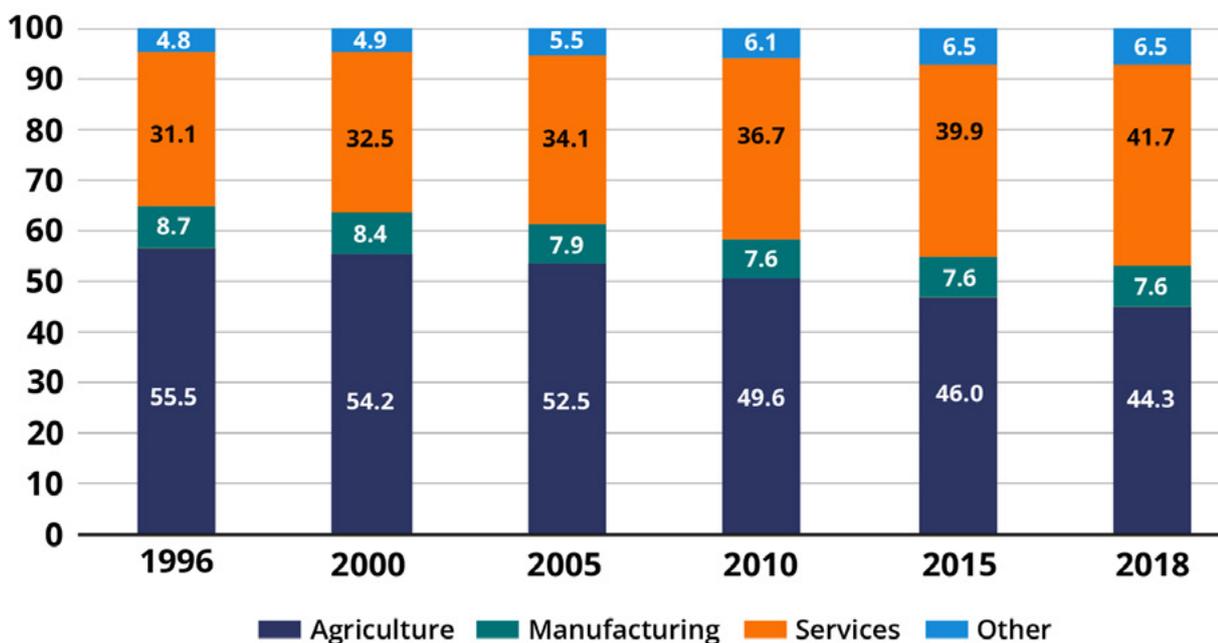


Source: Results of “shift analysis” computed by ACET ATI project team using UNdata and ILO data sets

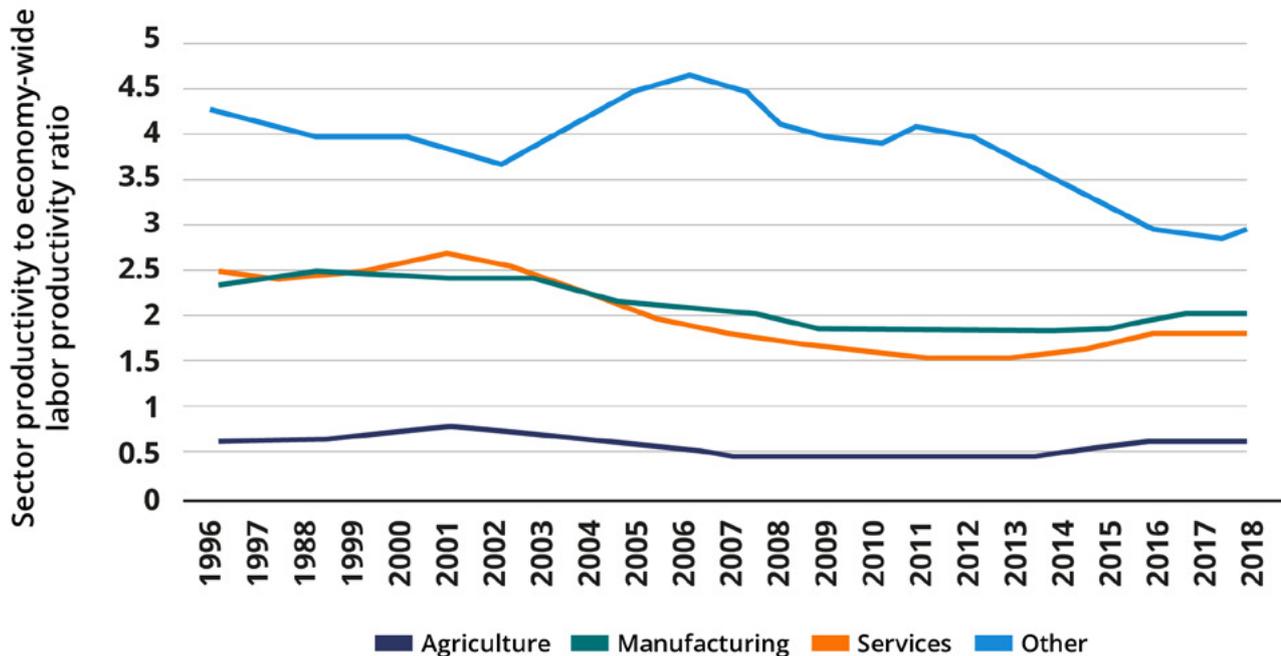
To understand how this happens, look at sectoral movements of labor and the relative labor productivity over time. Figure 14 shows that between 1996 and 2018 labor employment (in percentage shares of total economy employment) moved from agriculture (–11.2 percent) and manufacturing (–1.1 percent) mostly to services (+10.6 percent) and the “other” sectors (+1.7 percent) noted above. Conversely, Figure 15 shows that manufacturing’s relative labor productivity is greater than that of the services sector.

