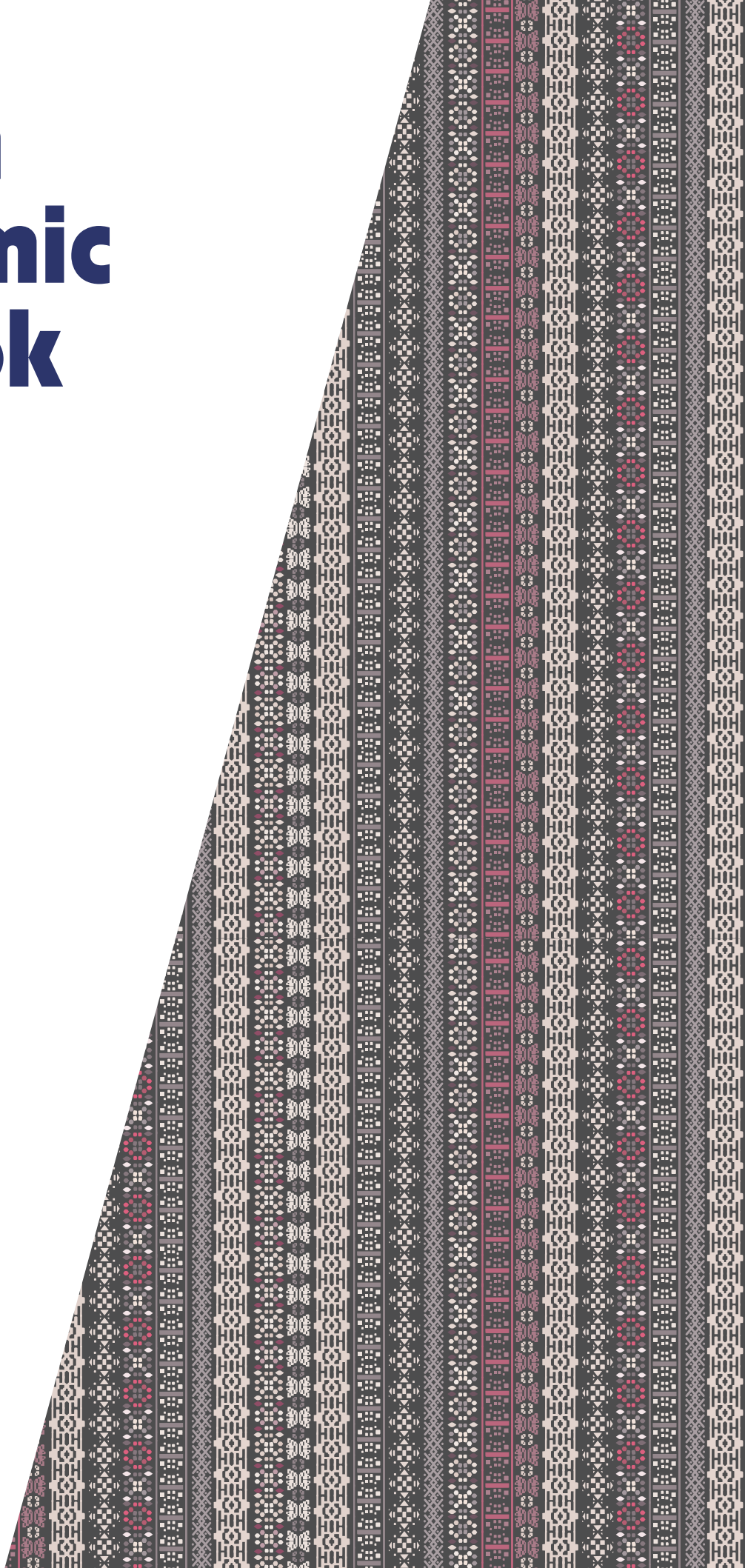
African Economic Outlook 2018



AFRICAN DEVELOPMENT BANK GROUP

ISBN 978-9938-882-43-8 (print)
ISBN 978-9938-882-46-9 (electronic)

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FOREWORD

African economies have been resilient and gaining momentum. Real output growth is estimated to have increased 3.6 percent in 2017 and to accelerate to 4.1 percent in 2018 and 2019. Overall, the recovery of growth has been faster than envisaged, especially among non-resource–intensive economies.

The world economy is also in better shape, with faster growth and buoyant capital markets. And with more than $100 trillion in assets managed by institutional investors and commercial banks globally and searching for good returns, African countries have an array of options, beyond domestic resources and foreign aid, to support their investments.

But challenges remain, especially for the structural transformations that would create more jobs and reduce poverty by deepening investment in agriculture and developing agricultural value chains to spur modern manufacturing and services.

Economic diversification is thus key to solving the continent's problems, especially in the context of a challenging demographic structure. A first priority for African governments is to encourage a shift toward labor-absorbing growth paths. A second is to invest in human capital, particularly in the entrepreneurial skills of youth, to facilitate the transition to higher-productivity modern sectors.

Continued prudent macroeconomic efforts are needed to create the incentives and business environment for the private sector to play its role. Macroeconomic policy should aim at ensuring external competitiveness to avoid real exchange rate overvaluations and get the full benefits of trade, improve fiscal revenue, and rationalize public expenditure. To achieve these goals, the macroeconomic framework must blend real exchange rate flexibility, domestic revenue mobilization, and judicious demand management.

Also needed are massive investments in infrastructure, this year's special theme. To take advantage of the great potential for infrastructure development, governments will have to put in place effective institutional arrangements to manage the complex tasks of project planning, design, coordination, implementation, and regulation. They should also focus on the soft side of infrastructure development—on tackling the big policy and regulatory issues, on training the teams assembling the financing packages, and on conducting constant research to keep up with the knowledge frontier.

New work by the Bank reveals that Africa's infrastructure requirements run to $130–170 billion a year. That's far higher than the long-accepted figure of $93 billion a year. But African countries do not need to solve all their infrastructure problems before they can sustain inclusive growth. They should focus on how best to use their scarce infrastructure budgets to achieve the highest economic and social returns.

As the Outlook concludes, infrastructure projects are among the most profitable investments any society can make. When productive, they contribute to and sustain a country's economic growth. They thus provide the financial resources to do everything else.

Akinwumi A. Adesina, President
African Development Bank Group

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ACKNOWLEDGEMENTS

The African Economic Outlook (AEO) 2018 was prepared under the supervision of Celestin Monga (Vice President, Economic Governance and Knowledge Management, ECVP). Front office staff of the ECVP Complex, Amah Ezanin Marie-Aude Koffi, Vivianus Ngong, and Davina Osei, provided critical support.

Abebe Shimeles (Acting Director, Macroeconomic Policy, Forecasting and Research department, ECMR) coordinated the preparation of the report with a team consisting of Amadou Boly (Task Manager), John Anyanwu, Zorobabel T. Bicaba, El-Hadj M. Bah, Jacob Oduor, Anthony Simpasa, Audrey Chouchane, Charlotte Karagueuzian, Andinet Woldemichael, and Thouraya Triki. AfDB Statistics Department provided the underlying data on the outlook and projections under the guidance of Charles Lufumpa, Director of Statistics Department. Louis Kouakou led the Statistics team, which included Anouar Chaouch, Mbiya H.K. Kadisha, Soumaila Karambiri, Stephane Regis Hauhouot, Slaheddine Saidi, Nirina Letsara, and Guy Desire Lakpa on infrastructure data issues. Several internal consultants (Adams Adama, Betty Y. Camara, Chuku Chucku, Charlotte Karagueuzian, Linguere M. Mbaye, Tiguene Nabassaga, and Zackary Seogo) and interns (Amandine Nakumuryango and Kebba Jammeh) provided key inputs. Administrative assistance was provided by Veronique Aka, Patience Gogo, Eve A. Kra, and Abiana Nelson.

The following external consultants and researchers contributed to different chapters: Ahmadou Aly Mbaye and Ameth Saloum Ndiaye (University Cheikh Anta Diop); Stevan Lee (Oxford Policy Management) on Chapter 1; Jean-Claude Berthelemy (University Paris 1 Panthéon Sorbonne) on Chapter 2; Haroon Borat (University of Cape Town) and Morne Oosthuizen (University of Cape Town) on Chapter 2; and David Stiggers (Consultant) and Cledan Mandri-Perrott (World Bank Group) on Chapter 3.

Very constructive comments and reviews on Chapter 1 were provided by the late Calestous Juma (Harvard University), Christopher Adams (University of Oxford), David L. Bevan (University of Oxford), and Willi Leibfritz on Chapter 1; Calestous Juma (Harvard University) and Augustin Fosu (University of Ghana) on Chapter 2; and Shem Simuyemba (African Development Bank), Jean Kizito Kabanguka (African Development Bank), and Lufeyo Banda (African Development Bank) on Chapter 3.

Ferdinand Bakoup, Acting Director, Country Economics Department, worked with the Lead Economists (Assitan Diarra-Thioune, Stefan Muller, Abraham Mwenda, and James Wahomé) and AfDB Country Economists (see table) to prepare the country notes. Amadou Boly ensured overall coordination. This work benefited from contributions by consultants in selected countries (Gerard Adonis, Pascual Afugu, Efrem Tesfai Biedemariam, Benjamin Camara, Prosper Chitambara, Mohamed El Dahshan, Salome Kimani, Michel Matamona, Cassandro Mendes, Dickson Malunda, Jean Pascal Nkou, Jorge Retana De La Peza, Alieu Saho, Engy Salah, Klaus Schade, Mohamed Djounaid Soilihi, Kabbashi M. Suliman, Almadjir Tassiou); and were reviewed

by an internal team consisting of Amandine Nakumuryango, Eric Kéré, Thouraya Triki, Kebba Jammeh, Linguere M. Mbaye, Adams Adama, Chuku Chuku, Mark Eghan, Audrey Chouchane, Tiguene Nabassaga, Betty Camara, and El Hadj Bah. The authors of country notes are listed in the table below.

Laetitia Yattien-Amiguet and Justin Kabasele contributed to the design of the cover. Editing, translation, and layout were by a team from Communications Development Incorporated led by Bruce Ross-Larson, and including Jonathan Aspin, Joe Brinley, Joe Caponio, Meta de Coquereaumont, Mike Crumplar, Mary Fisk, Susan Graham, Christopher Trott, and Elaine Wilson, with design support from Debra Naylor and translation support from Jean-Paul Dailly and a team at JPD Systems.

Country	Country economists/ authors
Algeria	Hervé LOHOUES Tarik BENBAHMED
Angola	Joel MUZIMA
Benin	Linguere M'BAYE
Botswana	George J. HONDE
Burkina Faso	Facinet SYLLA
Burundi	Thierry KANGOYE
Cabo Verde	Adalbert NSHIMYUMUREMYI
Cameroon	Richard Antonin DOFFONSOU
Central African Republic	Kalidou DIALLO
Chad	Claude N'KODIA
Comoros	Alassane DIABATE
Congo Republic	Adamon Mukasa NDUNGU
Côte d'Ivoire	Zorobabel BICABA
Dem. Rep. of Congo	Jean Marie Vianney DABIRE
Djibouti	Guy Blaise NKAMLEU
Egypt	Hervé LOHOUES
Equatorial Guinea	Dominique PUTHOD
Eritrea	Nyende MAGIDU
Ethiopia	Admit Wondifraw ZERIHUN Edward Batte SENNOGA
Gabon	Dominique PUTHOD
Gambia	Adalbert NSHIMYUMUREMYI
Ghana	Eline OKUDZETO
Guinea	Olivier MANLAN
Guinea-Bissau	Toussaint HOUENINVO Khadidiatou GASSAMA
Kenya	Walter ODERO Zerihun ALEMU
Lesotho	Edirisa NSEERA
Liberia	Patrick HETTINGER
Libya	Kaouther ABDERRAHIM-BEN SALAH

Country	Country economists/ authors
Madagascar	Tankien DAYO
Malawi	Peter Engbo RASMUSSEN
Mali	Abdoulaye KONATE Hamaciré DICKO
Mauritania	Marcellin NDONG NTAH
Mauritius	Ndoli KALUMIYA
Morocco	Kaouther ABDERRAHIM-BEN SALAH Vincent CASTEL
Mozambique	Andre ALMEIDA SANTOS
Namibia	Andre ALMEIDA SANTOS
Niger	Facinet SYLLA
Nigeria	Jacob ODUOR Audrey CHOUCHANE-VERDIER
Rwanda	Edward Batte SENNOGA
São Tomé and Príncipe	Flavio SOARES DA GAMA
Senegal	Toussaint HOUENINVO Khadidiatou GASSAMA
Seychelles	Tilahun TEMESGEN
Sierra Leone	Jamal ZAYID
Somalia	Richard WALKER Salome KIMANI
South Africa	Wolassa Lawisso KUMO
South Sudan	Guy Blaise NKAMLEU
Sudan	Suwareh DARBO
Swaziland	George J. HONDE
Tanzania	Prosper CHARLE Chidodzie EMENUGA
Togo	Carpophore NTAGUNGURIA
Tunisia	Philippe TRAPE
Uganda	Alexis RWABIZAMBUGA Vera Kintu OLING
Zambia	Peter Engbo RASMUSSEN
Zimbabwe	Joel MUZIMA

ABOUT THIS YEAR'S ECONOMIC OUTLOOK

The African Economic Outlook bridges a critical knowledge gap on the diverse socio-economic realities of African economies through regular, rigorous, and comparative analysis. It provides short-to-medium term forecasts on the evolution of key macroeconomic indicators for all 54 regional member countries, as well as analysis on the state of socio-economic challenges and progress made in each country. It represents African Development Bank staff economists' analyses of African economic development during the previous year and near term. It has become the main flagship report for the African Development Bank, as well as reference material for those interested in Africa's development, including researchers, investors, civil society organizations, and development partners.

Given a rapidly changing Africa and international economic order, we have revamped the Outlook to enhance its policy relevance while ensuring that it serves the Bank's operations well. Three main changes are evident.

First, to increase the AEO's timeliness, we are moving to an earlier release date so that the Bank, as a leading African institution, would be among the first to provide headline numbers on Africa's macroeconomic performance and outlook. We plan to launch the AEO in mid-January of every year.

Second, to facilitate advocacy and policy dialogue, the 2018 AEO is being shortened to a maximum of four chapters and 54 Country Notes, totaling about 175 pages, down from more than 300 pages in previous years.

Third, we are producing Regional Economic Outlooks for Africa's five subregions. These self-contained, independent reports focus on priority areas of concern for each subregion and provide analysis of the economic and social landscape. They also highlight issues of pressing current interest.

THEMATIC COVERAGE OF PREVIOUS EDITIONS

Edition	Thematic title
2003	Privatization
2004	Energy Supply and Demand
2005	Financing of Small and Medium-sized Enterprise (SME) Development
2006	Promoting and Financing Transport Infrastructure
2007	Access to Drinking Water and Sanitation in Africa
2008	Technical and Vocational Training
2009	Information and Communication Technology across Africa
2010	Public Resource Mobilization and Aid
2011	Africa and its Emerging Partners
2012	Promoting Youth Employment
2013	Structural Transformation and Natural Resources
2014	Global Value Chains and Africa's Industrialization
2015	Regional Development and Spatial Inclusion
2016	Sustainable Cities and Structural Transformation
2017	Entrepreneurship and Industrial Development

HIGHLIGHTS

This year's African Economic Outlook examines recent macroeconomic development and structural changes in Africa, and outlines the 2018 prospects (Part I). It then focuses on the need to develop Africa's infrastructure, and recommends new strategies and innovative financing instruments for countries to consider, depending on their level of development and specific circumstances (Part II).

PART I: MACROECONOMIC DEVELOPMENTS AND STRUCTURAL CHANGE

African economies have been resilient: Real output is up, reflecting generally good macroeconomic policies, progress in structural reforms (especially in infrastructure development), and generally sensible policy frameworks

Global and domestic shocks in 2016 slowed the pace of growth in Africa, but signs of recovery were already manifest in 2017. Real output growth is estimated to have increased 3.6 percent in 2017, up from 2.2 percent in 2016, and to accelerate to 4.1 percent in 2018 and 2019. Overall, the recovery in growth has been faster than envisaged, especially among non-resource–intensive economies, underscoring Africa's resilience.

The recovery in growth could mark a turning point in net commodity-exporting countries, among which the protracted decline in export prices shrunk export revenues and exacerbated macroeconomic imbalances.

Economic fundamentals and resilience improved in a number of African countries. In some, domestic resource mobilization now exceeds that of some Asian and Latin America peers. But it is still insufficient to meet the high level of financing to scale up infrastructure and human capital.

Many African economies are more resilient and better placed to cope with harsh external conditions than before. But the end of the commodity price super-cycle has cut earnings from primary exports in many countries, undermining planned investments. Weaker external conditions have exposed fiscal vulnerabilities in natural resource–dependent economies as well as several others.

Although domestic revenue mobilization improved substantially in recent decades, tax-to-GDP ratios are still low in most African countries. Revenue regimes have to better capture more gains from growth and structural change as economies formalize and become more urbanized.

With external official development assistance sharply lower, and greater appetite for debt to finance infrastructure and social sectors, many African governments have turned to international capital markets to meet their financing needs. The result: A build-up of debt, much on commercial terms. Despite the increase, debt levels for most countries have not yet breached the traditional threshold indicators. They have actually declined in nine African countries—sometimes mechanically because of the rebasing of gross domestic product—and remained stable in others.

African countries should strengthen their economic resilience and dynamism to lift their economies to a new growth equilibrium driven by innovation and productivity

Dollar interest rates are expected to edge up and bond spreads widen, increasing the risk of sudden halts in private capital flows. Major investments in infrastructure, financed principally by external borrowing, have raised concerns about a currency and maturity mismatch in debt service, as revenue streams accrue predominantly in local currencies and debt obligations mature before these streams begin.

With the notable exception of the CFA franc used by 14 African countries, which is pegged at a fixed exchange rate against the euro, most African currencies have lost about 20–40 percent of their value against the dollar since the beginning of 2015. But the resulting competitive currency depreciation will not necessarily translate into a strong price advantage in export markets.

Structural change is taking place but at very low pace. Structural reforms, sound macroeconomic conditions, and buoyant domestic demand are sustaining the growth momentum in resource-intensive economies. Recent empirical work shows that Africa's recent growth and poverty reduction has been associated with a decline in the share of the labor force in agriculture—especially since the early 2000s, and most pronounced for rural females. This decline has been accompanied by an increase in the productivity of the labor force, as it has moved from low productivity agriculture to higher productivity services and manufacturing. The employment share in manufacturing is not expanding rapidly. In most of the low-income African countries, the employment share in manufacturing has not peaked and is still expanding, albeit from very low levels.

African countries should strengthen their economic resilience and dynamism to lift their economies to a new growth equilibrium driven by innovation and productivity rather than by natural resources. Macroeconomic policy strategy should aim at ensuring external competitiveness to avoid real exchange rate overvaluation and take the full benefits of trade, improve fiscal revenue, and rationalize public expenditure. To achieve these goals, the macroeconomic framework must blend real exchange rate flexibility, domestic revenue mobilization, and judicious demand management.

In the medium term, the most important area of fiscal policy is tax reform. Widening the tax base (eliminating many exemptions and leakages) rather than hiking already high marginal tax rates will be indispensable for boosting tax revenues. None of these fiscal policy options is straightforward. All of them have difficult distributional and welfare consequences—and all are intensely political.

Policy makers need to ensure that fiscal policy does not undercut the growth-promoting effects of public investment, reversing the inroads made in poverty reduction, health, and education across the continent. None of these fiscal choices is straightforward. Intensely political, all have difficult distributional and welfare consequences. Decisions should be made taking into account country-specific circumstances and development priorities. Development projects and programs in the pipeline should thus be balanced against other needs. Recurrent expenditures have to be kept in check, mainly by preventing growth of the public sector wage bill.

Real exchange rate depreciations might be viewed as helpful tools, but given the strengthening of the U.S. dollar against many African currencies, competitive depreciations may not necessarily translate into a strong price advantage in export markets.

Africa needs more development financing. But the build-up of debt should be consistent with country development needs and capacities to service the loans without compromising fundamentals for future growth. Debt must be deployed

in productive investments that yield income streams for self-financing and grow the economy, in order to build capacity for increased domestic resource mobilization that can wean countries from foreign debt and prevent potential debt distress. Expenditure-reducing measures will have to bear a large share of the burden of restoring external balance.

The infrastructure–investment drive across Africa, financed largely by external borrowing, needs careful analysis to ensure that revenue streams (generated in local currencies) are strong enough to meet the debt obligations when they fall due.

Jobless growth? Employment growth is only half of output growth

Sustained growth should create jobs, which drive poverty reduction and make growth more inclusive. But Africa's recent high growth rates have not been accompanied by high job growth rates. Between 2000 and 2008, employment grew at an annual average of 2.8 percent, roughly half the rate of economic growth. Only five countries —Algeria, Burundi, Botswana, Cameroon, and Morocco—experienced employment growth of more than 4 percent.

Between 2009 and 2014, annual employment growth increased to an average of 3.1 percent despite slower economic growth. But this figure was still 1.4 percentage points below average economic growth. Slow job growth has primarily affected women and youth (ages 15–24). Africa is estimated to have had 226 million youth in 2015, a figure projected to increase 42 percent, to 321 million by 2030.

The lack of job growth has retarded poverty reduction. Although the proportion of poor people in Africa declined from 56 percent in 1990 to 43 percent in 2012, the number of poor people increased. Inequality also increased, with the Gini coefficient rising from 0.52 in 1993 to 0.56 in 2008 (the latest figure available).

Africa will become the youngest and most populous continent in the next few decades. Its labor force will rise from 620 million in 2013 to nearly 2 billion in 2063.

A "demographic dividend" might provide a great opportunity for Africa—and the rest of the world, which is expected to experience significant labor shortages. But technological advances could reduce its value.

In the face of rapidly growing populations and heightened risks of social unrest or discontent, jobless growth is the most serious concern for African policy makers. The urgency of implementing reforms for attracting foreign direct investment in industries with strong competitive potential and thus allowing the private sector to create enough "good jobs" cannot be overstated.

Quite a number of the continent's success stories (growth spikes not followed by crises) can serve as a source of inspiration for African policymakers and suggest ways to avoid failed take-offs. The experiences of countries such as Mauritius, Ethiopia, and Rwanda provide useful lessons for the entire continent.

Successful take-offs require productivity growth. Labor force reallocations from the traditional, subsistence, low-productivity sectors to the modern high-productivity sectors must be a key part of African growth accelerations. They require not only the creation of jobs in modern agriculture, industry, and services, but also policies that empower the poor and the low-skilled workers so that they can take advantage of the new opportunities that arise with structural transformation.

A first priority for African governments is to encourage a shift toward labor-absorbing growth paths. They should put in place programs and policies aimed at modernizing the agricultural sector, which employs most of the population and is typically the main step toward industrialization.

A second priority is to invest in human capital, particularly in the entrepreneurial skills of youth, to facilitate the transition to higher-productivity modern sectors.

Quite a number of the continent's success stories can serve as a source of inspiration for African policymakers and suggest ways to avoid failed take-offs

PART II: FINANCING INFRASTRUCTURE: STRATEGIES AND INSTRUMENTS

Africa's infrastructure needs—$130–$170 billion a year—leave a financing gap of as much as $108 billion. But with better strategies, sustained

and inclusive growth can still be achieved in the context of a large infrastructure gap.

Africa must industrialize to end poverty and to generate employment for the 12 million young people who join its labor force every year. One of the key factors retarding industrialization has been the insufficient stock of productive infrastructure in power, water, and transport services that would allow firms to thrive in industries with strong comparative advantages. New estimates by the African Development Bank suggest that the continent's infrastructure needs amount to $130–170 billion a year, with a financing gap in the range of $68–$108 billion.

With such a large infrastructure gap, and urgent needs in health, education, administrative capacity, and security, Africa has to attract private capital to accelerate the building of critical infrastructure needed to unleash its potential. But African countries do not need to wait until all financing gaps are filled before they transform their economic structures.

The excess savings in many advanced countries could be channeled into financing profitable infrastructure projects in Africa

Africa now collects about $500 billion in tax revenue every year, $50 billion in foreign aid, $60 billion in remittances, and $60 billion in FDI inflows. More than $100 trillion is managed by institutional investors and commercial banks globally. African countries seeking financial resources now have a wide variety of options, well beyond foreign aid. Also in the picture are sovereign wealth funds and market finance.

The global economy would benefit enormously from Africa's industrialization and the building of productive infrastructure in the continent

The excess savings in many advanced countries could be channeled into financing profitable infrastructure projects in Africa. A small fraction of the excess global savings and low-yield resources would be enough to plug Africa's financing gap and finance productive and profitable infrastructure. Increased production of capital and consumer goods in G20 economies and in Africa would also put into motion several multiplier effects, generating further demand for intermediate inputs, augmenting incomes, and increasing employment. All that would generate 7.5 million jobs in the G20 economies.

Increasing the share of manufacturing in GDP in Africa (and other LDCs) could boost investment in the G20 by about $485 billion and household consumption by about $1.4 trillion. The impact of African (and other LDC) industrialization on G20 economies would also be large. Direct exports of capital and consumption goods would increase by more than $92 billion. And the indirect effects associated with this increase in exports—given the domestic linkages between G20 exporters and other domestic producers—would increase G20 production by $132 billion. All that would generate 7.5 million jobs in the G20 economies. It would boost aggregate demand, create employment in poor and rich countries alike, and move the world toward peace and prosperity. That this mutually profitable global transaction is not taking place is one of the biggest paradoxes of current times.

Under ideal political circumstances, a mutually profitable global pact to finance Africa's infrastructure would be established so that Africa and the world could reap such win-win benefits. A realistic assessment of global governance and political economy issues in advanced economies suggest that Africa should not wait for the international community to understand the potential global benefits of its industrialization or to finance the continent's $130–170 billion infrastructure gap.

Instead, the continent should adopt a more pragmatic approach to infrastructure financing. Focusing primarily on new models of financing, African countries can jump directly into the global economy by building well-targeted infrastructure to support competitive industries and sectors in industrial parks and export-processing zones linked to global markets. By attracting foreign investment and firms, even the poorest African countries can improve their trade logistics, increase the knowledge and skills of local entrepreneurs, gain the confidence of international buyers, and gradually make local firms competitive.

Infrastructure projects are among the most profitable investments any society can make. When productive, they contribute to and sustain a country's economic growth, and therefore provide the financial resources to do everything else. But many governments try to do too much at the same time and end up not actually doing much.

Or they give priority to the wrong industries and sectors and devote their limited financial, administrative, and human resources to activities that are not competitive and cannot generate enough payoffs to sustain development.

Universal access to high-quality infrastructure can only be a long-term goal. Trying to achieve it with limited resources has led governments to spend too much on too many projects with low economic returns and little impetus for industrial growth and employment creation. However, African countries do not need to solve *all* their infrastructure problems *before* they can achieve sustained and inclusive growth. Instead, they should focus on how to best use their scarce infrastructure budget to achieve the highest economic and social returns.

Targeting sectors and locations is therefore a key policy recommendation

Fortunately, the current global financial conditions are favorable and likely to remain so in the medium term, and new instruments are being developed to mitigate the higher risks facing investors in many African countries.

It should be acknowledged that private financing of infrastructure will likely remain a small share of global spending on infrastructure, estimated at 5–10 percent. Governments can optimize the use of existing infrastructure to reduce inefficiency and waste, and prioritize investments into projects with the highest economic and social returns.

Effective institutional arrangements are thus essential for effective management of the complex tasks of project planning, design, coordination, development, implementation, and regulation.

To improve efficiency, governments should also focus on the soft side of infrastructure development—on policy and regulatory issues, on education and training of the teams involved in infrastructure financing, and on constant research to keep up with new knowledge.

African countries should better leverage public funds and infrastructure investments, while encouraging private sector participation. But the different stages of development of African countries mean that the policy approaches need to be country specific. Some new financing mechanisms could be implemented in all African countries, taking into account the specific economic circumstances and the productive structures of national economies.

Infrastructure debt has not yet been widely considered a major asset class by investors in Africa. But some countries on the continent are using a wide range of financing mechanisms to support investments in infrastructure, and the successful new approaches should be scaled up.

Creating an "infrastructure asset" class to attract institutional investors and the enhanced use of guarantees by government or development finance institutions can lower perceived private sector risk and crowd in funding.

Project puttable bonds are designed to mobilize pension and life insurance funds as well as sovereign funds for PPPs in emerging economies. They would finance long-term investment funds from the beginning to the closing of a project, avoiding refinancing risk. Several entities—including MIGA, AfDB, GuarantCo, and institutions such as Nigeria's InfraCredit—offer risk mitigation, credit enhancements, and guarantees to support financial arrangements, public–private partnerships, and access to local and international capital markets.

To facilitate long-term finance, an MDB could provide a put option after the construction and ramp-up period and receive a guarantee premium. The MDB would then take the construction and early operational risk to facilitate financing, complemented by commercial loans, if appropriate.

To buy debentures or convertible bonds to finance the initial phases of a project, an MDB could provide short-term, flexible loans to governments. The debentures would be issued by a privately owned special-purpose vehicle that builds and operates the infrastructure facility and finances the initial phase of the project.

After construction and after some of the initial risks have subsided, the government would sell the debentures to investors in the market and use the proceeds to repay the MDB. Output-based long-term PPP agreements can support the delivery of basic service where policy concerns would justify public funding to complement or replace user fees. They reduce the burden on development to recover all costs through just connection and tariff costs.

Some countries on the continent are using a wide range of financing mechanisms to support investments in infrastructure, and the successful new approaches should be scaled up

PART I
MACROECONOMIC DEVELOPMENTS AND STRUCTURAL CHANGE

AFRICA'S MACROECONOMIC PERFORMANCE AND PROSPECTS

1

KEY MESSAGES

This chapter reviews Africa's economic performance in 2017 and presents forecasts of GDP growth for 2018–19. It analyzes growth outcomes and discusses some of the macroeconomic shocks and vulnerabilities African countries face and how they have affected development financing. Several key findings and recommendations emerge from the analysis:

- Growth in real output recovered in 2017. Many African economies are better placed to cope with harsh external conditions than they were in the past two decades. Global conditions have eased slightly since mid-2016, improving the outlook for Africa, but countries in the region still face major macroeconomic challenges. Commodity prices have recovered but not to precrisis levels, and demand for traditional and nontraditional exports from Africa remains modest. Although current account positions have improved, they are not sufficiently robust; dollar interest rates are expected to edge up, bidding up the cost of capital; and external debt ratios have begun to rise across the region.
- The infrastructure investment drive in the region, financed largely by external borrowing, needs careful monitoring to ensure that revenue streams (generated in local currencies) are strong enough to meet the debt obligations when they fall due. Fiscal policy should not undercut the growth-promoting effects of the recent surge in public investment and reverse the inroads made in poverty reduction, health, and education across the continent.
- In the short term, macroeconomic policy must blend real exchange rate flexibility and judicious demand management. Real exchange rate depreciations will be important, but given the strengthening of the U.S. dollar, competitive currency depreciations may not necessarily translate into a strong price advantage in export markets. Domestic demand management may have to bear a larger share of the burden in restoring external balance. Ongoing infrastructure projects will need to be completed and maintained, and projects in the pipeline balanced against other needs. Recurrent expenditures, including the public sector wage bill, should be watched carefully.
- In the medium to long term, the most important area of fiscal policy is tax reform. Domestic revenue mobilization improved substantially in recent decades, but tax-to-GDP ratios are still below the 25 percent threshold deemed sufficient to scale up infrastructure spending. There is an urgent need for better revenue regimes—including progressive elimination of the vast array of exemptions and leakages that pepper tax systems—to capture the gains from growth and rapid structural change that some countries are experiencing.
- None of these fiscal choices is straightforward. Intensely political, all have difficult distributional and welfare consequences. Adopting and implementing a coherent and equitable fiscal policy holds out the best prospects for sustained growth when external conditions improve.

Regional and global shocks in 2016 slowed the pace of growth in Africa, but signs of recovery were already manifest in 2017. Real output growth is estimated to have increased 3.6 percent in 2017, up from 2.2 percent in 2016, and to accelerate to 4.1 percent in 2018 and 2019.

There is significant heterogeneity across African countries. Some are performing remarkably well while others experience tepid growth. Structural transformation and productivity improvements are evident in some non-resource-dependent countries. Expanding this process across the continent is critical to sustain growth, create employment, and accelerate poverty reduction.

Africa needs more development financing. But the build-up of debt should be consistent with countries' development needs and capacities to service the loans

The recovery in growth could mark a turning point in net commodity-exporting countries, among which the protracted decline in export prices shrunk export revenues and exacerbated macroeconomic imbalances. Although revenues declined and expenditures rose in these economies, inflation and current account positions for the continent as a whole improved in 2017, thanks to better exchange rate policies. Overall, the recovery in growth has been faster than envisaged, especially among non-resource-intensive economies, underscoring Africa's resilience. Structural reforms, sound macroeconomic conditions, and buoyant domestic demand are sustaining the growth momentum in resource-intensive economies. African countries should strengthen this economic dynamism to lift their economies to a new growth equilibrium driven by innovation and productivity rather than by natural resources.

Economic fundamentals and resilience to shocks improved in a number of African countries. In some, domestic resource mobilization now exceeds that of some Asian and Latin American countries at similar levels of development. But it is still insufficient to meet the high level of financing to scale up infrastructure and human capital.

With external official development assistance per capita sharply lower, and an increased appetite for debt to finance infrastructure and social sectors, many African governments have turned to international capital markets to meet their financing needs. The result has been a build-up of debt, much of it on commercial terms. Despite the increase, levels for most countries have not yet breached the traditional threshold indicators. Debt levels have actually declined in nine African countries, and they have remained stable in others.

Africa needs more development financing. But the build-up of debt should be consistent with countries' development needs and capacities to service the loans without compromising fundamentals for future growth. Debt must be deployed in productive investments that yield income streams for self-financing and grow the economy, in order to build capacity for increased domestic resource mobilization that helps wean countries from foreign debt and prevents potential debt distress.

The chapter is organized as follows. The next section looks at the performance of African economies. Section 2 discusses external shocks and macroeconomic imbalances. Section 3 examines domestic savings, tax revenues, and debt dynamics. The last section summarizes the chapter's policy implications.

AFRICAN ECONOMIES HAVE BEEN RESILIENT TO NEGATIVE SHOCKS

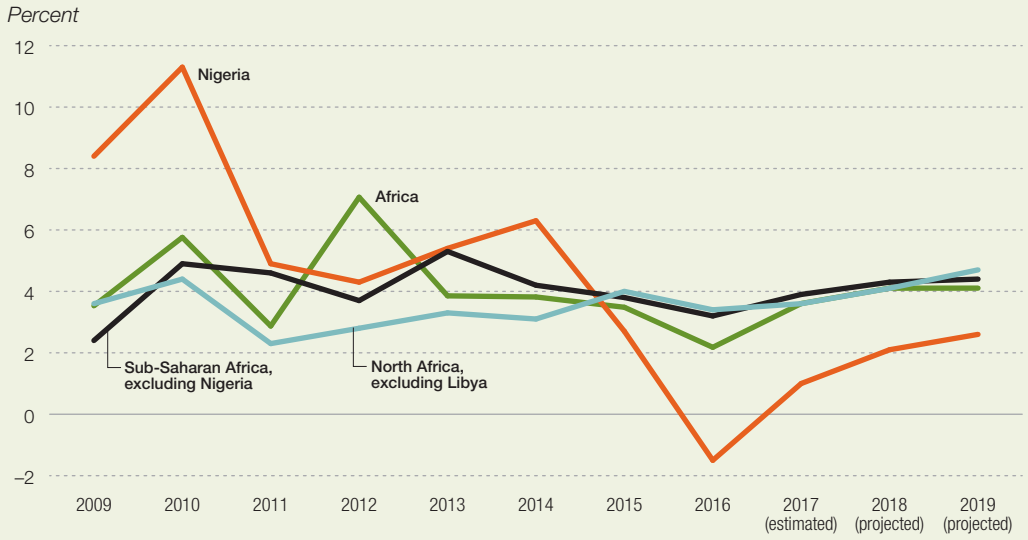
After tepid annual growth of 2.2 percent in 2016, average real GDP rebounded, reaching 3.6 percent in 2017. It is projected to grow 4.1 percent a year in 2018 and 2019 (figure 1.1).

No single factor accounts for this improvement. It reflects better global economic conditions; the recovery in commodity prices (mainly oil and metals); sustained domestic demand, partly met by import substitution; and improvements in agricultural production.

Country-level variation is significant. Indeed, much of the downturn is linked to the recession in Nigeria, where output shrunk 1.5 percent in 2016, a result of low oil prices and policy challenges, including delays in exchange rate adjustments. The recovery in oil prices bolstered production in 2017. Coupled with strong performance in agriculture, it lifted the economy out of last year's recession, but growth was still tepid, at 0.8 percent. Nigeria is set for a rebound, but is projected to be weaker than the average for the continent.

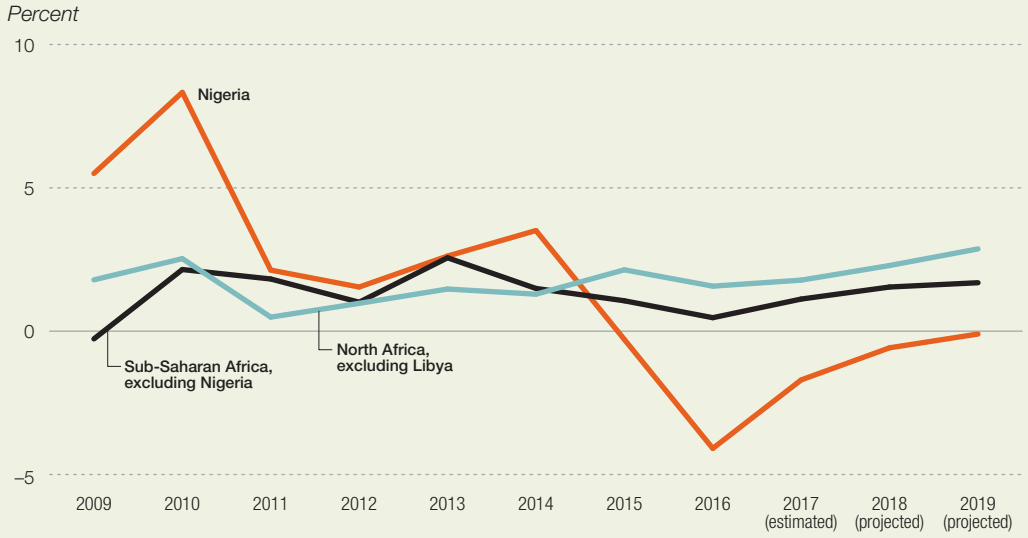
Among the continent's other large economies, South Africa was a drag on growth in 2016

FIGURE 1.1 Real GDP growth in Africa, 2009–19



Source: AfDB statistics.

FIGURE 1.2 Real per capita GDP growth in Africa, 2009–19



Source: AfDB statistics.

Debt must be deployed in productive investments that yield income streams for self-financing and grow the economy

(0.3 percent), while Egypt enjoyed above-average growth (4.3 percent).

In North Africa excluding Libya, the 2016 downturn was milder than elsewhere, with growth slowing from 4.0 percent in 2015 to 3.4 percent in 2016 (Libya is excluded because the country's extremely volatile growth distorts the picture, even though it accounts for less than 5 percent of Africa's GDP). Growth rebounded to 3.6 percent in 2017 and is set to accelerate to 4.1 percent in 2018 and gain

momentum in 2019 to 4.7 percent. Growth in Sub-Saharan Africa excluding Nigeria slowed from 3.8 percent in 2016 to 3.2 percent 2017. It is projected to increase to more than 4 percent a year in 2018 and 2019. Growth among net oil-importing countries grew at an average rate of 3.9 percent in 2017, up from 2.9 percent in 2016.

Africa as a whole saw growth fall behind the global average in 2016; in 2017 it grew at about the same rate as the global economy. But because population growth is greater than in most other regions, per capita growth was below the world average. In North Africa excluding Libya, it rose by just 1.8 percent in 2017 and is projected to increase by just 2.3 percent and 2.9 percent in 2018 and 2019, respectively. In Sub-Saharan Africa excluding Nigeria, per capita income rose by just 1.1 percent in 2017 and is projected to increase by just 1.5 percent in 2018 and a further 1.8 percent in 2019. In Nigeria per capita income fell 1.7 percent in 2017 but the contraction is projected to reduce to 0.6 percent in 2018 and narrow further to just 0.1 percent the following year.

Global economic growth is estimated to rise from 3.1 percent in 2016 to 3.6 percent in 2017 and 3.7 percent in 2018.[1] This growth may lead to higher commodity prices, which would benefit some African countries.

Africa's economic performance has been resilient against the background of a difficult external environment in recent years

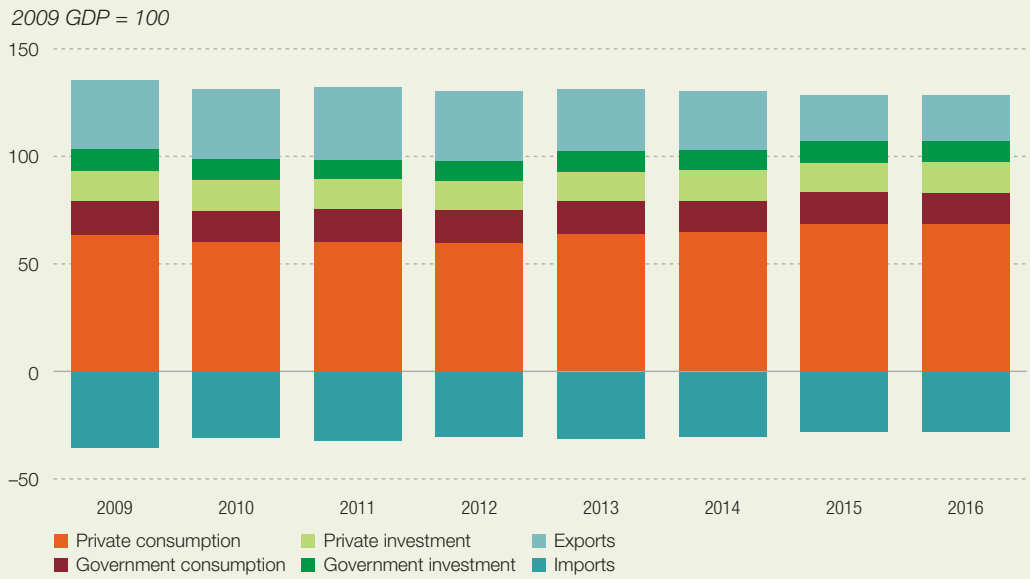
Africa's economic performance has been resilient against the background of a difficult external environment in recent years. The continent's main exports are commodities. Commodity prices enjoyed a long boom, both before the 2008 crash and for many years after it. That boom has ended. The prices of many commodities fell to local lows at the start of 2016, and the value of many of Africa's exports, including oil, gold, and coffee, declined between 2014 and 2016. The prices of oil and metals recovered significantly in 2016 and 2017, if well below the highs of 2010–14. The rise in prices boosts demand for (and in many cases production of) African commodity exports.

GDP and all of its components rose

GDP in Africa has grown in real terms every year since 2009—despite the hit to export earnings by the decline in commodity prices in 2013–15. Public and private investment grew every year between 2012 and 2016 (figure 1.3). Private investment slowed in 2015 but recovered in 2016.

The real value of exports fell in 2013–15, recovering slightly in 2016. Weaker export earnings

FIGURE 1.3 Components of GDP in Africa, 2009–16



Source: AfDB statistics.

reduced the demand for imports as a share of GDP. Imports grew only 1.5 percent a year between 2012 and 2015, actually falling in some years.

Consumption growth was strong, especially in 2013 and 2015. It grew faster than imports, leading to import substitution—a healthy adjustment to weaker export earnings and a major reason why GDP did not fall between 2013 and 2015.

Structural change has been slow

Structural transformation involves large, permanent changes in the structure of production. This process may take decades.

There is little evidence of structural change for the continent as a whole (although the aggregate data may conceal structural change in individual countries). The sectoral make-up of GDP remained roughly constant between 2000 and 2016 (figure 1.4). The share of extractives in GDP increased between 2000 and 2008, declining in 2009 and then again in 2012–15. But most of this movement reflected changes in international demand and international prices rather than structural shifts. Excluding extractives reveals just how little structural transformation occurred over this period for the continent as a whole (panel b of figure 1.4). Agriculture represented 18.9 percent of nonextractive output in 2000 and 19.2 percent in 2016. In 16 years, services took away just 2 percentage points from manufacturing.

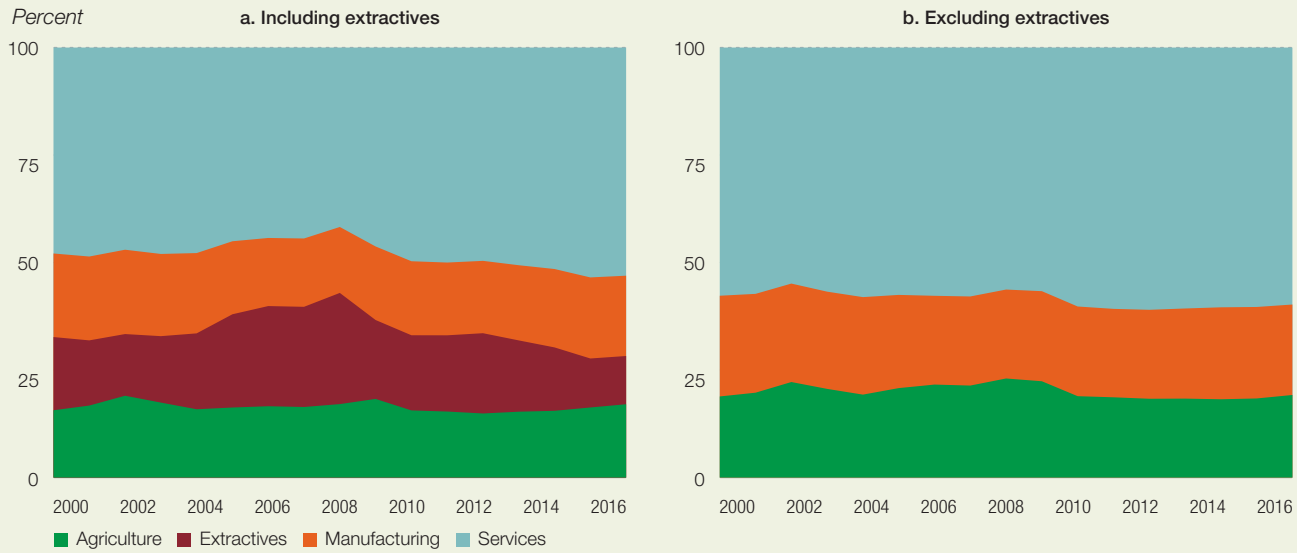
There was a marked decline in the share of extractives between 2012 and 2016. But it represented medium-term adjustments to commodity prices rather than a structural shift.