These results suggest that the greater structural contribution of services to economy-wide labor productivity growth is driven mostly by the disproportionately faster movement of labor from agriculture to services—despite labor productivity favoring manufacturing. This means that African economies are missing out on the potential growth-enhancing structural contributions to economy-wide productivity that manufacturing would provide if labor were moving faster into this sector than into services.

Figure 14. Sector labor shares in Africa, 1996–2018 (percent)



Source: Computed by ACET ATI project team using UNdata and ILO data sets.

Figure 15. Relative sector productivity in Africa, 1996–2018

Source: Computed by ACET ATI project team using UNdata and ILO data sets. Calculations of relative labor productivities follow the approach in Diao et al. (2019), pp.294–97, Equations. 9.1 and 9.2.

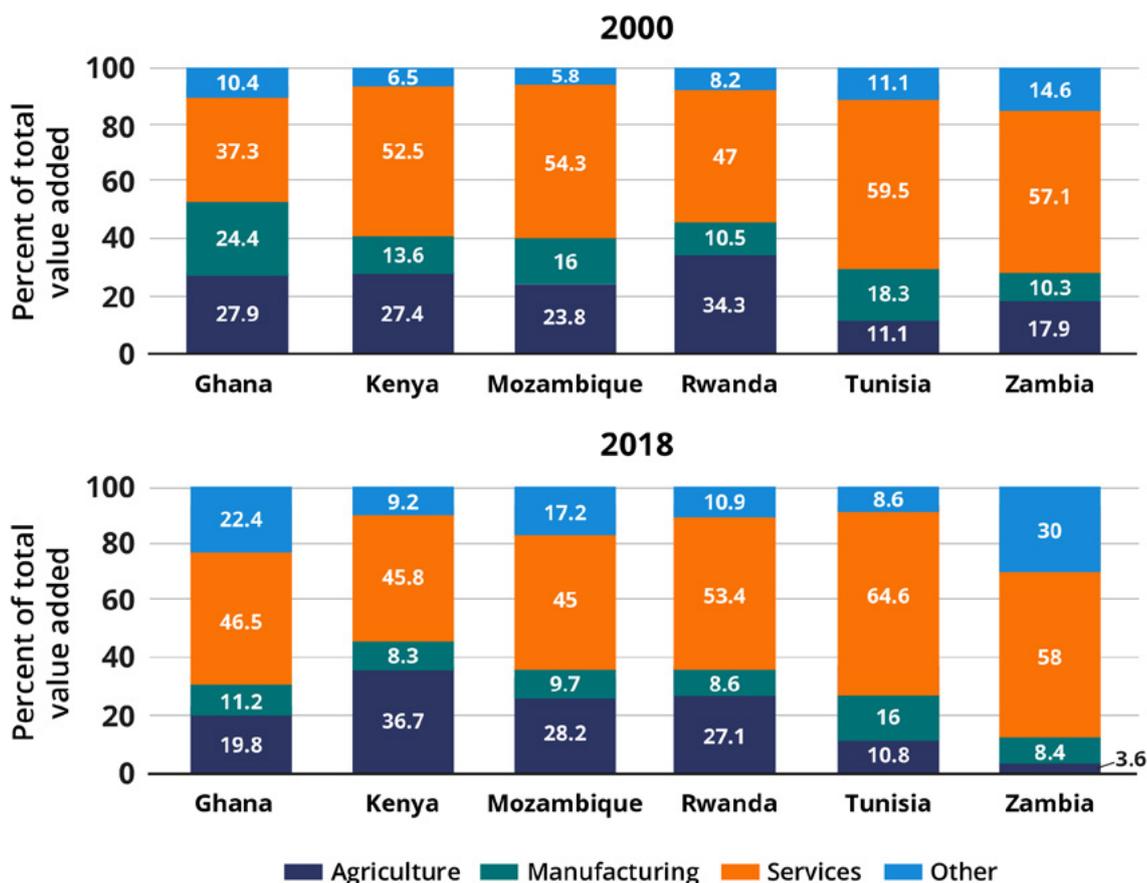
Combined, these aggregate results can be further explained considering the binary structure of Africa’s manufacturing sector. For instance, after disaggregating manufacturing firms by sizes, Diao et al. (2021) noticed that large firms in Ethiopia (covering 1996–2017) and Tanzania (covering 2008–16) exhibited superior productivity growth that is associated with capital intensive technologies, but created limited opportunity for employment expansion. Small manufacturing firms within these countries absorbed more labor but did not experience significant labor productivity growth.

Mensah et al. (2022) examined this situation further and found that, unlike the shift toward manufacturing and high-tech services in East Asia, Africa has seen a strong shift toward lower paid jobs in nontradable services. These nontradable services are often associated with high levels of informality relative to tradable services and manufacturing. Thus, they may have contributed to the low structural contribution of Africa’s manufacturing sector. The authors’ conjecture is consistent with the theoretical and empirical works associated with New Structural Economics, which show that Africa’s main strategic mistake has been to focus on capital-intensive industries—often in sectors that are not economically viable without government protection— instead of building labor-intensive industries more consistent with comparative advantages.

The policy implication is that structural transformation should be a guided process, whereby policies must deliberately redirect the movement of labor toward manufacturing. This requires industrial policy focusing intentionally on the development of the manufacturing sector to absorb labor released from a modernizing agricultural sector. Indeed, it could be argued that Africa’s weak structural transformation has been induced by unfavorable manufacturing industrial policy that has locked firms into the informal sector through regulatory rigidities, high entry costs, poor physical infrastructure, insufficient financing, skills mismatches, and more—hindering the reallocation of surplus labor to sectors with relatively more productive potential.

The review of the experiences of the six country case studies over the last two decades confirms the shrinking role of manufacturing in favor of services and other activities, including extractive industries (Figure 16). All six countries have declared national and sectoral policies that aim to transform the structure of their economies, but success has been limited, partly because of deficiencies in the design and implementation of industrial policies. Examples include the selection of priority sectors without adequate assessment of factor endowments, a lack of coherence and consistency among support systems, and frequent changes in priorities due to changes in government administrations and domestic and global economic circumstances.

Figure 16. The shrinking role of manufacturing — country case studies, 2000–18



Source: ACET. Calculations based on data from UNdata.

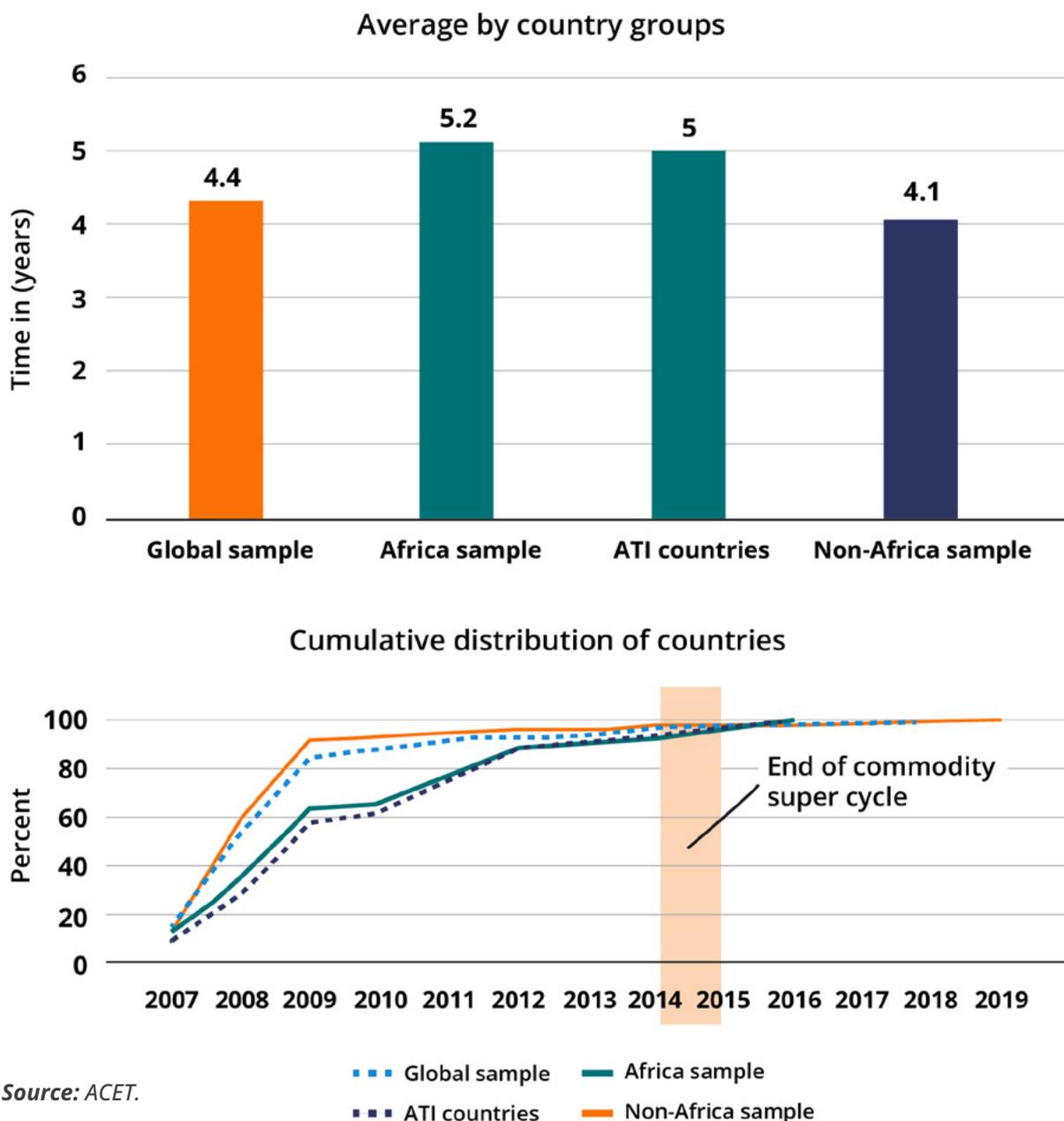
The patterns of structural transformation and growth summarized thus far raise two related issues: (i) whether Africa is experiencing a premature deindustrialization; and (ii) whether Africa can develop and build economic resilience by leapfrogging manufacturing as the typical engine of sustainable growth and transformation. Premature deindustrialization has been observed in some developing countries (Monga, 2012; Diao et al., 2019), and other studies have suggested the potential for services-led growth in lieu of manufacturing. (Nayyar et al., 2021).

3.3. The need for resilience

Building resilient economies must be a priority for African countries given their exposure to increasingly frequent and devastating shocks from world markets, natural disasters, environmental hazards, and health-related crises. Resilient economies stand as a defense against significant and persistent negative effects on income and employment, reducing growth volatility and more capably promoting positive social outcomes. By contrast, economies that are not resilient can experience deep and persistent downturns that can negatively affect their long-term growth and social cohesion.

Shocks may take time to show their full impact, but they have lasting effects on economies and societies in general. It took more than five years after the Global Financial Crisis (GFC) for African economies to “buckle,” or drop by 1.5 percent or more below the immediate pre-GFC rate, compared to four years in non-African countries (Figure 17).