Nigeria's downward adjustment in the share of extractives was stronger than in other African economies. Between 2012 and 2016, the share of extractives fell from 16 percent to 6 percent of output, with manufacturing and services increasing their shares.

Labor has not moved from low- to high-productivity sectors: For the region as a whole, the distribution of labor across productive sectors has been even less dynamic than changes in output shares (figure 1.5). This pattern is much more static in Africa than in other regions. In Asia and Latin America, labor shifted from agriculture to services between 1990 and 2005. In Europe and North America, the shift was from industry to services. In Africa as a whole, there was very little movement, although this aggregate picture conceals structural change in some countries.

GDP in Africa has grown in real terms every year since 2009—despite the hit to export earnings by the decline in commodity prices in 2013–15

FIGURE 1.4 Sectoral composition of GDP in Africa, 2000–16



Source: AfDB statistics.

FIGURE 1.5 Sectoral employment shares in Africa and other world regions

Source: AfDB statistics.

Note: Industry includes extractives.

After a persistent decline throughout the 1990s, labor productivity increased at the dawn of the millennium. Labor productivity can arise from within-sector gains and from shifts of workers from less productive to more productive sectors. In 2000–13, labor productivity grew 2.2 percent a year. Within-sector growth accounted for about 73 percent of the increase, indicating that at the continental level very little labor reallocation took place.

Some structural change did take place in some countries (table 1.1). In Senegal, for example, all of the growth in labor productivity reflected structural changes. But in many other countries, the increase in labor productivity largely reflected within-sector productivity growth. Increasing labor productivity through a shift of workers from low- to high-productivity sectors is vital to long-term growth.

Côte d'Ivoire experienced moderate structural change—but within-sector gains dwarfed between-sector shifts. Between 2000 and 2016, about 3.5 percent of workers moved from agriculture to services. Because average productivity in services was 3.2 times the level in agriculture, even this small shift generated significant between-sector productivity gains. Output per worker in agriculture and services rose 50 percent over the period. In industry, which employed just 5.2 percent of the workforce but accounted for 23.4 percent of output in 2000, productivity gains were even faster. As a result, by 2016 it contributed 31.7 percent of GDP.

Growth performance varied widely across countries and subregions

Economic growth varied widely across countries (figure 1.6) and across Africa's five subregions (figure 1.7).

East Africa. East Africa remains the fastest-growing subregion in Africa, with estimated growth of 5.6 percent in 2017, up from 4.9 percent in 2016. Growth is expected to remain buoyant, reaching 5.9 percent in 2018 and 6.1 percent in 2019. Strong growth is widespread in the subregion, with many countries (Djibouti, Ethiopia, Kenya, Rwanda, Tanzania and Uganda) growing 5 percent or more. Private consumption is the most important driver of growth in Comoros and Kenya;

TABLE 1.1 Decomposition of annual growth in labor productivity in selected countries in Africa

	1975–90			2000–13		
Country	Average annual labor productivity growth	Within-sector labor productivity growth	Between-sector labor productivity growth (structural transformation)	Average annual labor productivity growth	Within-sector labor productivity growth	Between-sector labor productivity growth (structural transformation)
Botswana	3.77	1.34	2.43	2.38	2.23	0.15
Egypt	4.47	3.56	0.91	3.14	2.43	0.70
Ethiopia	–1.63	–1.59	–0.03	2.07	1.63	0.44
Ghana	–1.31	–1.33	0.03	2.20	1.07	1.14
Kenya	–0.02	–0.44	0.42	0.71	–0.02	0.73
Malawi	–0.55	–0.49	–0.06	0.60	–0.61	1.21
Mauritius	2.80	2.00	0.80	4.94	4.18	0.76
Nigeria	–1.04	–1.48	0.44	2.88	2.98	–0.11
Senegal	–1.78	–2.31	0.53	0.76	–0.12	0.88
South Africa	0.05	–1.03	1.08	3.72	3.40	0.32
Tanzania	0.03	–0.16	0.19	1.21	0.34	0.87
Zambia	–0.80	0.09	–0.89	1.85	1.76	0.09
Average	0.33	–0.15	0.49	2.21	1.61	0.60

Source: Data from the Groningen Growth and Development Centre.

Note: Unweighted averages and values may not add up because of rounding.

public investment in infrastructure has been instrumental in Djibouti and Ethiopia. Agriculture will rebound after poor harvests in 2017, particularly in parts of East Africa.[2] Construction activity will remain strong. In a few countries, continued expansion of services, including information and communications technology, will be key. Manufacturing activity may increase the share of industry, particularly in Kenya and Tanzania.

North Africa. North Africa recorded the second-highest growth rate in Africa, at 5.0 percent in 2017, up from 3.3 percent in 2016. The subregion's growth is projected to accelerate to 5.1 percent in 2018, slowing to 4.5 percent in 2019.

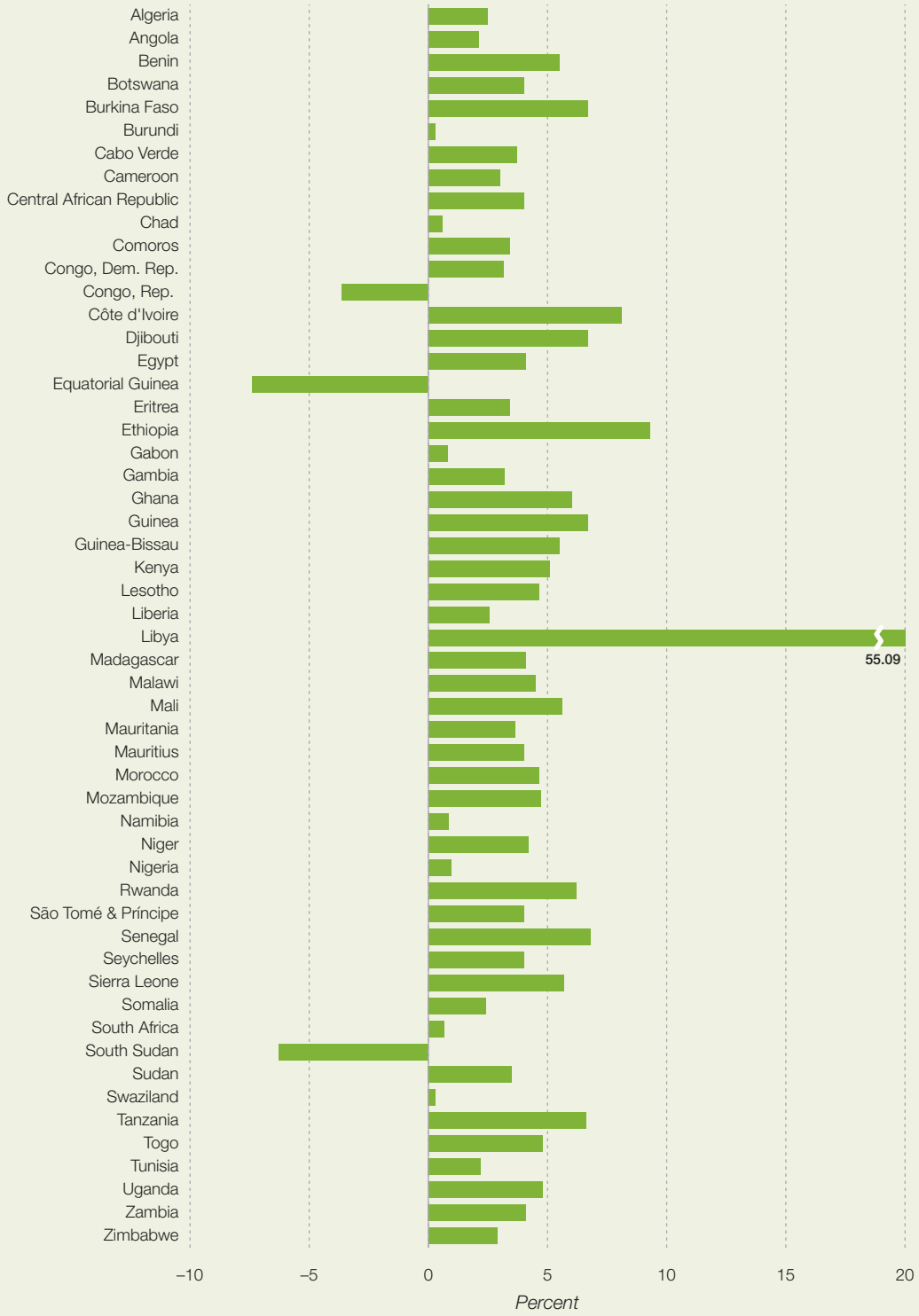
Recovery of Libya's oil production underpinned this growth. Its GDP increased 55.1 percent in 2017, after declines in previous years—but output still remained about a third lower than before the 2011 Arab revolution.

Egypt continued to record stable growth, of 4.1 percent in 2017, down slightly from 4.3 percent in 2016. Growth benefited from the return of foreign direct investment (FDI) and net exports, which were boosted by the depreciation of the real exchange rate after its liberalization.

Wider fiscal and monetary space allowed Algeria to mitigate the adverse effects of lower oil prices on the economy, averting a sharper decline in growth after the fall in oil prices. The government responded to lower government revenue in 2017 by significantly reducing public expenditure (to 36 percent of GDP, down from 42 percent of GDP in 2016).

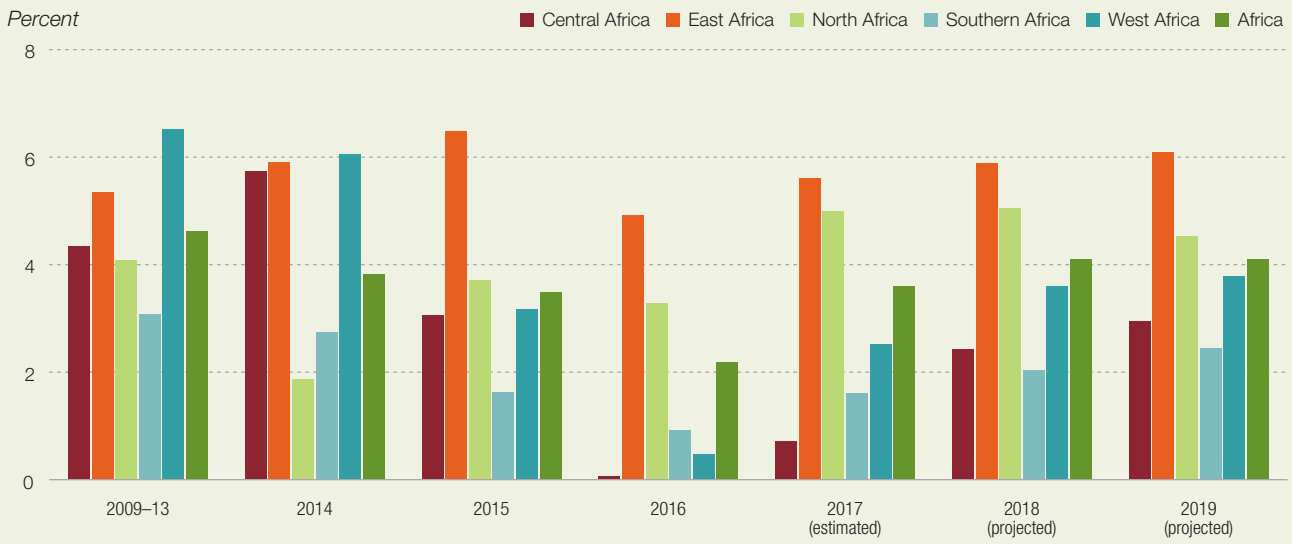
Southern Africa. Growth in Southern Africa nearly doubled in 2017, to 1.6 percent, up from 0.9 percent in 2016. The improvement reflects better performance of the three main commodity exporters: South Africa, which doubled its growth (still low, at 0.9 percent); Angola, where output expanded by 2.1 percent; and Zambia, which grew 4.1 percent. The three countries accounted for about 1 percentage point of Africa's growth rate.

FIGURE 1.6 GDP growth in selected countries in Africa, 2017



Source: AfDB statistics.

FIGURE 1.7 Real GDP growth in selected subregions of Africa, 2009–19



Source: AfDB statistics.

Growth is forecast to increase to 2.0 percent in 2018 and 2.4 percent in 2019, underpinned by expansion in agriculture, mining, and services. These figures are lower than the African average, mainly because of slow growth in South Africa, which has strong neighborhood spillover effects (through trade and revenues sharing) on the subregion's customs union. Policy uncertainty in South Africa could delay much needed fiscal adjustments, especially of support to state enterprises. Lesotho, Malawi, Mauritius, and Mozambique are expected to grow about 4 percent or more, but their contribution to the subregion's GDP is small.

West Africa. Supported by increased oil production and output growth in agriculture, Nigeria is expected to consolidate the gains made in 2017. As a result, growth in West Africa is projected to accelerate to 3.6 percent in 2018 and 3.8 percent in 2019. Other large countries accounting for the expansion include Côte d'Ivoire, Ghana, and Senegal; smaller countries (Benin, Burkina Faso, Sierra Leone, and Togo) are also expected to grow at 5 percent or more.

Central Africa. The Central Africa region has continued to underperform, even with the recovery in oil prices. Output contracted sharply in the Republic of Congo (-4.0 percent) and Equatorial Guinea (-7.3 percent), weighing down the region's overall growth to 0.9 percent in 2017. Moderate recovery in the Republic of Congo will bolster growth in the region, which is expected to pick up to 2.6 percent in 2018 and 3.4 percent in 2019, respectively.

Macroeconomic conditions have deteriorated sharply, stoked largely by the fall in oil revenues. The subregion's deep-seated dependence on oil, together with the fixed exchange rate and lack of independent monetary policy levers to adjust to changing economic conditions (because of all five countries' membership in the Central African Economic and Monetary Community [CEMAC]), have slowed growth.

Economic and political changes could slow growth

Lingering vulnerabilities from a variety of sources call for cautious optimism in the medium term. The recovery in commodity prices remains fragile and conditional on continued strengthening of the global economy, particularly in emerging market economies, such as China. Prices are at precrisis levels, suggesting slower recovery. Structural

Lingering vulnerabilities from a variety of sources call for cautious optimism in the medium term

changes in the energy market—particularly the shale oil and gas revolution, which has catapulted the United States to the top of the oil export market—may prevent the price of oil from recovering fully to its precrisis level. Over the next 20 years, the United States will account for 17.03 trillion cubic feet of shale-gas output, ahead of Canada (3.82 trillion); 1.36 trillion cubic feet will come from other producers. Saudi Arabia is also seeking to diversify away from oil. These structural changes could alter the dynamics of the global oil market (box 1.1). African policy makers should devise mechanisms to adjust to such potential changes.

The tightening of global financial conditions (because of the raising of the U.S. benchmark interest rate in June 2017 and the winding down of the stimulus program) constrains global liquidity, which may reduce global demand. Protectionist sentiments in countries such as Tanzania and policy uncertainty in South Africa could also reduce investor confidence and curtail resource flows, slowing growth.

The tightening of global financial conditions constrains global liquidity, which may reduce global demand

BOX 1.1 Effects of commodity prices on Africa's growth

Output and commodity prices move in tandem in resource-dependent economies, with a correlation coefficient of 0.49 (box figure 1). For this reason, many of these countries find themselves with heavily depleted buffers with which to cushion against external shocks, such as the recent decline in commodity prices.

BOX FIGURE 1 Real GDP growth and commodity prices in Africa, 2000–16

Source: AfDB statistics.

An autoregressive lags distributed (ARDL) model is used to estimate the effect of changes in commodity prices on real output growth for African countries:

$$\Delta \ln GDP_{it} = (\alpha_1 - 1)\Delta \ln GDP_{it-1} + \sum_{j=1}^{m-1} \beta_j \Delta \ln P_{it-j} + \sum_{j=1}^{k} \alpha_j \ln GDP_{it-j} + \sum_{j=0}^{m} \beta_j \ln P_{i+t-j} + f_i + f_t + \varepsilon_{it}$$

where *lnGDP* denotes the logarithm of real GDP; *lnP* is the logarithm of the Deaton-Miller commodity prices index; Δ is the change operator; f_i and f_t indicate country-fixed effects and time effects, respectively; and ε_{it} is a white noise error term.

(continued)

BOX 1.1 Effects of commodity prices on Africa's growth *(continued)*

In the short run, real GDP would increase 0.2–0.36 percentage points if commodity prices increase 1 percent, underscoring the importance of commodity prices to Africa's growth performance (box table 1).

BOX TABLE 1 Growth effect on Africa of a 1 percent increase in commodity prices

	All commodities	Soft	Hard	Food	Energy	Metal	Agricultural raw materials
Short-run impact	0.2055	0.1990	0.2616	0.3608	0.2701	0.2714	0.3719
Long-run impact	1.7513	0.9044	0.9412	1.1690	1.1290	1.1483	2.1800
Adjustment duration (years)	4.1150	5.4640	4.444	5.7470	5.1810	5.405	5.555

Source: Data from AfDB, COMTRADE and IMF.

Note: Results are based on a sample that included the following countries: Algeria, Angola, Benin, Burkina Faso, Botswana, Burundi, Cabo Verde, Cameroon, the Central African Republic, Comoros, the Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Libya, Lesotho, Madagascar, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, South Africa, Somalia, Swaziland, Sudan, Tanzania, Togo, Tunisia, Zambia, and Zimbabwe.

Political risks are lurking on the horizon, particularly in countries that have recently held general elections

A number of political risks are lurking on the horizon, particularly in countries that have recently held general elections (Kenya and Liberia) or plan to hold them in 2018 (Zimbabwe) and 2019 (South Africa). They could adversely affect the macroeconomic environment, already destabilized by recent shocks.

EXTERNAL SHOCKS HAVE EXACERBATED MACROECONOMIC IMBALANCES

The recent commodity price shock exacerbated macroeconomic imbalances in a number of resource-intensive African economies.

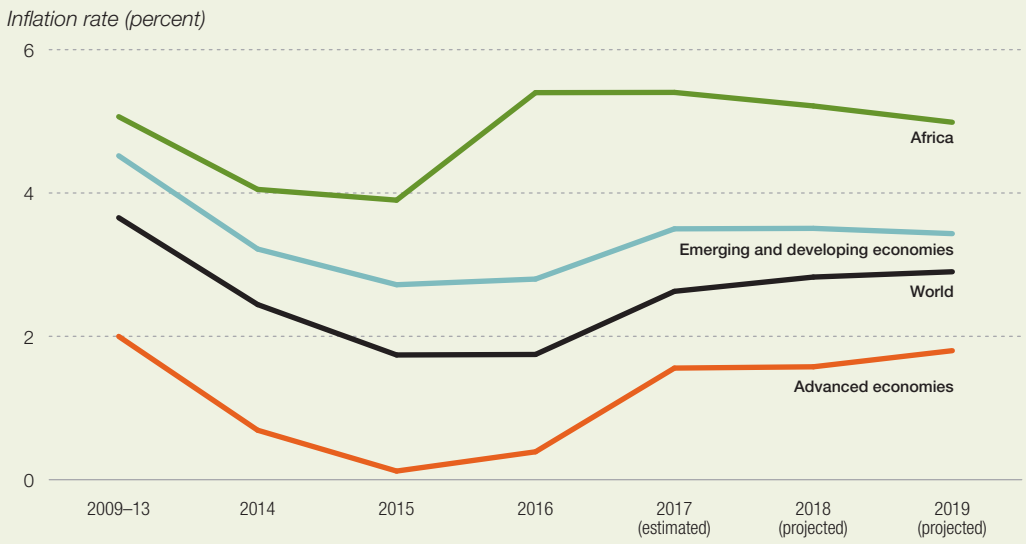
Inflation rose sharply

The median rate of inflation rose sharply in Africa, from 3.6 percent in 2015 to 5.4 percent in 2016, above the rate for comparator regions and the world (figure 1.8). The increase was fueled partly by the depreciation in exchange rates and the widening of fiscal deficits, stoked by the commodity price shock. Africa's median inflation rate is expected to fall in 2018 and 2019 and remain in single digits, as the effect of the commodity price shock peters off and fiscal positions improve.

Inflation in CFA franc countries is generally lower than the median for Africa (figure 1.9). These countries are protected by lower inflation in the euro zone, whose currency is the anchor for the monetary union.

All regions except Central and Western Africa recorded inflation rates of 5 percent or more in 2017 (figure 1.10). Inflation spiked to nearly 10 percent in East Africa, fueled by a rise in food prices, especially in Kenya, where the effects of the drought reduced the maize harvest, causing chronic shortages of the staple. Median inflation is projected to fall sharply in East Africa, partly as a result of an improved harvest. Oil-exporting countries in particular experienced a difficult year in 2017, with inflation reaching 18.3 percent, up from 12.7 percent in 2016. In these countries, the fall

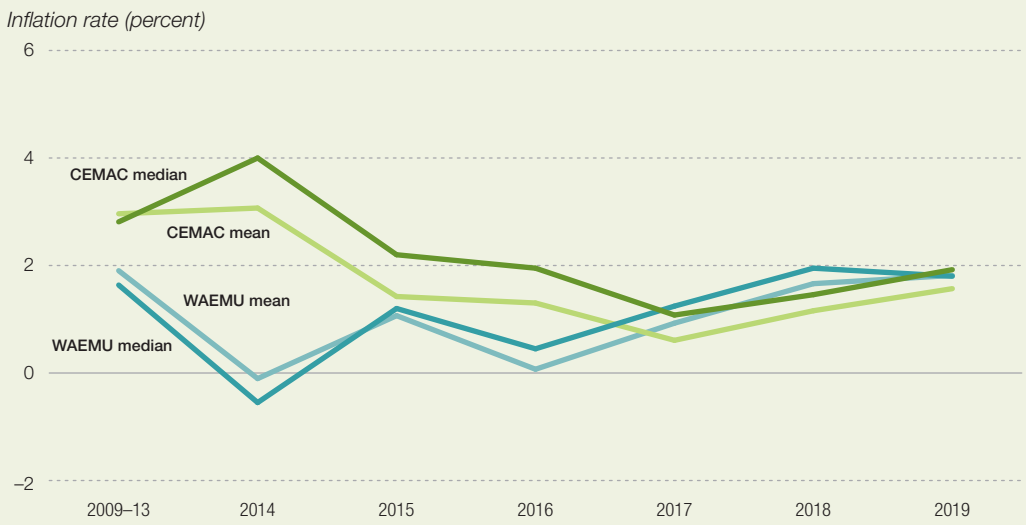
FIGURE 1.8 Median inflation rates in Africa and selected country groups, 2009–19



Source: AfDB statistics and IMF, World Economic Outlook (October 2017).

Africa's median inflation rate is expected to fall in 2018 and 2019 and remain in single digits

FIGURE 1.9 Median and average inflation rates in CFA franc countries, 2009–19



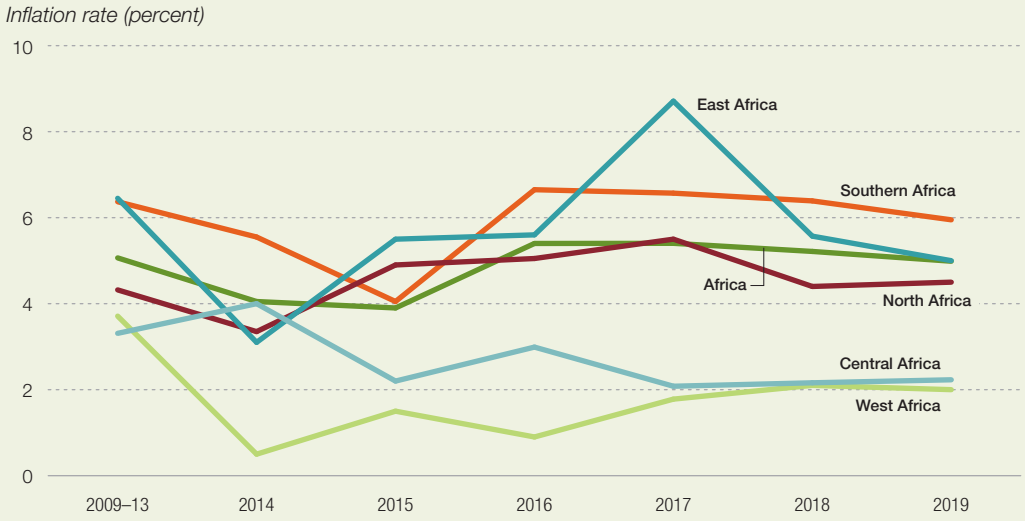
Source: AfDB statistics and IMF, World Economic Outlook (October 2017).

in oil prices stoked exchange rate depreciations, which fueled imported inflation.

Inflationary pressures have raised the cost of living in affected countries. The cost of running government has also gone up, expanding financing needs and widening fiscal deficits.

Africa's oil-importing countries benefited from lower prices; inflation declined slightly, from 6.0 percent in 2016 to 5.7 percent in 2017. For several African countries, notably countries in currency unions, inflation remained low or moderate, at 1–4 percent, thanks to exchange rate stability.

FIGURE 1.10 Median inflation rates in Africa and other regions, 2009–19



Source: AfDB statistics and IMF, World Economic Outlook (October 2017).

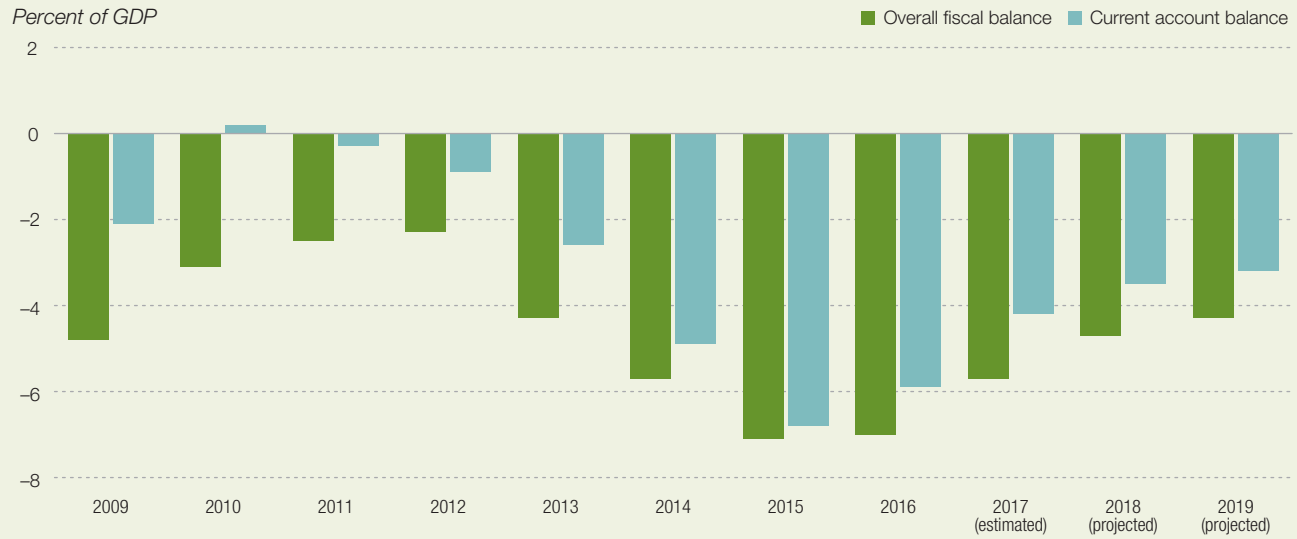
Fiscal and current account positions improved but remain worrisome

The fall in commodity prices increased Africa's fiscal and current account deficits. The average fiscal deficit for Africa as a whole narrowed to 5.7 percent of GDP in 2017, down from 7 percent, largely because of fiscal adjustment measures in both resource- and non-resource-dependent economies (figure 1.11).

The continued rise in the price of crude oil—from an average of $44 a barrel in 2016 to more than $50 a barrel in 2017—provided relief to both

The average fiscal deficit for Africa as a whole narrowed to 5.7 percent of GDP in 2017, down from 7 percent

FIGURE 1.11 Fiscal and current account balances in Africa, 2009–19



Source: AfDB statistics.

government budgets and current accounts. The fiscal deficit among oil exporters was 6.7 percent of GDP in 2017, higher than for net oil-importing countries, where the average was 4.6 percent of GDP. Other commodity prices, particularly the price of metals, also increased, benefiting exporting countries. Countries also responded to lower revenues by reducing government spending.

The average fiscal deficit in Africa is projected to reach 4.5 percent of GDP in 2018–19. Its narrowing reflects gains in net oil-exporting countries, where the deficit is expected to fall to an average of 4.7 percent of GDP in 2018–19, down from 6.7 percent in 2017.

The terms of trade for oil-exporting countries declined precipitously between 2011 and 2016

To contain the rise in debt levels, further fiscal consolidation will be necessary, particularly reduction in recurrent expenditure. Angola's fiscal consolidation was achieved at the expense of capital expenditures. Given the importance of public investment in catalyzing private investment, particularly in core infrastructure (such as energy and transport), public expenditure should be well targeted to ensure that poverty-reducing social sectors and key infrastructure investments are adequately protected.

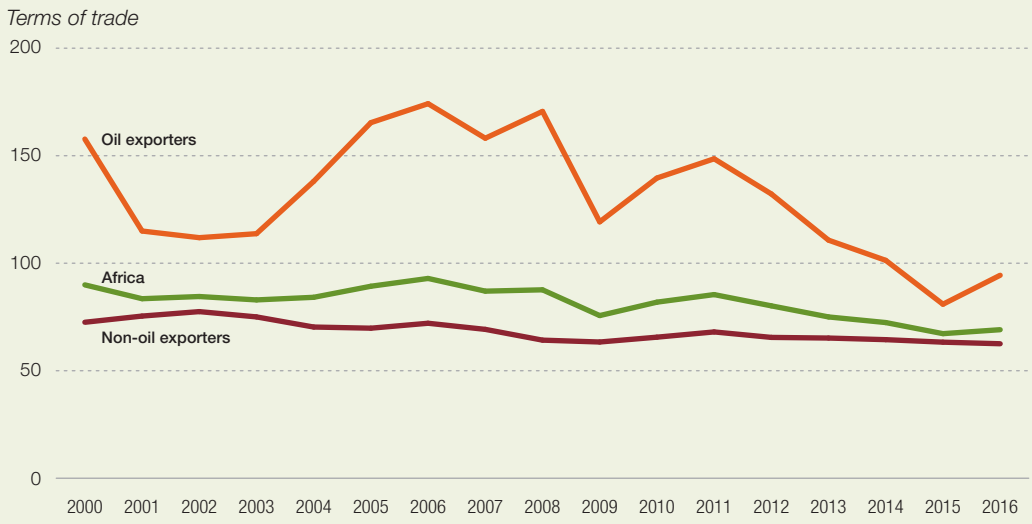
Current account positions are expected to improve with the recovery in commodity prices and subsequent increases in export revenues. Current account deficits reached 4.2 percent of GDP in 2017, down from 5.9 percent in 2016. They are expected to narrow to 3.5 percent in 2018 and 3.2 percent in 2019.

External shocks and exchange market pressures bode ill for growth

Macroeconomic imbalances have weakened currencies in many African countries. In 2015–16, most experienced nominal exchange rate depreciations and the effect of the commodity price shock, which manifested itself in a decline in the terms of trade, especially in oil-exporting countries. The terms of trade for this group of countries declined precipitously between 2011 and 2016 (figure 1.12). Higher commodity prices in mid-2016 raised prospects for improved terms of trade and growth and reduced the pace of exchange rate depreciation.

The commodity price shock caused depreciation of exchange rates, particularly in oil-exporting countries. In some of these countries, including Algeria, Angola, and Nigeria, this trend recently reversed. A few countries, including Botswana, Kenya, Morocco, Namibia, and Zambia, experienced appreciation in 2016/17. But most African countries experienced depreciations, in both

FIGURE 1.12 Terms of trade of oil exporters and nonexporters in Africa, 2000–16



Source: AfDB statistics.

2015/16 and 2016/17 (figure 1.13). The accelerated pace of depreciation has had adverse impacts on several countries' macroeconomic variables, including debt repayment obligations and inflation.

Membership in a monetary union has benefits—and costs

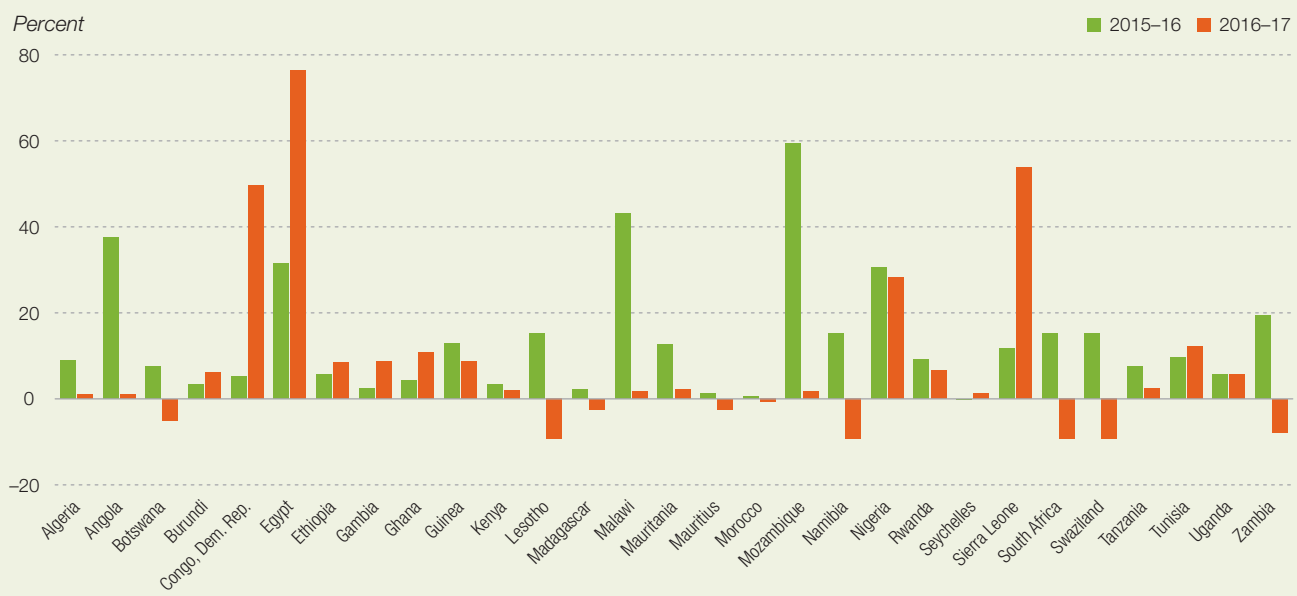
Countries in monetary unions faced a different challenge from falling commodity prices: deteriorating competitiveness. Membership in a monetary union yields benefits—but the costs can be high (box 1.2). The lack of policy flexibility may outweigh the benefits of membership, which requires countries to put in place conditions to ensure the success of the union.

In Africa's two CFA franc zones, the currency is pegged to the euro and external currency convertibility is guaranteed by a commitment from France. The lack of differentiated exchange rate instruments is a general issue for all monetary unions when shocks are asymmetric (since a common monetary policy response while appropriate on average will not be optimal for any individual member state). But circumstances for the CFA are doubly difficult since in none of the CFA zones are central banks choosing the optimal common monetary/exchange response for their member states. Instead, the CFA zone is a combination of a monetary union of the African countries and a fixed exchange rate with the Euro (underpinned by France). So, unlike the Eurozone or the putative East African Monetary Union, the WAEMU and CEMAC central banks are not asking, "What is the best monetary response for the zone"? In effect, the European Central Bank sets the monetary policy for the Eurozone, which may not be at all appropriate for the WAEMU and CEMAC zones.

In sum, while monetary unions can deliver low inflation and greater stability *in good times,* they may find that the absence of the nominal exchange rate anchor may mean they are vulnerable to persistent real exchange rate misalignment. That makes it all the more important to focus on issues of fiscal flexibility.

Countries in monetary unions faced deteriorating competitiveness

FIGURE 1.13 Percent change in nominal exchange rates in selected countries, 2015–16 and 2016–17



Source: AfDB computations.

Note: Sample covers countries with free-floating or dirty float exchange rate regimes for which data were available. Variations in nominal exchanges rates are expressed as a percent of the t – 1 exchange rate. Positive (negative) numbers indicate nominal depreciations (appreciations) of the nominal exchange rate. Countries with fixed exchange rate regimes are excluded.

BOX 1.2 The costs and benefits of monetary unions

Countries adopt currency unions in the hope of reaping macroeconomic and structural benefits. The benefits include a stable exchange rate, reduced external volatility, a stable macroeconomic environment, increased intraregional trade, lower transactions costs (as currency conversion costs are reduced), more financial integration, and convergence among participating countries.

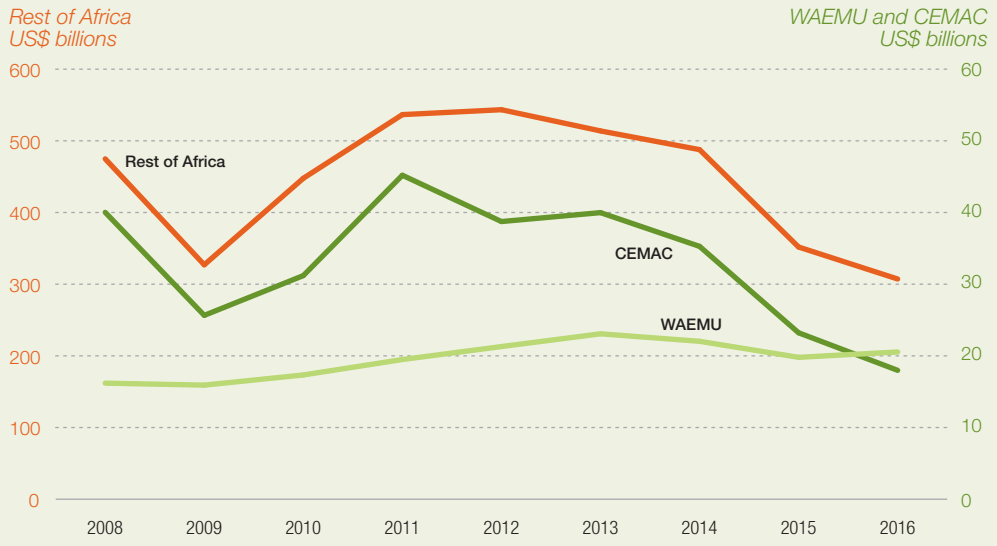
But there are also costs. Monetary unions limit the flexibility of individual countries to adjust to external shocks using monetary policy instruments. The shocks affecting West African states are mostly country specific (asymmetric). They therefore call for differentiated policy responses, which are not possible within a monetary union.

To be effective, monetary union needs to have well-functioning, cross-country fiscal institutions and rules, which can be enforced in the context of good economic governance to help members respond to asymmetric shocks. For instance, a central authority should be able to organize financial transfers to member countries suffering from a negative shock. Free movement of goods and labor should be reality--not just a goal. Deficits and debt policies should be consistent across the union and monitored carefully by a credible central authority. The financial and banking sector should be under careful supervision by a union-wide independent institution capable of enforcing strict prudential rules. Policies across the union should aim at real convergence among member countries. Despite some progress, CFA countries do not yet meet these important conditions.

Monetary unions may be vulnerable to persistent real exchange rate misalignment

At the height of the commodity price crisis, the Central African Economic and Monetary Community (CEMAC) region recorded a sharp fall in exports. The decline was steeper than in the West African Economic and Monetary Union (WAEMU) and the rest of Africa, because CEMAC countries export mainly oil.

BOX FIGURE 1 Exports from CFA countries and the rest of Africa, 2008–16



Source: AfDB computations.

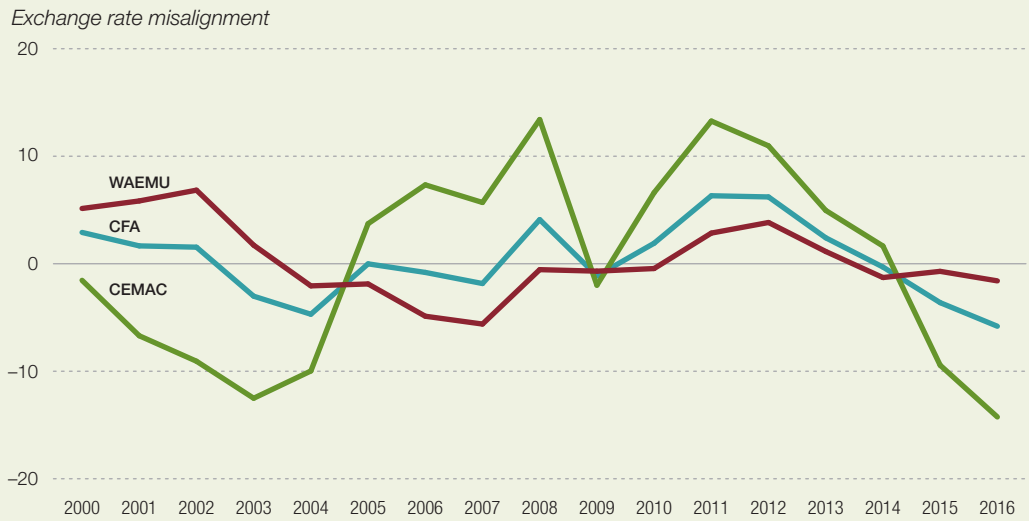
The real exchange rates of these countries have also been subjected to immense pressure. Box figure 2 shows the extent of real exchange rate misalignment in WAEMU, CEMAC, and the CFA as a

(continued)

BOX 1.2 **The costs and benefits of monetary unions** *(continued)*

whole. Both WAEMU and CEMAC countries experienced exchange rate overvaluation when commodity prices started to fall in 2014, although the severity of the real exchange rate misalignment was more pronounced in CEMAC than in WAEMU, whose members are not net oil exporters and are more diversified. For the CEMAC region, the misalignment deepened as oil revenues dipped in 2014–16. After the commodity price shock in 2014, CFA countries experienced a real overvaluation; other countries had (on average) undervalued real exchange rates.

BOX FIGURE 2 **Exchange rate misalignment in Africa, 2000–16**



Source: AfDB.

Note: Negative (positive) numbers indicate real overvaluation (undervaluation). Rand-pegged countries include Lesotho, Namibia, and Swaziland.

As African countries set their eyes on economic transformation, improving domestic revenue mobilization will be critical

DOMESTIC SAVINGS, TAX REVENUES, AND DEBT DYNAMICS

Domestic resource mobilization needs to increase and debt levels contained

Domestic savings and per capita GDP are positively correlated in Africa, Latin America and the Caribbean, and East Asia and Pacific. A higher domestic savings rate seems to be associated with a higher investment-to-output ratio and thus higher per capita GDP.

During 1990–95, this correlation was steepest in Africa, where the correlation coefficient between GDP and the domestic savings rate was 0.74. During 2011–16, it fell to 0.58. Africa's coefficient converged to that of East Asia and Pacific, as the level of development increased. But most African countries still have lower domestic savings rates and per capita GDPs than their East Asian and Pacific counterparts.

As African countries set their eyes on economic transformation, improving domestic revenue mobilization will be critical. The increase in domestic savings that occurred, particularly in the past decade, bodes well for domestic resource mobilization.

Over the past 15 years, tax revenues increased significantly in absolute terms, as African countries grew wealthier. Tax revenues increased 2.3 percent in absolute terms between 2006 and 2016. Controlling for the level of per capita income, some countries in Africa collected higher

tax revenues than their Asian and Latin American counterparts. Despite this increase, the average tax-to-GDP ratio in Africa was only about 17.1 percent in 2014 (figure 1.14), much lower than the optimal threshold of about 25 percent required to finance development.

Cross-country variations are wide. Lesotho's tax–GDP ratio exceeds 50 percent, whereas Nigeria's is only about 3 percent (excluding oil rents). Nontax revenues for Africa on average are even lower and have been declining. To compensate, Nigeria raised taxes, but the increases have not been sufficient to offset the fall in nontax revenues.

Some countries in Africa collected higher tax revenues than their Asian and Latin American counterparts

Recent reforms and taxation of resources have helped African countries, but challenges remain. They include weak tax and customs administrations; low taxpayer morale; poor governance; the prevalence of hard-to-tax sectors, including small businesses, small farms, and professionals; and the struggle by many resource-rich countries to design and implement fiscal regimes that are transparent and capable of taxing natural and mineral resources.