Figure 17. Average and cumulative “buckle time”



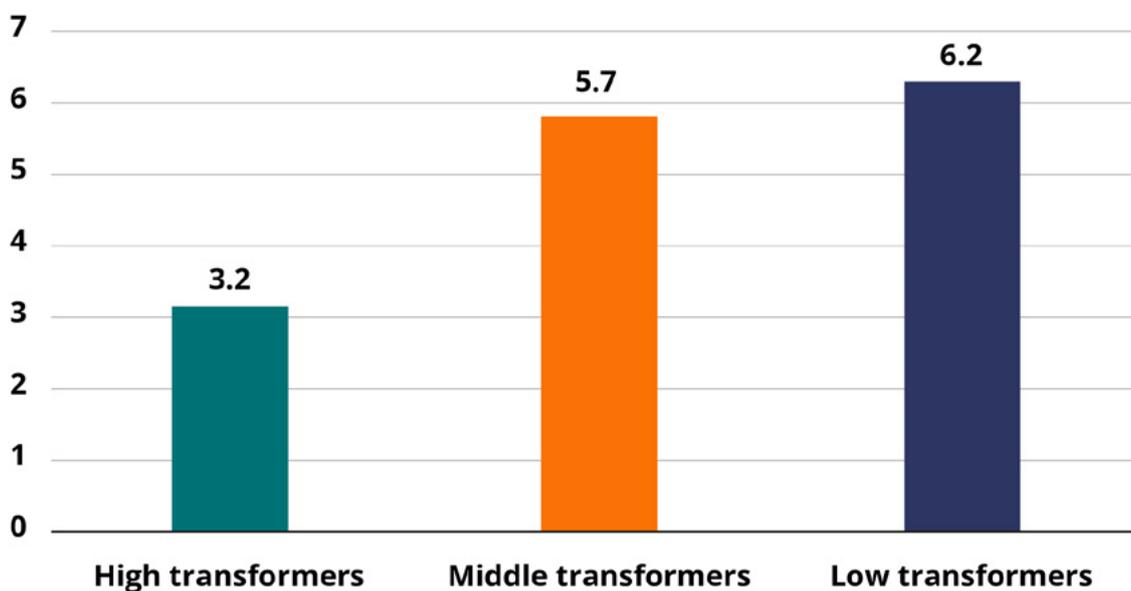
Source: ACET.

The pace at which countries “buckled” was also slower in Africa than in other parts of the world. By the second year of the onset of the GFC, per capita growth had fallen below the critical threshold in 60 percent of countries worldwide. The proportion was only 35 percent for African economies. The time lag between the onset of the global event that created the shock and its impact or manifestation in African economies is a window of opportunity for preparing appropriate responses. Seizing this opportunity requires a good understanding of the transmission mechanisms of the shocks, both by governments and societies at large.

High economic transformers tend to suffer lower losses in growth when hit by global exogenous shocks. Focusing on growth resilience, ACET research shows that the extent of loss in growth in GDP per capita that followed the GFC was greatest in countries that had relatively lower transformation outcomes. The growth losses suffered by low economic transformers are two times as much as those suffered by high economic transformers (Figure 18).

Of the 33 country economies included in the ATI, 31 suffered a reduction in growth, or buckled, following the GFC. Twelve of those economies recovered to their prebuckle growth in the first year after their reduction. Five recovered after two years. Seven took between three and four years to recover. The other seven failed to recover to their prebuckle growth rate in the period captured in the ATI data set (through 2019). The two countries to not buckle were Cameroon and Mauritius. In fact, Mauritius is the only country whose growth rate remained consistently the same throughout the two decades.⁸

Figure 18. Average growth loss at “buckle time”- ATI countries (percent)



Source: ATI, 2022.

⁸ Mauritius is also the first—and only—African country to graduate to high-income status, which it did in 2019, according to World Bank classifications. However, it slipped back into upper middle-income status in 2021, due to the impact of COVID-19.

3.4. The relative role of services versus manufacturing

A distinguishing feature of Africa's growth over the last two decades is that services and agriculture led it, contributing 43 and 40 percent, respectively, to economy-wide labor productivity growth. By contrast, manufacturing contributed only 15 percent.

Research has found services growth and poverty reduction to be correlated (Ghani, 2009). First, the sector creates new jobs. Second, income from those jobs increases demand for goods and services, and it also boosts savings. This contributes to further investment and employment. Some African countries have sustained their economic gains by diversifying their economies into trade in services. For example, Egypt has emerged as a leading supplier of information technology services for the region and European markets, while Mauritius services export (\$2.94 billion) exceeded its goods export by \$0.74 billion in 2019. The diversification of these economies is characterized by exports in transportation and communications (including information and communications technology), insurance, financial services, and tourism services. Also, services growth tends to be geographically concentrated. Many fast-paced and technology-intensive services require medium- to high-skilled labor, which is only available in urban areas. Thus, skills demand and availability of suitable workers constrain the ability for the sector to generate decent jobs. In this regard, the benefits of services-led growth will not be equitably distributed.

However, six considerations qualify the proposition of services-led growth over manufacturing-led growth in Africa. First, besides formal tourism, banking, insurance and finance, the bulk of services employment in Africa is in low-education and low-skills informal activities characterized by low productivity. Second, skills shortages limit the ability of African economies to create, adopt, and adapt the new technologies needed for a services sector that drives sustainable growth. Third, Africa's weak digital infrastructure limits the potential for new technologies to enhance productivity across other sectors. Fourth, the African market for high-quality and high-tech services is still limited and needs to be expanded by growing an educated working and middle class. Fifth, official statistics mostly capture formal activities while missing informal ones, so there are enormous data uncertainties around the exact contribution of services. And, sixth, most African countries are at the early stages of their demographic transition.

Manufacturing and services hold a high potential for spurring growth in employment and productivity increases. However, consideration should be given to adequate sequencing of development strategies by allowing for an initial step during which countries expand education and skills to better enable services to become an engine of growth. Prioritizing services over manufacturing and other labor-absorbing activities could put countries at risk of missing out on manufacturing's potential to spur productivity and create jobs in the whole economy.

3.5. Key lessons

The paramount question for Africa is how to reignite rapid economic growth while realizing economic transformation and building resilience. Resetting policy priorities to answer this question will require more than addressing current challenges and opportunities; it also will require learning lessons from past experience. Two of the most critical issues in the context of this study are reviewed here: industrialization and COVID-19.

Industrialization efforts and evolving thought

The failure of many African countries to pursue labor-intensive manufacturing deepened a colonial legacy rooted in economic dependence on primary commodities and the exploitation of Africa's vast land and natural resources. When governments did embark on manufacturing-led industrialization, they neglected policies needed to stimulate productivity in the agricultural sector and provide stimulus and market linkages for the supply of raw materials to the manufacturing industries. As a result, growth faltered, and manufacturing became a "drag" on the primary sector, using up its export earnings to subsidize uncompetitive and ailing industries. This was contrary to the experience of East Asian economies, where investment in agriculture was used to enhance productivity before the onset of structural transformation.

African countries liberalized their economies at a time when the international trading environment was less favorable to Africa's industrialization agenda. Agricultural subsidies in developed countries discouraged the import of agricultural products from developing countries. This compounded the negative impacts of domestic policies that contributed to the stagnation of Africa's agricultural sector and its failure to provide rising incomes and support to overall economic growth (Schiff and Valdes, 1992). Political instability further created an atmosphere of uncertainty, which encouraged capital flight and "brain drain" of productive youth and discouraged the inflow of foreign capital (Mbakau, 1992). As a result, poverty and inequality increased, slowing progress in human well-being.

Africa's industrialization has also been hampered by the lack of implementation capacity. This is associated with the failure to invest in a competent bureaucracy with strong ethics to ensure good economic governance and effective implementation, resulting in many policy discontinuities and reversals that discouraged private investment (both domestic and foreign).

The failure of industrialization efforts in Africa has partly hinged on policies that promoted either state-led development or private sector development. However, experiences from successful East Asian economies show that strategic partnership between the state and private sector produces the best results for economic transformation. Africa's own experience with public-private partnerships in infrastructure demonstrates the viability of this approach.

Africa also needs to develop industrial policy that caters to continental interests. The relationship between Africa and China has generated benefits for the continent—cheaper imports and improved terms of trade, among others—but it has not helped African countries to diversify their production and export base. It has not advanced technology adoption. And it has not boosted labor-intensive industrialization; rather, it has actually deepened the continent's specialization in exports of primary commodities. There's been another notable drawback. Because of the African Growth and Opportunity Act (AGOA), the African market is used as transshipment hub for China to access the US market for textiles and garments. In this regard, countries that established some domestic production capacity for textiles and garments because of AGOA suffered high competition and displacement from Chinese imports. African governments should consider establishing rules of engagement for foreign direct investment to ensure effective incorporation of substantial local content in the activities of multinationals and avoid foreign competition with local entrepreneurs and small and medium enterprises (SMEs). Ethiopia offers a good example of such an approach.

Historically, industrial policy in Africa has been stigmatized, in large part because of its association with the failed strategies of the post-colonial era and the ideological connotations it carried. Those efforts specialized African economies in the production and export of primary commodities, and later in import-substitution industrialization, with governments often playing a direct role in the

production, administrative allocation, and distribution of goods and services. But, over the last two decades, a modern conceptualization of industrial policy has evolved that goes beyond the ideologies of free market versus government-led economic development.

Ohno et al. (2022) define industrial policy broadly as “any type of intervention or government policy that attempts to improve the business environment or alter the structure of economic activity toward sectors, technologies, or tasks that are expected to offer better prospects for economic growth or societal welfare than would occur in the absence of such intervention.” They further classify industrial policy into horizontal (or functional), aimed at improving the general business environment and promoting specific activities across sectors, and vertical (or selective) aimed at promoting specific activities or sectors.

This new conceptualization frames industrial policy as a key instrument for supporting structural transformation and ensuring inclusive development. Therefore, in a broader sense, industrial policy is not confined to manufacturing but also includes policies aimed at promoting other economic sectors—such as information technology or finance—as well as transforming and modernizing agriculture. Within the industrial sector, for example, computerized technologies have changed the dynamics of manufacturing and led to its globalization. This has changed the scope of industrialization from the mere concept of manufacturing to “servitization,” whereby services, particularly those founded on digitalization, interact and become more supportive to manufacturing and other activities in the economy.

The *Action Plan for Accelerated Industrial Development in Africa*, included in the African Union’s Agenda 2063 blueprint for sustainable growth, says, “No country or region in the world has achieved prosperity and a decent socio-economic life for its citizens without the development of a robust industrial sector.” Indeed, Agenda 2063 places economic transformation as one of the priority goals, emphasizing industrialization and value addition, economic diversification and resilience, and regional industrialization hubs linked to global value chains.

Given renewed interest in Africa’s industrial policy, the opportunity is apparent. The challenge is in finding practical ways to formulate and implement coherent policies around industrialization. More specifically, this includes the process of (i) setting clear industrial strategies supported by effective policy measures; (ii) finding the right mix of vertical and horizontal measures, and getting their sequencing right; and (iii) collaborating between the public and the private sectors.

COVID-19 impact and responses

The COVID-19 pandemic starkly exposed the continent’s structural vulnerabilities to economic shocks. It weakened the education and health systems in most African countries, but its impact was mainly through disrupted linkages with the global economy. A drop in global demand for African commodities slowed transformation progress through a decrease in production and low export performance. Already weak public finances further deteriorated as revenue dropped from contraction of the tax base and disruption in tax collection services. At the same time, public spending had to be increased to support businesses and households coping with the disruption, resulting in high budget deficits. This pushed many African countries into a precarious debt situation and aggravated the condition of those already on an unsustainable debt path. Limited and fragile social protection systems left vulnerable segments of the population to face aggravated socio-economic circumstances, such as increased unemployment. Women were particularly affected given their already disadvantaged socio-economic position in many African societies.

A few important lessons can be derived from Africa's response to COVID-19 to serve as a guide to future development efforts and to help shape the recommendations in this report.

Stronger systems are needed. African governments must take seriously the importance of building fiscal buffers and strong social protection systems as a defense against tremendous shocks. Many African governments activated creative mechanisms to support businesses and households to cope with the initial impacts of the pandemic and maintain vital activities, but the scope and scale of such initiatives were limited by funding constraints. And, while a number of governments moved quickly to adopt digital solutions to offset disruptions in both the public and private sectors, and while many of the technologies were already widely available, most African governments did not actively pursue them.