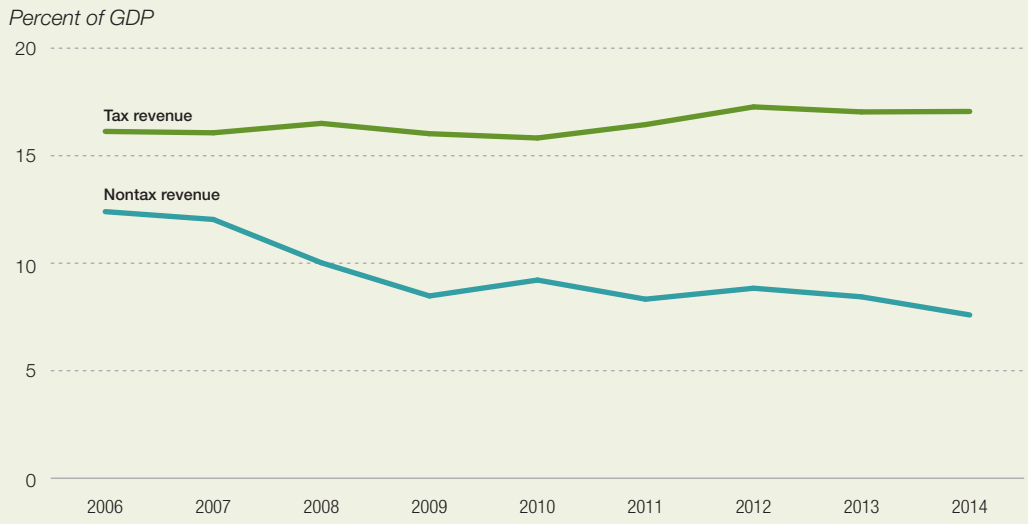
The small modern sectors in most African countries suggests that imposing higher marginal taxes on domestic production and incomes may not be effective. Imposing such tax rates could also be counterproductive and distortionary, because it might induce switches to the informal sector.

Table 1.2 presents the results of a regression on a pooled, unbalanced panel of African countries. It shows that an increase in tax rates could have significant negative impact on total government revenues in Africa (columns 2 and 3) and that a 1 percent increase in tax revenue leads to a 0.8 percent increase in total government revenue on average (column 1).

Economic prosperity remains a powerful driver of revenue mobilization. Per capita incomes are still low in many African countries, even in the region's middle-income countries, but tax revenues and domestic savings tend to increase more than proportionally with per capita income, as panel a of figure 1.15 illustrates. High domestic savings and tax revenues increase the domestic resources needed to fund growth-enhancing public investment, which boosts per capita income. Rising income boosts domestic savings and increases tax revenues, in a powerful virtuous circle.

Effective financial intermediation can increase the rate of domestic savings. But many African countries are characterized by low financial sector development, with a limited array of financial

FIGURE 1.14 Tax and nontax revenue in Africa as a percent of GDP, 2006–14



Source: AfDB statistics.

TABLE 1.2 Elasticity of government revenues to tax rates in Africa

Depend variable: Revenue, excluding grants (percent of GDP)	1	2	3
Log tax revenue (percent of GDP)	0.774*** (0.0283)		
Log total tax rate (percent of commercial profits)		–0.0830** (0.0405)	–0.086** (0.0407)
Log real per capita GDP	–0.00752 (0.0047)	–0.00195 (0.0079)	
Log real GDP			–0.00347 (0.00442)
Constant	0.904*** (0.0828)	3.302*** (0.164)	3.377*** (0.191)
R-squared	0.57	0.015	0.017
N	610	317	317

Source: AfDB statistics.

Note: Definition of variables: Revenue, excluding grants: Cash receipts from taxes, social contributions, and other revenues, such as fines, fees, rent, and income from property or sales. Grants are also considered revenue but are excluded here. Tax revenue: Compulsory transfers to the central government for public purposes. Certain compulsory transfers, such as fines, penalties, and most social security contributions, are excluded. Refunds and corrections of erroneously collected tax revenues are treated as negative revenue. Total tax rate: Taxes and mandatory contributions payable by businesses after accounting for allowable deductions and exemptions. Taxes withheld or collected and remitted to tax authorities (such as value added, sales, and goods and service taxes) are excluded. Standard deviations are in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Improving the efficiency of public expenditure ensures that fiscal policy does not undercut the growth-promoting effects of public investment

instruments to attract savings. Africa performs better than even China and India in mobilizing domestic resources through taxes: At the same level of income, tax revenues are higher in Africa than in India or China, in both resource-intensive and non-resource-intensive economies (panels b and c of figure 1.15).

Tax capacity refers to the structural characteristics that determine the amount of revenue a state can raise. Its counterpart is *tax effort*—the extent of tax exemptions and rebates, for example—which is determined by policy choices, administrative efficiency, and corruption. Reforms that enhance compliance, curb fraud, and strengthen internal tax administration processes can play an important role in boosting revenues (box 1.3).

Most African countries grapple with taxation of the informal sector, which forms a large part of the economy in most countries. Policymakers should adopt innovative ways to increase tax compliance, particularly of the informal sector. They need to assess the capacity of firms and individuals to pay taxes and user fees and promote their ability to upgrade into formal activities.

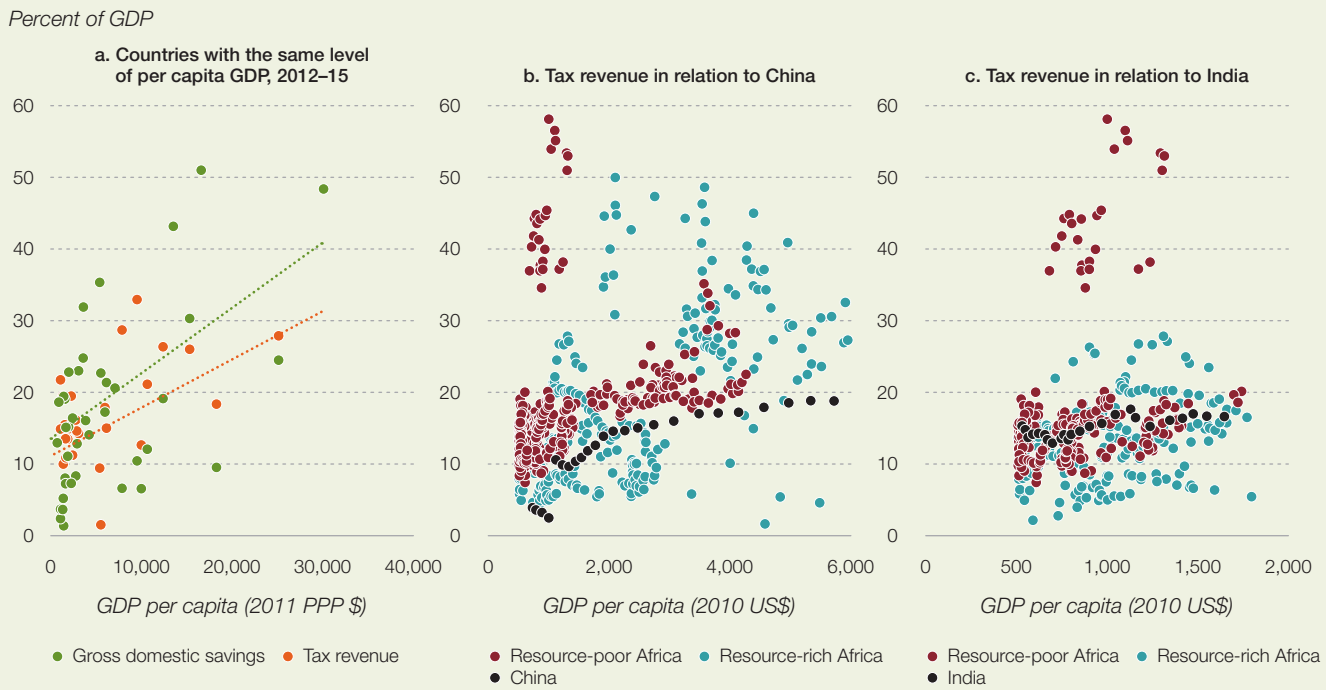
African countries are now strengthening their tax laws to improve compliance. Eight African countries (Ethiopia, Lesotho, Kenya, Nigeria, Rwanda, Somalia, South Africa and Zimbabwe) implemented property tax reforms during 2011–15.[3] Several countries have taken additional measures to improve tax administration. Botswana, Kenya, Morocco, and Rwanda, for example, have online systems for paying taxes.[4]

Efficient public expenditures can shore up socio-economic outcomes

Improving the efficiency of public expenditure ensures that fiscal policy does not undercut the growth-promoting effects of public investment and reverse the inroads made in poverty reduction and service delivery in the health and education sectors.

The efficiency of public expenditure can have an enormous impact on health outcomes (and

FIGURE 1.15 Relationship between tax revenues/domestic savings and per capita income



Source: AfDB statistics.

Note: Panel a plots groups of African countries with similar level of income; the points are groups of countries. Panels b and c plot pooled data for countries with GDP per capita lower than or equal to China or India during 1990–2014. PPP is purchasing power parity.

other social services as well). Improving internal financial controls and closely monitoring public spending, by strengthening the oversight role of parliamentary public accounts committees and the offices of the auditor general, could help curb the hemorrhage of resources, ensuring that they reach the targeted beneficiaries.

Public investment needs to be reevaluated, to prevent debt levels from growing too high

Many countries find it difficult to find the means to finance the infrastructure development projects they need to boost economic growth and improve living standards. In recent years, this challenge has been made more difficult by the decline in concessional financing that has occurred as major donor countries continue to experience tight budget constraints. The ratio of total government revenue to GDP remained flat while the ratio of expenditure to GDP ratio increased between 2008 and 2015, leaving African governments with no option but to rely on deficit financing through borrowing (figure 1.16).

Concessional financing has gradually declined since the financial and economic crisis of 2008/09, although there was a small increase in 2015. To bridge the revenue gap, some African countries have turned to international capital markets as an alternative source of financing. This practice has resulted in rising debt levels, renewing concerns about the debt burden. In Ghana, for instance, where external debt increased by 41 percent in 2016 alone, 92 percent of the debt was nonconcessional. Sovereign euro bond borrowing accounted for 70 percent of total nonconcessional borrowing in 2016. Loans from multilateral and bilateral donors accounted for 24 percent of African debt and loans from non–Paris Club members for 71 percent.

Following a long period of decline, supported in part by the Heavily Indebted Poor Countries

BOX 1.3 Increasing tax revenue in Lagos through sensible reforms

Lagos State has distinguished itself as a role model in domestic resource mobilization in Nigeria. The state has consistently generated the largest share of internal revenue, accounting for 40 percent of the US$2.2 billion collected in Nigeria in 2015, according to Nigeria's National Bureau of Statistics. This tax revenue buoyancy makes Lagos one of the very few states in Nigeria with a solid sovereign long-term credit rating (B+).

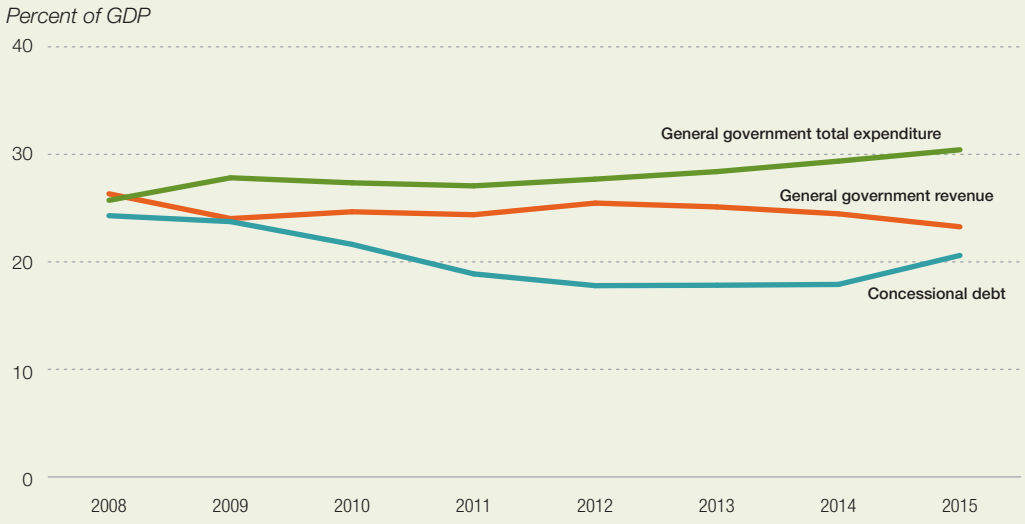
The success of Lagos State hinges largely on its innovative tax effort, revealed in its tax administration and management reforms. The reforms were driven by the state's realization that ineffective tax administration was responsible for weak compliance. To tackle the challenges, the Lagos State Internal Revenue Service implemented far-reaching tax reforms:

- It simplified filing, reducing the tax assessment form from six pages to two, modifying it for use in filing both direct and self-assessment taxes, and translating it into Yoruba and Pidgin English.
- It provided incentives for voluntary compliance.
- It improved access to tax administration and support, opening additional tax administration offices to promote easy access to taxpayers; establishing a customer care desk in all tax stations; and setting up a hotline that provides customer service in English, Pidgin English, and Yoruba.
- It invested in technology to ease the tax payment process, introducing electronic tax clearance certificates, online multimodal payment portals, e-submission of annual reforms, and a web-based tax calculator.
- It deployed an effective communication strategy through all mass media platforms and the Tax Simplification Unit.
- It forged partnerships and coordinates with relevant state and federal institutions to tackle multiple taxation and ensure tax harmonization.

These efforts have increased tax certainty and compliance, promoted enforcement, and resulted in significant tax revenue gains.

The ratio of total government revenue to GDP remained flat while the ratio of expenditure to GDP ratio increased between 2008 and 2015

FIGURE 1.16 Government revenue, government expenditure, and concessional debt in Africa, as a percent of GDP, 2008–15



Source: AfDB statistics.

(HIPC) Initiative and *Multilateral Debt Relief Initiative* (*MDRI*), public debt ratios are again rising. The upturn reflects increased macroeconomic stress across the continent, increased development financing needs, and greater access to international commercial capital markets.

During the commodity price boom, countries had in place ambitious spending plans, mainly targeting improvements in infrastructure. Low interest rates made sovereign borrowing historically cheap. After the fall in commodity prices, in mid-2014, countries used debt financing to maintain their spending plans. Both external and domestic debt increased significantly (figure 1.17). General government gross debt increased in 84 percent of countries during 2013–16, and 73 percent of countries in the region recorded increases in external debt. Debt ratios among oil exporters increased by about 15 percentage points of GDP between 2014 and 2016, to a median value of 50 percent.

The potential for debt to unlock long-term growth depends on the ability of countries to strengthen the debt–public investment link

When debt is used to finance growth-enhancing investments, it can support a virtuous circle in which higher growth not only eases the debt burden (a stock effect) but improves the fiscal and current account balances (flow effects). Many African countries are at this critical stage of their development, urgently needing to finance infrastructure projects with the potential to raise growth and living standards.

Public infrastructure investment can indirectly boost growth by crowding in private investment. Debt has strong and significant impacts on real GDP growth in Africa. There is a strong and positive correlation between public investments and debt, particularly in highly indebted African countries. Although correlation does not imply causation, these results suggest that increased debt accumulation in some African countries may have promoted economic growth.

The share of public investment in GDP in Africa has risen steadily since 2000. In 2015 public investment accounted for 7.7 percent of GDP in Africa—a larger share of output than in Latin America (5.2 percent) or in the emerging and developing economies of Asia (6.2 percent).

Given its catalytic effect on investments, debt may be necessary to unlock long-term growth potential in investment-deficit low-income countries. The important condition is that debt be used for productive investment. Countries that are highly indebted also have lower public investment-to-GDP ratios, and their investments are much more volatile than those of low- and medium-debt countries, suggesting that these countries are not using their debt to finance infrastructure investment.

Countries are increasingly relying on international sovereign bonds as a source of infrastructure financing (table 1.3). The role of domestic capital markets in infrastructure financing is also expanding, although in most countries they are dominated by commercial banks, which prioritize short-term financing.

The potential for debt to unlock long-term growth depends on the ability of countries to strengthen the debt–public investment link. Doing so requires strengthening countries' absorptive capacity. Estimates suggest that about 40 percent of the potential value of public investment in low-income countries is lost to inefficiencies in the investment process because of time delays, cost overruns, and inadequate maintenance.[5]

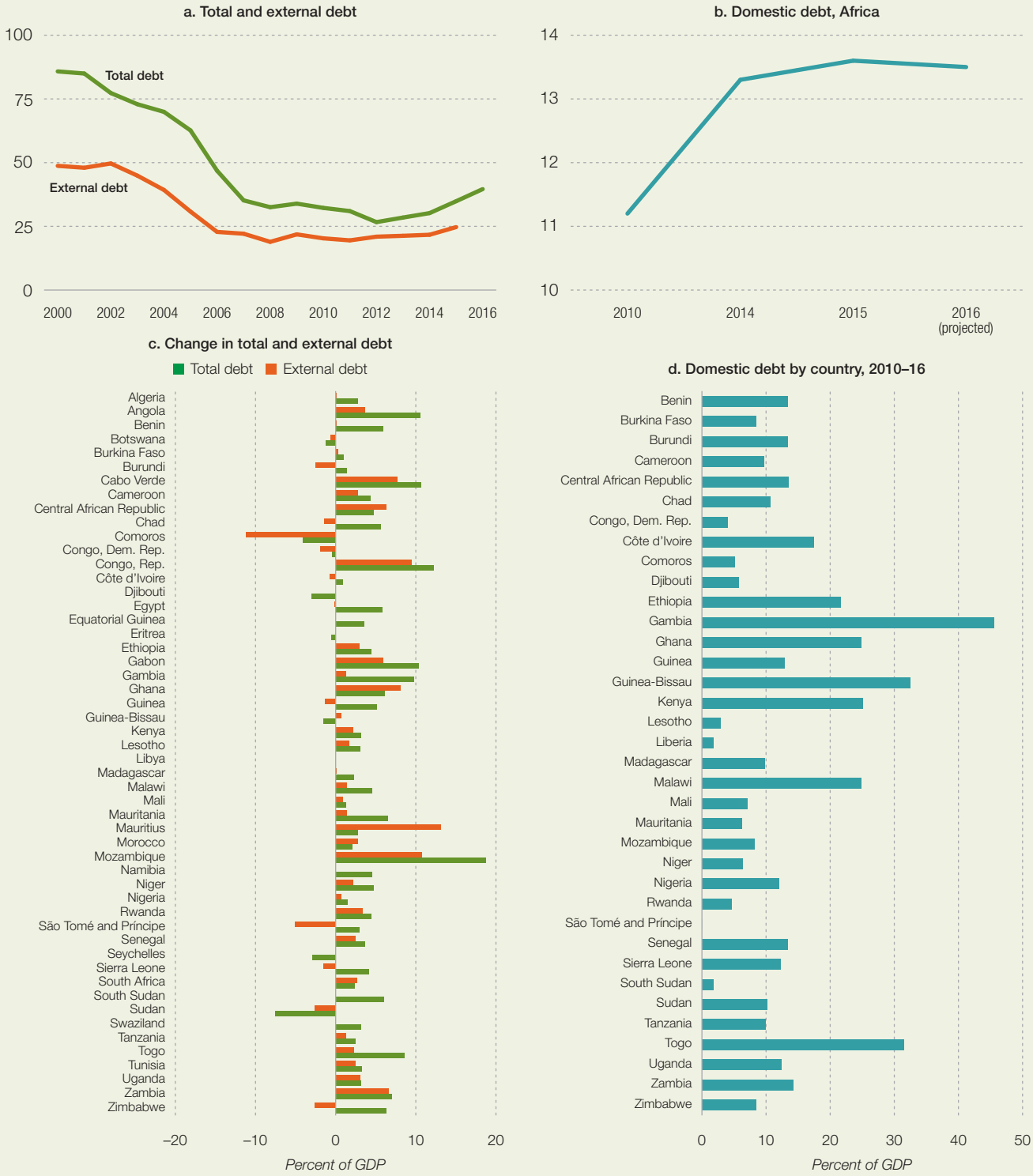
Some African countries have used debt to reduce fiscal deficits. The correlation between the twin deficits and external debt was more strongly negative in 2005–09 than in 2010–16, suggesting that African countries are using external debt less and less to solve fiscal and current account deficit problems, instead channeling those resources into public infrastructure (box 1.4).

Debt levels have not reached pre-HIPC levels in most countries (figure 1.18), and the risk of debt distress is still low or moderate in more than 60 percent of African countries. Although debt levels have risen, only a few countries that benefited from HIPC have recorded debt accumulation beyond HIPC levels. In most countries, debt has remained lower than it was before HIPC. But in some countries (such as Gambia, Mauritania, São Tomé and Príncipe, and Uganda), the debt-to-GDP ratio remains above 50 percent. Unless measures are implemented to curtail growth in debt, these countries could face an implosion in the stock of external debt and servicing costs.

The recent downgrading of sovereign credit ratings of some countries is illustrative of the

FIGURE 1.17 Total, external, and domestic debt in Africa

Percent of GDP



Source: AfDB statistics.

TABLE 1.3 Intended use of selected sovereign bond issues in selected African countries

Country	Year	Value (millions of US dollars)	Use
Côte d'Ivoire	2014	750	Public investment, especially in health care and education
	2015	1,000	National Development Plan (NDP), which focuses on infrastructure, education, health care, and poverty reduction
Ethiopia	2014	1,000	Infrastructure, notably the Renaissance Dam
Ghana	2013	750	Capital expenditure and refinancing of public debt to reduce the cost of borrowing
Kenya	2014	2,000	Infrastructure projects and repayment of a $600 million loan that matured in August 2014
Nigeria	2013	1,000	Projects in the electricity sector, which is undergoing privatization, and support of the shift from domestic borrowing toward cheaper foreign credit
Rwanda	2013	400	Construction of a 28-megawatt hydropower plant, construction of a hotel, and payment of some state-owned RwandAir debt
Senegal	2014	500	Construction of a major highway and the upgrading and repair of energy infrastructure

Source: AfDB compilation, based on various sources.

The continent is therefore heavily dependent on foreign sources for the financing of its current account deficits

BOX 1.4 Financing Africa's current account balance

Current account imbalances are a persistent feature of African economies. Driven largely by trade deficits, Africa's current account deficits have risen steadily, especially between 2009 and 2015, raising concerns about their sustainability.

Unsustainable current account deficits are an indicator of a poor state of the economy. They discourage foreign investors from holding assets denominated in African currencies. Large current account deficits also increase the probability of a currency crisis. They lead to the accumulation of foreign debt, which has to be repaid at some point, triggering expectations by domestic investors of higher taxes to service and repay the debt. These expectations reduce investment—and hence output and employment.

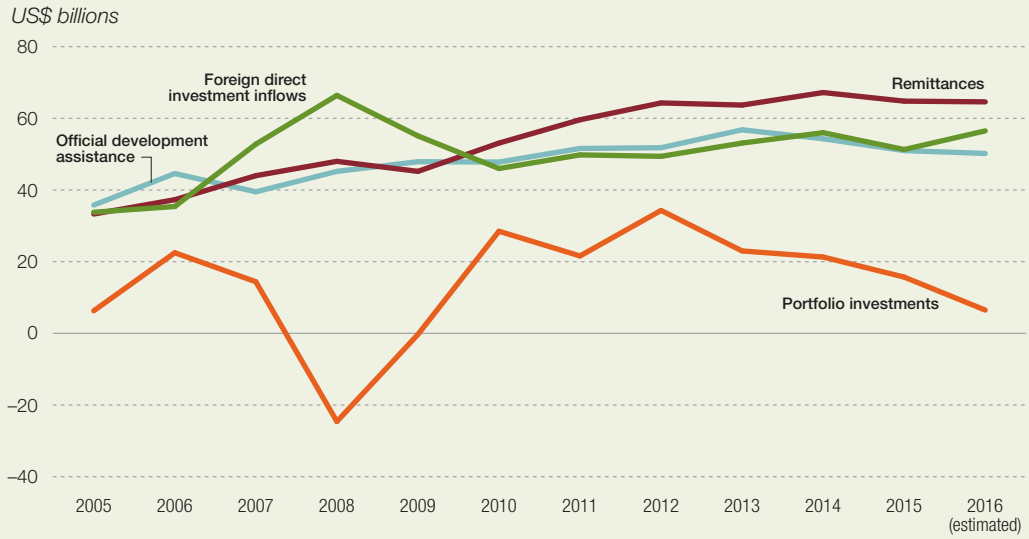
Because of volatility in the components of the current account, mainly the trade balance, deficits fluctuate widely. Most of the volatility arises from fluctuations in commodity prices and exports. During periods of commodity booms, net resource exporters tend to experience current account surpluses and net resource importers experience large current account deficits. The upward trend in Africa's current account deficit reversed in 2016; it is projected to continue to fall, especially with recent rising commodity prices.

Despite recent progress, domestic revenue mobilization remains low in Africa. The continent is therefore heavily dependent on foreign sources for the financing of its current account deficits. They include FDI, portfolio investment, remittances, official development assistance, and external debt (box figure 1).

(continued)

BOX 1.4 Financing Africa's current account balance *(continued)*

BOX FIGURE 1 Sources of Africa's external financing, 2005–16



Source: AfDB computations.

Remittances have been the largest source of international financial flows to Africa since 2010, accounting for about a third of total external financial inflows. They represent the most stable source of flows.

FDI inflows are rising, driven by international and regional investment in the extractive sector, infrastructure, and consumer-oriented industries. The resources boom reshaped the capital account by promoting a sharp rise in inward FDI.

Though recently falling, primarily as a result of economic conditions in donor countries, official development assistance has remained a large source of financing in many African countries.

Because of the relatively undeveloped capital markets in most African countries, portfolio investment inflows (equity and bonds) are not significant. These inflows, including international investments in both equity and debt securities issued by nonresident entities, have tended to be more volatile than FDI inflows. Portfolio investment inflows experienced persistent volatility, reaching a trough in 2008 before recovering significantly in 2010 but declining since 2013.

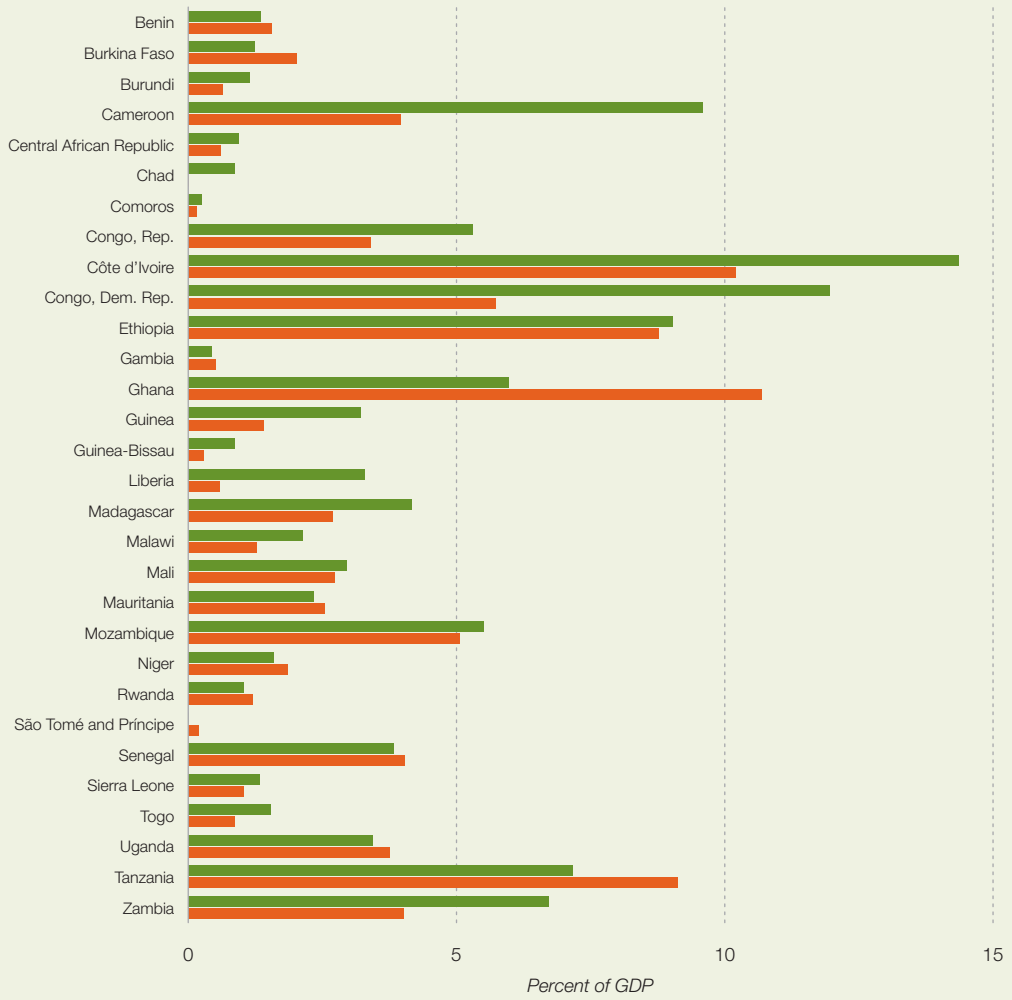
potential market risk. If left unchecked, the rate of debt accumulation could morph into a major source of macroeconomic instability. However, the calibration of debt indicators should be consistent with financing needs for African countries and their capacity to repay, as economies grow and revenues from public investment projects accrue largely in domestic currencies, possibly making payment of debt more difficult when obligations fall due.

CONCLUSIONS AND POLICY IMPLICATIONS

Many African economies are more resilient and better placed to cope with harsh external conditions than they were in the past. But the end of the commodity price supercycle has cut earnings from primary exports in many countries, undermining planned investments. Weaker external conditions have exposed latent domestic fiscal

Many African economies are more resilient and better placed to cope with harsh external conditions

FIGURE 1.18 External debt as a percent of GDP in African countries before and after the Heavily Indebted Poor Countries *(HIPC)* Initiative



Source: AfDB computations.

Note: See table A1.2 in the annex for the decision and completion points for all countries.

Major investments in infrastructure financed principally by external borrowing have raised concerns about a currency and maturity mismatch

vulnerabilities, in natural resource–dependent economies as well as other countries. Dollar interest rates are expected to edge up and bond spreads widen, increasing the risk of sudden stops to private capital flows. Most African currencies have lost about 20–40 percent of their value against the dollar since the beginning of 2015. But the resulting competitive currency depreciation will not necessarily translate into a strong price advantage in exports markets. Expenditure-reducing measures will have to bear a large share of the burden of restoring external balance.

Major investments in infrastructure financed principally by external borrowing have raised concerns about a currency and maturity mismatch in debt service, as revenue streams accrue predominantly in local currencies and debt obligations mature before these streams begin. Policy makers need to ensure that fiscal policy does not undercut the growth-promoting effects of public investment, reversing the inroads made in poverty reduction, health, and education across the continent. Projects in the pipeline should therefore be balanced against other needs. Recurrent

expenditures have to be kept in check, including by preventing growth of the public sector wage bill.

Macroeconomic policy strategy must blend real exchange rate adjustment, domestic revenue mobilization, and judicious demand management. In the medium term, the most important area of fiscal policy is tax reform. Although domestic revenue mobilization improved substantially in recent decades, tax-to-GDP ratios are still low in most African countries. There is an urgent need to put in place revenue regimes that capture more effectively the gains from growth and structural change that some countries are experiencing as economies formalize and become more urbanized. The widening of the tax base (which will entail the progressive elimination of the vast array of exemptions and leakages that currently pepper tax systems on the continent) rather than any hike in already high marginal tax rates will be indispensable to boosting tax revenues.

None of these fiscal policy options is straightforward. All of them have difficult distributional and welfare consequences—and all are intensely political. Coherent and equitable fiscal adjustment holds out the best prospects for supporting a smooth adjustment to current conditions and allowing for sustained growth when external conditions improve.

Coherent and equitable fiscal adjustment holds out the best prospects for supporting a smooth adjustment

ANNEX 1.1

TABLE A1.1 Macroeconomic developments in Africa, 2013–19

Variable	2009–19	2014	2015	2016	2017 (estimate)	2018 (projected)	2019 (projected)
Real GDP growth (percent)							
Central Africa	4.3	5.7	3.1	0.1	0.7	2.4	3.0
East Africa	5.3	5.9	6.5	4.9	5.6	5.9	6.1
North Africa	4.1	1.9	3.7	3.3	5.0	5.1	4.5
Southern Africa	3.1	2.7	1.6	0.9	1.6	2.0	2.4
West Africa	6.5	6.0	3.2	0.5	2.5	3.6	3.8
Africa	4.6	3.8	3.5	2.2	3.6	4.1	4.1
Africa excluding Libya	4.3	4.3	3.6	2.2	3.1	3.8	4.2
North Africa, including Sudan	3.9	1.9	3.8	3.3	4.9	4.9	4.5
Sub-Saharan Africa	4.9	4.9	3.3	1.5	2.8	3.5	3.9
Sub-Saharan Africa excluding South Africa	5.8	5.7	3.8	1.8	3.3	4.1	4.4
Oil-exporting countries	4.8	3.8	3.4	1.7	3.4	4.1	3.9
Oil-importing countries	4.3	3.9	3.6	2.9	3.9	4.2	4.5
Consumer price inflation (percent)							
Central Africa	5.5	2.4	1.3	2.6	9.4	10.3	8.8
East Africa	13.6	12.1	10.3	12.7	15.1	9.4	8.1
North Africa	7.3	6.3	7.6	7.8	14.4	13.2	9.3
Southern Africa	6.8	6.2	5.7	10.5	9.5	7.9	6.9
West Africa	9.8	7.3	8.2	12.7	13.3	11.6	11.0
Africa	8.5	7.1	7.4	10.0	13.0	11.1	9.0
Africa excluding Libya	8.6	7.1	7.4	9.9	12.9	10.9	8.8
North Africa, including Sudan	8.3	8.3	8.3	8.5	15.7	13.6	9.8
Sub-Saharan Africa	9.8	7.5	7.3	11.2	12.2	9.8	8.9
Sub-Saharan Africa excluding South Africa	8.4	6.3	6.4	9.9	11.0	8.8	7.9
Oil-exporting countries	9.8	8.3	8.8	12.7	18.3	15.3	11.9
Oil-importing countries	6.3	5.4	5.3	6.0	5.7	5.2	5.1
Overall fiscal balance, including grants (percent of GDP)							
Central Africa	0.0	–2.5	–5.3	–4.1	–2.1	–0.7	–0.2
East Africa	–3.0	–4.0	–4.6	–4.2	–3.9	–3.9	–3.8
North Africa	–4.8	–10.9	–13.9	–12.7	–9.1	–6.3	–5.7
Southern Africa	–3.2	–4.6	–4.5	–4.5	–5.0	–4.6	–4.2
West Africa	–2.9	–2.8	–3.7	–5.0	–4.8	–4.4	–4.0
Africa	–3.4	–5.7	–7.1	–7.0	–5.7	–4.7	–4.3
Africa excluding Libya	–3.7	–5.0	–6.1	–6.1	–5.1	–4.3	–3.7
North Africa, including Sudan	–4.5	–10.0	–12.6	–11.4	–8.0	–5.6	–5.1
Sub-Saharan Africa	–2.8	–3.6	–4.3	–4.6	–4.5	–4.1	–3.8
Sub-Saharan Africa excluding South Africa	–2.2	–3.5	–4.2	–4.7	–4.5	–4.0	–3.7
Oil–exporting countries	–2.7	–6.4	–8.7	–8.7	–6.7	–5.0	–4.5
Oil–importing countries	–4.3	–4.5	–4.8	–4.7	–4.5	–4.3	–3.9

Variable	2009–19	2014	2015	2016	2017 (estimate)	2018 (projected)	2019 (projected)
							(continued)
External current account, including grants (percent of GDP)							
Central Africa	–2.3	–5.0	–9.3	–11.2	–6.1	–3.7	–4.0
East Africa	–6.5	–9.1	–8.5	–6.8	–5.4	–5.6	–5.3
North Africa	0.3	–6.2	–8.3	–8.9	–6.5	–3.4	–2.4
Southern Africa	–2.5	–5.1	–6.3	–4.8	–3.8	–4.3	–4.7
West Africa	1.0	–1.6	–4.2	–1.8	–1.0	–1.4	–1.1
Africa	–1.2	–4.9	–6.8	–5.9	–4.2	–3.5	–3.2
Africa excluding Libya	–1.7	–4.2	–6.4	–5.8	–4.3	–3.8	–3.3
North Africa, including Sudan	–0.2	–6.3	–8.2	–8.5	–5.8	–3.1	–2.2
Sub-Saharan Africa	–1.9	–4.4	–6.2	–4.6	–3.4	–3.6	–3.5
Sub-Saharan Africa excluding South Africa	–1.3	–4.2	–6.6	–4.9	–3.6	–3.7	–3.5
Oil-exporting countries	2.4	–3.1	–6.8	–5.7	–3.2	–1.8	–1.3
Oil-importing countries	–5.9	–7.5	–6.7	–6.2	–5.5	–5.7	–5.7

Source: AfDB Statistics Department.

TABLE A1.2 Decision and completion points for African countries under the Heavily Indebted Poor Countries (HIPC) Initiative

Country	Decision point	Completion point
Benin	2000	2003
Burkina Faso	2000	2002
Burundi	2005	2009
Cameroon	2000	2006
Central African Republic	2007	2009
Chad	2001	2015
Comoros	2010	2012
Congo, Rep. of	2006	2010
Congo, Dem. Rep. of	2003	2010
Côte d'Ivoire	2009	2012
Ethiopia	2001	2004
Gambia	2000	2007
Ghana	2002	2004
Guinea	2010	2012
Guinea-Bissau	2000	2010
Liberia	2008	2010
Madagascar	2000	2004
Malawi	2000	2006
Mali	2000	2003
Mauritania	2000	2002
Mozambique	2000	2001
Niger	2000	2004
Rwanda	2000	2005
São Tomé and Príncipe	2000	2007
Senegal	2000	2004
Sierra Leone	2002	2006
Togo	2008	2010
Uganda	2000	2000
Tanzania	2000	2001
Zambia	2000	2005

Note: "Decision point" refers to period at which the World Bank and the IMF formally determine whether the country is eligible for debt relief. "Completion point" period when countries receive the balance of the debt relief that the international community committed to at the decision point, usually after successful implementation of key reforms and concrete steps taken to reduce poverty.

NOTES

1. OECD 2017.
2. In Kenya, for instance, off-season rains, especially in the western part of the country, improved the outlook for crop and livestock productivity (Fewsnet 2017).
3. Franzsen and McCluskey (2017).
4. World Bank (2017).
5. IMF (2014).

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2

GROWTH, JOBS, AND POVERTY IN AFRICA

KEY MESSAGES

Africa's growth momentum in the past 25 years has been remarkable by historical standards. Was it marked by growth dynamics that presage sustained growth? Were growth episodes accompanied by shifts in economic fundamentals? Has growth in Africa been job creating and inclusive? What are the common threads that connect rapid growth with continuous expansion in employment opportunities?

This chapter explores these issues and provides insights and evidence on the character of long-term growth and its link with jobs and poverty. Five key messages emerge from the analysis:

- In at least two-thirds of the African countries with data, per capita income rose for eight consecutive years at a rate of 3.5 percent or more between 1950 and 2016. This growth performance was underpinned by improvements in economic fundamentals in some of these countries.
- In some African countries, growth accelerations were attained largely through increases in total factor productivity rather than the accumulation of capital. This evidence runs counter to the middle-income trap view.
- Successful take-offs require increases in productivity as much as growth in investment. Labor force reallocations from the traditional to the modern sector are a key component of African growth accelerations. They require not only the creation of modern jobs but also policies that empower the poor.
- Growth accelerations led to significant declines in poverty and inequality. Countries that experienced three episodes of growth acceleration reduced poverty by 1.3 percentage points more a year and inequality by 0.2 percentage points more a year than countries that experienced no growth acceleration.
- Positive structural change occurred in a number of African countries, with labor moving from low- to high-productivity sectors. Employment growth did not keep pace with labor force growth, however, leaving a large part of the population, unemployed or underemployed, particularly the young.

GROWTH DYNAMICS: ACCELERATIONS, SPIKES, RECOVERIES AND FAILED TAKE-OFFS

Developing countries are prone to alternate phases of growth, stagnation, decline, and even catastrophic loss.[1] The instability of growth highlights the need to analyze and better understand the determinants of shifts in growth rates by focusing on growth episodes and accelerations.

To understand the potential and prospects for sustaining growth, employment, and poverty reduction in Africa, this chapter identifies growth acceleration episodes using comparable data spanning the last seven decades. It finds that there have been many growth accelerations—and that long-run growth outcomes are closely related to them.

When fundamentals change, long-term growth prospects evolve accordingly, leading to growth accelerations (or decelerations)

Some accelerations are spikes to higher GDPs per capita. Some are merely recoveries to previous highs. And some are failed take-offs preceding a crisis. A standard growth accounting exercise reveals the contributions of factor accumulation and total factor productivity to growth during spikes in growth episodes. The analysis also examines the contribution of structural change through the sectoral composition of economic activity, showing that sectoral labor reallocations have played an important role in African growth spikes.

Growth accelerations

In a conventional growth framework, fundamentals—such as the terms of trade, technology, economic institutions, and governance—determine an economy's long-term prospects.[2] When fundamentals change, long-term growth prospects evolve accordingly, leading to growth accelerations (or decelerations).

Hausmann, Pritchett, and Rodrik (2005) focus on terms of trade shocks, market economy reforms, and political economy factors as determinants of growth accelerations. They define a growth acceleration period as having at least 3.5 percent average annual growth of per capita GDP over a period of eight years and growth at least 2 percentage points higher than it was in the previous eight years. To rule out episodes of economic recovery, the level of real GDP should also be higher in the last year of the acceleration period than in years before the acceleration.[3]

Using data from the Penn World Tables 9.0, this section identifies growth accelerations in 33 of the 50 African countries with data. The growth rate of countries with at least one acceleration was significantly higher than that of countries without any acceleration. Countries without accelerations had annual growth rates of less than 1 percent (figure 2.1).

Countries move to the right along the horizontal axis when the rate of growth of per capita GDP (measured along the vertical axis) is positive; they move to the left when it is negative (figure 2.2). Some countries (such as Botswana, Burkina Faso, and Egypt) experienced multiple peaks. Others (such as Ghana, Kenya and Swaziland) experienced single peaks. Côte d'Ivoire, Nigeria, and Zimbabwe experienced deep troughs, which reduced GDP per capita following initial accelerations.

African economic growth cannot be understood without carefully studying crisis episodes, which have been frequent. A crisis is a prolonged period of negative growth. It ends when the growth rate returns to close to zero.

Growth spikes

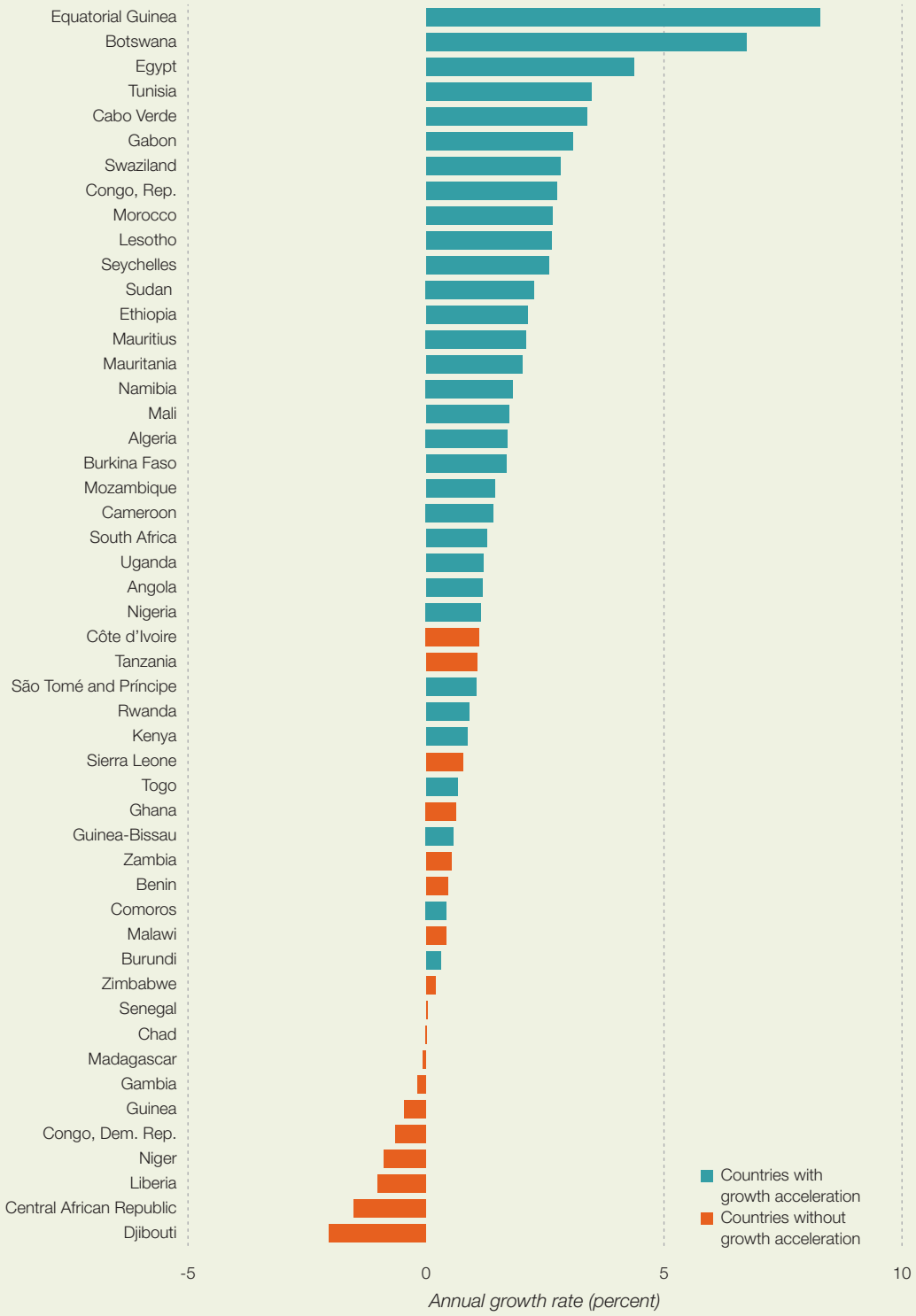
Growth spikes are acceleration episodes that lead to higher GDP per capita—and are not merely recoveries after a crisis or are not leading into a crisis. Africa experienced 38 growth spikes over the study period, in 18 countries (table 2.1).

The "middle-income trap" refers to the inability of upper-middle-income countries to catch up with developed countries. It can be generalized to all countries that are stuck at a relatively low income after having experienced at least one spike of growth. Escaping the middle-income trap requires several spikes of growth—the pattern observed in emerging countries since the 1950s, notably in East Asia.[4]

Twelve African countries experienced multiple growth spikes (on average 2.7 spikes, with an average length of 12.3 years (table 2.2).[5] These spikes increased GDP per capita by 158 percent on average, accounting for most of these countries' growth over the observation period.

Six countries experienced single growth spikes. The total economic growth of GDP per

FIGURE 2.1 Growth rates in African countries with and without accelerations, 1960–2014



Source: Data from Penn World Tables 9.0.

Note: For some countries the period is longer (1950–2014) or shorter (1970–2014) as a result of data availability.

Growth spikes are acceleration episodes that lead to higher GDP per capita—and are not merely recoveries after a crisis or are not leading into a crisis

FIGURE 2.2 Growth dynamics in African countries that experienced growth accelerations

Source: Data from Penn World Tables 9.0.

capita achieved by these countries is lower than that of countries with multiple spikes, but it is still substantial (44 percent on average, for an average length of 10.5 years).

Failed take-offs

Growth acceleration episodes followed by crisis episodes are considered failed take-offs, as in Algeria, Cameroon, Congo, Côte d'Ivoire, Equatorial Guinea, Ethiopia, Gabon, Malawi, Nigeria, Sierra Leone, Zambia, and Zimbabwe (see table 2.1).

In a failed take-off, the crisis often has economic roots, possibly related to characteristics of the previous acceleration episode that make it unsustainable. During the early 1960s and 1970s, for example, Côte d'Ivoire and Nigeria financed rapid growth by excessive external borrowing or

TABLE 2.1 Growth accelerations and crisis episodes in selected African countries

Country	Start	End	Nature of episode	Start	End	Nature of episode	Start	End	Nature of episode	Start	End	Nature of episode
Algeria	1968	1983	Failed take-off	1983	1995	Crisis	1999	2009	Recovery			
Angola	1973	1994	Crisis	2003	2014	Recovery						
Botswana	1967	1979	Growth spike	1979	1984	Growth spike	1984	2008	Growth spike			
Burkina Faso	1994	2007	Growth spike	2007	2014	Growth spike						
Cameroon	1967	1976	Growth spike	1976	1985	Failed take-off	1985	1995	Crisis			
Cape Verde	1976	1990	Growth spike	1992	2000	Growth spike	2000	2014	Growth spike			
Congo	1968	1975	Growth spike	1975	1985	Failed take-off	1985	1997	Crisis			
Côte d'Ivoire	1961	1978	Failed take-off	1978	1984	Crisis	1998	2005	Crisis	2007	2014	Recovery
Egypt	1958	1979	Growth spike	1979	1988	Growth spike	1988	2002	Growth spike	2002	2014	Growth spike
Equatorial Guinea	1969	1979	Failed take-off	1979	1990	Crisis	1990	2014	Growth spike			
Ethiopia	1977	1985	Failed take-off	1985	2002	Crisis	2006	2014	Recovery			
Gabon	1968	1982	Failed take-off	1982	1989	Crisis	1998	2008	Recovery	2006	2014	Growth spike
Ghana	2004	2014	Growth spike									
Kenya	2004	2014	Growth spike									
Lesotho	1971	1979	Growth spike									
Malawi	1962	1974	Failed take-off	1974	1980	Crisis						
Mali	1974	1987	Growth spike	1991	2012	Growth spike						
Mauritania	1961	1972	Growth spike	2000	2014	Growth spike						
Mauritius	1969	1979	Growth spike	1981	1999	Growth spike	2005	2014	Growth spike			
Morocco	1957	1967	Growth spike	1981	1997	Growth spike	2002	2007	Growth spike	2007	2014	Growth spike
Mozambique	1977	1993	Crisis	1995	2008	Recovery						
Namibia	2001	2014	Growth spike									
Nigeria	1967	1978	Failed take-off	1978	1997	Crisis	1997	2014	Recovery			
Rwanda	1983	1996	Crisis	2003	2014	Recovery						
Seychelles	1967	1979	Growth spike	1982	2000	Growth spike						
Sierra Leone	1986	1994	Failed take-off	1994	2001	Crisis	2007	2014	Recovery			
South Africa	2001	2014	Growth spike									
Sudan	1996	2001	Growth spike	2001	2014	Growth spike						
Swaziland	1980	1985	Growth spike	1985	1998	Growth spike						
Tunisia	1967	1989	Growth spike	1989	1999	Growth spike	2003	2011	Growth spike			
Uganda	2003	2014	Growth spike									
Zambia	1962	1969	Failed take-off									
Zimbabwe	1964	1975	Growth spike	1977	1994	Failed take-off	1994	2008	Crisis			

Source: Data from Penn World Tables 9.0.

short-lived positive terms of trade shocks, which later created a debt crisis. In Zimbabwe political events derailed growth. In such cases the initial acceleration cannot be considered as having contributed to economic progress. On average the growth observed after a failed take-off sequence is slightly negative.

In half the countries (Cameroon, Congo, Côte d'Ivoire, Malawi, Zambia, and Zimbabwe), the failed take-off was not followed by an acceleration

TABLE 2.2 Average annual growth of GDP per capita during growth spikes

Country	Average annual growth during acceleration (percent)	Average length of acceleration (years)	Number of accelerations	Total growth over accelerations (percent)	Contribution to historical growth (percent)
Countries with multiple growth accelerations					
Botswana	7.5	13.7	3	309	85
Burkina Faso	3.0	10.0	2	60	65
Cabo Verde	4.2	12.0	3	152	83
Egypt	5.0	14.0	4	283	101
Mali	3.5	17.0	2	118	125
Mauritania	5.2	12.5	2	129	119
Mauritius	4.6	12.3	3	169	126
Morocco	4.1	9.5	4	157	92
Seychelles	5.2	15.0	2	155	111
Sudan (former)	5.2	9.0	2	94	94
Swaziland	5.3	9.0	2	95	77
Tunisia	4.3	13.3	3	171	91
Average	4.8	12.3	2.7	158	97
Countries with a single growth acceleration					
Ghana	5.0	8	1	40	107
Kenya	4.1	10	1	41	73
Lesotho	5.4	8	1	43	30
Namibia	5.1	13	1	67	68
South Africa	2.3	13	1	30	36
Uganda	4.0	11	1	44	57
Average	4.3	10.5	1	44	62

Source: Data from Penn World Tables 9.0.

(in Côte d'Ivoire, it was followed by another crisis). In Algeria, Equatorial Guinea, Ethiopia, Gabon, Nigeria, and Sierra Leone, the failed take-off was followed by a recovery. This second post-crisis acceleration episode may be considered a mere recovery in Nigeria and Sierra Leone, where GDP per capita was still below the level attained before the failed take-off. In contrast, Algeria, Equatorial Guinea, Ethiopia, and Gabon were better off after the end of the sequence of failed take-off and recovery. In such cases the second acceleration could possibly be considered a growth spike rather than a mere recovery. In Cameroon, Congo, and Zimbabwe early acceleration in the 1960s was followed by a failed take-off and a deep crisis beginning in the 1980s. In this sequence, the first acceleration episode could possibly be considered a growth spike.

Three countries (Angola, Mozambique, and Rwanda) experienced growth accelerations after crisis episodes. Although these recoveries suggest substantial growth potential, it is too early to consider their accelerations as growth spikes, because much of the observed growth corresponds merely to post-crisis recovery.

Sources of growth accelerations

In a dual economy a modern high-productivity sector coexists with a traditional low-productivity sector. In such an economic structure, economic

development rests in large part on the Lewis-type reallocation of labor from low-productivity sectors to high-productivity sectors.[6]

Labor productivity rather than total factor productivity was examined, because data on capital by sector were not available. Although studying only labor productivity may be a limitation, it highlights the nexus between growth and poverty. If labor moves from lower-productivity to higher-productivity sectors, it should have a positive effect on growth and reduce poverty. If growth results mainly from the most productive sectors and they are capital intensive, the process will be less conducive to poverty reduction.

Labor productivity growth, g_y, is decomposed into in three components:

$$g_y = \sum_i w_i g_{yi} + \sum_i w_i g_{li} + \sum_i w_i g_{yi} g_{li},$$

where g_{yi} is the growth rate of labor productivity of sector I; g_{li} is the growth rate of the share of sector i in total employment; and w_i is the weight of sector i in total GDP.[7]

The three components measure contributions to aggregate productivity growth. The first measures the contribution of productivity growth of the different sectors to aggregate productivity growth. The second measures the contribution of reallocation of labor from low-productivity to high-productivity sectors. The third, which is usually a residual, measures the contribution of reallocation of labor from low-productivity to high-productivity growth sectors. The last two terms reflect structural change involving employment shifts away from sectors with lower labor productivity growth and levels.

Two sources of data were used to assess the effect of reallocating labor. The first, from Timmer et al. (2015), decomposes GDP in constant prices and labor employment in 10 sectors:

- Agriculture, hunting, forestry, and fishing.
- Mining and quarrying.
- Manufacturing.
- Electricity, gas, and water supply.
- Construction.
- Wholesale and retail trade, hotels, and restaurants.
- Transport, storage, and communication.
- Finance, insurance, real estate, and business services.
- Government services.
- Community, social, and personal services.[8]

These data are available from 1960 to 2011 or 2012 for eight African countries that experienced growth spikes: Botswana, Egypt, Ethiopia, Ghana, Kenya, Mauritius, Morocco, and South Africa.[9]

The second source of data, the African Development Bank's data portal, decomposes GDP in constant prices and employment in three sectors (agriculture, industry, and services) over 1991–2016. These data are newer, but their quality is uncertain. They were therefore used parsimoniously; they were not used when aggregate labor productivity was not consistent with data from the Penn World Tables 9.0. Algeria, Cabo Verde, and Mali were dropped from the analysis, because data from the World Development Indicators show very low growth of labor productivity during recent growth spikes, which is inconsistent with Penn World Tables 9.0 data.[10]

Moreover, decomposition into three sectors is probably too coarse to provide an adequate assessment of the sector reallocation effects. So, data from the World Development Indicators were used when available.

Results show a significant contribution of the sectoral reallocation of labor to aggregate labor productivity growth—as much as two-thirds of total growth in some countries (table 2.3). To a large extent this effect comes from reallocating labor out of agriculture. Differences across countries are large: Where the weight of agriculture in the economy had already declined (Botswana, Mauritius, Namibia, South Africa, North Africa), factor reallocation played only a modest (and declining) role.

In some growth spikes, the positive effect of reallocating labor out of agriculture was dampened by the fact that labor moved to services, which often have low productivity. Indeed, the movement to other low-productivity sectors was systematic in Africa in recent decades.[11] This negative effect increased over time in Egypt and Morocco, peaked in the 1970s for Botswana and Mauritius, and was absent in recent growth spikes in Ghana, Kenya, and Uganda (in Uganda, labor moved to the most dynamic sectors).

Overall, reallocations from low-productivity to high-productivity sectors, which can be

In some growth spikes, the positive effect of reallocating labor out of agriculture was dampened by the fact that labor moved to services

TABLE 2.3 Contribution to growth of sectoral reallocation of labor *(percent, except where otherwise indicated)*

Country (number of episodes)	Number of sectors	Contribution of average sectoral productivity gains	Contribution of sectoral reallocation	Contribution of dynamic sectoral reallocation
Botswana (1)	10	20.1	58.1	21.7
Botswana (2)	10	80.4	54.8	–35.3
Botswana (3)	10	105.8	1.5	–7.3
Burkina Faso (1)	3	93.4	6.4	0.2
Egypt (1)	10	70.5	10.9	18.6
Egypt (2)	10	121.0	–19.3	–1.7
Egypt (3)	10	125.6	–14.7	–10.9
Egypt (3)	3	84.6	32.1	–16.6
Egypt (4)	10	140.0	–8.8	–31.2
Egypt (4)	3	87.3	22.1	–9.4
Ethiopia (3)	10	50.0	61.7	–11.7
Ghana (1)	10	57.1	33.1	9.8
Ghana (1)	3	62.6	45.8	–8.4
Kenya (1)	10	81.0	17.1	1.9
Kenya (1)	3	66.2	28.0	5.8
Mauritania (2)	3	39.0	58.0	3.1
Mauritius (1)	10	103.7	28.8	–32.5
Mauritius (2)	10	68.4	41.2	–9.5
Mauritius (3)	10	87.5	22.8	–10.3
Mauritius (3)	3	83.3	18.4	–1.7
Morocco (1)	10	59.4	43.6	–3.0
Morocco (2)	10	65.2	33.9	0.9
Morocco (3)	10	31.5	74.9	–6.4
Morocco (4)	10	88.1	25.4	–13.5
Namibia (1)	3	100.1	–0.4	0.3
South Africa (1)	10	116.3	–12.0	–4.3
South Africa (1)	3	86.9	13.1	0.0
Tunisia (3)	3	92.9	7.5	–0.4
Uganda (1)	3	0.9	45.4	49.0

Source: 10-sector data from Timmer, de Vries, and de Vries (2015); 3-sector data from World Development Indicators.

Recent high growth rates in Africa have not been accompanied by high job growth rates

associated with a gradual reduction of dualism, played a notable role in initial steps of development in Africa during growth spikes. But in some countries the effect was muted by reallocations to sectors that were less dynamic, not more.

THE GROWTH–JOBS–POVERTY NEXUS

This section analyzes the link between growth, employment, and poverty in Africa and examines changes in the sectoral allocation of employment.

It links the results to the lack of structural transformation and labor market characteristics in Africa and identifies policies that can promote pro-employment growth.

Jobless growth?

An expected corollary of sustained growth is employment creation, which is usually required for poverty reduction and inclusive growth. Recent high growth rates in Africa have not been accompanied by high job growth rates. Between 2000 and 2008 employment grew at an annual average of 2.8 percent, roughly half the rate of economic growth. Only five countries—Algeria, Burundi, Botswana, Cameroon, and Morocco—experienced employment growth of more than 4 percent. Between 2009 and 2014 annual employment growth increased to an average of 3.1 percent despite slower economic growth. But this figure was still 1.4 percentage points below average economic growth.

Slow job growth has primarily affected women and youth (ages 15–24). Africa is estimated to have had 226 million youth in 2015, a figure projected to increase 42 percent, to 321 million by 2030. In 2016 youth unemployment in North Africa was more than three times higher than adult unemployment.[12]

The lack of job growth has retarded poverty reduction. Although the proportion of poor people in Africa declined from 56 percent in 1990 to 43 percent in 2012, the number of poor people increased.[13] Inequality also increased, with the Gini coefficient rising from 0.52 in 1993 to 0.56 in 2008 (the latest figure available).[14]

The combination of high economic growth and low job creation has given rise to the claim that Africa is experiencing jobless growth. In the face of rapidly growing populations and heightened risks of social unrest or discontent, jobless growth is a serious concern for African policy makers. The urgency of creating enough "good jobs" cannot be overstated.

Given the minimal role of capital deepening in explaining growth episodes, a key policy implication is to rely on a balanced mix of investments and productivity gains. Movements from low-productivity to higher-productivity activities present a significant source of growth potential in Africa. So a first priority for African governments is to encourage a shift toward labor-absorbing growth paths. They should put in place programs and policies aimed at modernizing the agricultural sector, which employs most of the population. A second priority is to invest in human capital, particularly in the entrepreneurial skills of youth, to facilitate the transition to higher-productivity modern sectors.

Is there a trade-off between employment and GDP growth?

The demand for labor is derived demand, linked to output. Understanding the relationship between employment growth and output growth is thus critical. The strength of this relationship varies across countries and time periods. In some economies labor markets are very responsive to output growth, and jobs are created rapidly as the economy grows. In other countries labor markets respond weakly, and faster rates of growth are required to achieve a given rate of employment growth. How closely linked were output and employment growth across Africa during the 2000s?

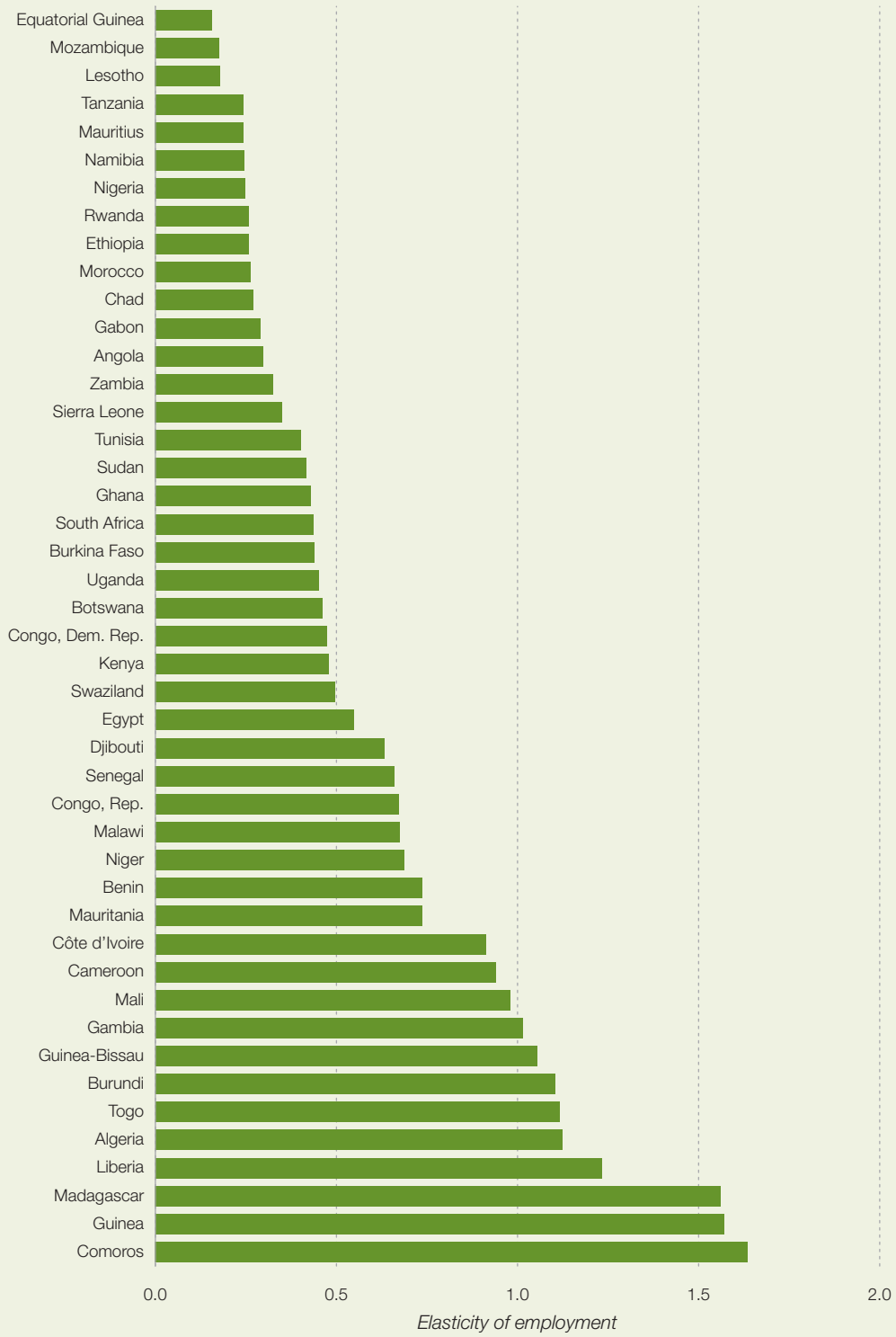
The arc elasticity of employment growth with respect to GDP growth was calculated for each country with data.[15] It is the ratio of the employment growth rate over 2000–14 to the GDP growth rate over the same period. An elasticity of more than 1 means that employment grew faster than GDP; an elasticity of less than 1 means that GDP grew faster than employment, an elasticity of 1 means that employment and GDP grew at the same rate.

The average employment elasticity was 0.41 (figure 2.3): that is, for every 1 percentage point of economic growth, employment grew by 0.41 percentage points.

Of 47 countries in the sample, 18 (38 percent) had an employment–to–GDP elasticity of 0.41 or below. Another 20 countries (43 percent) had an elasticity of 0.41–1.00. Four of five African countries thus experienced GDP growth that was faster than employment growth. In this group of countries, Equatorial Guinea (a major oil producer) had the lowest elasticity (0.16); GDP growth was powered almost exclusively by the increase in the price of oil. The remaining countries had elasticities of more than 1, indicating that employment growth outpaced GDP growth over the period.

A first priority for African governments is to encourage a shift toward labor-absorbing growth paths

FIGURE 2.3 Elasticity of employment with respect to GDP in selected African countries, 2000–14



Source: Data from World Bank (2017a) and ILO (2011).

Note: Elasticities are not displayed for Zimbabwe (–5.7) or the Central African Republic (–3.0).

Ideally, job growth should go hand in hand with productivity gains, but there can be a tension between them

The desirable employment elasticity for developing countries is about 0.7.[16] It is based on the elasticity in the Republic of Korea during the 1970s, when the country had a level of development and resource endowment comparable to that of some African countries. With output growth of at least 5 percent, this elasticity should be sufficient to achieve employment growth of at least 3.5 percent, in excess of the growth in the labor force in most African countries.

An elasticity of 0.7 would allow for growth in labor productivity, which can reduce poverty. Ideally, job growth should go hand in hand with productivity gains, but there can be a tension between them, as a result of a possible inverse relationship. Getting the balance right is challenging and depends on the policy priorities of each country. In countries with high poverty rates and surplus labor (characteristics of many African countries), a high elasticity of employment may be preferable, because it may have a greater effect on poverty reduction than growth in labor productivity.[17]

Six African countries (Senegal, Congo, Malawi, Niger, Benin, and Mauritania) have elasticities close to 0.7; another 12 have higher employment elasticities. For the majority of African countries, GDP growth exceeded employment growth (low employment elasticities). Although a low employment elasticity is associated with rising labor productivity, it translates into fewer jobs created for a given rate of output growth.

Indeed, in the last decade, faster-growing countries in Africa actually generated fewer jobs than countries that grew more slowly (figure 2.4). Structural change that promotes rapid movement of labor from low- to high-productivity sectors is necessary to reduce poverty rapidly through growth.

Evidence of structural change in selected African countries

To sustainably reduce poverty, economies must create more productive jobs, which are better remunerated.[18] For this to happen, they need to shift capital and labor away from low-productivity sectors toward higher-productivity sectors.[19] This process is known as structural transformation.

The extent of structural transformation in Africa over 2000–10 (the high growth period) is shown by plotting the log of relative productivity (sectoral productivity divided by total productivity), calculated as GDP divided by employment for each sector and the whole economy respectively, against the change in employment within these sectors for an African regional aggregate for the

Faster-growing countries in Africa actually generated fewer jobs than countries that grew more slowly

FIGURE 2.4 Employment and GDP growth in selected African countries

Source: AfDB computations.

11 countries with data. Figure 2.5 shows whether shifts in the structure of the economy were toward high-productivity (top-right quadrant) or low-productivity (bottom-right quadrant) sectors and whether employment shifted away from high- productivity (top-left quadrant) or low-productivity (bottom-left quadrant) sectors. A positively sloped fitted line indicates productivity-enhancing (and hence growth-inducing) structural transformation; a negatively sloped fitted line indicates productivity-reducing (and thus growth-reducing) structural transformation.

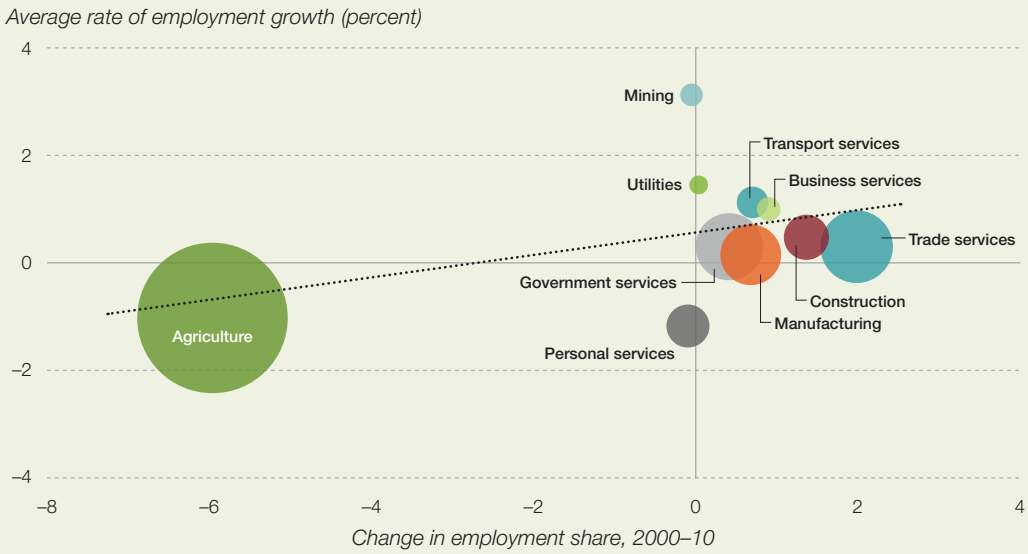
The positively sloped linear regression line suggests productivity-enhancing (and thus growth-inducing) structural transformation. Employment moved away from relatively low-productivity industries, such as agriculture, toward high-productivity industries, such as transportation, business services, government services, and construction. The growth-inducing effect of this structural transformation is weak, however, and the finding is tempered by the fact that the estimated coefficient of the slope is not statistically significant.

Employment moved away from relatively low-productivity industries toward high-productivity industries

Structural transformation has largely not occurred, for four main reasons:

- First, the agricultural sector remains the dominant source of jobs in Africa, accounting for about 51 percent of employment in these countries, most of it in subsistence agriculture.
- Second, the shift to manufacturing is toward a comparatively small sector, with the third-lowest relative productivity level after agriculture and services. Indeed, productivity in manufacturing is only slightly higher than that of the economy.
- Third, labor resources that left agriculture moved toward wholesale and retail trade, much of it characterized by low-productivity informal activities.[20] The informal sector remains a key source of employment in most African countries, accounting for 70 percent of jobs in Sub-Saharan African and 62 percent in North Africa.[21] Ninety-three percent of all job growth in Africa in the 1990s was in the informal sector.[22]
- Fourth, the public sector has generally been the main source of higher-paying formal sector

FIGURE 2.5 Sectoral productivity and employment growth in Africa, 2000–10



Source: Data from the Groningen Growth and Development Centre 10–sector database (Timmer, de Vries, and de Vries 2015).

Note: Circle size represents employment share in 2000. The coefficient of the fitted line is 0.17 (*t*-statistic 0.16; *p*-value: 0.88). Countries include Botswana, Ethiopia, Ghana, Kenya, Malawi, Mauritius, Nigeria, Senegal, South Africa, Tanzania, and Zambia.

jobs in many African countries. Fiscal constraints and demographic change have combined to limit the future scope of the public sector as a driver of formal sector employment growth.

Structural inflexibilities in African labor markets

The characteristics of labor markets in Africa vary widely, a result of differences in development levels and labor regulations. Figure 2.6 illustrates differences in three aggregate labor market indicators: the labor force participation rate, the employment-to-population ratio, and the unemployment rate.

The labor force participation rate—the proportion of the working-age population that is active in the labor market (either employed or unemployed)—is lowest in North Africa and highest in East Africa. For example, just 44 percent of the working-age population in Algeria is active in the labor force, compared with 86 percent in Madagascar.

Employment-to-population ratios range from 39 percent in Algeria, South Africa, and Swaziland to more than 80 percent in Burkina Faso, Burundi, Madagascar, Rwanda, and Uganda. Unemployment explains the differences between these ratios and labor force participation. In most countries, unemployment rates are low: 33 of 52 countries had unemployment rates below 10 percent, with the region's median unemployment rate at 7.3 percent. Unemployment rates are high in Southern Africa, however, with Lesotho Mozambique, Namibia, South Africa, and Swaziland all having rates of 24–28 percent.

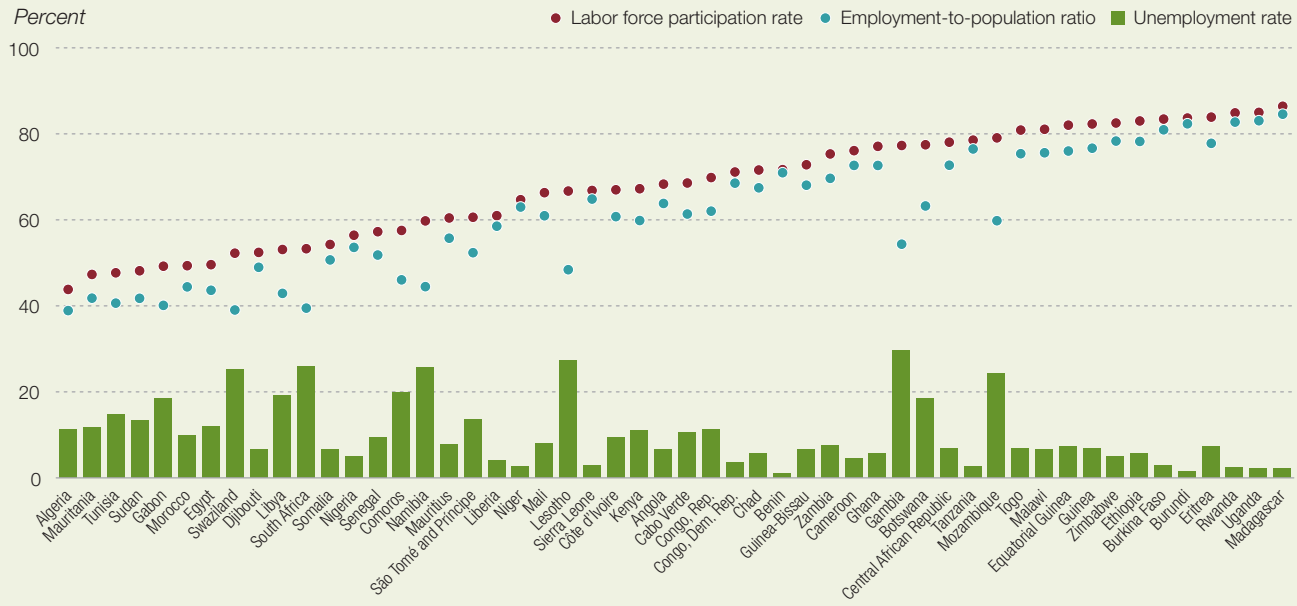
Several characteristics are common to a large majority of countries. Four of them—informality, the dominance of agriculture, low-productivity and low-quality employment, and underemployment—are discussed here.

Informality

Informality is a defining feature of African labor markets. The informal economy accounts for an estimated 50–80 percent of GDP, 60–80 percent

The labor force participation rate is lowest in North Africa and highest in East Africa

FIGURE 2.6 Selected labor market indicators for African countries, 2016



Source: World Bank 2017b.

Note: Data are the modeled International Labor Organization estimates for each country. The employment-to-population ratio and labor force participation rate are based on the population 15 and older.

of employment, and up to 90 percent of new jobs in Africa,[23] where more than 60 percent of the population performs low-paid informal jobs.[24]

Definitions of what constitutes the informal sector vary. For firms, the criteria include registration status, size, tax status, compliance with social security legislation, the availability of accounting statements, and whether the business has a permanent physical address.[25] Informality can thus be seen as a multidimensional continuum that includes a wide variety of types of firms with different motivations, productivity levels, and sizes.

However it is defined, the informal sector accounts for the majority of employment in most African countries. Policy makers should therefore recognize the diversity and importance of the sector as a profitable activity that may contribute to economic development and growth.

Policy makers should recognize the diversity and importance of the informal sector as a profitable activity

Figure 2.7 presents estimates of the employment structure in 15 African countries. The dominance of the informal sector—which includes both private informal wage employment and nonwage employment—is evident. Except in South Africa (18 percent), Botswana (35 percent), and Egypt (47 percent), nonwage workers account for two-thirds to nine-tenths of employment. Women and youth are disproportionately engaged in the informal sector.[26]

Formal sector employment is uncommon in most countries; only in South Africa does it account for the majority of jobs. In Botswana and Egypt, the sector accounts for 40–50 percent of employment, and in most others, less than 20 percent.

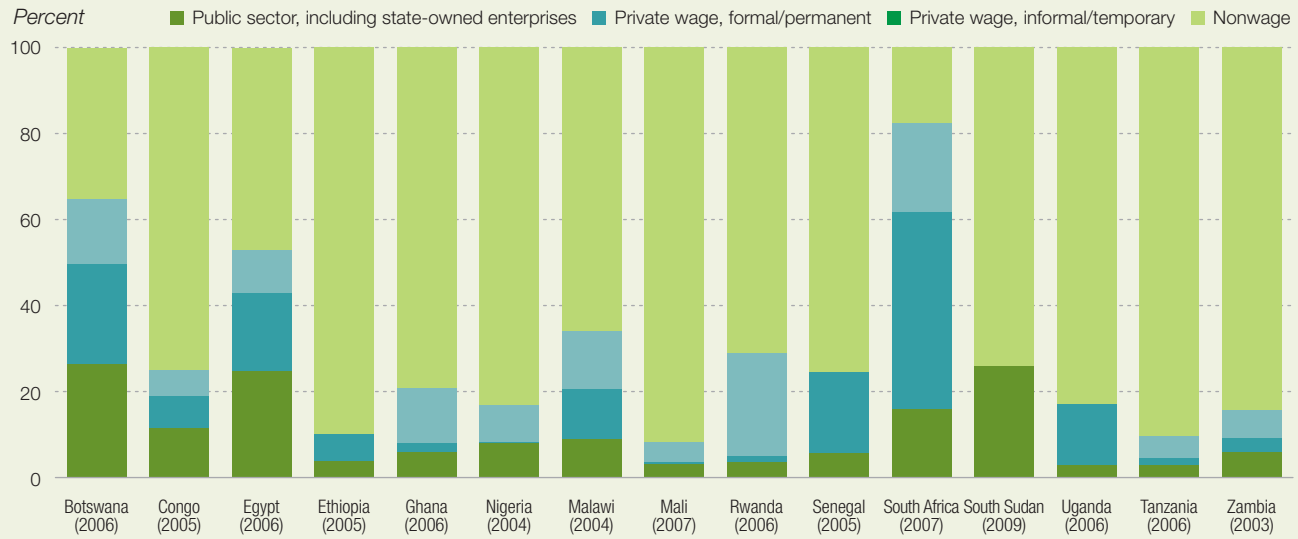
Informality is not confined to the region's rapidly growing urban centers. Apart from agricultural self-employment and related unpaid family work, a substantial proportion of employment in rural areas is in informal nonagricultural household enterprises.

Agriculture's dominance

The agricultural sector is the primary employer in many African countries, particularly in rural areas, where the majority of people live. The average share of agriculture in employment was 51 percent between 2011 and 2016, and the share of agricultural valued added remained virtually unchanged at about 15 percent. In 16 countries, the sector accounted for more than 30 percent of output, and in Liberia and Sierra Leone for more than 48 percent.

The sector's productivity remains low. During the last decades, for example, cereal yields

FIGURE 2.7 Structure of employment in selected African countries



Source: Adapted from Stampini and others (2011).

increased by 164 percent in Brazil, 81 percent in Uruguay, 69 percent in Chile, and 43 percent in Malaysia—but by less than 40 percent in Africa.[27] The poor performance is partly a result of low investment, low-quality inputs, and low adoption of improved production technologies. Productivity could be improved by addressing these constraints; linking agriculture with other sectors; and building agricultural value chains, which include input producers, farmers, traders, food processors, and retailers.[28] What's needed is to look across the value chain to remove bottlenecks and address market failures.

Low-productivity, low-quality employment

Wages in agriculture are lower than wages in industry and services. And because the manufacturing sector is small, few workers in Africa can benefit from higher wages in industry. The share of manufacturing employment in Vietnam and Cambodia is five times that of low-income African countries.[29]

Wages in Ghana in 2013 were highest in services and lowest in agriculture. Wages in the energy sector were 3.7 times higher, and wages in the public sector were 4.9 times higher, than wages in agriculture. Trends are similar in Kenya, where workers in the finance and energy sectors earn four to six times more than workers in agriculture.[30]

Much informal employment is precarious and unprotected. Labor regulations often fail to improve the lot of the average worker.[31] And although most African countries have ratified the international labor standard conventions, their impacts are muted because they apply only to the limited formal sector, are weakly enforced, and in some cases are nonbinding.[32]

Table 2.4 presents data on employment conditions in Egypt, Mali, South Africa, and Zambia. It reveals the precarious and unprotected employment typical of many countries in Africa. For example, only about half of Malian and Zambian workers and just one-quarter of Egyptian workers have written contracts. Even fewer workers report social security coverage, with the proportion ranging from 30 to 40 percent in Egypt, South Africa, and Zambia; in Mali, social security covers fewer than 1 worker in 50.

Underemployment

Unemployment is low in most African countries, but a more pressing problem is underemployment. Analysis of underemployment is complicated by the lack of data on hours worked and by its complexities. A worker may be classified as

Because the manufacturing sector is small, few workers in Africa can benefit from higher wages in industry

TABLE 2.4 Conditions of employment in Egypt, Mali, South Africa, and Zambia

Work condition	Egypt (2013)	Mali (2016)	South Africa (2015)	Zambia (2012)
Type of contract				
Official/written	26.6	54.3	76.6	46.3
Verbal	Not available	26.6	23.5	50.2
No contract	34.7	19.1	Not available	1.8
Unspecified	38.8	Not available	Not available	1.9
Social security coverage				
Yes	32.3	1.9	38.4	39.1
No	67.0	97.1	58.7	56.7
Don't know	0.8	1.1	2.9	4.2

Source: Data from 2013 Egypt Labor Force Survey; 2016 Mali Labor Force Survey; 2014 Nigerian Quarterly Labor Force Survey; 2015 South African Labor Market Dynamics; 2017 South Africa Quarterly Labor Force Survey; and 2012 Zambia Labor Force Survey.

Note: For South Africa, social security coverage refers to individuals who indicate that their employer contributes to a pension fund on their behalf.

being in time-related underemployment, in "invisible" underemployment, or both. Time-related underemployment describes workers who work fewer hours than they would like. Invisible underemployment includes workers who earn less than the minimum wage, because in many instances it is disguised as long hours at very low pay.

Time-related underemployment is relatively low in Africa, averaging 10–15 percent of employment.[33] It is highest in agriculture and in the informal sector. It is more common among women than men and among urban dwellers than rural dwellers, and it is not correlated with age.[34]

Invisible underemployment is much higher. In 11 cities in 10 countries (Benin, Burkina Faso, Cameroon, the Democratic Republic of Congo, Côte d'Ivoire, Madagascar, Mali, Niger, Senegal, and Togo), it is substantially higher than time-related underemployment.[35]

Africa's labor force will increase from 620 million in 2013 to nearly 2 billion in 2063

Demographic trends and technological changes: Some challenges

Africa will become the youngest and most populous continent in the next few decades. Various sources project that its labor force will increase from 620 million in 2013 to nearly 2 billion in 2063, a megatrend that has spurred hope of accelerated growth at relatively constant wage rates (table 2.5).

A "demographic dividend" might provide a great opportunity for Africa—and the rest of the world, which is expected to experience significant labor shortages. But technological advances could reduce its value. The use of artificial intelligence and robotics in manufacturing, agriculture, and services could hurt job creation. In the face of this threat, African countries need to invest heavily in training and upgrading of skills (box 2.1).

Effect of growth accelerations on poverty and inequality

The moderately sustained per capita GDP growth in the last two decades has not generated comparable reductions in poverty.[36] One of the main reasons is that the rapid growth in many countries originated in modern capital-intensive sectors rather than in traditional sectors (agriculture and the informal sector).

Rapidly growing countries performed poorly in generating employment. In addition, income inequality did not narrow. Indeed, the Gini coefficient in Africa increased significantly in the late 1990s and early 2000, leveling off later.[37] Africa is the world's second most unequal continent (after Latin America), pointing to the double challenge countries face in attacking poverty.

The evidence for developing countries suggests that it is the pace of structural change that

TABLE 2.5 Projected population trends, 2013–63 *(millions, except where indicated otherwise)*

	Total population				Working-age population			
	Millions			Average annual percentage change	Millions			Average annual percentage change
Region	2013	2063	Change		2013	2063	Change	
Asia	4,331	5,244	913	0.4	2,939	3,243	304	0.2
Europe	740	693	–47	–0.1	498	390	–108	–0.5
Latin America and the Caribbean	619	787	168	0.5	411	473	62	0.3
Northern America	351	456	105	0.5	234	268	34	0.3
Oceania	38	62	24	1.0	25	38	13	0.8
Africa	1,135	3,095	1,960	2.0	627	1,969	1,342	2.3
World	7,213	10,338	3,124	0.7	4,734	6,381	1,647	0.6
Sub-Saharan share of world population (%)	15.7	29.9	62.8		13.2	30.8	81.4	

Source: AfDB calculations based on the UN Medium Variant Projections.

BOX 2.1 Preparing African workers for the Fourth Industrial Revolution

Knowledge drives the Fourth Industrial Revolution. To participate in it, African countries need to rapidly build skills in sciences, information and communications technology, engineering, manufacturing, and mathematics (the drivers of future jobs) while accelerating investments in research and development.

In 2013 Africa's gross expenditure on research and development was about 0.45 percent of GDP, compared with 2.71 percent in North America, 2.10 percent in Southeast Asia 1.75 percent in Europe, 1.62 percent in Asia, and 1.03 percent in Latin America and the Caribbean. Africa was home to just 2.4 percent of the world's researchers (1.1 percent for Sub-Saharan Africa and 1.4 percent in North Africa), compared with 42.8 percent in Asia, 31.0 percent in Europe, 18.5 percent for North America, and 3.6 percent for Latin America and the Caribbean. The share of researchers in Germany (4.6 percent), the Republic of Korea (4.1 percent), and France (3.4 percent) is larger than that of the African continent as a whole.

Too few scientists and engineers in Africa work in sectors that drive economic transformation. In 2010, for example, the share of college students in engineering, manufacturing, and construction programs was 7.3 percent in Burkina Faso, 3.0 percent in Burundi, 4.3 percent in Cameroon, 4.5 percent in Mozambique, 5.6 percent in Madagascar, 5.9 percent in Ghana, and 12.8 percent in Morocco. In 2014 the shares in Austria, Germany, Malaysia, and Mexico were all above 20 percent.

Africa has made advances in digital and mobile technology, disrupting banking, retail, and telecommunications. The mobile money transfer platform, pioneered by M-Pesa in Kenya, has helped improve financial access for urban and rural households. Innovations in digital and mobile technology are affecting both the service sectors and the productive sector. Mobile phones allow farmers to access crop prices to increase their bargaining position. Investments in high-speed internet and the spread of smartphones across Africa should make it possible to continue scaling up innovation in digital and mobile technology.

Various AfDB flagship programs help African countries address these employment challenges. For example, the Jobs for Youth Initiative aims to create 25 million jobs and equip 50 million youth with skills in various sectors between 2016 and 2025.

Source: Aker and Mbiti (2010) and Naudé (2017).

The main source of growth accelerations is rapid structural change through the reallocation of labor

has lifted millions of people out of poverty. Across the developing world, a 1 percent increase in the growth of the labor force in manufacturing was related to a 0.8 percent decline in headcount poverty.[38] Almost 84 percent of Africa's poverty is a result of employment in agriculture and services.[39] The dual nature of most African economies—in which the majority of the workforce works in the subsistence sector while a small fraction of the workforce is employed in rapidly growing and highly productive sectors—is the single most important reason for poverty to persist and inequality to remain high.

The correlation between poverty and growth accelerations is negative (table 2.6). Countries that completed at least one episode of growth acceleration had poverty rates that were 0.5–0.7 percentage points lower than those of countries with no growth acceleration episodes; countries that completed at least three growth episodes had poverty rates that were 1.3 percentage points lower.

The main source of growth accelerations is rapid structural change through the reallocation of labor. Structural change, rather than growth in per capita income, is a potent source of poverty reduction for African countries, as it has been for most developing countries. The largest reductions in the headcount ratio were for countries that experienced episodes of growth accelerations (table 2.6). For instance, countries that completed

TABLE 2.6 Effect of growth accelerations on poverty

Log of poverty headcount ratio	1	2	3
Log of real per capita GDP	−0.254*** (0.0542)	−0.254*** (0.0518)	−0.186*** (0.0505)
Log of Gini coefficient	2.611*** (0.329)	1.963*** (0.336)	1.680*** (0.287)
Dummy (at least one growth acceleration)	−0.518*** (0.121)		
Dummy (at least two growth acceleration)		−0.679*** (0.166)	
Dummy (at least three growth acceleration)			−1.257*** (0.181)
Constant	−4.786*** (1.258)	−2.464* (1.260)	−1.843* (1.068)
R-squared	0.282	0.307	0.386
N	254	254	254

Source: Data from PovcalNet and Penn World Tables 9.0.

Note: Pooled ordinary least squares. Standard errors in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

The continent's success stories (growth spikes not followed by crises) can serve as a source of inspiration

one growth acceleration managed to reduce 0.5 percentage points faster than those with no acceleration episodes. Countries that completed two, 0.7 points faster, and countries that completed three, 1.2 points faster.

Countries that completed two growth accelerations also reduced inequality faster by about 0.1 percentage point every year; countries that completed three accelerations reduced it by about 0.2 percentage points (table 2.7).

The conventional wisdom is that growth reduces poverty. An alternative view is that poverty reduction may instead have caused growth. Berthélemy (2017) provides support for this hypothesis in a sample of African countries that experienced growth spikes. Although the results should be interpreted with caution, they shed new light on the debates on poverty reduction and growth in Africa (box 2.2).

LESSONS FROM THE GROWTH-JOBS-POVERTY NEXUS

About two-thirds of African countries experienced at least one growth acceleration episode since the 1950s, raising hope that the determinants of long-term growth, such as economic fundamentals and policy, have changed for the better. Many African countries also experienced failed take-offs—accelerations followed by deep crises—particularly in the 1960s and 1970s. The continent's success stories (growth spikes not followed by crises) can serve as a source of inspiration for African policy makers and suggest ways to avoid failed take-offs.