The digital divide must be addressed. The pandemic highlighted the potential for technology to aggravate or perpetuate inequities if public policy does not promote corrective measures. The shift to remote learning offers the best example. The vast majority of African children and youth do not have internet access because of low accessibility and affordability. As a result, children from rural areas and poor urban families almost completely missed out on the 2020 and 2021 academic years, while those from the mostly urban middle and upper classes benefited. This digital divide and the inequities that it brought transcended the boundaries of individual countries because of Africa's weak technology infrastructure.

Collaboration is critical. Successful collaboration to combat the pandemic underscored the need to accelerate regional integration in Africa, taking the opportunities created by the African Continental Free Trade Area (AfCFTA) to increase local production and intra-Africa trade to mitigate the impact of disruptions in global logistics during future shocks. African governments can lean on regional institutions and act in concert, as they did to develop the initial testing capabilities and, later on, to procure vaccines. The newly established but well-run and versatile Africa Centers for Disease Control and Prevention coordinated with country institutions, such as the Nigerian CDC. The pandemic was also a wake-up call for the type of global collaboration needed to combat other threats, such as climate change.

Industry must be flexible and adaptive to circumstance. COVID-19 response efforts made clear the need to develop versatile business and technological ecosystems that match education, innovation, research and development, and production to enable small-scale industries to quickly transform their factories into production centers for essential emergency goods (such as medicines and health equipment) when necessary. This underscores the need to strengthen university-industry partnerships and to invest in scientific parks that can continuously work toward creating the required preparedness.

Global events are African events. African governments should be more aware of how global events affect the continent's economies. The initial belief that the collapse of some big banks in North America during the GFC would not affect African economies—because of the continent's relatively weak links with the financial systems of developed economies—was clearly mistaken. Equally, early misconceptions about the possibility of the COVID-19 pandemic having a serious negative impact on African economies were far too prevalent. Understanding the pathways and time lags of shock transmission and responses is critical to effective policy response. It requires strengthening investment in African socio-economic research institutions and establishing mechanisms to capture their findings for policymaking and implementation.

4. Policy priorities and recommendations for resilient growth

The research in this report shows that the ability of African economies to withstand shocks—and to recover quickly and strongly from them—is critical to sustained, inclusive growth. In other words, **growth resilience requires economic transformation.**

Therefore, it is imperative that governments, in planning and implementing for the post-COVID-19 era, prioritize policies that promote structural change—and target the dimensions of the Growth with DEPTH framework to accelerate transformation. A new African policy agenda that resets priorities to ensure resilient growth requires a state apparatus that is entrepreneurial, developmental, and delivery oriented.

As African countries make efforts to rebuild their economies from the negative impacts of recent global shocks and make them more resilient to future shocks, they should do the following:

- **Prioritize and promote sector diversification and technology innovations** to enhance cross-sector shifts of resources for higher and mutually reinforcing productivity growth. Such shifts must be supported by well-designed macroeconomic and sectoral policies with broader stakeholder inputs, to build ownership and ensure effective implementation. African governments, the private sector, civil society, academia, and international development partners all must align efforts and objectives.
- **Prioritize and invest in manufacturing and skills development** for more productive alignment with the future of work and economic growth that will increasingly be driven by innovation and technology.
- **Prioritize and commit to greater collaboration** and joint efforts with neighbors to build regional public goods.

The following actions and recommendations are presented as suggested ways to reset policy priorities to promote resilient growth through transformation. They are divided in two categories: (i) general recommendations, and (ii) country classification-related recommendations, which are tailored to countries sharing common characteristics in relation to their current state of economic transformation and growth resilience.

4.1. General recommendations

1. Prioritize economic transformation.

- **Focus on policies and initiatives to promote sustainable, inclusive growth** through enhanced economic diversification, export competitiveness, productivity increases, and technology upgrades, all in the pursuit of improved human economic well-being.
- **Encourage the reallocation of investments and labor** to activities with higher relative productivity—such as moving from agriculture to agro-industry, manufacturing, and modern services—to raise economy-wide productivity, generate better jobs, and increase incomes.

2. Formulate a modern and coherent industrial policy.

- **Promote context-specific policies** (i.e., macro-fiscal, credit, investment, labor, technology, infrastructure, and monetary policies) to support structural transformation and to efficiently reallocate resources from lower to higher productivity activities.
- **Adopt systematic approaches and methods of industrial policy design**, learning from other countries that have already successfully done so, and mobilize the assistance of dedicated international organizations for support.
- **Strengthen the coordination, management, and financing of key industrial policy organizations** in both the public and private sectors, such as national development banks, investment and export promoting agencies, technical and vocational training institutions, industrial policy coordination units, and a variety of other institutions and agencies. In this regard, governments should prioritize the following:
 - *A support system for manufacturing* to promote strategic labor-intensive manufacturing based on each country's comparative advantage.
 - *A support system for tradable services* to enhance relative productivity growth across the services sectors.
 - *A support system for agriculture* to modernize practices, increase investments in entrepreneurial capabilities, and strengthen supply and value chains.
 - *The capacity of national research systems* to develop knowledge-based agricultural and industrial/manufacturing sectors.

3. Coordinate with the private sector.

- **Create strong and effective coordinating systems** to steer government policy implementation in partnership with the private sector, promote mutual accountability, and address market failures, including: (i) apex bodies and forums to promote public-private dialogue and coordination of plans for the provision of public goods; and (ii) inter-industry bodies to address self-selection externalities and parallel investments.
- **Promote long-term investment** by addressing key deterrents, such as policy uncertainty and risk, and developing institutions and organizations of economic governance that support private property rights and the growth of the private sector, in particular SMEs.
- **Ensure participation in global value chains to strengthen resilience and reduce economic vulnerability** to production and logistics shocks, such as those caused by COVID-19, by (i) promoting diversification of suppliers at the firm, country, and regional levels; and (ii) strengthening inter-industry information and coordination networks to promote transparency and the provision of backup logistics and supply options.
- **Promote start-ups** by adopting measures to decrease barriers to entry, simplifying and reducing administrative procedures and red tape, lowering the cost and complexity of product market regulation, and ensuring access to finance.
- **Invest in skills development**, particularly for women, by adopting and implementing programs that strengthen collaboration between education and training establishments and private industry to better align training and education systems to needs of the labor market and enhance work-based learning such as apprenticeships and internships.