Look at productivity not just investment

A first striking characteristic of growth spikes is that capital deepening played a smaller role than total factor productivity gains. In the 1960s and 1970s African governments attempted to promote growth by investing in infrastructure and adopting policies that promoted physical capital investment that ultimately turned out to be unsustainable. Expansionary policies were often financed by short-term trade booms or excessive foreign borrowing. These policies often relied on natural resource depletion. Sometimes they involved investment programs that were too large given the absorptive capacity, creating white elephants (box 2.3).

TABLE 2.7 Effect of growth accelerations on inequality

Log of Gini coefficient	1	2	3
Log of real per capita GDP	0.0132* (0.00734)	0.0117 (0.00737)	0.0199*** (0.00698)
Dummy (at least one growth acceleration)	0.0373 (0.0239)		
Dummy (at least two growth acceleration)		–0.115*** (0.0242)	
Dummy (at least three growth acceleration)			–0.154*** (0.181)
Constant	3.670*** (0.0567)	3.742*** (0.0515)	3.677*** (0.0468)
R-squared	0.021	0.099	0.109
N	254	254	254

Source: Data from PovcalNet and Penn World Tables 9.0.

Note: Pooled ordinary least squares. Standard errors in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Sustainable growth accelerations must involve productivity improvements

BOX 2.2 Does poverty hamper growth—or boost it?

Reinforcing vicious circles can keep households or countries poor and prevent them from contributing to national growth. Poverty can slow growth in many ways, including the following:

- Limited access to financial markets or other assets for private investment hampers the development of productive activities.
- Poor health reduces productivity.
- Low-quality education limits people's ability to generate income.
- Lack of infrastructure makes countries unattractive to foreign investment.

In contrast, Berthélemy (2017) finds that poverty reduction led to growth in most of Africa's growth spikes—and that it came from reforms that created more job opportunities for the poor and from successful pro-poor transfer policies.

This new notion may be relevant to policy makers advocating for antipoverty and social programs to promote growth on a more sustainable basis. As Perry and others (2006) note, "Smart investment in the poor can lead to virtuous circles and that the issue of pro-growth poverty reduction should perhaps be as important a policy concern as traditional concerns with pro poor-growth."

Source: Perry and others (2006), Thorbecke (2013), and Berthélemy (2017).

These experiences suggest that sustainable growth accelerations must be intensive rather than merely extensive and must involve productivity improvements. African policy makers have largely heeded them. Successful economies in North Africa and Southern Africa have relied on a balanced mix of investment and productivity gains.

Have public policy facilitate private initiatives

Factor productivity cannot be increased by decree. Progress must to a large extent come from private initiatives. The role of public policy is to facilitate and accompany these initiatives. Movements of workers from low-productivity to

BOX 2.3 China's three lessons for Africa

Before its economic reform and opening in 1979, China was a poor country with a per capita GDP less than one-third of the Sub-Saharan average. In the 38 years since, it averaged annual growth of 9.6 percent. And it is the only emerging market economy not to have suffered a systemic financial and economic crisis.

Important in China's success is that it did not follow the dominant mode of economic thinking, "shock therapy," which simultaneously inflicts a wholesale set of politically difficult reforms. Instead, it adopted a pragmatic dual-track approach.

On one track, it continuously provided transitory protection and subsidies to large, capital-intensive state-owned enterprises that violated China's comparative advantage but were essential for national defense and people's basic needs. The state actively facilitated those industries to create comparative advantage by overcoming bottlenecks in hard and soft infrastructure. On the second track it liberalized the entry of private and foreign firms to China's industries aligned with its comparative advantage. The shifts in comparative advantage allowed the government to deepen reforms, remove protections and subsidies, and allow the market to be decisive in allocating resources.

Important in China's success is that it did not follow the dominant mode of economic thinking, "shock therapy"

China's economic development and transition provide three lessons for other developing countries.

First, be pragmatic and realistic. It is essential to have objective and comprehensive assessments of the country's basic realities and conditions—including its development stage and its labor, capital, and natural resource endowments —and of the key problems and their origins.

Also essential is having a systematic assessment of countries at different development stages, and of the relations, differences, and complementarities with other countries.

Especially important is not blindly copying other countries, especially the theories, policies, and experiences of developed countries, in very different conditions.

Second, formulate economic development and transition strategies suitable for one's own country. Such strategies have many dimensions, including industrial policy.

Technological innovation and industrial upgrading drive a developing country's development. But the upgraded industries need to be consistent with the country's factor endowments to ensure that the factor costs of firms are the lowest in the world. That is not easy because the transaction costs for developing country firms are generally high due to inadequate infrastructure, institutions, and business environment. It is necessary to reduce firms' transaction costs to increase their market competitiveness.

It is the government's responsibility to improve infrastructure, the business environment and legal institutions. But its resources are limited and, therefore, they should be used strategically to improve infrastructure and other binding constraints in suitable locations so as to reduce transaction costs for the targeted industries to turn from comparative advantage to competitive advantages quickly.

In this way, small wins can be accumulated to become large wins. With vibrant economic development, the improvement of infrastructure, the business environment and legal institutions can be extended step-by-step nationwide.

Third, learn from the mistakes of structuralism's excessive intervention and neoliberalism's laissez-faire and instead have the market and the state play their respective roles in the economic transition.

Source: Adapted from Lin 2017.

higher-productivity activities represents a significant source of growth potential in Africa given the dual structure of its economies. Market reforms and investment in infrastructure that increases competitiveness can help channel the development of modern sectors and the reallocation of labor into them. The creation of good employment opportunities is one of the critical challenges facing African governments, particularly given the continent's rapidly growing population.

Shift to labor-absorbing growth paths

Robust and sustained economic growth is not a sufficient condition for employment expansion but it is necessary. Indeed, the pattern of economic growth determines its employment impact. A key policy priority is to encourage a shift toward more labor-absorbing growth, characterized by strong backward and forward linkages between firms. Recent trends are symptomatic of the suboptimal pattern of growth experienced across the continent.[40]

Reversing the fortunes of the manufacturing sector, particularly light manufacturing, is typically considered key to job creation in Africa. Doing so requires developing exports (given Africa's small domestic markets), but the land-lockedness of many countries makes it challenging.[41] Agriculture presents "the most promising avenue for export-led growth in many African countries."[42] Both agriculture and manufacturing are labor intensive, amenable to quality improvements through technology transfer, and face "lucrative but quality-sensitive" international markets. Both are hamstrung by inhospitable economic and business climates and infrastructure gaps.[43] In the highly heterogeneous service sector, the imperative is to develop modern services while improving the productivity of informal activities.

RECOMMENDED POLICY MEASURES

Various interventions can increase the ability of African economies to create employment. They should work in tandem to support the growth of more labor-intensive sectors and raise productivity and incomes.

Improve the regulatory environment

Regulatory frameworks have important implications for firms. The objective should be to eliminate unnecessary, complex, and counterproductive regulations. Many countries have made progress on this front in recent years: 36 of 46 countries in Sub-Saharan Africa improved their regulatory environment in 2010–11.[44] In 2016 Rwanda and Gambia ranked among the world's top 10 performers in the (lack of) burden of government regulation, and only one African country (Zimbabwe) was among the bottom 20 countries.[45]

A supportive regulatory environment is also needed for the informal economy. Government policy should support small firms and encourage a progression toward higher productivity; for large firms the aim should be to achieve "a more systematically enforced and enforceable regulatory regime."[46] The effects of a simplified regulatory framework can be dramatic. After Rwanda introduced procedural reforms, the number of new firms created more than quadrupled, from 700 in 2010 to 3,000 in 2016.[47]

Consider wage subsidies

Wage subsidies can also be considered for industries that are clearly competitive but facing temporary shocks.[48] They allow employers to keep employees on their payroll rather than lay them off for economic reasons—and to hire young workers or women by paying part of the salary for a given period, allowing such workers to acquire or develop skills that eventually provide long-term employment. But because some employers may view subsidies simply as a temporary source of cheap labor, the risk of deadweight losses should also be considered. Governments should therefore be prudent in determining the subsidy level and duration because extensive reliance on public sector employment as a source of jobs and income often produces deep social and cultural consequences. Some regions can be caught in an equilibrium of dependency in which public sector jobs become the only source of income, and opportunities for private sector development do not materialize. This creates a vicious, self-fulfilling circle whereby entrepreneurship is discouraged while dependency on government for livelihood is enhanced. The result can be powerful

The imperative is to develop modern services while improving the productivity of informal activities

political constituencies of public sector employees and union members who oppose labor market reforms.

Training programs to help new and laid off workers gain or regain skills could contribute to increased productivity if such programs are targeted to the neediest groups (the youth, the disadvantaged, or women). Youth-oriented programs designed in close collaboration with private firms to assess demand for skills and to provide tailored training programs can yield good results. To ensure the maximum chance for success, they should be tailored to the business needs of the potentially competitive industries in each country.

Education and labor market reforms and resources should target activities, programs, and projects that are economically viable

Target economically viable activities

Education and labor market reforms and resources should target activities, programs, and projects that are economically viable. Governments should work with the private sector and the academic community to decide which type of education should be given priority and how to intervene for success. To guide priorities in the education sector, some industries or lines of business should be identified—industries in which the country has clear or latent comparative advantage. In each selected priority industry (agrobusiness, light manufacturing, tourism), the design and implementation of skill formation strategies and workforce development plans should provide a framework for firms, the government, and communities to work with each other.

Those skills formation strategies and workforce development plans should include a holistic understanding of workforce issues and recognize that effective skill development can only occur when planned as part of the broader workforce and the future of the industry or community. They should identify issues common to an industry or community that are best addressed by their combined efforts—or that cannot be addressed by an individual organization. All relevant stakeholders could then work together to analyze and address current and future workforce issues that may affect their viability.

Invest in industries with high payoffs

Government should select and target sectors with competitive potential to focus their limited resources on providing sector-specific infrastructure that quickly yields the highest payoffs. Labor-intensive industries include agribusiness and creative industries such as the film industry, which employs 1 million people in Nigeria alone. Light manufacturing can absorb many low-skilled workers who can be trained quickly in garments, textiles, leather, and tourism. And some modern services and new digital industries are promising for countries with a large pool of skilled labor. Industry selection is critical to create jobs because African countries do not have comparative advantage in all sectors and industries. And they cannot afford generic and blind policy frameworks with long lists of reforms "to improve the business environment," as is often recommended.

Developing countries can reap substantial economic benefits from their status as latecomers and exploit their low factor costs to promote labor-intensive industries in which they have comparative advantage. Success obviously requires strong collaborative work between the state and the private sector in identifying new sectors or lines of business and setting priorities for infrastructure investment.

Attract foreign investors

A proactive strategy can attract foreign direct investment (FDI) into competitive industries. FDI provides long-term capital and induces industrial upgrading and the adoption of new technology and innovation in host countries, stimulating economic growth. It can also stimulate fixed investment and exports and thus boost economic growth through increased aggregate demand. In the medium and long term it contributes to transforming the industrial structure of the host economy and the commodity composition of its exports, typically toward higher value-added goods and services. The presence of foreign firms, with their superior technology and management skills generally exposes domestic firms to more intense competition, improving the performance and increasing their research and development spending. That process tends to enhance the marginal productivity of the capital stock in the host economy, promoting growth. FDI can also encourage the development of "agglomeration economies" by establishing clusters and

networks of industries that are both collaborative and competitive. Possibly FDI's most important benefit is raising employment in host countries by creating new jobs either directly and using local inputs—and by generating the demand for additional services linked to the primary activities that attracted external capital, indirectly creating more employment.

Enter global value chains

No longer about manufacturing a product in one country and selling it elsewhere, trade is now about cooperating across boundaries and time zones to minimize production costs and maximize market coverage. Global value chains are therefore the dominant framework for trade. Estimates suggest that reducing supply chain barriers could increase global GDP up to six times more than removing all import tariffs. Simulations indicate that improvements on just two key bottlenecks to supply chains—border administration and transport and communications infrastructure—only halfway to that of Singapore would yield an increase of $2.7 trillion in global GDP (4.7 percent) and $1.6 trillion in global exports (14.5 percent). These staggering numbers compare with much smaller gains from complete worldwide tariff elimination, which would only lead to $400 billion in global GDP (0.7 percent) and $1.1 trillion in global exports (10.1 percent).

Global trade and value chains operating around the planet open new opportunities to poor countries, just as the "graduation" of large manufacturing centers like China relinquishes low-skilled employment for poorer economies.[49]

Build successful special economic zones and industrial parks

Clusters, industrial parks, and export processing zones and active FDI promotions are pragmatic instruments for circumventing deficits in infrastructure and human capital, as well overcoming the pervasive governance problems in low-income countries. They are also useful bridges to connect poor countries to global value chains. And they are essential pillars of the strategy for exploiting comparative advantage. Widely used by successful East Asian economies, they have recently served Bangladesh, Cambodia, Mauritius, and Vietnam—and Ethiopia and Rwanda. Such a strategy is superior to the conventional development strategy to support domestic firms in order to first enter domestic markets and then to gradually enter international markets.

Even in generally poor business environments, the zones and parks can also lower the cost of doing business by building strategically located clusters and attract foreign direct investment. That also brings in technology, managerial best practices, new knowledge, state-of-the-art learning, and access to large global markets. Such a pragmatic economic development strategy facilitates the dynamic development of competitive private firms in well-selected regions and industries, provides employment for a labor force with low skills, and rapidly increases fiscal revenues. It would generate steady growth in government revenues and foreign exchange and allows for the improvement of infrastructure in other parts of the country. Ultimately, it can also create the conditions for prosperity and social stability.

Invest in infrastructure

Of the 25 countries with the lowest infrastructure scores in the World Economic Forum's Global Competitiveness Index for 2017–18, 19 are African.[50] A fifth of African firms surveyed by McKinsey cited lack of electricity as one of the top three obstacles to doing business.[51]

Governments are taking infrastructure investment more seriously, investing an estimated $324 billion in 286 infrastructure projects in 2016.[52] Infrastructure enables export-oriented firms to access international markets quickly, cheaply, and efficiently. It underpins the competitiveness of manufacturing exports and the ability of agricultural exporters to comply with sanitary and phytosanitary requirements in international markets. Insufficient investment in infrastructure thus makes it difficult for African countries to fully capitalize on growth and job creation opportunities.

Some countries have improved their infrastructure. Mali's targeted roll-out of infrastructure to facilitate mango exports was associated with a sixfold increase in exports to the European Union between 2003 and 2008.[53]

International trade is associated with positive employment effects. A study of 47 African

Infrastructure enables export-oriented firms to access international markets quickly, cheaply, and efficiently

countries between 2006 and 2014 finds that "exporting and importing firms employ more full-time permanent workers than their respective nontrading counterparts" and that the premium is larger in countries where infrastructure quality is higher.[54] Infrastructure in urban areas is essential in raising productivity in the informal sector, allowing informal enterprises to adopt new technologies and reduce transactions costs.

Modernize the agricultural sector

Agriculture has huge potential to provide high-productivity jobs, create wealth, and propel economic growth in Africa, especially if countries can expand agricultural exports.[55] A robust and thriving agricultural sector can also stimulate broader economic development. Governments should thus aim to stimulate the creation of backward and forward linkages to other sectors, including manufacturing, logistics, and retail, strengthening local operators and stimulating demand. The strategic use of local content policies can encourage the development of such linkages.

A robust and thriving agricultural sector can stimulate broader economic development

Three key interventions could unleash the potential of the agricultural sector:

- Ensuring "acceptably egalitarian" access to land.
- Facilitating the use of modern inputs, seeds, and technologies, by improving access to credit and other means.
- Strengthening the ability to develop and adapt agricultural technologies.[56]

For employment in the sector to increase, countries need to improve access to international agricultural markets, balance socioeconomic demands with environmental considerations, and adapt to and mitigate the effects of climate change.

Build human capital

Low demand for labor, rather than a lack of skills, is the primary constraint on employment expansion in the region; in enterprise surveys, few firms cite lack of education as a top constraint.[57] Only 12 percent of firms cite insufficient skills or education of employees as one of their top three obstacles to growth, placing it 11th of 15 issues reported.[58] But investing in human capital is still important. African governments need to actively promote access to postsecondary and particularly tertiary education. Skill shortages are not confined to highly specialized occupations.

Skills also constrain the development of the informal sector. And the lack of access to credit, technology, physical space, and water and electricity all need to be addressed for the informal sector to increase employment and raise incomes.[59]

Invest in data collection and make data more accessible

Africa's statistical capacity is below the average for low-income countries, but countries cannot formulate and adapt good policies without good labor market statistics.[60] Insufficient investment in regular labor market surveys means that policy is often based on outdated or nonrepresentative data. Providing timely access to better public data would allow African countries to benefit from analysis by academics and researchers.

* * *

In sum: About two-thirds of African countries experienced at least one growth acceleration since the 1950s, raising hope that the determinants of long-term growth have changed for the better. Many African countries also experienced failed take-offs—accelerations followed by deep crises—particularly in the 1960s and 1970s.

The continent's success stories (growth spikes not followed by crises) can serve as a source of inspiration for African policymakers and suggest ways to avoid failed take-offs. Successful take-offs require increases in productivity as much as growth in investment. Labor force reallocations from the traditional to the modern sector are a key component of African growth accelerations. They require not only the creation of modern jobs but also policies that empower the poor.

A first priority for African governments is to encourage a shift toward labor-absorbing growth paths. They should put in place programs and policies aimed at modernizing the agricultural sector, which employs most of the population. A second priority is to invest in human capital, particularly in the entrepreneurial skills of youth, to facilitate the transition to higher-productivity modern sectors.

NOTES

1. Pritchett 2000. Between 1964 and 1974, for example, real GDP per capita in Liberia grew consistently at 4.2 percent a year; between 1989 and 1996, it fell 25 percent a year, as a result of civil war. In Zambia real per capita GDP fell by an average rate of 4.7 percent a year between 1969 and 1980. After a few years of growth, it experienced an average decline of 4.4 percent a year between 1985 and 1999. Since 2000 it has been enjoying a growth spell.
2. Hausmann, Pritchett, and Rodrik 2005; Arbache and Page 2007, 2008.
3. Following Jong-A-Pin and De Haan (2011), the start dates of acceleration episodes used here are the earliest possible dates. The end date of an acceleration episode is the first date when the growth rate falls below 1 percent. In some instances, a separate acceleration starts before this point is reached, in which case the end date of the previous acceleration is the start date of the next one.
4. Berthélemy 2011.
5. The acceleration criteria determine the number of accelerations. If a threshold a little lower than 3.5 percent had been chosen, South Africa would have registered several spikes of growth, rather than the single spike in table 2.2.
6. McMillan, Rodrik, and Verduzco-Gallo 2014.
7. Syrquin 1982.
8. Timmer, de Vries, and de Vries 2015.
9. In Egypt and Morocco the decomposition does not include community, social, and personal services, for which employment data were unavailable.
10. Because of data inconsistencies, World Development Indicators were used only after 2005 for Mauritius and Namibia, after 2008 for Uganda, and up to 2005 for Burkina Faso.
11. De Vries, Timmer, and de Vries 2015.
12. ILO 2011.
13. AfDB 2015; Beegle and others 2016.
14. Jirasavetakul and Lakner 2016.
15. Despite some shortcomings, the employment elasticity of growth is a simple tool for analyzing the sensitivity of employment to output growth. Islam and Nazara 2000.
16. Khan 2001.
17. Khan 2001.
18. Söderbom and Teal 2003.
19. McMillan, Rodrik, and Verduzco-Gallo 2014.
20. McMillan, Rodrik, and Verduzco-Gallo 2014.
21. UNECA 2015.
22. Chen 2001.
23. Benjamin and Mbaye 2014.
24. AfDB 2013.
25. Fields 2011, Benjamin and Mbaye 2012, Oosthuizen and others 2016.
26. Vanek and others 2014.
27. AfDB 2016.
28. Juma 2015.
29. Cleland 2017.
30. Bhorat and Tarp 2016.
31. World Bank 2005; UNECA 2005.
32. UNECA 2005.
33. DIAL 2007; Golub and Hayat 2014.
34. DIAL 2007; Roubaud and Torelli 2013; and Golub and Hayat 2014.
35. Roubaud and Torelli 2013.
36. Page and Shimeles 2015.
37. Shimeles and Nabasaga 2017.
38. Page and Shimeles 2015.
39. Shimeles 2015.
40. Bhorat and others 2017a.
41. Bhorat and others 2017a.
42. Golub and Hayat 2014.
43. Golub and Hayat 2014.
44. McKinsey Global Institute 2012.
45. WEF 2016.
46. Benjamin and Mbaye 2014.
47. McKinsey Global Institute 2012.
48. See Lin and Monga (2017) for the details.
49. Lin 2011.
50. WEF 2016.
51. McKinsey Global Institute 2012.
52. Deloitte 2016.
53. McKinsey 2012.
54. Duda-Nyczak and Viegelahn 2017.
55. Golub and Hayat 2014.
56. Bhorat and others 2017a.
57. Golub and Hayat 2014.
58. McKinsey Global Institute 2012.
59. Bhorat and others 2017b.
60. Beegle and others 2016.

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PART II
FINANCING INFRASTRUCTURE: STRATEGIES AND INSTRUMENTS

AFRICA'S INFRASTRUCTURE: GREAT POTENTIAL BUT LITTLE IMPACT ON INCLUSIVE GROWTH

3

KEY MESSAGES

Africa must industrialize to end poverty and to generate employment for the 12 million young people who join its labor force every year.

One of the key factors retarding industrialization has been the insufficient stock of productive infrastructure in power, water, and transport services that would allow firms to thrive in industries with strong comparative advantages.

New estimates by the African Development Bank suggest that the continent's infrastructure needs amount to $130–170 billion a year, with a financing gap in the range $68–$108 billion.

Those figures are far higher than previous estimates of $93 billion in annual needs and annual financing gaps of $31 billion published by Agence Française de Développement and the World Bank.

Institutional investors such as insurance companies, pension funds, and sovereign wealth funds have more than $100 trillion in assets under management globally. A small fraction of the excess global savings and low-yield resources would be enough to plug Africa's financing gap and finance productive and profitable infrastructure.

Africa must industrialize to end poverty and to generate employment for the 12 million young people who join its labor force every year. One of the key factors retarding industrialization has been the insufficient stock of productive infrastructure in power, water, and transport services that would allow firms to thrive in industries with strong comparative advantages.

Despite the potential long-term benefits, the share of resources allocated to infrastructure was cut sharply by African governments and their development partners in the 1980s and 1990s, thanks to the structural adjustment programs most African countries adopted under the so-called Washington Consensus. That partly explains Africa's current lag in infrastructure relative to other regions. And while capital accumulation started to pick up again in the early 2000s, the pace has been too slow to close Africa's infrastructure gap. New estimates by the African Development Bank (AfDB) suggest that the continent's infrastructure needs amount to $130–$170 billion a year, with a financing gap in the range $67.6–$107.5 billion.[1] But African countries do not need to fill these gaps before proceeding with their economic transformations.

African countries need to accelerate their investments in infrastructure, but in a smarter way

The economic costs of Africa's insufficient stock and poor quality of infrastructure are as big for the continent as the size of the potential impacts of resolving the problem. Funding infrastructure in Africa and around the world should not be an issue of financial resources. Beyond the seemingly unlimited resources from the public sector in advanced economies and central banks, institutional investors such as insurance companies, pension funds, and sovereign wealth funds have around $100 trillion in assets under management globally.[2]

A small fraction of the excess global savings and low-yield resources would be enough to plug the financing gap and finance productive and profitable infrastructure in the developing world. That would boost aggregate demand, create employment in poor and rich countries alike, and move the world toward peace and prosperity. In ideal political circumstances, a global pact between rich and poor nations would codify a "grand bargain" based on infrastructure financing. But the world does not have ideal political circumstances. Economic decisions are rarely rational in the realm of dreams, and without the interference of political subjectivities and irrationalities.

So, African countries facing mammoth infrastructure needs have to change their focus and strategy. In fact, even if the continent had the resources, it should not devote them to financing infrastructure. No country or region in world history has ever had to fill its entire infrastructure deficit before igniting and sustaining high rates of growth. Indeed, in the 19th century's industrial revolution and the 20th century's miracle economies, countries from several global regions grew at high rates for long periods, while having wide infrastructure deficits.

With an estimated infrastructure gap up to $107.5 billion a year, and urgent needs in health, education, administrative capacity, and security, Africa has to attract private capital to accelerate the building of critical infrastructure needed to unleash its potential.

African countries need to accelerate their investments in infrastructure, but in a smarter way. And they need to find new mechanisms and instruments to fund their most urgent needs—infrastructure and otherwise. African countries can jump directly into the global economy by building well-targeted infrastructure to support competitive industries and sectors in industrial parks and export-processing zones linked to global markets. Using their limited resources for infrastructure more wisely for new investments and maintenance, all African countries can leverage these zones to attract light manufacturing from more advanced economies, as East Asian economies did in the 1960s and China in the 1980s.

By attracting foreign investment and firms, even the poorest African countries can improve their trade logistics, increase the knowledge and skills of local entrepreneurs, gain the confidence of international buyers, and gradually make local firms competitive. This strategy is already being used with great success in Bangladesh, Cambodia, Ethiopia, Mauritius, Rwanda, and Vietnam. The strategy need not be limited to traditional manufacturing but can also cover agriculture, services, and other activities. Africa is well placed to help boost the global economy. It is up to world leaders to put forth the policy framework to make it happen.

INFRASTRUCTURE IS CRITICAL FOR SUSTAINABLE GROWTH AND INCLUSIVE DEVELOPMENT

The positive impact of infrastructure on economic growth and inclusive social development has been well documented by researchers in several social science disciplines.[3] Infrastructure affects productivity and output directly as part of GDP formation and as an input to the production function of other sectors. And it does so indirectly by reducing transaction and other costs, thus allowing a more efficient use of conventional productive inputs.[4] Poor energy quality, for example, can impose additional costs on firms such as idle workers, lost production, or damaged equipment. But modern transport systems could increase manufacturing competitiveness cheaply and quickly, moving raw materials to producers and manufactured goods to consumers.

High-quality infrastructure is essential for Africa to achieve the Sustainable Development Goals (SDGs) of the United Nations (UN), Agenda 2063 of the African Union (AU), and the High Five Goals of the African Development Bank (AfDB). It is needed for raising economic productivity and sustaining economic growth. Good infrastructure has an impact on growth directly and indirectly. It increases total factor productivity (TFP) directly because infrastructure services enter production as an input and have an immediate impact on the productivity of enterprises. It thus fosters aggregate economic output given its contribution, on its own, to GDP.

Good infrastructure can also raise TFP indirectly by reducing transaction and other costs, allowing a more efficient use of conventional productive inputs. It does this by being a factor of production for virtually all goods and services generated by other sectors.[5] In addition, it can affect the adjustment costs of investment, the durability of private capital, and the demand for—and supply of—health and education services. If transport, electricity, or telecom services are absent or unreliable, firms face additional costs (buying power generators, for instance) and struggle to adopt new technologies. Better transport increases the effective size of labor markets.[6]

And in lowering transaction costs, infrastructure fosters more efficient use of productive inputs such as land, labor, and physical capital assets, which translates into higher TFP, and expands the production frontier and profitable investment opportunities.[7] For example, reducing the cost of broadband internet could foster the development of e-commerce and a digital economy. And the greater availability and reliability of infrastructure is poised to develop human capital through improved education and health services, which should foster greater economic prosperity. Other transmission channels include facilitating trade flows, stimulating aggregate demand, and improving a country's attractiveness as an investment destination.[8] And over the short term, infrastructure projects create jobs during construction, also contributing to growth.[9]

Africa has a compelling case for accelerating infrastructure development. First, it is a continent of small, open economies that will rely on trade as the main engine of growth for the foreseeable future. For much of the period since World War II, there has been an intellectual consensus that barriers to market access—tariffs, quotas, and nontariff measures disadvantaging foreign firms; safety and sanitary requirements; local content and the like—were the main barriers to trade and to foreign direct investment in Africa. That view still has some validity, but the global landscape for production and trade has changed considerably in recent decades.

Tariff barriers have declined steadily in advanced and developing countries, while nontariff measures have become more prevalent. But another tectonic shift has occurred in global commerce, making infrastructure an even bigger factor in economic growth in Africa. Empirical research by the OECD and the WTO (complemented by a recent WEF-Bain & Co.–WB report) shows that tariff reductions and market access have become much less relevant for economic growth than a generation ago. International trade is no longer about manufacturing a product in one country and selling it in another. It is about cooperating across boundaries and time zones to minimize production costs and maximize market coverage. Value chains (the networks of activities for producing and getting a product to consumers, spanning the manufacturing process and transport and

Infrastructure affects productivity and output directly as part of GDP formation and as an input to the production of other sectors

distribution services) are the dominant framework for trade.

Reducing supply chain barriers could increase global GDP up to six times more than removing all import tariffs. Poor quality infrastructure services can increase the input material costs of consumer goods by up to 200 percent in certain African countries.[10] In Madagascar for instance, supply chain barriers can account for about 4 percent of total revenues of a textile producer (through higher freight costs and increased inventories), eroding the benefits of duty-free access to export markets. Small and medium enterprises (SMEs) tend to face proportionally higher supply chain barriers and costs. Having all countries in the world reduce just two key bottlenecks to supply chains (border administration and transport and communications infrastructure) halfway to those in Singapore would increase global GDP $2.7 trillion (4.7 percent) and global exports $1.6 trillion (14.5 percent). These massive numbers compare with much smaller gains from complete tariff elimination worldwide, which would lead to gains of "only" $400 billion (0.7 percent) in global GDP and $1.1 trillion (10.1 percent) in global exports. Even a less ambitious set of reforms that moves countries halfway to regional best practice could increase global GDP by 2.6 percent and world trade by 9.4 percent. The main implication of this huge paradigm shift in global trade is that African policy makers should devote more time and resources to building some well-targeted infrastructure that can connect their economies to global value chains.

The economic benefits that Africa could draw from improved infrastructure are higher than those for other regions

Second, because the continent is a latecomer to the economic development process and many of its countries are still at low or lower middle incomes, the economic benefits that Africa could draw from improved infrastructure are higher than those for other regions, based on the underlying diminishing returns to capital. Indeed, supplying critical exogenous factors to low-income countries, where most African countries rank, should allow them to draw exceptionally higher returns to capital as they catch up.[11] Table 3.1 summarizes research findings supporting this; figure 3.1 shows that the growth benefits drawn from infrastructure development are inclusive, given that they reduce inequality of opportunity; and box 3.1 reviews some of the empirical quandaries of infrastructure and growth.

THE LOW INFRASTRUCTURE STOCK IN AFRICA REFLECTS THE LOW DEVELOPMENT OF MANY COUNTRIES ON THE CONTINENT

Africa's infrastructure stock is low, particularly in power (box 3.2).[12] More than 640 million Africans have no access to energy, giving an electricity access rate for African countries at just over 40 percent—the world's lowest. Per capita consumption of energy in Sub-Saharan Africa (excluding South Africa) is 180 kWh, against 13,000 kWh per capita in the United States and 6,500 kWh in Europe.

Access to energy is crucial not only for attaining health and education outcomes, but also for reducing the cost of doing business and unlocking economic potential, creating jobs. Insufficient access to modern energy causes hundreds of thousands of deaths each year due to the use of wood-burning stoves for cooking; handicaps the operations of hospitals and emergency services; compromises educational attainment; and drives up the cost of doing business. So, energy access for all is one of the key drivers of inclusive growth, because it creates opportunities for women, youth, and children in urban and rural areas.

Africa's energy potential, especially renewable energy, is enormous, yet only a fraction is employed. Hydropower provides around a fifth of current capacity, but not even a tenth of its potential is utilized. Similarly, the technical potential of solar, biomass, wind, and geothermal energy is huge. Based on preliminary results, it is expected that Africa's investment needs for infrastructure overall will be in the range of $130–$170 billion a year (table 3.2)—see annex 3.1 for the methodology.

The Africa Infrastructure Development Index (AIDI), produced by the African Development Bank, serves three main objectives: To monitor and evaluate the status and progress of infrastructure development across the continent; to assist in resource allocation within the framework of African Development Bank replenishments; and to contribute to policy dialogue within and outside of the Bank. The AIDI also serves as a key

TABLE 3.1 Selected evidence on the growth benefits of infrastructure development

Coverage	Study period	Sector(s)	Infrastructure indicator	Growth effects	Source
Global	Meta-analysis of studies up to 2006	Multiple	1% increase in public investment	Direct increase of at least 0.08% in GDP excluding multiplier effects	Bom and Lighthart 2008
Global	Meta-evaluation of studies conducted between 1999 and 2009	Multiple	1% increase in public investment	Direct increases of between 0.05% and 0.45%	Estache et al. 2005; Calderón and Servén 2004; Hurlin 2006
Africa	1988–2007	ICT	10 percentage point increase in telephone subscriptions	16 percentage point increase in real GDP growth	Andrianaivo and Kpodar 2011
39 African countries	1960–2005	ICT, roads, electricity	Infrastructure stock accumulation and quality improvement	0.99 percentage point increase in GDP growth	Calderón 2009

Source: Faye and Mutambasere 2018.

The growth benefits drawn from infrastructure development are inclusive

FIGURE 3.1 Inequality of opportunity and infrastructure development in selected African countries

Source: Shimeles and Nabasaga 2015.

Note: The index is aggregated from access to electricity, ICT penetration, road density, and access to water and sanitation.

BOX 3.1 The challenging empirics of infrastructure and growth

Despite a large body of theoretical work on the relationship between infrastructure and growth, empirical analyses in Africa have not yet offered a strong consensus. Researchers agree that the relationship is heterogeneous and heavily dependent on the countries, infrastructure types, and periods under study.

Several studies report a positive relationship between infrastructure measures and indicators of socioeconomic development such as gross national product (GNP), GDP growth, GDP per capita, employment, and poverty headcount.[2] Most use co-integration and causality tests. One set of studies finds a positive bidirectional relation.[2] Another set of papers finds a unidirectional positive causality running from infrastructure to economic growth.[3] Interestingly, another strand of the literature finds a lack of relationship between infrastructure and growth.[4]

What explains these inconsistencies in empirical evidence? One argument is that the absence of causality reflects a "type II" error (also known as a "false negative," when one fails to observe a difference when there is one) caused by flaws in data such as relying on connections to the grid to measure access when, in fact, a large share of the population meets its energy needs through off-grid sources such as generators and traditional biomass.[5] Another explanation is that studies using public investment in infrastructure may not reflect the market value of services provided by these investments, and thus the full benefits of access to infrastructure, because project costs in developing countries are often inflated by governmental inefficiencies or institutional weaknesses.[6] The absence of causality between growth and infrastructure may also reflect the presence of other binding constraints to growth. For instance, benefits from rural electrification can be neutralized by poor access to other factors of agricultural production such as irrigation, access to markets, and access to finance.

Improving quality is unlikely to help African countries reap strong economic benefits from infrastructure development

Should funding to infrastructure be targeted to achieve particular objectives or project types? Evidence suggests that the growth benefits from enhanced access to or quality of infrastructure depend highly on the country context. In an attempt to test this hypothesis while capturing the multidimensional aspect of infrastructure, Kodongo and Ojah (2016) use two indexes measuring the access and quality of various infrastructure types, in addition to gross fixed capital formation to control for public spending. Their results, drawn from 45 African countries, show that neither the stock/access nor the quality of infrastructure drives economic growth in a low basic infrastructure endowment—but that the spending on infrastructure and the increments (gains) in access do. From a policy perspective, such a finding suggests that improving quality is unlikely to help African countries reap strong economic benefits from infrastructure development, unless the countries have reached a certain infrastructure endowment necessary to foster incremental aggregate economic activity. Efforts should, therefore, focus on incremental access.

Notes

1. Number of people living below the poverty line.
2. Kularatne 2006 for economic infrastructure and social spending in South Africa and Jumbe 2004 for access to energy in Malawi.
3. Wolde-Rufael 2006 for energy spending in Benin and Democratic Republic of Congo.
4. Wolde-Rufael 2006 for energy in Congo, Democratic Republic of Congo, Kenya, South Africa, and Sudan.
5. Wolde-Rufael 2006.
6. Straub 2008.

BOX 3.2 Infrastructure stocks, needs, and gaps: A practical lexicon

Infrastructure includes all main networks (systems of public facilities, sets of fixed assets or structures) that support economic and social activity, including those associated with water, power, sanitation, ICT, and transport (roads, railways, maritime, and air). This definition is based on the Classification of Function of Government in the Government Finance Statistics Manual of the International Monetary Fund. This functional classification allows defining infrastructure as asset types classified by purpose in the economy. As such, infrastructure assets are by nature long-lived capital assets.

Infrastructure stock (or capital stock)

Capital stock is a measure of the amount of capital in existence at a point in time, *t*. Investment, a flow concept, is a measure of the additions to capital stock over a time period, such as a year.

Infrastructure capital stock is calculated using gross fixed capital formation (investment flow) on infrastructure and the perpetual inventory method or equation:

$$K_{t+1} = (1 - \delta_t).K_t + (1 - \delta_t/2).I_t$$

where for each country *i*, K_{t+1} is the stock of capital at the beginning of period $t + 1$; δ_t is a time-varying depreciation rate; and I_t is gross fixed capital formation on infrastructure in period *t*, assuming that new investment is operational in the middle of the period.

The inputs required to apply this method are the investment flow series, the initial capital stock, and the size and time profile of the depreciation rate.

Infrastructure gap or deficit

A few definitions are used for the infrastructure gap or deficit.

- The infrastructure gap (or deficit) is generally defined as the difference between supply and demand for infrastructure services (assets).
- It is also defined as the difference between a target level of infrastructure development and the actual level. Either level is generally measured by specific indicators. In the power sector, for instance, the percentage of population with access to electricity can be the indicator and universal access the target (as with the New Deal on Energy). The deficit is then the percentage of the population with no access to electricity.
- The infrastructure deficit (also called infrastructure requirements or infrastructure investment needs) can also refer to the amount of investment needed to bridge the gap (as just defined). In the power sector, it is the amount of investment needed to achieve universal access for electricity from the actual level of access.

  Depending on the context, any of the above definitions is used.

Infrastructure investment needs

The amount of investment (the cost) to bridge the infrastructure gap (as defined previously) is also called infrastructure requirements or infrastructure investment needs. In the above example on power, it is the amount of investment needed to achieve universal access to electricity from the current actual level of access.

Infrastructure financing gap

This is defined as the infrastructure investment needs minus the total amount of financing commitment by national governments and all donors to resolve the infrastructure deficit.

Infrastructure includes all main networks that support economic and social activity

TABLE 3.2 Preliminary figures on investment needs ($ billions)

Infrastructure subsector	Target by 2025	Annual cost	Notes
Power	100% urban electrification 95% rural electrification	35–50	New Deal on Energy target by 2025
Water supply and sanitation	100% access in urban area 100% access in rural area	56–66	Water access includes: Piped water, public tap/standpost, safe wells/boreholes Sanitation access includes: Improved latrines, safe pit latrines, septic tank, sewer
Information and communication technology	Mobile universal coverage 50% of population within 25 km of a fiber backbone Fiber to home/premises internet penetration rate (10%)	4–7	
Road and other transport sectors (air, rail, and port)	80% preservation; 20% development	35–47	Preservation: Maintenance and rehabilitation Development: Upgrading and new construction
Total		**130–170**	**Preliminary figures**

BOX 3.3 Infrastructure needs: From $93 billion a year to $130–$170 billion

Prior to the new AfDB estimate of Africa's infrastructure needs, the most widely quoted number on Africa's infrastructure needs was $93 billion, from the 2006 Africa Infrastructure Country Diagnostic (AICD) study (quoted in Foster and Briceño-Garmendia 2010). The calculations were based on the following objectives:

- Develop an additional 7,000 megawatts a year of new power generation capacity (about half through multipurpose water storage schemes).
- Enable regional power trade by laying 22,000 megawatts of cross-border transmission lines.
- Complete the intraregional fiber-optic backbone network and continental submarine cable loop.
- Interconnect capitals, ports, border crossings, and secondary cities with a good-quality road network.
- Provide all-season road access to Africa's high-value agricultural land.
- More than double Africa's irrigated area.
- Meet the MDGs for water and sanitation.
- Raise household electrification rates by 10 percentage points.
- Provide global systems mobile voice signal and public access broadband to 100 percent of the population.

It was estimated that the implementation costs for such a program would amount to $93 billion a year, with about two-thirds of the total relating to capital expenditure, and the remaining one-third to operation and maintenance requirements.

But that estimate of total investment costs was not meant to bring Africa to the path of universal access in the power sector or in the water and sanitation sectors. It was the best to reduce the gap between Africa and developed countries. At the time, the access rate for electricity in Africa was estimated around 40 percent and for developed countries around 75 percent. With AfDB's New Deal on Energy (and the High 5s), Africa would be on the way to universal access. It will cost more to get there in a shorter period of time (less than 10 years) than envisaged in the $93 billion simulations.

Source: Foster and Briceño-Garmendia 2010.

tool in evaluating and monitoring the continent's progress toward attainment of the "High 5s," the number one priority being to "light up and power Africa." The indicators produced by the AIDI also generate other indices relating to High 5s, namely the "Feed Africa Index," "Industrialize Africa Index," and "Integrate Africa Index."

The AIDI has four main components: transport, electricity, ICT, and water and sanitation. These components are disaggregated into nine indicators that have a direct or indirect impact on productivity and economic growth.[13] A data reduction method generates a single index, normalized to lie between 0 and 100. Thus, the higher the value of the index, the better a country's readiness in meeting its infrastructure needs for development.

In the updated version, there is a wide variation among African countries in their infrastructure gap, with a range of more than 90 percent between the country at the top of having good infrastructure (Seychelles) and the country at the bottom (Somalia) (figure 3.2). The countries at the top are mostly from North Africa, with a few from Southern Africa. The rest of the continent is in very bad shape. There is a high correlation between inequality in assets and the infrastructure index, suggesting that improving infrastructure leads to inclusive growth as well.

Although Africa, Asia, and Latin America started at similar levels in 1960, fixed capital formation (a proxy for infrastructure) declined in the 1980s and 1990s in Africa, partly due to Washington Consensus policies (figure 3.3).[14] While capital accumulation started to rise again from 2002, the pace is still much slower than in other developing regions.

Partly due to this lack of investment in infrastructure building, Africa's infrastructure lags that of other regions on quantity, affordability, and quality. For example, at the same level of GDP per capita, China and India both had higher access to electricity and water than most African countries (figure 3.4).

In 2014, the share of population in Africa with access to electricity was estimated 47 percent, around half the 97 percent in Latin America and 89 percent in Asia (figure 3.5). There are also stark regional differences, with access in North Africa around 98 percent (the highest) and 26 percent in East Africa (the lowest). Electricity access also varies greatly within countries: Urban consumers are typically better served than rural consumers, and across Africa in 2014, average electricity access was about 72 percent in urban areas, more than double rural Africa's 33 percent. The largest difference was in East Africa, where urban access was about 73 percent, nearly seven times the 11 percent in rural areas.

Access to improved sanitation also tends to be higher—though less starkly than for electricity—in urban Africa (47 percent) than in rural Africa (34 percent). For Africa as a whole, access to improved sanitation was 36 percent in 2015, far lower than in Latin America (83 percent) and Asia (62 percent). This rate was lowest in West Africa (25 percent). The share of population using improved water sources (70 percent) or using basic drinking water services (63 percent) was the lowest in Africa, against more than 90 percent in Asia and Latin America.

Despite rapid expansion in the use of mobile phones and mobile technology applications in Africa, internet penetration—a lifeline for modern trade, communications, and technology applications in almost all sectors—has been progressing extremely slowly in the past decade (figure 3.6). Table 3.3 presents summary data on access to infrastructure for selected regions worldwide.

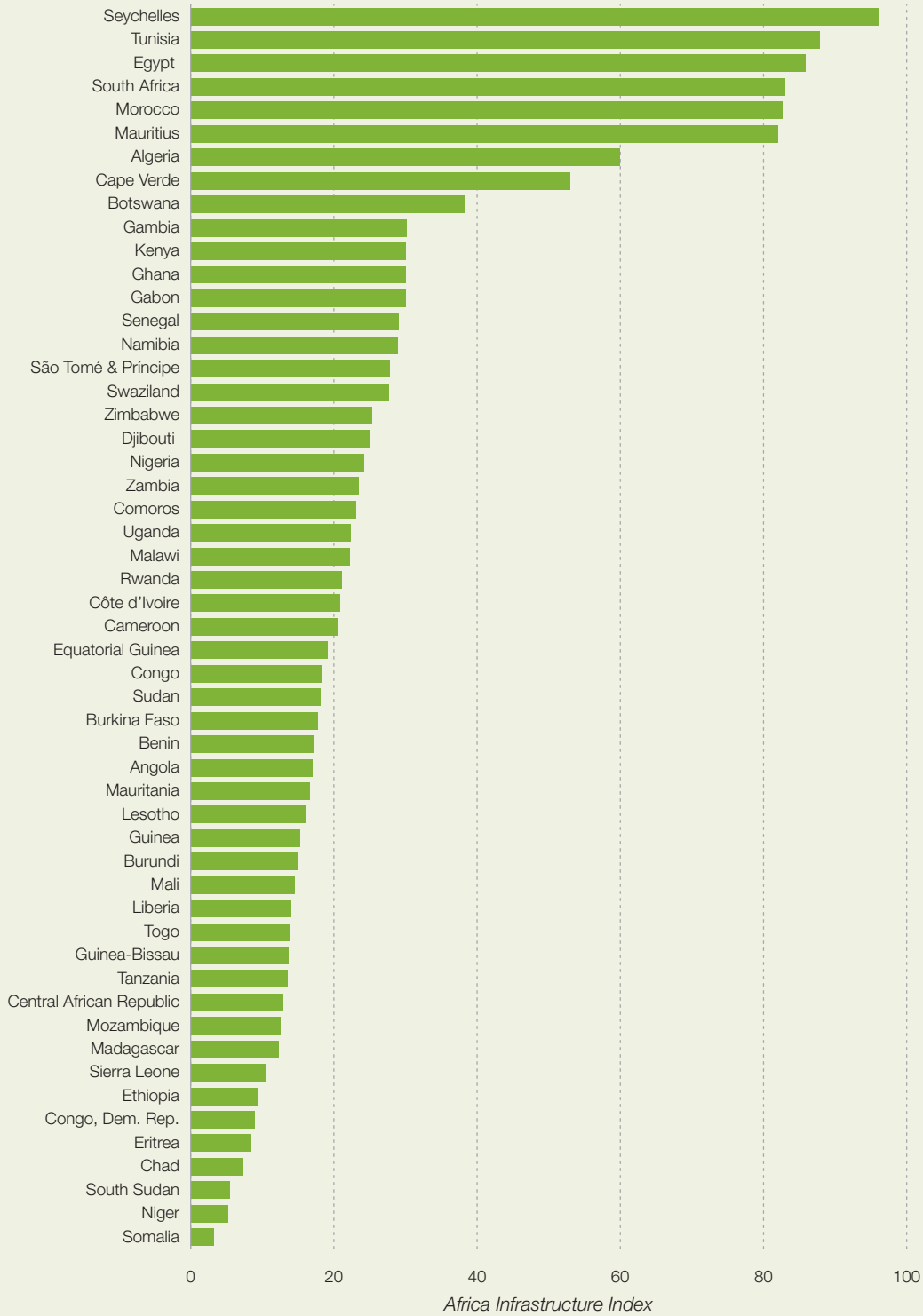
Affordability is also a challenge. Infrastructure service costs in Africa are several multiples higher than in other developing regions, whether for power, water, transport, or ICT.[15] Energy is particularly expensive, notably for countries running small or isolated electricity grids and for net fuel importers. The average effective cost of electricity to manufacturing enterprises in Africa is close to $0.20 per kWh, around four times higher than industrial rates elsewhere in the world. This reflects both high-cost utility power (of around $0.10 per kWh), and heavy reliance on emergency back-up generation during frequent power outages (around $0.40 per kWh). Road freight tariffs in Africa are two to four times higher per kilometer than those in the United States, and travel times along key export corridors two to three times higher than those in Asia.