4. Invest more in innovation and digital technologies.

- **Strengthen state capacity for collaboration** with research institutions, learning labs, innovation hubs, and the private sector to (i) implement inclusive digital transformation strategies, and (ii) boost industry-relevant digital skills and entrepreneurship, especially among youth and women, to better support start-ups, local SMEs, and foreign firms.
- **Upgrade digital infrastructure and connectivity** to accelerate the transition toward labor-absorbing technologies and productivity-enhancing innovations in manufacturing and services, especially through improvements in telecommunications, electricity, and relevant regulations, such as those concerning data protection, privacy, and security.
- **Promote the digitalization of financial services** to facilitate financial inclusion, especially among women and youth, and to bring informal businesses online, linking them to the formal banking system and nonbanking financial and risk mitigation services.
- **Promote the digitalization of public services and public financial management systems** to improve efficiency, enhance regulatory compliance, and provide citizens and businesses with easy, secure, and trustworthy access (to digital IDs, social service delivery systems, tax payments, and more). Digitalization will also reduce transaction and compliance costs for firms and encourage them to formalize.

5. Pursue fiscal policies that support transformation financing.

- **Set sustainable paths for fiscal balances** to ensure that medium- to long-term government financial operations contribute to generating public and private savings needed to support public investment transformative policies and programs.
- **Establish robust macro-fiscal strategies.**
 - *Minimize the debt service burden* on the economy and crowd in the private sector in the domestic financial markets.
 - *Channel rents from Africa's natural resource endowments* to finance human capital accumulation, technological upgrading, and physical infrastructure.
 - *Establish measures to manage fiscal risks and contingent liabilities*, including those emanating from public-private partnerships and exogenous shocks.
- **Strengthen expenditure and revenue management systems.**
 - *Establish strong systems of planning, approval, and monitoring* of large public investments to ensure close alignment to transformative policies.
 - *Strengthen tax administration and collections*, in particular digitalizing tax collection systems, building on lessons from successful COVID-19 responses.
 - *Strengthen national ownership of expenditure reviews*, which have usually been externally driven, by institutionalizing them as a regular part of annual budget preparation and management.

6. Turn climate challenges into economic opportunities.

- **Adopt green economic policies and strategies** at the local, national, regional, and continental levels to accelerate progress toward low-carbon economies and promote renewable energies, waste reduction and valorization, and biodiversity conservation.
- **Adopt realistic energy transition strategies** that ensure African oil and gas resources are used to develop the energy needed to power the expansion of African manufacturing industries and enhance access to affordable electricity for households and communities.
- **Promote climate-smart agriculture**, such as introducing heat-tolerant and drought-resistant crops, to help African farmers increase productivity and improve resilience.
- **Develop, update, and enforce functional industry environmental compliance systems** that are necessary to penetrate and compete in regional and global markets.

7. Foster greater regional economic integration.

- **Accelerate the implementation of AfCFTA strategies**, including plans and protocols to ease logistic bottlenecks, facilitate cross-border trade (through tariff and nontariff measures), and develop and enforce environmental and social standards.
- **Promote cross-border collaboration** to address common challenges to providing regional public goods, including transport corridors, digital connectivity, online payment systems, climate adaptation measures, river basin management, and more.

8. Reset the political economy of development.

- **Develop a collaborative leadership approach** that is capable of identifying common interests and building coalitions around core national development goals and strategies.
- **Invest in building a competent and merit-based bureaucracy** to boost investor confidence and steer more resources to growth-resilient productive sectors to achieve medium- to long-term impact on economic transformation.
- **Commit to policy consistency** by (i) setting clear objectives around industrial policy, with goals for implementing strategies, monitoring processes, and evaluating outcomes; (ii) avoiding policy reversals related to political cycles; and (iii) encouraging investors to make long-term, transformative investments. Governments should commit in particular to policy stability around taxes, finance, land, and support systems.

4.2. Classification-related recommendations

The following recommendations are tailored to economies sharing common characteristics along dimensions of transformation, resilience, and vulnerability. These classifications are complementary to other classifications relevant for policymaking, such as income level and dependency on natural resource rents. Based on the statistical clustering analysis, countries are grouped in three performance categories—high, medium, and low clusters—using measures of economic transformation (per ATI results), resilience (growth resilience), and vulnerability.

CLUSTERS	COUNTRIES	RECOMMENDATIONS
HIGH economic transformers	<i>Tunisia</i> <i>Eswatini</i> <i>South Africa</i> <i>Morocco</i> <i>Mauritius</i> <i>Lesotho</i> <i>Namibia</i>	<p>These countries scored the best across all the DEPTH dimensions and are more growth resilient. They suffer the least loss in growth when negatively impacted by a shock. They are the least vulnerable because they have policies in place that help reduce their vulnerability.</p> <p>They can further improve their transformation outcomes by focusing on policies that accomplish the following:</p> <ul style="list-style-type: none"> ● Improve human economic well-being and productivity growth by promoting structural shifts into higher productivity sectors. ● Enhance proximity to external markets through regional integration and alignment of national policies to AfCFTA policies to lower trade and nontrade barriers and enhance competitiveness. ● Promote product diversification within subsectors to improve export competitiveness.
MIDDLE economic transformers	<i>Egypt</i> <i>Gabon</i> <i>Botswana</i> <i>Algeria</i> <i>Sudan</i>	<p>These countries scored above average on productivity and human well-being but worse on diversification, export competitiveness, and technology upgrading. They also suffer mild growth loss when negatively impacted by a shock.</p> <p>They can improve their transformation outcomes by focusing on policies that accomplish the following:</p> <ul style="list-style-type: none"> ● Improve economic diversification of production and exports. ● Increase nonextractive exports to improve export competitiveness. ● Invest in technology upgrading and skills development to facilitate structural change in labor productivity growth. ● Diversify within subsectors to lower export instability. ● Reduce vulnerabilities intrinsic to the agriculture sector.