Africa's telecommunications costs have been falling sharply in recent years, but are still higher

The countries at the top are mostly from North Africa, with a few from Southern Africa

Infrastructure service costs in Africa are several multiples higher than in other developing regions

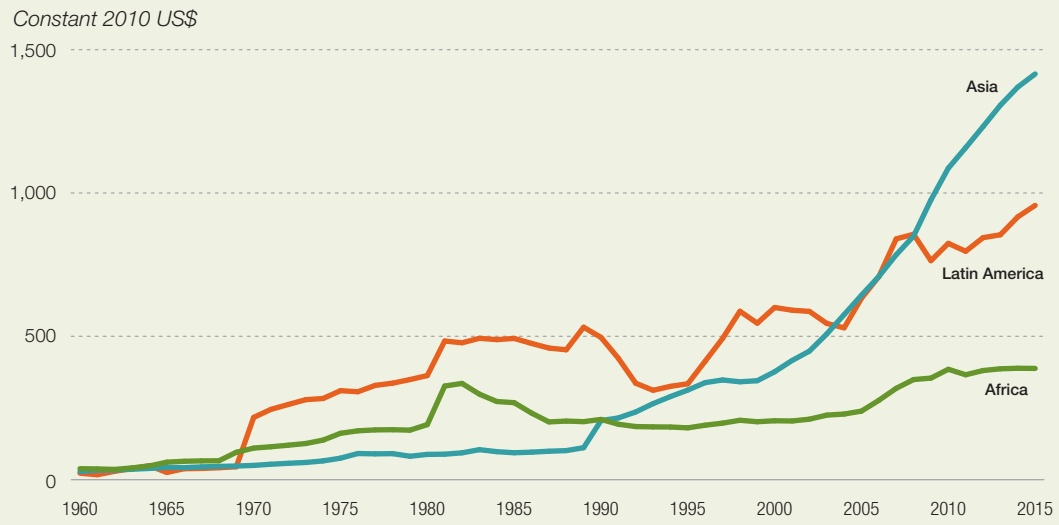
FIGURE 3.2 Africa Infrastructure Index 2018



Source: AfDB statistics.

Note: Libya, not listed in this chart, used to be one of the top-ranked African countries for its infrastructure. But since the 2011 crisis and ensuing political instability and civil conflict, the country's infrastructure stock has eroded.

FIGURE 3.3 Gross fixed capital formation per capita in selected global regions, 1960–2015



than those in other developing regions. Mobile and internet telephone charges in Africa are about four times higher than those in South Asia, and international call prices are more than twice as high. Connectivity of African countries to international broadband networks is nearly complete, but cost is a key factor affecting adoption. In Africa 1GB of data costs an average citizen nearly 18 percent of average income in 2016, against only 3 percent in Asia.[16] Uncompetitive pricing policies of mobile telephone operators, such as charging more for calls to competitor networks, also make ICT relatively expensive.

Besides access, adequacy, and cost, the quality of infrastructure services is crucial for productivity and economic growth. Compared with other developing regions, electricity in Africa is not only scarce and expensive but also unreliable. Between 2006 and 2016, 79 percent of firms in Sub-Saharan Africa experienced power outages —on average 8.6 power outages a month, with an average duration of 5.7 hours.[17] Although roads are the predominant mode of transport, much of Africa's road network is unpaved, isolating people from basic education, health services, transport corridors, trade hubs, and economic opportunities —particularly in regions with high rainfall. Road safety is worrisome, with the region recording the highest rate of fatalities from road traffic injuries worldwide, at 26.6 per 100,000 population for 2013.[18]

Similar quality constraints are seen in port infrastructure where—in addition to limited capacity in terminal storage, operation, and maintenance—many ports lack the capacity even to handle large vessels. And they are hamstrung by inadequate infrastructure networks in the hinterland, such as railway lines and roads linked to ports, often leading to long delays at the ports.[19] In 45 African countries, neither the current stock nor the access nor the quality of infrastructure drives economic growth in a context of low basic infrastructure endowment.[20]

Poor infrastructure shaves up to 2 percent off Africa's average per capita growth rates.[21] Only firms that have very high returns and engage in well-controlled markets can make a profit by operating in Africa, notably extractive industries in mining, oil production, and allied activities. Firms with high value addition, broad job opportunities, and wide sectoral linkages face serious setbacks.

Firms in Africa face adversities due to difficulties in powering their production operations (table 3.4). On average, power outages occur a quarter of the year, significantly increasing down time or exposing firms to costly energy substitute such as private generators. Progress thus far in this area

Poor infrastructure shaves up to 2 percent off Africa's average per capita growth rates

FIGURE 3.4 Electricity and water access in African countries compared with that in China and India

has been very slow. Close to 60 percent of firms operating in Africa consider infrastructure (power shortages and costs and transport bottlenecks) as the most binding constraint they face in their daily operation. Even if most African countries have enhanced their electricity generation capacity, their progress in power distribution has been painfully slow, making the generated electricity unusable for productive purposes.[22]

The consequences of poor infrastructure are not just the opportunity costs of lost growth. They also include retarded human development. Higher child mortality is driven by low access to basic services, such as electricity and clean water.[23]

The productivity loss and the cost to human development brought about by poor infrastructure will not go away without commitments by policy makers and leaders to embark on ambitious

FIGURE 3.5 Access to electricity and GDP per capita, 2014

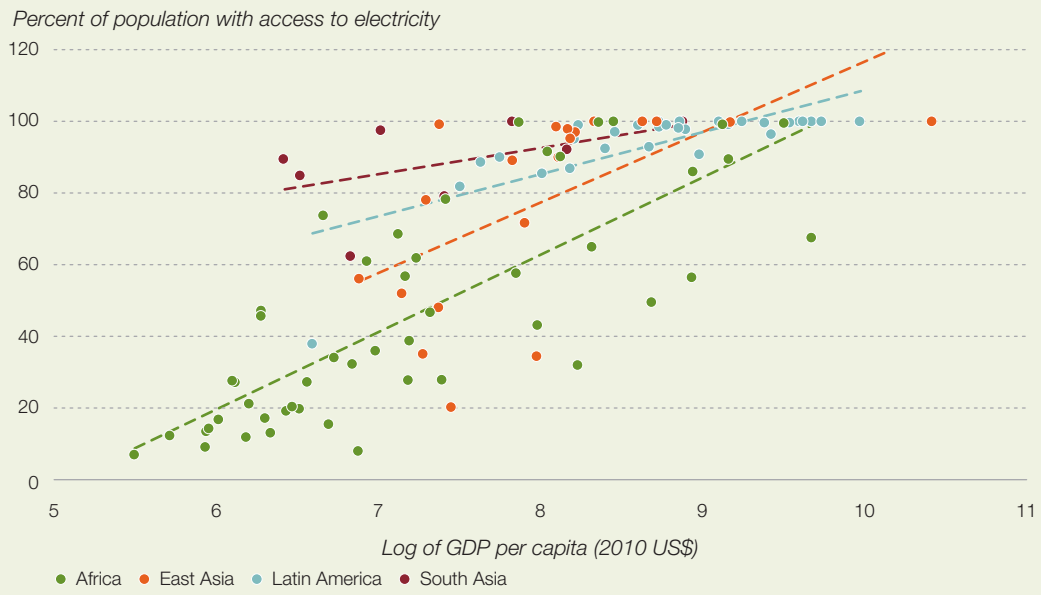
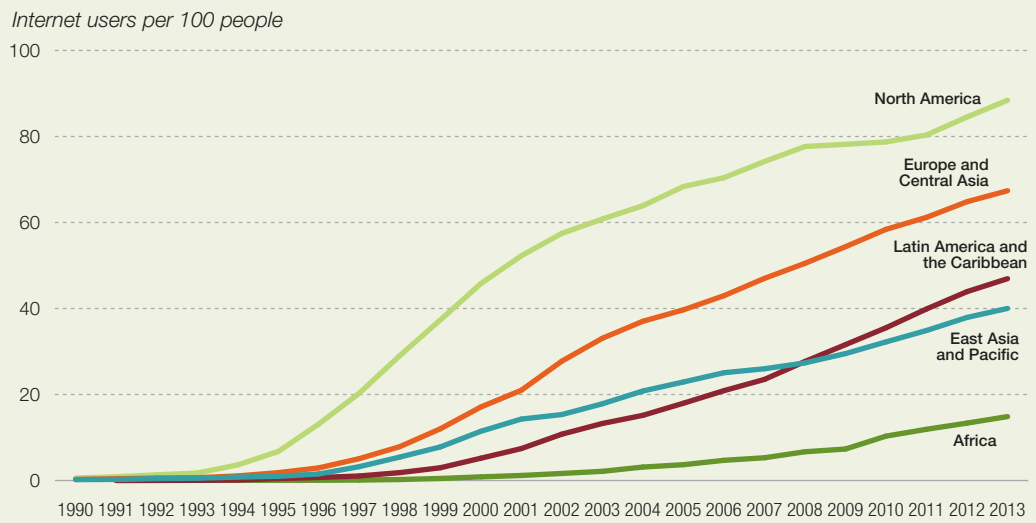


FIGURE 3.6 Internet penetration in selected regions of the world



Source: Computations based on AfDB Data Portal.

The consequences of poor infrastructure also include retarded human development

investments in the sector. First, African countries on average had lower access to electricity irrespective of the level of development, suggesting that what really matters is the political will and committed determination of countries to invest in power generation rather than their ability to afford it (which is still important, however) (see figure 3.5). Second and strengthening this point, some African countries provided access to electricity for large segments of their population, almost close to the East Asia average, while being relatively poorer.

TABLE 3.3 Infrastructure access data for selected global regions

Indicator	Africa	Asia	Europe	Latin America
Transport				
Paved road density (km of paved road per 100 km^2 of land area)	2	25	122	3
Railway lines (km)	46,380	197,610	85,986	89,002
Information and communication technology				
Fixed broadband subscriptions per 100 population	1	6	15	9
Mobile cellular subscriptions per 100 population	73	85	119	115
Power				
Electricity production per capita (kWh)	572	1,930	3,355	2,116
Electricity access (% of total population)	46	88	100	97
Water supply and sanitation				
Improved water (% of total population)	69	90	99	94
Improved sanitation (% of total population)	39	61	93	82

Source: AfDB statistics and World Bank WDI database.
Note: Data are for 2013.

What really matters is the political will and committed determination of countries to invest in power generation

TABLE 3.4 Impact of unreliable infrastructure services on the productive sector

Service problem	Sub-Saharan Africa	Developing countries
Electricity		
Delay in obtaining electricity connection (days)	79.9	27.5
Electrical outages (days a year)	90.9	28.7
Value of lost output due to electrical outages (percent of turnover)	6.1	4.4
Firms maintaining own generation equipment (percent of total)	47.5	31.8
Telecommunications		
Delay in obtaining telephone line (days)	96.6	43.0
Telephone outages (days a year)	28.1	9.1

Source: World Bank 2014.

FACTORS EXPLAINING THE LOW INFRASTRUCTURE PROVISION IN AFRICA

Weak legal, regulatory, and institutional frameworks

Africa's legal, regulatory, and institutional frameworks are major constraints to attracting private capital to infrastructure. Ineffective or nonexistent institutions also pose a challenge. Even when laws are enacted, they may not be implemented or may lack the implementation decrees. In the energy sector for instance, strong and credible financial institutions are required for the sector to work. Private sector players tend to participate in power generation as independent power producers (IPPs) and in the distribution to final consumers (DISCOs). Between the two, a public company

often owns the transmission lines and purchase the power produced by IPPs (off-taker) to sell it to DISCOs. The off-taker typically guarantees the payment of the IPPs production at a pre-agreed rate. The lack of a financially credible off-taker is often a major constraint for IPPs to negotiate and sign power purchase agreements, which can be mitigated through government guarantees backed by guarantee schemes from development finance institutions. This increases project costs and off-take tariffs.

The often inappropriate regulatory framework also limits private sector participation in infrastructure funding. For example, a large number of pension funds in Africa are not allowed to invest in infrastructure projects, even less so outside their countries. Given the small size of most economies, and the cross-border nature of many infrastructure projects, this obstacle is crucial. When allowed, institutional investors may find it difficult to invest as they are often subject to stringent guidelines, such as those for the credit ratings of facilities they invest in, except in Botswana, Mauritius, Seychelles, and South Africa. Most pension funds lack the technical skills to assess complicated infrastructure projects, and there is no incentive for them to assume the extra risk of investing in infrastructure. Fixing these failures would allow African pension funds to allocate up to $4.6 billion a year to infrastructure.[24]

Another area that requires strong institutional intervention is the PPP framework. PPP agreements are often poorly structured and drafted due to a lack of skills or experience in government departments. Lacking actual PPP laws, each project is then subject to individual workaround existing public investment laws and procurement regulations case by case. In the worst case, all project elements have to be developed with all levels of government, adding to uncertainty and extending project development times and complications in procurement. Overall, however, interest is growing for PPPs to support infrastructure in Africa, as reflected in the development of regulatory and institutional frameworks, with many African countries passing laws, national policies, regulations, and PPP units for implementation over the years.

Weaknesses in infrastructure planning and project preparation

The absence of well-defined infrastructure programs and bankable project pipelines is also a major issue in many African countries. At the core of the challenge: The private sector is not prepared to assess, develop, and prepare infrastructure projects, given the costs, risks, and long-time horizons. That means governments, donors, and international financial institutions (IFIs) need to take action through long-term infrastructure planning based on population growth and development objectives and taking into account the economic importance of different regions of a country.

A lack of planning may also prevent a government from taking a programmatic approach to building infrastructure and implementing complementary projects to maximize benefits. For instance, a national highway passing through an agricultural region can be built or upgraded along with rural roads to ensure that farmers benefit from the highway.

Even with infrastructure plans, individual projects need preparation to demonstrate their bankability and reach financial viability. Project preparation includes project identification, prefeasibility and feasibility studies (proof of concept), detailed studies (feasibility, environmental and social impact, design), project structuring, and procurement and concession agreements (including contract negotiation). Strong administrative capacity may also be required for setting up the laws, regulations, and institutions necessary for a specific project. This step can be challenging for African countries due to their lack of capacity and financing. Sometimes, an African country may lack the human capital in the public sector to undertake infrastructure project preparation, which can require highly skilled professionals, so many must seek external expertise.

The more complex the PPP structure, the more extensive the advisory services required. Even if a sufficiently skilled workforce exists in the public bureaucracy, it may be dispersed among multiple ministries and agencies, and unable to work well together. Poor coordination between ministries can make this process complex and time consuming, discouraging investors. But some countries have good models that other countries can

The absence of well-defined infrastructure programs and bankable project pipelines is a major issue in many African countries

adapt, including the Bureau National d'Etudes Techniques et de Développement in Côte d'Ivoire and the Presidential Infrastructure Coordinating Committee in South Africa (box 3.4).

Another constraining issue in infrastructure development is the lack of funding for project preparation. In general, the preparation phase can be very risky for private entrepreneurs if they are not compensated when projects do not reach financial completion; this may happen with relatively high probability due to various obstacles. According to the NEPAD Infrastructure Project Preparation Facility (IPPF), project development costs in Africa average 10–12 percent of total project cost. At that rate, the cost of preparing the PIDA projects alone could be as high as $2.5 billion a year, far more than the $91.8 million currently available in the IPPF or $126 million for InfraCo Africa.[25] Given the estimated infrastructure funding need of $95 billion, project preparation costs can range from $9.5 billion to $11.4 billion, so the funding facilities are well below the needs.

During the operational phase, pricing of user charges by a regulator is often compromised by political motives, without taking into consideration the real cost of infrastructure services and the market pricing of the associated risks. Indeed, African countries have followed a distinct trend when pricing infrastructure services. Services are considered basic rights, and those with strong public-good characteristics have been provided below costs, including water, roads, commuter rail services, and to a varying degree, electricity. Road infrastructure services, for instance, have traditionally been provided toll-free. And in the power and water sectors, illegal connections and undercollection of bills add to losses that undermine the financial stability of utilities.

Poor governance and political economy issues can be major bottlenecks for infrastructure development

Governance and corruption

Poor governance and political economy issues can be major bottlenecks for infrastructure development in Africa, frequently because these projects are complex. They require heavy, long-term investment, have strong public-good characteristics, a long-life, and high sunk costs. And they are very sensitive to local political conditions. These issues naturally affect private investors'

BOX 3.4 Presidential Infrastructure Coordinating Committee terms of reference

The PICC's mandate is to ensure systematic selection, planning, and monitoring of large projects, and its terms of reference include the following:

- Identify 5-year priorities.
- Develop a 20-year project pipeline.
- Achieve development objectives: Skills, industrialization, empowerment, research and development.
- Expand maintenance: New and existing infrastructure.
- Improve infrastructure links: Rural areas and poorest provinces.
- Address capacity constraints and improve coordination and integration.
- Scale-up investment in infrastructure.
- Address impact of prices.
- Support African development and integration.

Overall approach

- An infrastructure book has been compiled, which contains more than 645 infrastructure projects across the country.
- A national infrastructure plan with 18 identified strategic integrated projects has been developed and adopted by the cabinet and the PICC.

Source: PICC 2012.

risk perceptions of infrastructure funding in Africa.

Political rather than economic and social considerations may dictate where infrastructure projects are executed.[26] In many African countries, airports, paved roads, and power plants are built to yield political benefits in the regions of powerful politicians, and end up as "white elephants." This was particularly common in the 1980s.[27] Political bias in project selection also leads to a large number of unfinished projects as new governments fail to complete old projects given their lack of economic returns or their perceived benefits favoring constituencies that may not support them.

Elections and political considerations can shift the composition of public spending toward "more visible" current expenditures instead of capital expenditures.[28] A major infrastructure project can easily take more than five years from inception to commissioning. So, governments might prefer not to undertake such projects in one or two years since they won't be able to show outcomes ahead of the next election. In addition, political considerations may favor constructing new infrastructure as opposed to optimizing the use of what is already there.

The negative consequences of political considerations are often worsened by rent-seeking and corruption, lowering the quantity of productive public investment.[29] Corruption also reduces the efficiency of public investment as corrupt officials give priority to projects that generate higher private material and political gains over projects with higher social returns. In such circumstances, projects take a long time to develop and involve multiple stakeholders. Civil servants at various levels of responsibility play critical roles at various stages in the project development cycle, which increases their opportunities to seek bribes. Projects involve large sums of money and cumbersome regulatory systems with ambiguous rules, leaving room for subjective interpretations, weak accountability, and ineffective transparency mechanisms.[30]

Widespread corruption in infrastructure increases project costs, lengthens delivery times, reduces output quality, and thus lowers benefits.[31] It also undermines infrastructure maintenance and sustainability of benefits. In many countries, not only is there an infrastructure deficit, but the existing infrastructure, such as power plants and paved roads, is not regularly maintained. Bureaucrats may let the infrastructure deteriorate so that renovation and redevelopment will require more funds to siphon off. Vested interested may also stall critical infrastructure projects that displace rent-seeking activities. Strong political will and leadership at the highest level of government is necessary to overcome the powerful forces trying to keep the status quo.

Political considerations and weak management capabilities can also lead to soft but pervasive forms of populism where households and firms do not pay bills, starving public utilities of revenue. Power and water infrastructure tend to record significant wastage. Transmission and distribution losses can be as high as 50 percent of the power output in many Sub-Saharan African countries.[32] In addition to those losses, illegal connections and undercollection of bills hamper the financial stability of utilities in Africa. Utilities typically collect only 70 to 90 percent of billings, and distribution losses can easily be twice as high as technical best practice. It is not unusual for revenues lost as a result of these inefficiencies to exceed the current turnover of the utilities. In the power sector, these losses have been estimated on average at 1.9 percent of GDP.[33] For water utilities, the absolute value of the inefficiencies is smaller, with the average at 0.6 percent of GDP.

These quasi-fiscal costs represent a real financial burden on the public budget, since utilities that incur such deficits must ultimately resort to the state for investment finance and periodic bailouts. They may also represent a real economic burden for the country, as underfunded utilities tend to run down their assets and provide low quality services. The revenues lost as a result of undercollection, distribution losses, and other inefficiencies amount to $6 billion a year.[34]

Widespread corruption also undermines infrastructure maintenance and sustainability of benefits

Infrastructure deficits are not unique to Africa

Despite the fact that good infrastructure investments offer long-term returns immune to the volatility of stock and bond markets, excess global savings are not being channeled into profitable

opportunities. In all world regions, projects are shovel-ready in many countries, which could boost global productivity, global demand, and global growth. But institutional investors seem incapable of finding these potentially profitable investments, or finding the appropriate financial instruments to carry out the necessary intermediation.

Assessing infrastructure finance needs is complex and necessarily inexact, varying with the assumptions. Global infrastructure needs amount to an estimated $5–$6 trillion of investments each year in cities, transport systems, energy systems, water and sanitation, and telecommunications,[35] resulting in a yearly gap of $2–$3 trillion.[36] This gap applies both to developed and developing countries (figure 3.7).

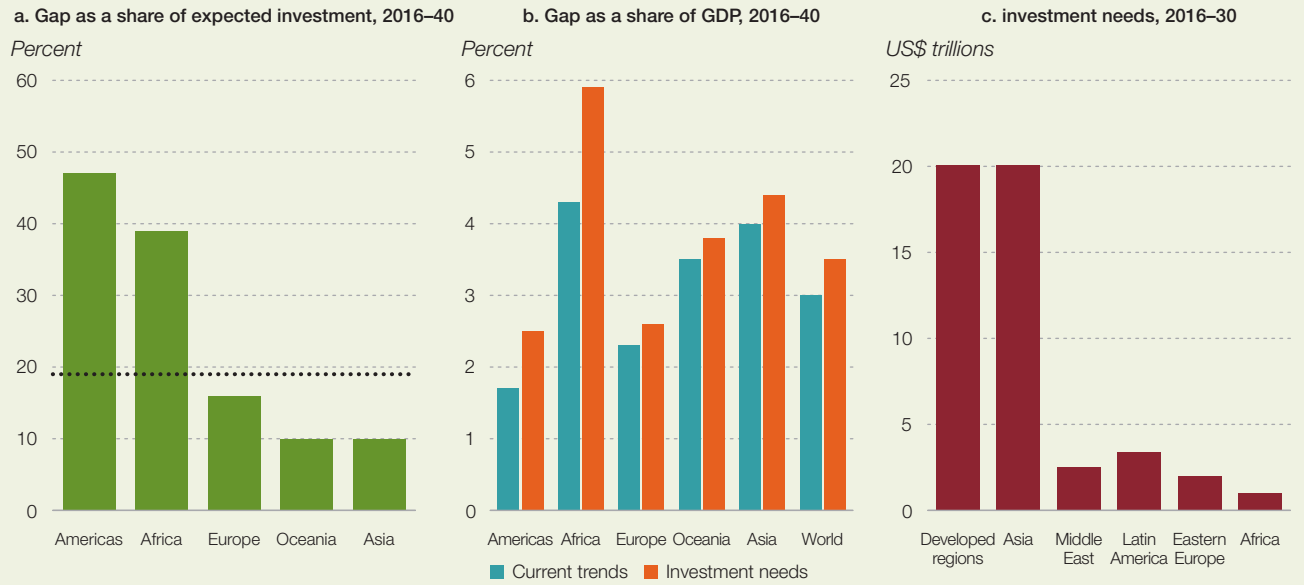
The world needs to invest an average of $3.3 trillion annually just to support currently expected rates of growth…

A comprehensive McKinsey study on transport, power, water, and telecommunications systems finds that the world needs to invest an average of $3.3 trillion annually just to support currently expected rates of growth, with emerging economies to account for some 60 percent of that (figure 3.8).[37] With the world investing about $2.5 trillion a year in these infrastructure areas, McKinsey estimated a global infrastructure gap of about $800 billion a year.

A third study by the World Economic Forum broadening the scope of infrastructure estimates a global need for $3.7 trillion in infrastructure investment each year, while only $2.7 trillion is invested, mostly by governments, suggesting an infrastructure investment gap of about $1 trillion a year. A similar story emerges from a study by McKinsey, which estimates that the G20 nations' need for infrastructure projects will amount to $60 trillion in the next 15 years. This would leave the financing envelop for infrastructure projects and programs in G20 countries short by at least $20 trillion.

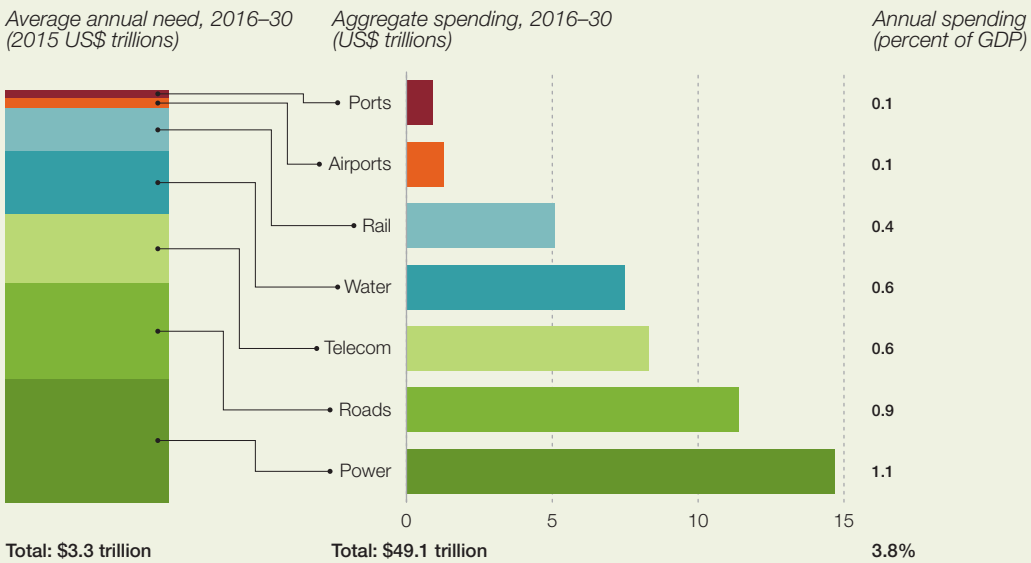
In the United States, the American Society of Civil Engineers (ASCE) has compiled regular "report cards" on the state of the country's infrastructure since the 1980s. In its 2017 report, it grades infrastructure as a "D" on average, meaning that conditions are "mostly below standard," exhibiting "significant deterioration," with a "strong risk of failure." It estimates a total "infrastructure gap" of nearly $1.5 trillion by 2025. The U.S. Department of Transportation estimates that more than $800 billion is required just to shore up the nation's roads and bridges. McKinsey calculates that $150 billion a year will be required between

FIGURE 3.7 Infrastructure financing gaps to 2040 and investment needs to 2030 in selected regions



Source: Calculations based on Global Infrastructure Hub (2017) and UN (online).

FIGURE 3.8 How much should the world invest in infrastructure?



Source: https://mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/infrastructure-productivity.

Note: The estimate of total demand is lower than the $57 trillion projection in previous MGI research. It has been adjusted for the following reasons: This projection covers a 15-year period (2016–30) rather than an 18-year period (2013–30); water numbers have been reduced by 40%, as Global Water Intelligence adjusted its water capital-expenditure definition to exclude equipment spending; base-year prices have been revised from 2010 to 2015; and GDP growth forecasts have been revised downward by IHS.

…and emerging economies account for some 60 percent of that figure

2017 and 2030 to keep abreast of all infrastructure needs in the United States.[38]

Infrastructure problems are similar in Canada. A 2016 Infrastructure Report Card, generated from surveys of more than 100 municipalities representing 20 million Canadians, found that 60 per cent of municipal infrastructure ranked as less than "fair" quality. Just under two-thirds of Canada's bridges, roads, transit lines, water structures, and government buildings are either in need of repair or will be in the near future—at substantial costs.

The situation is also far from ideal even in Europe, where government reports on infrastructure point to crumbling bridges and traffic jams in many places. In Germany for instance, an estimated 15 percent of municipal road bridges need to be completely rebuilt.

Asia will need to invest an estimated $26 trillion from 2016 to 2030, or $1.7 trillion a year, if it is to maintain its growth momentum, eradicate poverty, and respond to climate change (in the climate-adjusted estimate). Without the adjusted mitigation and adaptation costs, $22.6 trillion will be needed, or $1.5 trillion a year. In India, infrastructure needs for the next decade are estimated at between $1 trillion and $2 trillion.[39]

Despite upgrades over the past decades, the level and quality of infrastructure in Latin America and the Caribbean are inadequate and identified as important barriers to growth and development.[40] There have been improvements in some areas of transportation (for the most part in highways), electric energy (electricity supply and generation), but progress in water and sanitation and urban transportation is still viewed as insufficient. In fact, many countries in the region score lower in infrastructure quality—measured by indicators such as reductions in electricity distribution losses, unpaved roads, and telephone faults—than one would expect given their income per capita. Indeed, countries in the region have

lower quality infrastructure than countries with similar incomes in other regions.[41] It is estimated that Latin America should increase investments by 3 percentage points of GDP if it intends to enter the league of developed regions, and everything indicates that the public sector cannot, by itself, mobilize the necessary funds.[42]

INFRASTRUCTURE FINANCE IN AFRICA DECLINED IN RECENT YEARS

With investment needs estimated at $130–$170 billion a year, and commitments from all sources at $62.5 billion in 2016…

Between 2012 and 2016, commitments to Africa's infrastructure from all reported sources averaged $75 billion, with 2013 recording the highest commitment at $83.3 billion.[43] Commitments declined to $62.5 billion in 2016, the lowest level in five years (table 3.5). Overall commitments fell by $16.4 billion from 2015 to 2016. This was mainly due to a large reduction of $14.5 billion of reported funding from China, and a $4.9 billion decline in private sector investment. African governments, whose contributions to infrastructure financing were sharply curtailed in 2014 after the commodity price shock, increased their share slightly from $24 billion in 2015 to $26.3 billion in 2016 (down from the peak of $43.6 billion in 2014).

With investment needs estimated at $130–$170 billion a year, and commitments from all sources at $62.5 billion in 2016, the financing gap for Africa's infrastructure is in the range of $67.6–$107.5 billion. These numbers are all flow variables, not stocks. The value of the infrastructure stock in Africa for 2016 is difficult to calculate rigorously using the inventory method. Few African countries publish estimates of their infrastructure stock. Most of them have a public infrastructure asset management system, especially if they have a ministry of infrastructure, and ministries of finance typically compute figures on public infrastructure assets. But most countries define those assets to include public buildings hosting social services (hospitals, schools, and so on) which we do not include in the definition of infrastructure as per the IMF functional classification used in this report as noted in box 3.2.

For Africa, the share of infrastructure investments in transport is the largest, at around 39 percent, followed closely by the energy sector at 32 percent and water and sanitation at 17 percent. The increasingly important ICT sector is under 3 percent (table 3.6). Digging deeper into sectoral allocations, commitments to the transport sector fell sharply in 2016 to $24.5 billion, down from $34.4 billion in 2014 and $32.4 billion in 2015. The sector benefited from strong Chinese support in 2015 while budget allocations to transport from national governments peaked at $17.6 billion in 2014 before they were depressed by weak oil and commodity prices in the two following years. African national governments nevertheless continued to be the main funders of the continent's transport infrastructure in 2016, providing $14.6 billion (59.6 percent) of the $24.5 billion committed that year. West Africa received the highest transport commitments in 2016 ($6.6 billion or 26.9 percent of the total), and East Africa the highest in

TABLE 3.5 Trends in infrastructure finance in Africa, by source ($ billion)

Source	2012	2013	2014	2015	2016	Average
African governments	26.3	30.5	43.6	24	26.3	30.1
Donors (ICA members)	18.7	25.3	18.8	19.8	18.6	20.2
MDBs and other bilaterals	1.7	2	3.5	2.4	3.1	2.5
China	13.7	13.4	3.1	20.9	6.4	11.5
Arab countries	5.2	3.3	3.4	4.4	5.5	4.4
Private sector	9.5	8.8	2.9	7.4	2.6	6.2
Total	75.1	83.3	75.4	78.9	62.5	75.0

Source: ICA 2017.

TABLE 3.6 Infrastructure disbursements of $62.5 billion by sector in Africa, 2016

Sector	Disbursements (%)
Total disbursed	
Transport	39.2
Water and sanitation	16.9
Energy	31.9
ICT	2.6
Multisector	4.4
Other unallocated	5.1

TABLE 3.7 Infrastructure disbursements in Africa by region, 2016

Region	Share (%)
North Africa	20.7
West Africa	26.1
Central Africa	10.1
East Africa	21.0
Southern Africa (excluding South Africa)	10.4
South Africa	9.4
Pan-African	2.3

… the financing gap for Africa's infrastructure is in the range of $67.6–$107.5 billion

2015 ($11.8 billion, or more than one-third of commitments).

Commitments to the water sector increased substantially from $7.5 billion in 2015 to $10.5 billion in 2016, and surpassing the $9.7 billion reported in 2014. African national governments again provided substantial funding to the sector, with $4.4 billion allocated, while bilateral and multilateral agencies committed $1.5 billion. In keeping with previous years, North Africa ($2.6 billion) and East Africa ($2.5 billion) accounted for almost half of the total commitments to water in 2016. West Africa received $2.1 billion in water sector financing in 2016, a substantial increase on 2015 ($1.1 billion). Financing for projects in Southern Africa stood at $1.9 billion (18 percent), while Central Africa received $851 million and South Africa $528 million.

Financing of energy projects in Africa fell to $20 billion in 2016, from the peak of $33.5 billion reported in 2015, which included African national government allocations of $6 billion. Chinese commitments, almost halved to $4.6 billion, though this still accounted for 23 percent of total commitments to the sector. The relative lack of renewable energy projects reaching financial closing in South Africa, compared with previous years, was a major factor in the overall decline, with the private sector investing just $1.3 billion in 2016.

Southern Africa, historically a primary destination for investment in energy, received only 18.3 percent of total commitments in 2016, down from 50 percent in 2015. By contrast, West and East Africa accounted for more than half of total commitments, receiving $5.6 billion and $5.2 billion, respectively. Commitments to North Africa fell from $4.5 billion to $3.3 billion, while those to Central Africa rose from $1.2 billion to $1.4 billion.

ICT sector commitments stood at $1.6 billion in 2016, less than the $2.4 billion reported in 2015. African national government allocations increased to $853 million, but Chinese investments declined from just over $1 billion in 2015 to $300 million.

Chinese funding in 2016 reached just one project, the second and third phases of Zambia's digital migration. Southern Africa (excluding South Africa) was the largest recipient of ICT commitments from all sources, attracting 44 percent of the total ($715 million).

Overall commitments to Africa's infrastructure from all reported sources declined to $62.5 billion in 2016, the lowest in five years, due mainly to a large reduction of $14.5 billion of reported Chinese funding and a $4.9 billion reduction of private investment.

NATIONAL GOVERNMENTS REMAIN THE MAIN SOURCES OF INFRASTRUCTURE FINANCE IN AFRICA

Internally funded national budget allocations remained depressed in 2015 and 2016 ($24 billion and $26 billion)

Internally funded national budget allocations, on the rise until 2014, remained depressed in 2015 and 2016 ($24 billion and $26 billion). National government capabilities for investment in infrastructure are limited by national fiscal and economic constraints.

Commitments by the European Commission (EC) amounted to $1.4 billion in 2016. The EC manages the European Development Fund (EDF, for Sub-Saharan Africa countries) and the Development Co-operation Instrument for North African countries. Data for 2016 includes the EDF contribution to the EU-Africa Infrastructure Trust Fund (ITF) and Africa Investment Facility (AfIF), but does not reflect the projects approved and implemented with a contribution of the ITF or AfIF, since loans for such projects are provided by other institutions and should thus be reported by these institutions.

The EU-AITF committed $64 million in 2016, down from $156 million in 2015. Most of the 2016 commitments ($58 million) were directed at energy projects, while transport projects received $5 million. Disbursements in 2016 amounted to $38 million, with most for energy ($28 million) followed by transport ($8 million) and water ($4 million). The fund blends long-term loans from participating financiers with grant resources from donors. It provides technical assistance for preparatory work, project supervision and targeted capacity building. It also provides interest rate subsidies and thus reduces the total amount of debt. And it also provides financial instruments to guarantee cost financing, equity or quasi-equity investments or participations, and risk-sharing instruments.

France reported commitments and disbursements through Agence Française de Développement (AFD), its Proparco subsidiary dedicated to the private sector, and Fonds Français pour l'Environnement Mondial (FFEM–French Fund for the Global Environment). Commitments in 2016 totaled $2.8 billion, a bit higher than the $2.5 billion reported in 2015 and $2.4 billion in 2014.

Germany reported $1.1 billion of commitments in 2016 (including DEG, GIZ, and KfW), the same level as in 2015. Most 2016 commitments targeted energy ($778.7 million), followed by water ($330.9 million) and transport ($17.1 million).

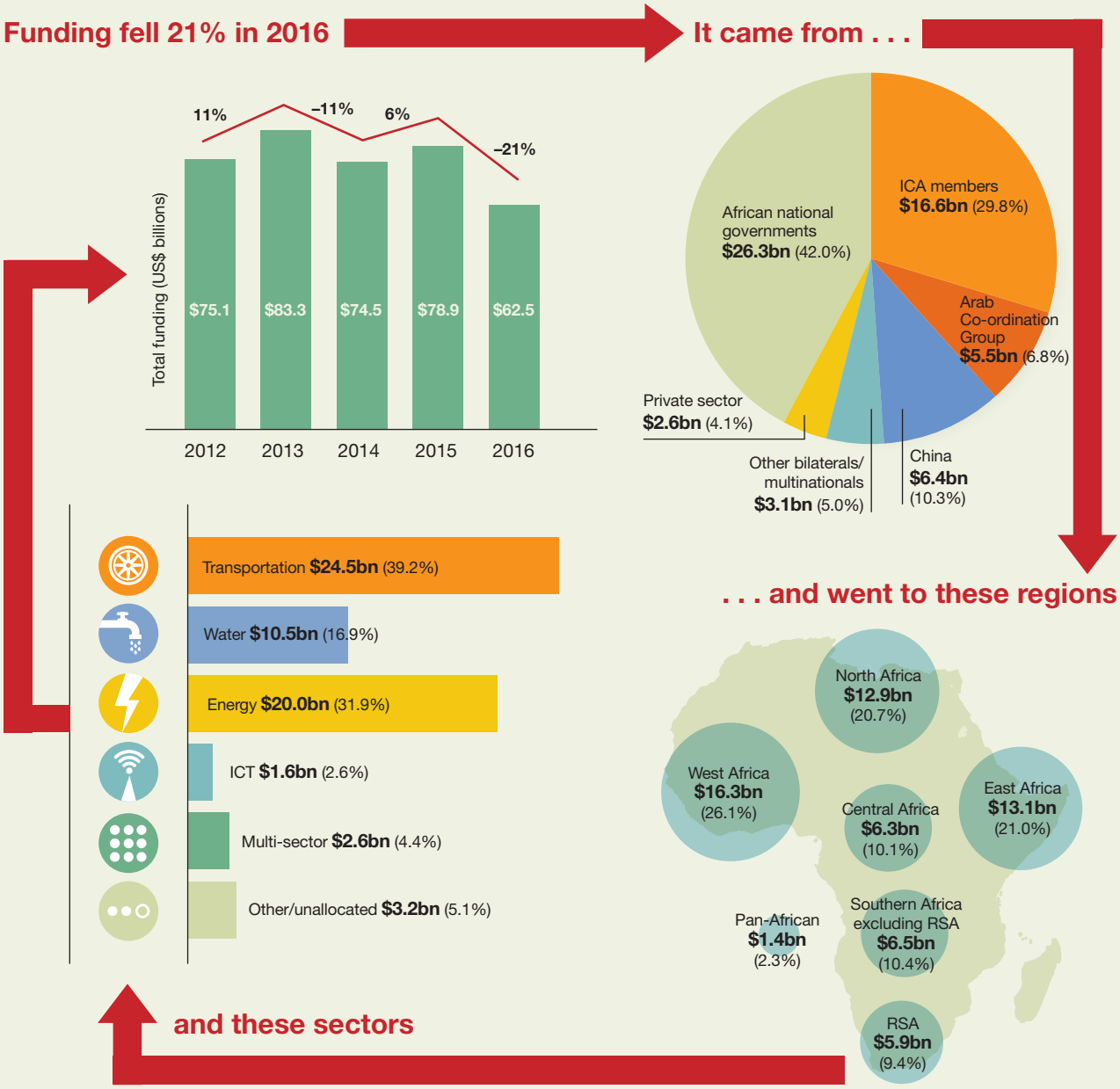
For the UK, direct grant funding from DfID and equity investments by CDC totaled $537 million in 2016 compared with $288 million in 2015. DfID committed $281.7 million in 2016, with most for water ($103.8 million), followed by transport ($78.6 million), multisector ($57.9 million), energy ($33.7 million), and ICT ($7.7 million). CDC committed $287.7 million, with $251 million for the energy sector and $36.7 million for multisector projects. In the same year, DfID disbursed $291 million, with most for water ($109 million), followed by transport ($78 million), multisector ($57 million), energy ($41 million), and ICT ($6 million).

Italy reported commitments and disbursements through Cassa Depositi e Prestiti (CDP), which assumed the role of the National Financial Institution for Development Co-operation in January 2016. Italy, as Chair of the G7, is hosting the 2017 ICA Annual Meeting in Rome. In 2016, it committed $28.8 million to the infrastructure sector, most for water and sanitation projects. Total Italian disbursements that year amounted to $19.7 million, $1.7 million of it as grant money for multisector projects.

China has become a significant player in Africa's infrastructure scene, but commitments vary from 16.1 percent of total funds in 2013 to 4.1 percent in 2014, 26.5 percent in 2015, and 10.2 percent in 2016. The fall in Chinese funding particularly hit the energy sector, with overall sector commitments falling by $14.7 billion (42 percent) between 2015 and 2016. China's $1 billion funding for transport in 2016, compared with nearly

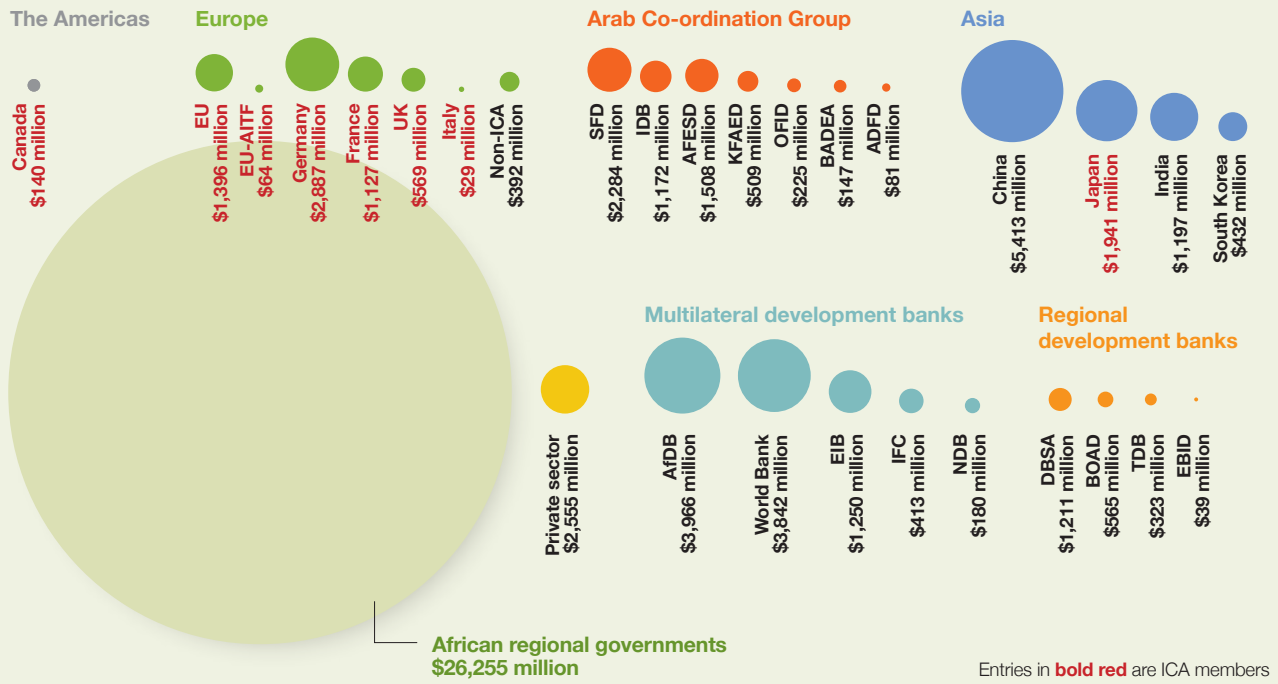
INFOGRAPHIC 3.1 **Overall commitments to Africa's infrastructure from all reported sources fell to $62.5 billion in 2016, the lowest in five years**

Falling commitments in 2016 are substantially due to a large reduction of $14.5 billion in reported Chinese funding and a $4.9 billion reduction in private sector investment



$10 billion the previous year, explains most of the overall decline in funding of 29 percent (or $10.2 billion) for the sector. India's commitments more than doubled in 2016 to $1.2 billion, from $524 million in 2015. South Korea committed $432 million to four projects in 2016 compared with a single commitment of $81 million in 2015. Brazil announced no new commitments in 2016.

INFOGRAPHIC 3.2 Funding for infrastructure relies heavily on external funding, which roughly matches the funding by national governments



The Arab Co-ordination Group (ACG) reported commitments of $5.5 billion in 2016, the third consecutive annual increase and the highest in the last eight years, with average annual commitments of $3.8 billion over those years.

Bilateral and multilateral institutions such as AfDB and the World Bank Group are also supporting infrastructure investment, particularly in projects with public-private participation. Together, they contributed more than 50 percent to infrastructure financing in Africa. AfDB has devoted 60 percent of its portfolio to infrastructure projects since 2009. In the last five years alone, it has allocated $6 billion to power Africa. Recently AfDB also launched a New Deal on Energy to increase access to electricity from about 25 percent of its current level to almost 100 percent by 2025. IFC committed $413.3 million in 2016 compared with $246 million in 2015 and $621 million in 2014. Disbursements of $203 million in 2016 fell from $747 million in 2014 and $292 million in 2015. Completed projects in 2016 included two final debt financings for Umeme, Uganda's privately-owned electricity distributor, and financing for developers of mobile telecoms towers. IFC also signed off the 134MW Amakhala wind farm completed on South Africa's Eastern Cape. It is part of the country's Renewable Energy Independent Power Producer Procurement Programme (REIPPP), which IFC also supported through several other renewable energy projects.

Regional Development Banks (RDBs) provide significant support to infrastructure development through provision of loans. As an example, DBSA in 2016 had disbursement and commitment of $1.2 billion (see infographic 3.2). By contrast four major RDBs (BOAD, EBID, TDB and EADB) together committed a total of $924 million in 2016, almost twice the previous year, with about 90 percent to energy and transport projects.

Private sector mobilization with the public sector

The funding mobilized by the private sector (about 4 percent) is a useful contribution to the funding mix, though not on the same level as

governments and development finance institutions (DFIs). Cooperation with the private sector has the potential to give access to additional resources triggered. Development plans of the major DFIs and most national plans include access to private sector funding. In addition to general constraints and risks related to infrastructure funding, the private sector is particularly concerned. The continuing success or increase of provision of these funds depends not only on market conditions but suitable risk mitigation for commercial risk and constraints.

The good news is that Africa could achieve the 2030 Sustainable Development Goals and the High Five Agenda by adopting new and emerging technologies, materials, and processes that would accelerate economic growth.[44] The continent does not have to repeat the technological mistakes that other world regions made when developing new infrastructure. Instead, it could "leapfrog" to new technologies, including green and digital technologies.

GREATER FINANCING OF HIGH-QUALITY INFRASTRUCTURE WOULD CONTRIBUTE TO GLOBAL PUBLIC GOODS AND ADDRESS SOME OF THE WORLD'S BIGGEST CHALLENGES

The global economic recovery is under way, and new sources for growth are emerging, especially in developing countries. But global growth, still below potential, is insufficient to provide the employment opportunities needed to mitigate the effects of climate change, social conflicts, and refugee flows—and to slow the migration of unskilled labor out of Africa. Downside risks remain due to the potential volatility in financial markets, fluctuations of commodity prices, sluggish trade and investment, and slow productivity and employment growth in some countries.

The international community acknowledges that global growth can be boosted to create more jobs only if it is "powered by new driving forces."[45] After adopting the Sustainable Development Goals (SDGs) in 2015 (box 3.5), the United Nations General Assembly recently adopted a resolution declaring 2016–25 the Third Industrial Development Decade for Africa. While reaffirming the importance of addressing shortfalls in global demand to support short-term growth, G20 countries have indicated that it is also imperative to address supply-side constraints to raise productivity sustainably, to expand the frontier of production, and to unleash the potential for mid- to long-term growth.

The G20's New Industrial Revolution Action Plan is a blueprint to support industrialization in developing countries, especially in Africa.

Industrial production creates job opportunities at higher skill levels. It also facilitates denser links with the service and agricultural sectors, between rural and urban economies, and between consumer, intermediates, and capital goods industries. Manufactured exports are less volatile and less susceptible to long-term price deteriorations than those of primary goods. Furthermore, industrialization is a critical tool in employment generation, poverty eradication, and regional development policies. Industrialization can also spur technological advancement and innovation as well as productivity gains. Indeed, virtually all the successful countries recognized the critical role of industrialization and actively supported their industries through targeted policies and institutional development.

The manufacturing sector typically has higher productivity than other sectors. It provides special opportunities for capital accumulation, spatial concentration, agglomeration economies and dynamic economies of scale. It drives technological change and presents many opportunities for learning and upgrading, and its positive spillovers and linkages to the economy are typically stronger. Compared with other sectors, manufacturing is particularly well suited to create direct and indirect jobs, better paid than in other sectors and typically with better working conditions. The generation of direct and indirect jobs in manufacturing and manufacturing-related services includes more people in the growth process. It also increases productivity, wages, and family incomes, thus reducing poverty.

Seventy percent of Africa's population is under the age of 30, and more than 80 percent of the

The global economic recovery is under way, and new sources for growth are emerging

BOX 3.5 Employment, industrialization, and the Sustainable Development Goals

Strong progress in employment generation in Africa, preferably in the formal sector, would improve the conditions for global prosperity and social peace. It requires integrating skilled and unskilled—and low-skilled people unemployed or underemployed—into the active labor force. Only inclusive and sustainable industrialization can provide employment in low-income countries dominated by low-skilled labor. Virtually no country was able to end poverty, build human capital, and establish well-functioning institutions, move from low income to high income, and achieve economic prosperity and social stability without industrializing, which enriches the stocks of physical and human capital and stimulates knowledge generation and diffusion.

Employment generation is the key to success for all the Sustainable Development Goals adopted by the world community in 2015. It is the single most important tool for eradicating poverty (Goals 1 and 2) and helping people everywhere develop human capital and soft skills (Goal 4), which eventually give them the means for improving their health (Goal 3). Decent employment converts excluded women into empowered and active citizens (Goal 5). It also converts even the least skilled people in the labor force into productive agents and taxpayers, generating sustainable growth (Goal 8). And it gives governments the financial resources to build infrastructure and provide public services and utilities (Goals 6 and 7).

By helping working families gain new and stable sources of income, inclusive and sustainable industrialization is the most effective route to end hunger, achieve food security and ensure adequate nutrition for all (Goal 2). It also offers equality of opportunities to people across social groups and geographical areas, and good possibilities to reduce inequality (Goal 10). It is also the best way of promoting sustainable consumption and production patterns (Goal 12) of building inclusive, safe, and sustainable cities and human settlements (Goal 11).

Inclusive and sustainable industrialization is the appropriate platform for establishing mutually beneficial partnerships between low-, middle-, and high-income countries (Goal 17). By offering government and corporate interests in poor and rich countries the incentives to design and implement profitable new models of cooperation and durable productive ventures, it gives all parties incentives to search for environmentally sensible deals. It thus helps in addressing climate change and other environmental concerns (Goals 13, 14, and 15) while creating the conditions for building peaceful and inclusive societies, the rule of law, and effective and capable institutions (Goal 16).

With the right policies, industrialization in Africa would spur growth and contribute to global demand

workforce is either unemployed or engaged in informal and subsistence activities. Unless rapid and sustained industrial development takes place across the continent, unemployment and underemployment there are likely to worsen, pushing workers to migrate to other regions of the world, especially Europe.

But with the right policies, industrialization in Africa would spur growth and contribute to global demand. By raising productivity and creating formal sector employment, it would boost average incomes, raise domestic consumption, support a rapidly growing middle class, and boost demand for imported capital equipment. According to UNIDO research, for every percentage point increase in the share of manufacturing in African GDP,[46] per capita investment would increase $66 and per capita consumption would increase $190. This boost in investment and consumption would increase their requirements for imported capital and consumer goods from other regions of the world, notably the G20 economies, the source of most of Africa's imports.

Increased production of capital and consumer goods in G20 economies and in Africa would also put into motion several multiplier effects, generating further demand for intermediate inputs, augmenting incomes, and increasing employment.

TABLE 3.8 Projected increase in production and employment in G20 countries due to industrialization in Africa and least developed countries *($ millions)*

	Investment	Consumption	Total
Direct exports from G20	28,538	63,586	92,123
Indirect effects of exports	45,805	85,841	131,647
Indirect effects of production increase in Africa and LDCs	109,478	204,026	313,504
Total increase in production	183,821	353,453	537,274
Total increase in employment (thousands of workers)	2,171	5,332	7,503

Source: Simulations based on Eora Multi-Regional Input Output Table, 2013.

Note: Employment figures were calculated using sectoral employment data from ILO WESO 2015. Direct employment requirement coefficients were calculated dividing sectoral employment of 2013 (as published in ILO WESO 2015) by sectoral output of 2013 (as published in Eora). Employment increase in the last row of the table was then calculated multiplying these direct employment coefficients by the corresponding change in production, by sector and by G20 country.

UNIDO estimates that increasing the share of manufacturing in GDP in Africa (and other LDCs) could boost investment in the G20 by about $485 billion and in household consumption by about $1.4 trillion.

Using the same method it is also possible to estimate: a) the direct increase in G20 exports of consumer and capital goods to Africa and LDCs triggered by their industrialization; b) the indirect increase in production in G20 countries triggered by these augmented exports; and c) the indirect increase in production in G20 countries triggered by the augmented production in Africa and LDCs needed for the domestic production of investment and consumer goods (table 3.8).

The impact of African (and other LDC) industrialization on G20 economies would also be large. Direct exports of capital and consumption goods would increase by more than $92 billion. And the indirect effects associated with this increase in exports—given the domestic linkages between G20 exporters and other domestic producers—would increase G20 production by $132 billion. The most important effect, however, is related to the increase in the domestic production of consumer and capital goods inside Africa (and other LDCs) and the multiplier effect on other parts of the world, particularly on the G20 countries. These multiplier effects would amount to almost $315 billion. All that would generate 7.5 million jobs in the G20 economies.

In the decades ahead, Africa could thus become a major contributor to and driver of global growth, just as Asia has been. New opportunities for decent jobs, especially for youth in the Arab world and in Sub-Saharan Africa, would alleviate socio-political tensions and mitigate the risks of seeing large numbers of disenfranchised youth joining radical militant groups and posing threats to global peace and security. Higher growth rates in Africa would yield additional global benefits. It would bring higher tax revenues to many low-income countries—and reduce their dependence on foreign aid. And it would help improve their domestic health systems and strengthen their capacity to prevent and handle disease outbreaks, such as Ebola and Zika.

To yield such potential global benefits, Africa's industrialization would have to be underpinned by a robust infrastructure financing program. This requires a global finance pact among advanced and developing countries, a shift in strategic approaches, and new models of financing, as chapter 4 details.

In the decades ahead, Africa could become a major contributor to and driver of global growth

ANNEX 3.1 AFRICA'S INVESTMENT NEEDS: A NOTE ON METHODOLOGY

The main data sources for calibrating the models used to estimate investment needs were the AfDB Socioeconomic Database, AIKP database and Power plant database for the power sector (both available through AfDB platform "Africa Information Highway – AIH"). Whenever data were not available from these sources, we used publically available sources.

Power: The model for estimating power sector investment needs per country is the Open Source Energy Modeling System (OSeMOSYS), an optimization model.[47] The models aim to support a more active and informed engagement of energy stakeholders in developing energy investment strategies. It was applied to 13 countries (Algeria, Burundi, Comoros, Djibouti, Egypt, Libya, Mali, Morocco, São Tomé and Príncipe, Seychelles, South Sudan, Swaziland, Togo, Tunisia, and Zimbabwe). It covers all or individual energy sectors, including heat, electricity, and transport. Used mainly for long-run energy planning, it has been written using the open source high-level programming language GNU Mathprog. It calculates power system investment needs and energy dispatched by minimizing the total discounted costs. The model is driven by exogenously defined demands for energy services. The parameters used as inputs to the models are GDP growth rate, urban target access rate, rural target access rate, cost of coal, cost of oil, discount rate, and climate-change sensitivity.

Roads: The model used for estimating road sector investment needs for Africa is the RONET (Road Network Evaluation Tool) model (Sub-Saharan Africa Transport Policy Program–SSATP Working Paper No. 89-A). RONET assesses the performance of the road network over time under different road maintenance standards. It determines, for example, the minimum cost for sustaining the network in its current condition and estimates the savings or the costs to the economy of maintaining the network at different levels of service. It determines the allocation of expenditures among recurrent maintenance, periodic maintenance, and rehabilitation road works. It is developed from the same principles underlying the Highway Development and Management Model (HDM-4). It uses simplified road user cost relationships, based on HDM-4 or other relationships, and simplifies the road deterioration equations derived from the HDM-4 research.

ICT: The estimate is based on an assessment of future investment needs in African telecom infrastructure across 45 countries. The current status and future needs were assessed in three broad categories:

- Coverage extension and capacity expansion driven investment in mobile networks.
- Investment need in fiber backbones including across borders.
- FTTP/H rough indicative estimate potential based on local affordability.

The estimates take into account the future waves of investment in the industry for 2016–25, characterized by an upgrade and modernization of mobile networks to support the shift to smartphones—and fiber broadband and fiber access as the major new emerging trend. For mobile investment, detailed GIS models focusing on coverage extension and capacity expansion were used. In recent years, more than $4 billion has been invested in African submarine cable systems connecting all coastal states to high capacity fiber. Cable technology advanced in this period with newer cables having much greater capacity than their immediate predecessors. Modern cable systems are designed to be upgradeable to at least double their capacity, so it seems unlikely that any major capacity investment will be needed before around 2020. Fiber to the premises (or home), known as FTTP/H, has started in several countries from Egypt to South Africa (where a classic fiber "landgrab" started recently). Conditions are highly variable across Africa, but where fiber backbone capacity is sold at a reasonable price, a middle class with money to spend and a liberal regulatory environment then there is clear rough indicative FTTH Potential growth. We have calculated a very rough indicator of potential for each

country at $12 billion of CAPEX to be invested in FTTH based on possible demand today.

Water and sanitation: The model used for estimating investment needs is based on three scenarios described in table A3.1.

The inputs to the model are population statistics (urban, rural and national population and population growth rates); population distributions across urban and rural areas, current access (access to water and sanitation by technology and location); and water unit costs (unit cost per capita of each water supply technology at various densities).

The outputs of the model are capital costs (costs of service expansion to serve the additional people that need to be covered by improved water supply and sanitation by 2025 in order to achieve SDG targets); rehabilitation costs (costs of maintaining new and existing access); and O&M costs (costs of rehabilitating existing access). The base scenario was used to generate the investment needs figures with universal access as the access target for year 2025.

Revision of the estimates

Using the above foregoing methodologies, total investment needs is estimated at $100 billion a year over 2016–25. But the estimate of the power sector investment data is under revision using a new model (called BALMOREL) that takes into account the current access rates, population density, poverty, and investment climates for each country to determine the pace and relative importance of grid, mini-grid and off-grid connections. We believe that Africa power investment needs will be in the range of $35–$50 billion a year (actual calculation based on 12 countries gives $7 billion). Road sector data are also under revision and may be estimated at $15–$20 billion. ICT data will be revised with a slight change at $4–$7 billion and water and sanitation at $56–$66 billion. The remaining transport subsectors (air, rail, and port) should account between $20–$27 billion (according to our rough estimates). In total, investment needs should range between $130–$170 billion.

TABLE A3.1 Three high-end scenarios

Scenario		Pragmatic scenario	Base scenario	High-end scenario
Water	Urban	Stand posts	2015 distribution across modalities is preserved	Piped water: if 2015 coverage < 20%, 2025 coverage increases to 30%; if 20% ≤ 2015 coverage < 40%, 2025 coverage increases to 50%; if 40% ≤ 2015 coverage < 70%, 2025 coverage increases to 70%; if 40% ≤ 2015 coverage < 70%, and selected target coverage < 70%, 2025 coverage increases to selected target coverage (universal or HG); the remaining additional customers are served by stand posts
	Rural	Safe boreholes		If 2025 rural density < 50 people/km^2, 2015 modality distribution is preserved. Otherwise: piped water: if 2015 coverage < 10%, 2025 coverage increases to 10%; if 10% ≤ 2015 coverage < 20%, 2025 coverage increases to 20%; otherwise 2025 coverage is the same as in 2015; standposts: if 2015 coverage < 10%, 2025 coverage increases to 20%; if 10% ≤ 2015 coverage < 30%, 2025 coverage increases to 30%; if 2015 coverage ≥ 30%, 2025 coverage increases to 60%; the remaining additional customers are served by boreholes
Sanitation	Urban	VIP latrines	2015 distribution across modalities is preserved	At least 5% of sewer coverage in all countries. In addition: in LIC countries, septic tanks coverage same as 2015. All the remaining additional customers served by VIP; in non-LIC countries VIP latrines coverage same as 2015, remaining additional customers all to be covered by septic tanks
	Rural	Traditional latrines		In all countries: sewer coverage same as in 2015; septic tanks coverage to be increased to 5% if currently < 5%, otherwise same as in 2015; VIP latrine coverage to be increased to 30% if currently < 30%, otherwise same as in 2015; all the remaining additional customers to be served by traditional latrines

NOTES

1. Defined as the infrastructure investment needs minus the total amount of financing commitment made by all donors to resorb the infrastructure deficit.
2. Arezki et al. 2017.
3. Infrastructure is a heterogeneous concept that typically includes both various types of physical assets that are used in an economy as inputs to the production of goods and services. This description encompasses "social infrastructure" (such as schools and hospitals) and "economic infrastructure" (such as energy, water, transport, and telecommunications). This chapter focuses on economic infrastructure.
4. Barro and Sala-i-Martin 2004.
5. Aschauer 1993; Gramlich 1994.
6. Dethier 2015.
7. Barro 1990.
8. Sanchez-Robles 1998; Sutherland et al. 2009.
9. MGI (2016) estimates that a one percentage point of GDP investment in infrastructure could generate up to 3.4 million jobs in India and 1.3 million in Brazil.
10. WEF, Bain and Co., and World Bank 2013.
11. Fagernäs and Roberts 2004.
12. Dethier 2015.
13. For details of the nine sub-components see AfDB (2013).
14. Gross fixed capital includes land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings.
15. Foster and Briceno-Garmendia 2010.
16. Alliance for Affordable Internet 2017.
17. http://www.enterprisesurveys.org/data/exploretopics/infrastructure. Accessed November 20, 2017.
18. WHO 2015.
19. AfDB 2011.
20. Kodongo and Ojah 2016.
21. Foster and Briceño-Garmendia 2010.
22. World Bank 2014.
23. Shimeles and Nabasaga 2015.
24. Sy 2017.
25. See: https://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/nepad-infrastructure-project-preparation-facility-nepad-ippf/. Or http://www.infracoafrica.com/who-we-are/#funding. Accessed November 27, 2017.
26. Castells and Sole-Olle 2005.
27. Arezki et al. 2017.
28. Vergne 2009.
29. Baliamoune-Lutz and Ndikumana 2009.
30. Stansbury 2005.
31. Locatelli et al. 2017.
32. MGI 2013.
33. Foster and Briceño-Garmendia 2010.
34. Foster and Briceño-Garmendia 2010.
35. Bhattacharya, Oppenheim, and Stern 2015.
36. Estimates drawn from Global Commission on The Economy and Climate (2014).
37. https://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/infrastructure-productivity.
38. Source for ASCE US: https://www.infrastructurereportcard.org/the-impact/failure-to-act-report/.

Source for McKinsey US: https://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/bridging-global-infrastructure-gaps.

Source for U.S. Department of Transportation: https://www.transportation.gov/grow-america/fact-sheets/roadways.

39. https://www.adb.org/sites/default/files/publication/227496/special-report-infrastructure-highlights.pdf.
40. Karpowicz, Matheson, and Vtyurina 2016.
41. Karpowicz, Matheson, and Vtyurina 2016.
42. CAF 2016.
43. ICA 2017.
44. ICA 2017.
45. G20 Huangzhou Communiqué.
46. The figure considers only countries with per capita incomes below 25,000 international dollars of 2005 and manufacturing shares below 25% of GDP.
47. Howells et al. 2011; Welsch et al. 2012.

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FINANCING AFRICA'S INFRASTRUCTURE: NEW STRATEGIES, MECHANISMS, AND INSTRUMENTS

4

KEY MESSAGES

The excess savings in many advanced countries could be channeled into financing profitable infrastructure projects in Africa. That this mutually profitable global transaction is not taking place is one of the biggest paradoxes of current times.

More than $100 trillion is managed by institutional investors and commercial banks globally. African countries seeking financial resources now have a wide variety of options, well beyond foreign aid.

Many new financing mechanisms could be implemented in all African countries, taking into account the specific economic circumstances and the productive structures of national economies.

Countries should better leverage public funds and infrastructure investments, while encouraging private sector participation. But the different stages of development of African countries mean that the policy approaches need to be country specific.

Universal access to high-quality infrastructure can only be a long-term goal. Trying to achieve it with limited resources has led governments to spend too much on too many projects with low economic returns and little impetus for industrial growth and employment creation.

But African countries do not need to solve all their infrastructure problems *before* they can achieve sustained and inclusive growth. Instead, they should focus on how to best use their scarce infrastructure budget to achieve the highest economic and social returns.

For much of the past two decades, the global economy has been characterized by excess savings in many advanced countries. Those savings could be channeled into financing profitable infrastructure projects in developing regions, especially Africa, to achieve the G20's industrialization goal. That this mutually profitable global transaction is not taking place is one of the biggest paradoxes of current times.

Some of the world's major economic problems—slow growth, global unemployment, climate change, uncontrolled migration—can be solved only if Africa becomes economically prosperous. Industrial development there powered by infrastructure would not only alleviate pain and suffering among the 1.3 billion people who live there. It would also contribute to reducing the global poverty that sustains violence, terrorism, socio-political tensions, the mass migrations of unskilled labor, and high unemployment in some advanced countries—notably in Europe.

Matching the excess savings and the investment opportunities beyond national boundaries would create win-wins for all players

Rich countries have excess savings. By contrast, poor countries have investment deficits that could be absorbed by the abundant financial resources (and knowledge) from rich countries. Excess savings are creating financial and economic problems in rich countries (such as inordinately low interest rates) and investment deficits are weakening growth prospects and perpetuating economic and social misery in developing regions. This mismatch is a major weakness in the global growth engine, which former U.S. Federal Reserve chairman Ben Bernanke once referred to as the "global savings glut" or "investment dearth." Today's low interest rates are evidence of the glut: There are more savings searching for yield than there are obvious profitable investment opportunities.

Three solutions for the international financial community to resolve the savings glut are straightforward:

- First, adopt a policy of even more negative real interest rates in high-income countries—adding to inflation—but this would be technically and politically difficult.
- Second, use the excess savings to finance public investment in rich countries. For example, a recent government report indicates that 44 percent of Germany's bridges need repair—again, that would be difficult to deliver politically given the limited appetite for further fiscal stimulus and rising fiscal deficits in rich economies.
- Third, facilitate the flow of capital to developing countries, where there are many profitable investment opportunities would require purchasing capital equipment from industrialized economies.

With every G7 central bank having committed to a long period of low interest rates, organizations of global governance such as the G20, and private organizations of global reach and influence such as the World Association of Investment Promotion Agencies, could help by making two points: That the current era of low inflation is ideal for investing in competitive ventures—in fact, despite the uncertainty, the potential benefits of investing exceed the potential costs; and that investment should be promoted in low-income countries, where the needs are enormous, using capital from high- or middle-income countries.

A GLOBAL PACT TO FINANCE INFRASTRUCTURE IN AFRICA AND STIMULATE INDUSTRIALIZATION WOULD GENERATE MAJOR GLOBAL DIVIDENDS

Matching the excess savings and the investment opportunities beyond national boundaries would create win-wins for all players. Policy makers in advanced and developing countries should be striving to create conditions for harmonious development, to sustain or generate lasting prosperity. Private actors everywhere are searching for profitable ventures at reasonable levels of risk—they need to make profits to stay in business. Civil society organizations want to ensure good opportunities among all citizens and create social peace. All these players are driven by different motives, but they all strive for faster growth and greater prosperity. But because economic policy making is still largely conceived and implemented within national borders for national constituencies, the world economy is not reaping the potential dividends of international cooperation.

In a continental approach, the African Union Commission, the NEPAD Planning and Coordinating Agency, and the African Development Bank have created financial vehicles to address the continent's infrastructure deficit. In addition, the G20 Infrastructure Action Plan, Infrastructure Consortium for Africa, EU-Africa Infrastructure Trust Fund, and Africa Infrastructure Country Diagnostic all highlight regional infrastructure for Africa's growth.

In a global framework, the international community could launch a global pact to finance Africa's infrastructure and stimulate industrialization. Such a pact, much like the Global Structural Transformation Fund recommended by economists Justin Yifu Lin and Yan Wang (box 4.1), would allow Africa to address its major economic and sociopolitical problems and take its natural place in the world as a strong contributor to global demand. It would also provide advanced economies with opportunities to channel their excess savings into productive investment ventures, and allow them to create jobs in many industries within their own borders. Ultimately, Africa could become an even larger new market and contribute more to global demand.

A NEW APPROACH FOR INFRASTRUCTURE FINANCE IN AFRICA: FROM "INFRASTRUCTURE DEFICITS" TO STRATEGIC TARGETING

A common conclusion drawn from the analysis is that more money is needed before African countries can ignite or accelerate their industrialization and structural change. At face value, that claim seems logical. After all, infrastructure—the pillar of growth—is notoriously inadequate or in bad shape on the continent and in many parts of the world. But the numbers and the reasoning may be misleading.

First, a lot of financial resources are underutilized in the international system and domestically in all developing countries. An estimated $120 trillion is managed by institutional investors and commercial banks globally. Developing countries seeking financial resources now have a wide variety of options, well beyond foreign aid. Remittances amounted to $430 billion in 2016, more than three times the volume of global aid. Private grants from philanthropists are growing rapidly. And tax revenues, which already amount to about $500 billion in Africa,

Developing countries seeking financial resources now have a wide variety of options, well beyond foreign aid

BOX 4.1 A Global Structural Transformation Fund

To avoid a protracted "new normal" of slow growth, with high unemployment, high economic volatility, and low returns to financial investment, one solution, proposed by Lin and Wang (2014), would be to create a Global Structural Transformation Fund. By mobilizing excess savings from advanced and emerging economies, and institutional investors such as sovereign wealth funds, it would support green-growth, bottleneck-releasing infrastructure projects worldwide.

Unlike the traditional Keynesian stimulus, the proposed Fund would have several unique features.

First, rather than increasing government spending to support consumption, or "digging a hole and filling a hole" in advanced economies, the Fund would increase demand in the short term and raise growth prospects in the longer term. Traditional stimulus directs spending to the domestic economy, while this proposal recommends a globally coordinated initiative, directing global savings to the highest developmental impact of employment generation and the highest social rates of return. The projects funded would increase demand and jobs in advanced countries and offset the contractionary effect when less advanced countries implement the structural reforms. Here is why:

- Infrastructure investment in developing countries can mitigate some of the post-2008 crisis ills that some advanced countries still face, and help create jobs and generate growth in advanced economies. Most of the capital goods—such as turbines and excavators to build power plants, sewage systems, and roads—are produced in advanced economies. Infrastructure investments

(continued)

BOX 4.1 A Global Structural Transformation Fund *(continued)*

in developing countries would thus increase demand for manufactured goods in advanced economies. For every dollar invested in developing countries, imports of capital goods increase by 50 cents. About 70 percent of traded capital goods from developing countries are sourced from high-income countries. This implies that a one dollar increase in investment in developing countries would produce a 35 cent increase in exports from high-income countries.

- Infrastructure investments can also create jobs and improve competitiveness. For the United States, $1 billion in new investment spending in transportation, schools, water systems, and energy could create 18,000 jobs,[1] about 40 percent of them in construction and 10 percent in manufacturing, the two sectors hardest hit by the 2008–09 recession. Supporting manufacturing, on a secular decline in the United States and several European economies, would create large-scale employment opportunities, particularly in capital-intensive sectors where labor productivity is consistent with the incomes of advanced countries.

The Global Structural Transformation Fund would increase demand in the short term and raise growth prospects in the longer term

Second, investing in "bottleneck-releasing" infrastructure could increase social and financial rates of return, as well as employment generation and poverty reduction in the long term. The proposed Fund would help use the excess capacity and excess savings in industrial and emerging market economies. In Japan, a large amount of household savings is trapped in extremely low interest rates—well below 1 percent for 10-year government debt. In the United States, the yield on the 10-year Treasury bond is close to 2 percent. In China, the nominal interest rate on 10-year government bonds is 3 percent, with the real interest rate close to zero. The average economic rate of return for World Bank projects evaluated over 1983–92 was 11 percent for electricity projects, and 29 percent for road building. The estimated rate of return to electricity-generating capacity could be as high as 100 percent a year (in 1985, for Bangladesh, Bolivia, Kenya, and China), but as low as 10 percent—even negative—in some countries.[2]

Third, investing in infrastructure alone may not propel the growth engine and generate jobs unless it is combined with productive assets and human capital. A common misconception is that the lack of investment in infrastructure is always to blame where the private sector is not creating jobs. The causes may in fact be related to inadequate agglomeration and cluster development, and to other productive assets and human capital or capacity.

Fourth, for the large infrastructure funding and capacity gap in developing countries, especially for renewable energy and green technology, the Fund could help "crowd in" funding and increase the use of green technology by transforming cities into green cities. This would incentivize emerging-market economies such as Brazil, China, and India and those in Arab countries to invest abroad and relocate some of their excess production capacity to low-income developing countries where there is demand.

Fifth, infrastructure consists of a spectrum of public, semi-public, and private goods. Government budget and official development assistance should finance public goods such as drinking water and sanitation. Other financing sources (including FDI) could support semi-public goods, such as electricity, roads, ports, and airports. The Global Structural Transformation Fund would be a bridge fund aiming to crowd in official development financing from other sources. Infrastructure investment must be associated with zone or urban development, such as special economic zones and industrial parks, which can foster structural transformation.

Notes

1. Heintz, Pollin, and Garrett-Peltier 2009.
2. Canning and Bennathan 2000.

could be increased substantially by rationalizing tax policies, broadening the tax base, and strengthening collections. Also in the picture are sovereign wealth funds, market finance, and foreign direct investment of more than $1 trillion a year.

Second, the main problem with the infrastructure-deficit approach is the underlying assumption that one day Africa and the world might be able resolve it. Yet throughout history, the infrastructure deficit has been a perpetual policy problem and solving it will remain a work in progress, especially in a world of continuously changing technological development. Developing countries do not need to solve all their infrastructure problems to reduce poverty and share prosperity. If they mobilize and use the existing pool of resources more wisely and devote them more strategically to support industries consistent with their economies' comparative advantages, they could ignite and sustain high growth rates to lift themselves out of poverty.

Moreover, Africa's infrastructure challenges are not insurmountable. The continent's infrastructure gap does not prevent even its poorest countries from *initiating* a process of sustained and inclusive economic growth. No country in human history has started its process of economic development with good infrastructure—certainly not Great Britain in the late 18th century, certainly not the United States in the early 19th century, and certainly not China in the late 20th century, where there was only a very small network of highways. True, poor infrastructure is a binding constraint on economic performance. But it is not an insurmountable barrier for launching economic transformation, especially with today's globalized economies, decentralized global value chains, freer trade, mobile capital flows, and migration of skilled workers. No country with limited financial and administrative resources should be expected to tackle in one go the long list of reforms for building all the infrastructure its economy needs as "preconditions" for generating economic growth.

Africa's infrastructure gap may never be filled, even when the continent reaches high income. Infrastructure development and maintenance are a matter of constant concern for policy makers —even high-income countries need continuous industrial and technological upgrading. A more pragmatic approach would be to focus the government's limited resources and implementation capacity on creating "islands of excellence," or carefully selected areas with sound infrastructure and good business environments (even where these two elements are poor overall) to facilitate the emergence of competitive industries that exploit an economy's latent comparative advantage.[1]

ATTRACTING INFRASTRUCTURE FINANCE TO AFRICA: REDUCING RISKS

In assessing the attractiveness of infrastructure projects and programs in Africa, public and private investors use a series of key parameters and criteria. Of particular concern is the level of perceived risks and ways to mitigate them. Their severity varies by country and sector. The issues cross all aspects of project planning, development, and implementation. At the core of any financing scheme is the cash flow generated, and the "availability" of such cash flow is a critical risk determinant for any investment proposition. Infrastructure investments can provide relatively stable cash flows over a long period, making it essential for African governments to develop appropriate contractual regimes that will enable such certainty.

Poor infrastructure is not an insurmountable barrier for launching economic transformation

In-country capacity

- In ability to develop and implement effective and attractive infrastructure schemes.
- Lack of effective in-country management contributes to poor project performance.
- Lack of effective management capacity in potential off-takers and public service providers can contribute to below-standard performance and be a major barrier to increased use of private financing, such as independent power producers (IPPs).

Governance

- Support is needed at the highest level of government.
- Infrastructure needs to be a sectoral and national priority.
- Costly infrastructure projects must be consistent with the budget framework.

- Budget deficits must stay sustainable and consistent with credible macroeconomic stabilization.

Infrastructure planning

- There is a general lack of infrastructure masterplans and associated planning capacity, with planning poorly integrated.
- Project pipelines are generally not well developed.
- Few projects are sufficiently detailed to allow for private sector involvement. (A project is bankable if it provides clear incentives for lenders to consider financing it.)

The major aid and funding agencies, such as AfDB, provide a range of support

Funding and financing

- National funding or public support through sector funding may not be available. It may be hard to find domestic equity investors with realistic expectations or experience of complex financing.
- Constraints of aid and development finance institutions add to long development times and to the administrative requirements, though some entities such as the Multilateral Investment Guarantee Agency (MIGA) are streamlining their processes.
- Particularly for bonds, there is a need to ensure that debt liabilities are offset against productive infrastructure.
- Delays between borrowing and implementation erode the effectiveness of financing, particularly for bond issues.

Counterparty risk

- Infrastructure often requires the private sector to partner with national and subnational government entities, including state-owned enterprises. These public entities present counterparty risk to any private party—whether a private party operating on behalf of a public entity or a public entity responsible for repaying commercial financing, as when an SOE issues a bond in capital markets.

Country and sector risk

- Caution is called for when assessing the effectiveness of long-term political, regulatory, and institutional arrangements, though instruments are available for mitigating political or currency risks.

Project development and management

- Few projects are large enough to attract interest from major commercial players (including domestic actors) to enable efficiencies of scale in financing costs.
- Fully defined projects with appropriate prefeasibility and feasibility studies are lacking.
- Data are lacking on the state of the assets or the expected outcomes for assets.
- Appropriate funding for project preparation is in short supply, though addressed to a degree by institutions such as the World Bank's Public Private Infrastructure Advisory Facility, the United Kingdom's Private Infrastructure Development Group (PIDG), Infra Co., and other similar project preparation facilities.
- For PPPs, the capacity of counterparties (governments, subnationals, state-owned enterprises) to manage the relationship with the private sector, including changes in circumstances to long-term contracts, is very rare.

Procurement

- Open and consistent procurement is needed. Multilateral development institutions operating in Africa require coherence with their own procurement standards, but these systems still vary widely.
- Government decision-making criteria may be inadequate for project selection.
- The continent lacks common contractual forms.
- Difficulties of transparency and clarity of procurement rules abound.
- Long lead times, with long transaction times, are common.
- Bid processes are inefficient.

This is not a comprehensive list, but illustrates the risks and issues to be considered in developing and implementing infrastructure investment programs. Investors will have risk issues related to their particular business perspective. The major aid and funding agencies, such as AfDB, provide a range of support to address these issues through stringent processes, technical support, and capacity building to assist in planning, evaluating,

and implementing at all stages of the infrastructure project cycle.

Other entities such as the International Finance Corporation (the World Bank's private-sector investment arm) provide support for project development and attracting private investment, with funds such as PPIAF addressing project preparation for PPP projects.

More recently, multidonor platforms such as the Global Infrastructure Facility (AfDB is a partner) provide more targeted development funds aimed at the entire project cycle. Money for project development (typically on a grant basis or recoverable only if the project is successfully taken to market) is coupled with project support. Such project support funding and financing is still under design, but it is understood that the money would be available to provide credit enhancement or other financial support, such as buying down the total cost of capital in some form of viability-gap funding mechanism. Several entities—including MIGA, AfDB, GuarantCo, and Nigeria's InfraCredit—offer risk mitigation, credit enhancements, and guarantees to support financial arrangements, PPPs, and access to local and international capital markets (box 4.2).

BOX 4.2 Project development funds for African infrastructure

Infrastructure Consortium for Africa: Hosted by the African Development Bank, the ICA is a catalyst for projects rather than a funding agency. Its members include all G8 and G20 countries and a range of regional and multilateral banks.

Private Infrastructure Development Group: Established in 2003, the PIDG is a multidonor organization governed by development agencies.25 Its members commit funds through a range of mechanisms, including a technical assistance facility, a mechanism that supports the preparation of projects for private sector involvement (DevCo); InfraCo Africa, which invests in bankable projects not being developed due to high risks in the early stages; the Emerging Africa Infrastructure Fund (EAIF), which provides long-term loans to private infrastructure projects; and GuarantCo, which provides local currency guarantees. More recently, the PIDG has also supported the creation of InfraCredit, the guarantee facility for Nigeria that has recently approved its first local guarantee structure.

EAIF: Created in 2002, the EAIF pools funding from DFIs and private commercial banks. Managed by Investec Asset Management, it is part of PIDG, a multidonor organization with members from seven countries and the World Bank Group. At end-2017, it had financed 67 projects, with total investments of $16 billion.

Power Africa: Launched by the United States, this initiative is one of the most ambitious plans for regional infrastructure development. The five-year strategy envisages doubling electricity access in Sub-Saharan Africa, providing access to 50 million people by 2020. Power Africa brings together technical and legal experts, the private sector, and governments from around the world to increase the number of people with access to power. The framework includes financing from commercial banks, private equity firms, and major energy companies. The initiative is a focal point for the energy infrastructure activities of a range of U.S. agencies, including the Export-Import Bank, the Agency for International Development, and the Overseas Private Investment Corporation.

EU-Africa Infrastructure Trust Fund: Supported by 12 EU member states, this fund uses its grants to leverage additional finance from EU DFIs.

Multidonor platforms such as the Global Infrastructure Facility (AfDB is a partner) provide more targeted development funds

POTENTIAL NEW FUNDING SOURCES FOR AFRICAN INFRASTRUCTURE

Since the high inflation of the 1970s, world interest rates have tumbled. Today, vast amounts of capital are looking for higher yields than those in OECD countries. Some African countries are taking advantage of the low rates (box 4.3). The securitization of sovereigns such as Mozambique and Ghana, as well as the lengthening of maturities for local currency debt, are major trends.

Vast amounts of capital are looking for higher yields than those in OECD countries

Sovereign wealth funds

SWFs operate out of 60 countries, and globally manage $7.2 trillion. African SWFs represent a small but growing share (20-plus funds) amounting to around $1.6 billion. They have not yet featured much in infrastructure, though several of them have mandates that favor infrastructure and industrial development. Because the funds are based on sovereign wealth such as oil and commodity prices, the economic climate over the last few years has not been the best for some of the funds.

Pension funds

Pension funds are potentially a highly valuable untapped source for infrastructure funding. Pension savings enjoy high liquidity, but the funds are risk-averse. Even though returns can be high, these funds make only a small share of Africa infrastructure investment.

Foreign direct investment

FDI, one of the least volatile forms of investment, accounts for 70 percent of private capital flows to Africa. Although most flows are into mineral resources (including oil and gas), there is some potential for infrastructure at this stage, such as PPP arrangements in the power sector.

International bond markets

The entry of Africa into the eurobond market has increased from the original highly successful Ghana bond issue in 2007. This is fueled by low international interest rates, and in the region by low public debt and rapid domestic growth. The eurobond market offers a niche for infrastructure funding.

BOX 4.3 African countries have borrowed at rates below those in eurozone economies

African countries have borrowed at rates below those in some eurozone economies. Zambia's 2012 yields were below those for Spain; Nigeria's rates were lower than those for Ireland. Among the major bond issues:

Zambia issued a heavily oversubscribed 10-year $750 million eurobond with a yield of 5.6 percent in September 2012, with the funds earmarked for a number of infrastructure projects.

Nigeria made its debut on the bond market in 2011 and returned with a $1 billion issue in 2013. Yields were 5–6 percent on an issue that was four times oversubscribed. More recently Nigeria issued international bonds for $300 million maturing in 2022 with a 5.625 percent coupon.

Rwanda issued a $400 million bond with a coupon paying 6.8 percent that was nine times oversubscribed in 2013, and an infrastructure bond worth Rwf 15 billion ($200 million) in 2015.

Ghana issued a $750 million eurobond in 2013, three times oversubscribed at a rate of 7.8 percent. The proceeds were earmarked for capital investment and reducing the public debt. A total of 22,394 transactions took place on the market from August to December 2015, with the value of bonds reaching $1.5 billion and the average monthly value of trades around $258 million.

Mozambique entered the market for the first time with a $500 million seven-year bond issued by a government-backed agency with an 8.5 percent yield.

Gabon raised $1.5 billion in an oversubscribed 10-year eurobond issue and debt exchange (2013).

Source: http://cbonds.com/countries/.

Infrastructure-related funds

The Africa50 Infrastructure Fund has 25 shareholders with African investment connections, including AfDB subscriptions of $830 million to the initial share capital. Established to facilitate infrastructure development in Africa, the fund acts as a bridge between public and private sectors, with private companies taking the lead in project structuring. It invests as a strategic minority investor, leveraging funds from other investors. The first investment will be for a solar-photovoltaic independent power producer in Nigeria.

Other international financial institutions

The New Development Bank, active internationally, supports finance for green and renewable energy. Its first commitment to infrastructure development in Africa was a 2016 loan of $180 million to South Africa's state-owned power utility, for transmission lines to connect a 500 MW renewable energy plants to the grid.

The Asian Infrastructure Investment Bank, though not yet active in Africa, has stated that it is willing to look at investments on the continent to strengthen regional integration and South-South cooperation.

ATTRACTING INSTITUTIONAL INVESTORS

Institutional investors are not heavily represented in African infrastructure. However, pension funds and SWFs have the potential to be big (box 4.4), but country reforms and new financial instruments are required to attract them.

Sovereign bonds

Sovereign bonds are issued by a growing number of African countries and parastatals. These should potentially be attractive to pension funds and SWFs, but the potential market risk appears to be holding back the more risk-averse investors. Some development partners, such as the Agence Française de Développement (AFD), are developing financial instruments to attract this class of investor. With a similar aim, development partners are looking for ways to guarantee or mitigate project risks to attract institutional investment and private capital.

Development capital

Several DFIs are looking to promote a development capital approach, such as CDC in the UK, Norfund in Norway, and AFD in France. Typically, these would involve taking projects to financial close with a planned exit strategy. For example, AFD is investing $664 million in equity over five years, with a focus on independent power producers and airports. For another example, the IFC committed $413.3 million in 2016, with disbursements of $203 million to the private sector, including debt financing. The projects included telecoms as well as power generation and distribution facilities, with emphasis on renewable energy.

PRIVATE PARTICIPATION IN INFRASTRUCTURE FINANCING IN AFRICA

Private participation in infrastructure (PPI) is widely seen as a strategy to lift efficiency in operations, maintenance, and long-term asset lifecycle management (box 4.5). It can be in the form of PPPs or mobilizing private capital from commercial loans (even if provided to publicly owned entities such as SOEs) and through the capital markets (local and international). Yet PPI numbers globally are low.[2] Sub-Saharan Africa saw 11 infrastructure deals totaling $3.3 billion, or 5 percent of global PPI investment, in 2016. This falls 48 percent below 2015 investment totals and the five-year average (both $6.4 billion). Nine deals were in the energy sector in 2016, and two in transport. Uganda had four projects, Ghana and Senegal two. Ghana's two projects—Amandi Energy Power Plant ($552 million) and Tema Port Expansion ($1.5 billion)—resulted in $2.05 billion invested in 2016;[3] and Uganda closed four projects totaling $64 million (box 4.6). By contrast, the region had 24 projects in 2015: 22 in energy, and 1 each in transport and water.

Private participation in infrastructure (PPI) is widely seen as a strategy to lift efficiency

BOX 4.4 African institutional investors

In Africa, the assets managed by African institutional investors are expected to rise to $1.8 trillion by 2020 from $670 billion in 2012 (box table 1).

African pension funds have expanded in several countries, offering a viable option for long-term financing opportunities. Africa's economic growth—with the rise in the continent's middle class, deepening financial markets, and regulatory changes bringing more people into the social security net—have contributed to expanding these pension funds. Price Waterhouse Coopers estimates that pension fund assets under management in 12 African markets will rise to around $1.1 trillion by 2020, from $293 billion in 2008.[1] More than half the global population growth between now and 2050 is expected on the continent. And the African middle class is projected to reach 1.1 billion by 2060, or 42 percent of the population. So far only 5–10 percent of the population in Sub-Saharan Africa is covered by a pension system (except for South Africa), far from North Africa's 80 percent.