CLUSTERS	COUNTRIES	RECOMMENDATIONS
LOW economic transformers	<i>Senegal</i> <i>Congo Republic</i> <i>Kenya</i> <i>Nigeria</i> <i>Côte d'Ivoire</i> <i>Central African Republic</i> <i>Zambia</i> <i>Uganda</i> <i>Cameroon</i> <i>Tanzania</i> <i>Ghana</i> <i>Madagascar</i> <i>Niger</i> <i>Malawi</i> <i>Rwanda</i> <i>Ethiopia</i> <i>Gambia</i> <i>Mozambique</i> <i>Benin</i> <i>Burundi</i> <i>Burkina Faso</i>	<p>These countries scored the lowest across all the DEPTH dimensions. They are the least growth resilient and suffered the deepest growth loss when negatively impacted by shocks.</p> <p>They can improve their resilience outcomes by focusing on policies that accomplish the following:</p> <ul style="list-style-type: none"> ● Improve labor market rigidities to help transition labor into higher productivity activities such as manufacturing and tradable services. ● Diversify economies from their narrow production base and promote nonextractive and nontraditional exports to improve competitiveness and build growth resilience. ● Improve human economic well-being by expanding formal sector employment, increasing female labor market participation in paid employment, and increasing shared economic prosperity. ● Invest in technology upgrading and skills development to increase the share of medium- and high-technology intensive manufactures in production and exports. ● Diversify within subsectors to lower export instability. ● Reduce vulnerabilities intrinsic to the agriculture sector.

**Countries are ordered by rank within their clusters, based on ATI score*

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Appendix A. Africa's economy-wide productivity growth

The growth in economy-wide labor productivity can be divided into two components. The “within-sector” component accounts for growth of economy-wide labor productivity resulting from growth in sector labor productivity given the proportions of labor resources between sectors, relative to total employment in the economy. The “structural” component (i.e., “between-sector” component) accounts for the effect of changes in the proportions of labor employed in different sectors. This component captures the increase (or decrease) in economy-wide labor productivity due to a shift of labor from low- (or high-) productivity sectors into higher- (or lower-) productivity sectors, even if the prevailing levels within sector productivity themselves do not change (McMillan and Rodrik 2011; De Vries et al. 2015; McMillan et al., 2017; Diao, et al., 2019; Hailu et al., 2020).

The decomposition of aggregate labor productivity into within-sector and structural components is achieved using the following specification:

$$\Delta P_t = \sum_{i=n} \theta_{i,t-k} \Delta P_{i,t} + \sum_{i=n} p_{i,t} \Delta \theta_{i,t}$$

where P_t and $P_{i,t}$ are economy-wide and sector productivity, respectively, and $\theta_{i,t}$ is employment in sector i .

Data source

The study uses data on value added by economic activity (at current prices in US dollars) from the United Nations national accounts database. The annual employment (in thousands) data is extracted from the International Labour Organization. The study employs data for 54 African countries over the period 1991–2019, unless otherwise stated.

Steps in the analytical process

- **Step 1:** Deflate the value added by economic activity data to constant prices (2010) using GDP deflator from World Development Indicators.
- **Step 2:** Reclassify the economic sectors into four broad sectors: Agriculture, Manufacturing, Services, and Others.
- **Step 3:** Interpolate or extrapolate missing data points.
- **Step 4:** By each year, generate the summation of the results for Africa and drop duplicate years.
- **Step 5:** Generate labor productivity (output per worker), output shares in total value added, and the employment share in total employment.
- **Step 6:** Calculate the annualized growth rate in labor productivity, the sector shares in total employment at initial and ending periods, and the change in sector share in total employment for the aggregate sectors.

- **Step 7:** Calculate the within-sector productivity, which is the multiplication of the sector shares in total employment and annualized growth in labor productivity.
- **Step 8:** Calculate the structural change (between), which is the difference between the annualized labor productivity growth and within-sector productivity growth.

Countries included in the analysis

Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo Republic, Côte d'Ivoire, Democratic Republic of Congo, Djibouti, Eswatini, Eritrea, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Egypt, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia, and Zimbabwe.

Appendix B. Growth resilience calculations

The analytical process for growth resilience in this study builds on the works of Hausman et al. (2005); and Gruss et al. (2018).

Data source

The study uses the annual per capita GDP (in purchasing power parity–US dollars) from World Development Indicators 2021. The data is linearized by taking natural logarithms. Annualized growth rate is then computed as the first difference of consecutive years. The result is then smoothed using three-year centered moving averages to avoid excessive variability. Unless otherwise indicated, the value for 2006, for example, is the average value for the period 2005–07.

Steps in the analytical process

- **Step 1:** Find the three-year centered moving average of the per capita GDP growth at the year just before the onset of the Global Financial Crisis, or GFC (2006).
- **Step 2:** Find the year of the onset of the crisis after the GFC. This is the year in which the annualized per capita growth rate falls below the three-year centered moving average growth rate observed at the year just before the onset of the GFC in 2006 by 1.5 percentage points. The year of the onset of each country's crisis after the GFC is called the "buckle time."

Note: For countries where this is zero, it means that they fell below immediately in the year of the onset of the GFC.

- **Step 3:** For each country, determine the extent of the growth loss at buckle time. This is the year on or after the onset of the GFC (i.e., in 2007 or after) when for the first time the country's annualized per capita GDP was below the three-year centered moving average.

Note: The growth loss at buckle time is the difference between the three-year centered moving average growth rate (smoothed per capita GDP growth) just before the onset of the GFC (2006) and the annualized growth rate at the buckle time (on or after 2007).



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