BOX TABLE 1 African institutional investors, projections to 2020

Type of investor	2012 ($ billion)	2020 ($ billion)
Pension funds	300	1,100
Insurance companies	200	445
Sovereign wealth funds	170	300
Total	670	1,845

Source: Analysis based on Okpamen (2015).

The assets managed by African institutional investors are expected to rise to $1.8 trillion by 2020

Based on asset size as a share of GDP, the top three pension funds are in South Africa (87 percent), Namibia (77 percent), and Botswana (47 percent). South Africa has about $258 billion in assets, but growth is strong elsewhere on the continent. In Nigeria, where regulatory changes were implemented in 2006, pension funds have accumulated more than $30 billion in assets, and Ghana's pension fund reached $2.1 billion in 2014. Pension funds in Africa have typically invested heavily in domestic debt. Nigeria, Tanzania, and Uganda focus on fixed-income assets, mostly government bonds, while Botswana, Namibia, South Africa, and Swaziland allocate more to equity investments.

African SWFs have grown in recent years as a result of significant revenue increases from commodities, notably in oil-exporting countries (Libya, Nigeria, and Chad). African SWFs manage $154 billion in assets, 2.1 percent of the global SWF industry, growing in number from 15 in 2011 to 21 in 2016.[2] Around 83 percent of African SWF assets are from oil revenues, and 17 percent from mineral and other commodity sources. According to IE-SWFLab 2016, the Algerian Revenue Regulation Fund is the largest SWF in Africa, with assets of more than $77 billion, followed by the Libyan Investment Authority, with more than $60 billion.[3] In Sub-Saharan Africa, Botswana's Pula Fund and the Ghana Petroleum Fund are two well-governed funds with a successful investment track record. Both funds try to preserve future income and invest in the local economy.

African insurance companies, closely linked to economic growth, account for 1.6 percent of the global insurance market. Against the OECD average penetration rate of 10 percent, African insurance companies have a low average of about 3.5 percent of GDP. With $46 billion, South Africa is the largest insurance market in Africa (72 percent). Other markets include Egypt, Morocco, Kenya, and Nigeria.[4]

The continent's insurance industry continues to expand despite the recent economic downturn. Global insurance companies such as Axa and Allianz have recently boosted their investments on the continent, covering certain insurance lines. Axa recently acquired local insurance companies in Nigeria (Mansard) and Egypt (CIB) and is considering Algeria as a potential market.

Notes

1. PwC 2015.
2. IE–SWLab 2016.
3. Although the assets of these two funds are expected to dramatically decrease as a result of the drop of the oil price.
4. African Insurance Organization 2017.

Source: AfDB forthcoming.

BOX 4.5 Increased local and international partnerships in Africa

In November 2013, the U.S. energy company AES purchased a majority stake in Cameroon's power utility, Société Nationale d'Électricité. Other partnerships between global and national companies are becoming more common: During Nigeria's $2.5 billion privatization in 2013, local companies that had formed consortia with foreign players—including Siemens, Manila Electric, Symbion Power, and KEPCO— emerged as winners of most projects.

In 2015, Meridiam launched the €300 million Meridiam Infrastructure Africa Fund to invest for the long term in African infrastructure. This approach, and the ability to act as a value-added partner for public authorities, is particularly appropriate for the African marketplace. The fund focuses on greenfield infrastructure, leveraging Meridiam's expertise in developing and managing such projects.

Source: http://www.eib.org/products/lending/equity_funds/acp_equity_funds/meridiam-infrastructure-africa-fund; http://www.africaprogresspanel.org/publications/2017/.

Partnerships between global and national companies are becoming more common

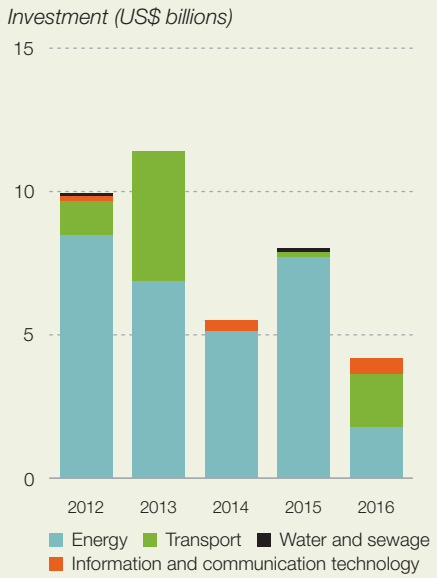
BOX 4.6 Public-private partnerships in African infrastructure

PPP numbers in Africa are lower than in other developing regions.[1] Africa saw 17 infrastructure deals totaling $4.18 billion in 2016, much lower than the $11.4 billion in 2013 for 29 projects (box figure 1). Eleven deals were in energy in 2016, two in transport, and one in telecommunications.

PPPs can also fund brownfield infrastructure. In some instances, such assets, already built, have effectively been de-risked. A fully operational asset can benefit from private management to increase operational effectiveness and efficiency, or private capital to allow for major rehabilitation, upgrades, or extensions. Multilateral development banks (MDBs) may want to redouble their efforts to:

- Identify a stock of assets where private participation may be for improved management, technology, or services.
- Assess whether public funding can enhance the public provision of the infrastructure asset and whether it can capture local institutional investors.
- Identify complementary actions to release stranded assets, such as strengthening institutional oversight, laws, and regulations.

BOX FIGURE 1 PPP investments in Africa, 2012–16



Source: World Bank 2017c.

Note

1. See World Bank PPI Database Annual Report 2017 (January–June Update, p.6); and Arezki et al. (2017).

POSSIBLE NEW FINANCING MECHANISMS TO SUPPORT AFRICAN INFRASTRUCTURE

Despite the challenges of providing productive infrastructure in Africa, there are successful practices of infrastructure project development experimented with on the continent and across the world. Many of them could be implemented in all African countries, taking into account the specific economic circumstances and the productive structures of national economies.

Infrastructure projects as an asset class to attract institutional investors

Some countries are using a wide range of financing mechanisms to support investments in infrastructure

Infrastructure debt has not yet been widely considered a major asset class by investors in Africa. But some countries on the continent are using a wide range of financing mechanisms to support investments in infrastructure, and the successful new approaches should be scaled up. They include creating an "infrastructure asset" class to attract institutional investors and the enhanced use of guarantees by government or DFIs that can lower perceived private sector risk and crowd in funding.

Learning from experience in product initiation

African policy makers should also draw on the experience of international financial institutions in designing and initiating innovative financial products to mobilize international sources of finance for infrastructure (table 4.1).

Innovative financial products for infrastructure

African countries can attract new financing into infrastructure either through PPPs or through local and international capital markets. Demand is increasing for efficient public spending, and depending on a country's macroeconomic situation and ratings, innovative products are being designed to help developing countries create new platforms for institutional investors interested in financing infrastructure. But the Basel II and III solvency requirements constrain some financial investors potentially interested in infrastructure.

Project puttable bonds

The bonds are designed to mobilize pension and life insurance funds as well as sovereign funds for PPPs in emerging economies. They would finance long-term investment funds from the beginning to the closing of a project, avoiding refinancing risk. They would apply to a greenfield project. To facilitate long-term finance, an MDB could provide a put option after the construction and ramp-up period and receive a guarantee premium. The MDB would then take the construction and early operational risk to facilitate financing, complemented by commercial loans, if appropriate.

To make the structure bankable, the bonds should be investment graded. Consider if an institutional investor with an appetite for long-term investments bought a 20-year bond (assuming 3 years for construction, 2 for ramp-up, and 15 for operation), with principal and interest payments guaranteed by the MDB. After five years, the investor would have a put option to sell the bond to the MDB, on the condition that the projects did not meet predefined specific minimum conditions (triggers), such as successful construction completion, minimum coverage ratios, and minimum credit rating conditions. The MDB would hold such a bond and support the project to meet performance obligations, and could then consider selling the bond to pension funds again. Only projects that are sound, economically viable, and aligned with the MDB's country assistance strategy would be considered.

Debenture structure

The proposal is for an MDB to provide short-term, flexible loans for governments to buy debentures or convertible bonds to finance the initial phases of a project. The debentures would be issued by a privately owned special-purpose vehicle (SPV) that builds and operates the infrastructure facility and finances the initial phase of the project. After construction and after some of the initial risks have subsided, the government would sell the debentures in the market to investors and use the proceeds to repay the MDB. The government could benefit from any upside in the projects, if bonds are convertible.

TABLE 4.1 Project examples in Africa

Project description	Critical risk issues and how addressed
Kenya Lake Turkana Wind Power Project Total project cost, estimated at $680 million, includes the cost of the envisaged 400 km transmission line from Lake Turkana to the Susua substation near Nairobi, as well as the cost of upgrading 200 km of roads and bridges. The project will be financed through equity debt (25%), mezzanine debt (5%), and senior debt (70%). The project showed some innovation in how the liquidity risk was managed (by a combination of letters of credit and escrow account arrangements).	• PPP structure for generation (private sector) and 428 km transmission line (public sector). • The African Development Fund applied its first partial risk guarantee to mitigate T-Line delay risk (which is otherwise covered by delay payment obligations of the Kenya government to the project company and its lenders). • AfDB used its B-Loan structure, allowing participant banks to benefit from its preferred creditor status. • The European Investment Bank, with guarantee structures from the Danish Export Credit Agency (political and commercial cover) and from two South African banks—Standard Bank of South Africa Limited and Nedbank Limited (commercial cover)—could leverage €200 million into the project. • The application of the EU–Africa Infrastructure Trust Fund financial instrument (which blends DFI money with grant money from the EC) was crucial to filling the equity gap.
Uganda Bujagali 250MW hydropower IPP project This is a build, own, and operate contract by Bujagali Electricity Limited, whose sponsors are Industrial Promotion Services (Kenya) Limited and SG Bujagali Holdings Ltd, an affiliate of Sithe Global Power, LLC (United States). Total financing requirements are $798 million.	• The structure mobilized commercial lenders by providing a credit enhancement and a pooled approach. • The debt facility consists of a commercial loan of $115 million, from Standard Chartered and Absa banks, covered by a World Bank partial risk guarantee. • The rest of the financing came from other multilaterals, such as IFC, which committed $130 million in loans, the European Investment Bank, which lent $140 million, and the AfDB, $110 million. European DFI financing consists of French development agency Proparco, with a $73 million loan, DEG/KfW of Germany with $45 million, and Dutch financier FMO with $73 million. All senior loans have a 16-year door-to-door maturity, of which $627 million is financed by debt, and $171 million by equity. The debt:equity ratio is around 78:22. MIGA provided an equity investment guarantee of up to $115 million for 20 years.
Namibia local currency bond IFC has launched the first bond by a nonresident issuer in Namibian capital markets, raising 180 million Namibia dollars ($12 million) for private sector development. The five-year bond is named Namib ("vast space") after the world's oldest desert.	• The structure looks at systematically developing local capital markets by creating "reference" transactions for bonds in the domestic market. Proceeds support private companies that would not have access to locally denominated long-term capital. • The bond is part of a medium-term note program registered with the Namibian Stock Exchange that allows IFC to issue up to 10 billion Namibia dollars (roughly $650 million), in bonds in the domestic market. • IFC invests the proceeds of the bond to support private development in Namibia. The bond yield is 9.812 percent a year. • Standard Bank and IJG Securities (Pty) Ltd are lead managers for the bond issuance. IJG Securities is also the sponsoring broker on the transaction, while Standard Bank and Transfer Secretaries (Pty) Ltd are fiscal agents.
SOE access to capital markets guarantee: Kenya Power and Lighting Company	• Providing SOE access to the capital markets achieves refinancing savings. • The debt restructuring facility is part of $500 million of new commercial financing to refinance KPLC's existing debt with a much longer tenor loan and with a lower interest rate. • A $200 million loan guarantee to backstop KPLC's debt service obligations under a $500 million syndicated loan facility. • Ultimately, KPLC's financial position will be strengthened with nearly $180 million saved by the debt restructuring. • Guarantee signed in 2015, with a tenor of 10 years.

The advantages of the proposed approach are fourfold. It minimizes overall financing costs (and government subsidies) because it uses government interim finance at the time it is most expensive for the private sector. It maximizes private involvement since all financing would come from the private sector in the end (maximizing incentives for efficiency in operations). It supports capital market development in the host country. And it minimizes the use of MDB capital, since the loan to finance debentures would be relatively short term (3–4 years, against 15+ years for normal project loans).

The MDB would assist the government with designing the infrastructure facility and structuring the debenture or bond instrument and SPV. It would also reduce refinancing risk by offering flexibility in the loan, allowing the government to choose the optimal time to float the debenture or convertible bond.

Output-based long-term PPP agreements

This structure incorporates output-based arrangements. Output-based aid (OBA)[4] is a financing strategy for public funds to support the delivery

of basic service where policy concerns would justify public funding to complement or replace user fees. Payment typically is made only once a preagreed output has been reached. In the proposed model, the grantor enters a PPP agreement with the developer. The developer commits to performance targets specified in the PPP agreement and receives financing for capital spending from commercial capital markets. Tariff revenues provide the developer's source of cash flow. These are used to cover O&M expenditure, debt repayment, and capex financing, with any remainder retained as profit. Tariff revenues are supplemented by funds payable by a subsidy fund, which is to pay on an output basis. This could apply to sectors such as electricity or water and wastewater.

The OBA concession model should be used where developers cannot set tariffs to achieve full cost recovery

The subsidy fund could be financed by an IFI. The subsidy, based on a predefined output that incentivizes the developer to provide the output, is paid into a fund administered as a neutral escrow account, backed by an independent auditor that confirms service provision. The debt incurred by the subsidy fund would be the responsibility of the grantor.

The main advantage of introducing OBA subsidies is reducing the burden on the developer of recovering all its costs (O&M expenditure, debt repayment, capex financing, and profit) through the tariff and connection charges (box 4.7).[5] Tariffs can remain low, and the developer can obtain full cost recovery and, in some instances, a return on investment. The predefined outputs linked to the incentives can include:

- The provision of access to service is defined as the delivery of working connections demonstrated through a paid water bill. In this case, the total or partial cost of a connection is paid by the subsidy fund based on each new connection. An added advantage is the increased accountability that comes with this system, because customers can monitor the developer's performance on the basis of connections provision.
- Having the subsidy paid to the developer as a proportion of the customer's bill provides an incentive to improve and extend billing capabilities and reduce unbilled water. In this way, the subsidy is paid at the same frequency as a customer is billed, giving the developer an incentive to increase the amount of water billed and to improve service delivery. Another advantage is the transparency provided to customers, who can view the subsidy level on their bill.
- Assurance is given to commercial lenders cautious about the regulatory and political risks to debt repayment, by linking the subsidy to outputs but paying it directly to the commercial lenders.
- A wastewater incentive bases the subsidy on the volume of wastewater treated.

The OBA concession model should be used where developers cannot set tariffs to achieve full cost recovery for political or social reasons and where the political and regulatory risks do not threaten the project and can be comfortably

BOX 4.7 Mozambique: Using subsidies to strengthen bankability

Two national water projects between 1999 and 2007 increased access to water to 37 percent in the major cities of Beira, Maputo, Nampula, Pemba, and Quelimane. They also strengthened sector institutions and the regulatory framework. And they piloted the delegated management framework, which separates assets from operations, contracts out operations management to private operators, and oversees a regulatory body. They also aim to secure full cost recovery through tariffs, but this will not include connection costs.

The Global Partnership on Output Based Aid provided $6 million targeted to poor households that cannot afford to pay the connection costs. A single connection fee ranges from about $160 to well over $240. The output-based subsidy encouraged uptake by poor households.

Source: Mandri-Perrott and Stiggers 2009.

TABLE 4.2 Assets and appetites of potentially investing in African infrastructure

Institution	Assets under management ($ trillion)	Investment horizon	Risk appetite	Investment objective	Risks and constraints
Commercial bank	40.2	Short term	Low to medium	Make net interest margins	Asset–liability management (ALM) mismatch risk Intensifying regulatory environment: BASEL III
Infrastructure developer	3.4	Short term	High	Participate as project participants	Limited capital to invest with long-term horizon
Nonlife insurance	N/A	Short term	Medium	Meet liability funding cost calculated by actuaries	ALM mismatch risk Intensifying regulatory environment: IFRS II, Solvency II
Infrastructure and Public Employees Federation	2.7	Depends on fund characteristics	High	Maximize beneficiary wealth	Liquidity issue due to beneficiary redemption
Investment company	29.0	Short to medium term	Depends on funds' mandates	Maximize company returns	Liquidity issue due to beneficiary redemption
Life insurance and private pension	26.5	Long term	Medium	Meet their liability funding cost calculated by actuaries	ALM mismatch risk Intensified regulatory environment: IFRS II, Solvency II
Public pension	10.9	Long term	Medium	Meet their liability funding cost calculated by actuaries	ALM mismatch risk Rising longevity risk
Sovereign wealth fund	6.3	Long term	Medium to high	Maximize sovereign's wealth	Government mandate approval issue
Endowments and foundations	1.0	Long term	High	Maximize beneficiary's wealth	Can have mandates that do not allow investment in emerging or developing economies

managed. An independent verification agent ensures that the predefined output has been achieved, to provide certainty of revenue to the developer and thus enhance the bankability of the scheme overall,[6] and to avoid disputes between the grantor and developer. Even so, it may be necessary to allow for provisions for contract adaptations and renegotiations to take into account unforeseen changes to the initial assumptions underpinning the PPP agreement, including tariff indexations and periodic and emergency reviews.

FINANCIAL INSTITUTIONS

IFC's new infrastructure initiative

The Managed Co-lending Portfolio Program, a first of its kind, aims to scale up IFC's debt mobilization from institutional investors to support infrastructure in emerging markets. It will:

- Address capacity constraints of institutional investors by leveraging IFC's ability to originate, structure, and manage a portfolio of bankable infrastructure projects.
- Offer institutional investors a portfolio that has sufficient scale and diversification through cost-effective portfolio syndication.
- Provide credit enhancement through an IFC first-loss tranche to create an investment grade risk–return profile, clearing a key capital constraint.

The fund's structure is based on a partnership with private fund managers for IFC to support new private infrastructure debt vehicles. Each vehicle will invest in infrastructure loans originated by IFC and syndicated through the program's platform, ensuring that each vehicle meets the commercial and regulatory requirements of large institutional investors. What is notable is that IFC's investment will be in a first-loss position, subordinated to other senior investors, improving the risk position of the senior investors to an investment grade profile. Each $1 of IFC's investment will support an additional $8–$10 of third-party investment.

The natural diversification offered by IFC's portfolio, coupled with an innovative portfolio first loss, allows IFC to credit enhance the senior investors to investment grade.

Land value capture and property development

Land value capture refers to mechanisms that monetize the increase in land values that arise around public infrastructure projects. For example, in metro transit development, property development around stations is a common example of an external benefit that results from investments in rail. One financing mechanism that can often arise in planning rail projects is "air rights," where a developer, through owning or renting land (or a building), gains the right to use and develop the empty space above the property. Building over tracks, platforms, depots, or stations can be very profitable and has been tried in developing a number of metro systems. Several metro or light rail projects have internalized the value of property development to offset operating losses resulting from insufficient farebox revenues. In New York, for example, the Metropolitan Transportation Authority sold air rights to the New York Jets to build a stadium over railyards near Penn Station. Other transport projects such as bus and light rail train projects have obtained upfront funding (equity or grants) from local developers whose other investments stand to benefit from new transport services. Property developers have also been active in private consortiums. For example, the Tanayong Company, one of Thailand's leading residential and commercial property developers, led efforts to build Bangkok's Skytrain system.

Real estate development is not, however, a panacea to resolve infrastructure funding and should not be seen as a substitute for sound operations. Planning for new infrastructure projects should focus on providing intelligently designed, high-quality public transportation services, not on developing new venues for consumer shopping. Overreliance on external development revenues can reduce scrutiny of system operations and service delivery. In some instances, project partners whose interests lie primarily in real estate may have perverse incentives to promote an infrastructure project with little regard for sound transport planning.

Governments can prioritize investments into projects with the highest economic and social returns

POLICY RECOMMENDATIONS

Countries should better leverage public funds and infrastructure investments, while encouraging private sector participation. But the different stages of development of African countries mean that the policy approaches need to be country specific.

Strengthen the governance and institutional framework

African governments will remain the main players in providing financing, setting up the institutional and regulatory environment, and implementing policies to boost productive investments. Private financing of infrastructure will likely remain a small share of global spending on infrastructure, estimated at 5–10 percent. Not all infrastructure projects are appropriate for PPPs, and regulatory barriers impede greater investment by institutional investors. Nor does increasing the availability of critical infrastructure for economic growth require investing in new infrastructure. Governments can optimize the use of existing infrastructure to reduce inefficiencies and waste, and prioritize investments into projects with the highest economic and social returns. Effective institutional arrangements are thus essential for effective management of the complex tasks of project planning, design, coordination, development, implementation, and regulation.

To improve efficiency, governments should also focus on the soft side of infrastructure development—on policy and regulatory issues, education and training of the teams involved in infrastructure financing, and constant research to keep up with new knowledge. Soft-side interventions in transport could include adopting a multimodal approach to integrate transport networks, address tariff and nontariff barriers to trade, facilitate movement of people and goods across borders, and put in place an effective regulatory framework to discourage monopolies and cartels. Some 75 percent of border delays are caused by trade facilitation constraints, against 25 percent related to hard infrastructure.[7]

Focus on maintenance and the productivity of infrastructure

Some of the losses in infrastructure are due to lack of maintenance. Even if infrastructure projects are

delivered with high quality, a lack of maintenance leads to rapid deterioration. In Africa, it is common to see power plants lose some of their generation capacity, water pipes accidentally or purposely broken, or paved roads becoming unusable. In a typical African country, about 30 percent of infrastructure assets need rehabilitation, and even more in rural infrastructure and in conflict countries.[8] Maintenance can prevent those losses and avoid larger spending for major repairs, rehabilitation, or new construction. Reducing power and water transmission and distribution losses costs less than 3 percent of adding the equivalent in new capacity.[9] Similarly, spending $1 on road maintenance provides savings of $4 to the economy.[10] If African nations had spent $12 billion more on road repairs in the 1990s, they could have saved $45 billion in subsequent reconstruction costs.[11]

Governments should establish effective infrastructure systems, including autonomous institutions and self-sustaining funding mechanisms. Part of a fuel tax can be directed to a road maintenance fund, and a tax on power consumption can be earmarked for transmission and distribution maintenance. More generally, proceeds from infrastructure taxes can be directed to funding new infrastructure, including schools and hospitals. But governments should avoid a system where maintenance is allocated from the budget every year as political considerations may not favor this line item.

Adopt a pragmatic approach in strategically prioritizing infrastructure

Infrastructure projects are among the most profitable investments any society can make. When productive, they contribute to and sustain a country's economic growth, and therefore provide the financial resources to do everything else. But many governments try to do too much at the same time and end up not actually doing much. Or they give priority to the wrong industries and sectors and devote their limited financial, administrative, and human resources to activities that are not competitive and cannot generate enough payoffs to sustain development.

Africa now collects about $500 billion in tax revenue every year, $50 billion in foreign aid, $60 billion in remittances, and $59 billion in FDI inflows. These numbers are unlikely to increase quickly in the medium term. Because the continent cannot finance its needs in education, health, security, and many other priorities, it is unlikely that it will have the financial resources anytime soon to finance the $130–$170 billion annual budget for infrastructure. Africa's infrastructure deficit problem will always be a work in progress, especially in a world of continuously changing technology.

The financing needs of countries in transition or coming from violent conflicts are typically much larger, up to 37 percent of GDP, impossible for any government.[12] Half the infrastructure assets in Democratic Republic of Congo need rehabilitation. And after years of conflict and political instability, infrastructure in Libya and Somalia may require a strategy radically different from those in other African countries. African countries also differ in their ability to attract private financing for infrastructure projects. For instance, of the $39 billion worth of PPP projects in Africa in 2012–16, low-income countries received only 4 percent.

Governments should establish autonomous institutions and self-sustaining funding mechanisms

Universal access to high-quality infrastructure can only be a long-term goal. Trying to achieve it with limited resources has led governments to spend too much on too many projects with low economic returns and little impetus for industrial growth and employment creation.

But African countries do not need to solve *all* their infrastructure problems *before* they can achieve sustained and inclusive growth. Instead, they should focus on how to best use their scarce infrastructure budget to achieve the highest economic and social returns. Economic returns from infrastructure differ by type, with the largest payoffs from electricity generation capacity, followed by telephone density, and road length, in that order.[13] The energy sector is more likely to have a robust positive impact than any other infrastructure sector[14] and most likely to achieve a high social rate of return.[15] But for landlocked countries, transport links to port countries may be more important, since they often determine the cost and affordability of other infrastructure. Transport costs can represent 40 percent of building material costs in Kigali, Rwanda, for instance.

Strategic planning that considers the circumstances of each country, as well as its comparative

advantage in specific industries, can help governments make difficult choices. Priority should be given to productive activities, such as manufacturing, that can lead to inclusive growth through job creation. That is the main lesson from economic history, and most notably from China. When China started its spectacular growth at 9.6 percent on average for 38 years (1979–2017), its leaders were well aware that the country's infrastructure stock was poor, poorer even than that in Ethiopia or Democratic Republic of Congo today. They also realized that they would never have enough financial resources and administrative capacity to build roads, highways, railways, ports, and airports in the entire country or to foster regional interconnection with other (mainly poor) neighbors.

Infrastructure would be most efficiently built in special economic zones and industrial parks

The only sensible solution was to get their priorities right and identify the geographic locales where high-quality infrastructure was necessary to support light manufacturing. A few quick-success stories in these well-targeted industries, sectors, and locales provided funding to support infrastructure projects in other parts of the country. The upshot? China is well placed today to launch almost any infrastructure project its economy may need. The pragmatic strategy of prioritization and industry selection has also allowed China to build, in sequence, the critical infrastructure that its economy has needed as it evolved from one level of development to another, and to be in a position today to fund infrastructure projects around the world.

Address the infrastructure deficit in special economic zones and industrial parks

To spur the development of competitive industries, infrastructure would be most efficiently built in special economic zones (SEZs) and industrial parks to develop clusters in specific sectors and locales. Clusters create agglomeration effects with positive externalities to firms, through knowledge spillovers, labor pooling, technology transfers, and close proximity of specialized suppliers.

By creating a geographic area with a good legal, regulatory, and institutional environment and all the necessary infrastructure, industrial parks attract FDI, create employment, and generate exports. Indeed, the recommendation to improve the business environment in Africa has been made for decades, yet African businesses are still hampered by inadequate regulatory frameworks, lack of energy, poor distribution systems, and poor access to finance. Supplying adequate infrastructure and simplifying regulatory systems in an industrial park can enhance private development and increase job creation.[16]

Industrial parks were used by China to jumpstart its economic development since 1978. They have also been used, to various degrees of success, around the world. Africa has used them since the 1970s, with mixed results. African countries should thus learn the determining factors for success and failure of early SEZs to replicate best practices and avoid mistakes. A large literature has explored the success factors for industrial parks and how to improve their performance in Africa.[17] Following Mauritius, several African countries have established industrial parks that are yielding great development outcomes, such as Ethiopia, Ghana, and Morocco.

Mobilize domestic resources through well-targeted subsidies and rigorous collection of fees

To finance their infrastructure projects, several African countries have issued hard-currency debt through overseas development finance partners or eurobonds. These instruments create a debt burden and constrain capital investment in the future, especially if funds are not judiciously used for investment projects that will raise the productive capacity of the country. There are other ways in which African countries could raise funding without jeopardizing macroeconomic stability, notably through improving policies and practices, and requesting greater contributions from service users. Across the continent, electricity and water tariffs are still not cost-reflective, compounded by under-billing or by illegal connections. While it is important to ensure access to electricity for low-income households, reducing subsidies by targeting them to the neediest households, combating fraud, and ensuring that all those who can afford to pay for the service actually pay would bring in more resources. Similarly, collecting a small toll for roads and bridges would help assure maintenance funds and contribute to the funding of new infrastructure projects.

Attract more private funding to infrastructure projects

Governments can leverage their funds to attract private financing. Globally, the contribution of commercial banks and institutional investors remains low, despite their having $120 trillion dollars under management. The lack of infrastructure asset classes, the complexity of capital market structures for infrastructure, and international and national regulations (Basel III) all limit this potential. While African countries should try to attract a share of these funds, the focus should be on increasing the participation of infrastructure companies in power, telecommunications and, to a less extent, transport.

African countries should all adopt effective legal and regulatory frameworks, including laws for PPP operations. A well-defined policy for investment funding and private involvement in infrastructure projects—combined with associated legal instruments, procurement policies, and regulatory procedures—can improve the attractiveness and bankability of infrastructure projects. Most important, governments must ensure that rules and regulations are well implemented, without frequent policy changes. Most African countries have good policies, but rarely enforce them. Policy uncertainty should be avoided through wide consultation with all stakeholders, including opposition parties, civil society organizations, and the private sector. Buy-in from all stakeholders can ensure that policies survive changes of government.

PPP policies that reflect the best international standards are essential pieces of the infrastructure financing framework. Some jurisdictions provide general legislation allowing privatization or PPPs, while others establish laws specific to sectors. A study by *The Economist* in 2015 of 15 African countries revealed that 2 had no roadmap for a PPP framework (Angola and Democratic Republic of Congo), 3 were developing PPP laws (Ghana since 2013, Rwanda since 2009, and Uganda since 2012), and the others had already established legal and regulatory frameworks on PPPs (Cameroon, Côte d'Ivoire, Egypt, Kenya, Morocco, Nigeria, South Africa, Tanzania, and Zambia). While encouraging, ambitious PPP programs that may be beyond a country's potential (on affordability and access to international investment and finance) should be avoided (box 4.8).

While PPPs are important for infrastructure provision, a careful assessment with analysis of objectives, commercial viability, risks, and their management is necessary to make them successful. Again, not all infrastructure projects are suitable to PPP structure.

Building a robust pipeline of bankable projects and programs

A project is bankable if it provides clear incentives for lenders to consider financing it. This requires good project preparation where all risks and potential returns are evident to the various parties. Given limited long-term infrastructure planning and low capacity for project preparation, many African countries do not have enough projects with the appropriate risk-adjusted returns for lenders. African countries would benefit from establishing appropriate institutions and technical capacity, and partnering with reputable project-preparation institutions and financiers. Given the uncertainties, costs, risks, and long time horizons in project preparation, credible incentive mechanisms for public funding should be put in place to attract private sector participation.

A national and regional platform approach can help deal with some inherent risks such as currency mismatch, small project size, and complementarity. Local currency infrastructure bonds can finance a group of infrastructure projects of substantial size to lower the fixed costs of bond listings. Similarly, a program that includes all complementary components such as power generation, transmission, and distribution networks, and prepaid meters to reduce commercial losses, will reduce the default risk of the power off-taker. Programmatic approaches also ensure better regional coordination with DFIs.

DFIs and donors have recognized the lack of funding for project preparation as a constraint for infrastructure development and are addressing it through institutions and instruments, such as donor-backed developers like the NEPAD Infrastructure Project Preparation Facility, and others (box 4.9). Despite the multitude of actors, there is still a shortage of funding and a lack of

African countries should all adopt effective legal and regulatory frameworks, including laws for PPP operations

BOX 4.8 PPP—do's and don'ts

Do	Don't
Adapt the PPP strategy to your political, social, and economic context under principles of realism and prudence.	Do not plan and announce ambitious PPP programs that may be beyond your potential (on affordability and access to international investment and finance). Don't define and select unrealistic projects, and do not specify the use of unreliable or untested technology.
Select appropriate projects.	Do not use PPP for small projects (as a general rule). Try to bundle small projects (for example, a group of wastewater treatment plants rather than separate processes.
Select appropriate PPP candidates. Look for the inherent efficiencies of PPPs, and maximize and protect them. Use PPP delivery when the project provides and reinforces value for money.	Do not use PPP simply because it is not accounted for as public debt. Do not use PPP as an option unless the project is suitable to be a PPP, and is likely to capture the expected efficiencies.
Acknowledge the highly demanding resource requirements of the PPP tool and procurement process, and be ready with capabilities. Provide substantial amounts of government participation during all stages of the PPP life cycle.	Do not embark on a PPP process unless you know or recognize the specific capabilities and resources needed and the greater complexity of the process. In many countries, institutions tasked with developing PPPs face enormous restrictions and have considerable shortcomings. But they are expected to produce programs and projects that demand a level of specialization and effort beyond their capabilities.
Assess and appraise projects in detail to ensure feasibility.	Do not launch a PPP project unless you are sure of its overall feasibility and PPP feasibility specifics—that is, the project's economic, financial, commercial, affordability, and technical terms.
Dedicate resources to properly structure the tender and contract, and to manage the process.	Do not believe that appraisal is everything. Inherent value for money may be lost through inadequate structuring and unclear drafting. The tender process should procure the maximum effective competition within the qualification requirements.
Allow enough time for procurement (preparation, appraisal, structuring, and tender).	Do not rush. Do not set overly ambitious timelines. Private sector actors are less willing to bid for projects if they are not confident of the government's ability to meet its timetable.
Dedicate attention and resources to manage the contract beyond procurement.	Do not assume that the government has finished its job once the contract is signed. The government needs to manage the contract throughout its life.
Organize the frameworks (government, institutional, and policy) to deal with the PPP tool in a programmatic way. Control the fiscal implications and evaluate projects and programs for permanent improvement.	Do not apply PPPs as a policy strategy (at a programmatic level) unless you are prepared and ready.

PPP policies that reflect the best international standards are essential

coordination. Given the shortage, AfDB established the Africa50 Infrastructure Fund, an investment facility that will attract funding from the private sector, governments, and DFIs to finance project preparation and finance (box 4.9).

Create an infrastructure asset class to attract institutional investors

Given the large amount of savings managed by African and global pension funds, insurance companies, sovereign wealth funds, and other institutional investors, African countries should design and market financial instruments that can attract a larger share of those funds. Infrastructure bonds, sharia-compliant bonds, "sukuks," debentures, and put options are among the few instruments that raise financing for infrastructure without adding debt to government balance sheets.

Efforts should be directed first to raise local currency financing to avoid currency mismatches. Regulatory changes can ensure that domestic financial intermediaries—commercial banks, pension funds, and insurance companies—devote a larger share of their resources to infrastructure development. For instance, when the Central Bank of Kenya mandated that commercial

BOX 4.9 The Africa50 Infrastructure Fund: A one-stop shop for infrastructure development

Mission: The fund aims to provide a comprehensive set of solutions to Africa's infrastructure deficit. It will mobilize capital from nontraditional sources for regional transformational projects and supply flexible instruments to narrow the financing gap. It was designed not only to invest in fully developed projects, but also to accelerate the provision of infrastructure by supporting project development from the earliest stages.

Shareholders: Shareholders include 23 African countries, AfDB, Central Bank of West African States, and the Bank Al-Maghrib. They had committed $812 million in capital by end-2016.

Priority sectors: Power and transport (60 percent of investments by 2025).

Investment vehicles: The fund has two investment vehicles: The project development business line contributes to a growing pipeline of bankable projects by providing early-stage risk capital, as well as expertise and support engaging investors and stakeholders, from project development to financial close. The project finance business line invests in private sector–driven infrastructure projects, including PPPs near or beyond financial close and often with a high developmental impact, and aims to deliver differentiated returns across its portfolio.

Africa must attract global savings earning low returns elsewhere

banks report their funding to housing, the share of funding increased. India also offers examples for promoting local financing of infrastructure from domestic capital markets (box 4.10).

Given the huge funding requirements for African infrastructure, local savings will not be enough. Africa must attract global savings earning low returns elsewhere. For this, close partnerships with DFIs can help mitigate risks. OECD pension funds are required by law to hold assets rated at least A–. (An African project cannot be rated more highly than the sovereign debt of the country.) Most African governments are well below this threshold, and there is no realistic prospect of getting them to A– in the near future. So, African countries should obtain guarantees from highly rated countries or institutions while working to improve their credit ratings. Since this is a long-term matter, countries should address information asymmetries by providing investors with as much information as possible about their economic and political developments and prospects. Adopting international standard such as the International Public Sector Accounting Standards (IPSAS 32) could also send strong signals on government commitments to managing transparency and liabilities prudently.

Choosing the appropriate financing instrument to develop infrastructure

A wide range of infrastructure development mechanisms can now finance infrastructure, but the choice should consider countries' level of development.[18] In addition to taxation, which is available to all governments, other financing mechanisms can be considered.

Local debt or bonds, issued on local capital markets, are accessible to most developing countries. While such debt is free from exchange rate risk and reduces the risk of international default, it exposes local economic actors, particularly banks. They can also be a testing ground for countries seeking to enter international markets.

International bonds give access to international capital markets. But for many developing countries, access can be limited, relatively expensive due to increased risks, and bring exchange rate risks. The bonds are thus more suitable for countries with strong economic performance, in the lower- and upper-middle-income category.

Securities are loans with repayments secured against the assignment of future cash flows. Government infrastructure bonds can be secured against income generated by the assets. Structured funds are similar securities that also structure

BOX 4.10 Attracting private sector financing for infrastructure in India

In 2014, the Central Bank of India eased norms for infrastructure lending by exempting long-term funds raised by infrastructure bonds from obligations such as priority sector lending and maintenance of the statutory liquidity ratio. It also allowed for flexible structuring of long-term project loans by allowing banks to commit to loans for up to 25 years while leaving open the option to refinance such loans every five years, either through bond markets or by selling the loans to other banks. Other institutions were also set up to increase private financing to infrastructure projects.

The Africa50 Infrastructure Fund is similar to some innovative infrastructure investment schemes created in India to attract private capital to infrastructure, through the following entities.

The India Infrastructure Project Development Fund supports the development of credible and bankable PPP projects that can be offered to the private sector.

Viability Gap Funding is generally provided to projects with a long gestation period and when user charges cannot be increased to commercial levels.

The India Infrastructure Finance Company Limited (IIFCL) funds viable projects, on a consortium basis, by providing long-term debt through direct lending to project companies and refinancing to banks and financial institutions. It arranges takeout financing through agreements with the identified lender and the borrower.

The Africa50 Infrastructure Fund combines aspects of these Indian initiatives through its project development business line and its project finance business line.

At lower incomes, countries could focus on issuing local bonds, seeking concessional loans, and using guarantees

the risk, which is divided into risk tranches and sold to investors with varying risk appetites.

Blending combines low-cost budget funds (including grants) with funds from the international capital market to avoid project underfunding and overfunding. Combining public and private funding, these concessionary loans could be adapted to infrastructure projects that generate their own income, such as toll roads or airports. They are well suited for low- and lower-middle-income countries with limited access to international markets.

Guarantees from governments or multilateral institutions can share the risks associated with infrastructure projects, fostering a willingness among private institutions to bring funding. They can also bring down the cost of financing infrastructure by lowering interest rates. They are typically suited to most developing countries, but especially low-income countries.

Diaspora bonds operate in a similar fashion. Citizens of developing and emerging countries living abroad often have an interest in supporting their homeland, and are often prepared to forgo the returns. Unlike purely commercial investors, they do not immediately withdraw their funds if economic difficulties arise.

In *PPPs*, the private sector generally takes over —partly or completely—not only the financing, but also the construction or operation of a public infrastructure facility against returns. PPPs can require very complex contractual arrangements that would challenge state capacity in several countries, particularly for monitoring the private partner's contractual performance.

At lower incomes, countries could focus on issuing local bonds, seeking concessional loans, and using guarantees to leverage funds for building their infrastructure stocks, or raising more taxes. At higher incomes, depending on state capacity and the size of a project, countries can include complex PPPs in their mix. Diaspora bonds can also be appropriated for countries with many nationals living abroad, such as Nigeria and Ethiopia. And for more mature economies, international markets can give access to large amounts of funds through the issuance of bonds, securities, or structured funds, but the last two require well-developed financial markets and assets with secure future income streams.

Risk mitigation measures to attract private sector financing

Prudent practice at project development and assessment stages includes a detailed risk management strategy at an early stage and allocates risk to the stakeholder that can best manage it (table 4.3).

Risk can be mitigated by additional credit enhancement. Few African countries recognize that infrastructure projects need sovereign support in the form of default guarantees. Such guarantees are needed for project developers to have recourse under sovereign guarantee to terminate a project and exit by recovering a termination payment if such political changes compromise project ownership, construction, or operation. Such government guarantees can also be essential in growing numbers of financially attractive cross-border projects, such as transport corridors, which require innovative instruments to

TABLE 4.3 PPP risks and risk allocation by infrastructure type

Risk	Toll road	Airport	Light rail	Heavy rail	Port	Solar PV	Hydro power	Power trans-mission	Natural gas distribution	Water desalination	Water distribution	Solid waste collection, disposal, landfill, recycling
Land purchase and site	PP	P_1	PP*	P_1	PP*	P_2	P_1	PP	PP*	PP	P_1	P_1
Environmental and social	PP	P_2	P_2	PP^	P_2	P_2	P_2	P_2	P_2^{α}	PP	P_2^{α}	P_2
Design	P_2	P_2	P_2	P_1^{α}	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2
Construction	P_2		P_2	PP	P_2	P_2	P_1^{β}	P_2	P_2	P_2	P_2	P_2
Completion (including delay and cost overrun)	P_2	P_2	P_2	PP^	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2
Performance/price	P_2	P_2	P_2	PP^	P_2	P_2	P_2^{δ}	P_2	P_2	P_2	P_2	P_2
Resource/input	P_2	P_2	P_2	PP^	P_2	P_2	P_1^{λ}	P_2	PP	PP		PP
Demand	P_1	P_2		PP^	P_2	P_2	P_1^{ξ}	P_2	P_1	P_1	P_1	PP
Revenue	PP											
Maintenance	P_2	P_2	P_2	PP^	P_2^{α}	P_2	P_2	P_2	P_2	P_2	P_2	P_2
Force majeure	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP
Exchange and interest rate	P_2	P_2^{α}	P_2	PP	P_2^{α}	P_2	P_2	P_2	P_2^{α}	PP	P_2^{α}	P_2
Insurance	P_1	PP	PP	PP	PP	P_2^{α}	PP	PP	PP	PP	PP	PP
Political change	P_1	P_1	P_1	P_1	P_1	PP	P_1	P_1	P_1	P_1	P_1	P_1
Regulatory/change in law	PP*	PP*	PP*	PP*	PP*	PP	PP	PP*	PP*	PP*	PP*	PP
Inflation	PP	P_2	P_1	PP*	P_2	P_2	P_1	P_1	PP*	P_1	P_1	P_1
Strategic	P_2		P_2	P_2	P_2			P_2	P_2	P_2	P_2	
Disruptive technology	P1	P_2	P_1	P_1	P_1	PP		P_1	P_1	P_1	P_1	
Early termination (including any compensation)	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP	PP

P_1 = public. P_2 = private. PP = shared.

* Risk allocated to public authority, if emerging during project implementation.

^ Risk allocated to private party, if emerging during project implementation.

α Risk shared if emerging during project implementation.

β Referring to construction of transmission line.

δ Referring to power plant availability risk.

λ Referring to hydrology risk.

ξ Referring to payment risk.

Source: World Bank 2017d.

BOX 4.11 The N4 Maputo Corridor Toll Road

The $660 million N4 Maputo Corridor Toll Road provides an example of how to attract pension funds to transport infrastructure. The project reached financial close in 1997, and was the first African PPP toll road built with a 30-year build-operate-transfer concession attributed to a private consortium, Trans African Concessions (Pty) Ltd (TRAC).

The N4 was financed by 20 percent equity and 80 percent debt, with the governments of South Africa and Mozambique jointly guaranteeing the debt of TRAC (and the equity under certain conditions). Sixty percent of the equity was held by non-sponsor parties, of which 20 percent was held by the South African Infrastructure Fund, with the AfDB, Standard Bank, and South African pension funds as shareholders.

Important features include:

- A high-level political commitment from both governments resulted in the legal constitution of the implementing authority with the legal right to engage with financiers to implement the project.
- The two governments' joint guarantee of the SPV's debt encouraged private sector and pension fund involvement.
- Innovative solutions of cross-subsidization of the toll revenues from South Africa to Mozambique reduced the payment risk, especially the Mozambican risk, which was expected to generate only 4 percent of total revenue.
- Mitigation of project risks through good project preparation, planning, and negotiation encouraged pension funds to invest.
- An enabling South African regulatory framework allowed pension funds to invest (unlike many African countries).
- External risks (political and regulatory) were mitigated through government undertakings and guarantees embedded in the concession agreement.

Source: ICA 2005.

The AfDB's Currency Exchange Fund provides a range of products that mitigate currency risks

cover and meld the varying risks and conditions in the participating countries (box 4.11).

To further reduce the risk profiles of infrastructure assets and projects, DFIs and MDBs will have to continue to build on a range of risk instruments widely deployed in Africa's infrastructure projects. These include credit guarantees to lower the cost of borrowing by covering losses in the event of a default, and partial risk guarantees to cover losses from a debt default occurring as a result of a political event.

The AfDB's Currency Exchange Fund provides a range of products that mitigate currency risks through medium- and long-term swap arrangements. The hedging effects have in some cases moved infrastructure projects up four levels in credit rating. Although it has helped investors to hedge interest rate risks associated with financing in local currency, the facility is limited. It could be expanded with support from DFIs operating through the AfDB private sector window. But more should be done to encourage finance from local investors, thus avoiding currency risk at source.

MIGA provides political risk insurance. Sub-Saharan Africa accounts for around one-quarter of MIGA's overall portfolio, a figure that has risen rapidly. Further, the World Bank Group has developed a private-sector window for IDA countries. IFC is intended to develop the conditions and criteria for the use of such IDA resources to backstop government obligations and credit enhancements, and to develop other specific risk instruments to increase project bankability, particularly important for some of the countries with higher risk profiles in Africa.

* * *

Summing up, it could be said that while Africa certainly needs a massive amount of infrastructure and large sums of financing to pay for it and maintain it, "things have never stood still, and the *theme of lack* is only one side of a shrinking story."[19] Increasing financing from all sources, and adopting policies to ensure proper maintenance are important. But what is essential is to adopt a more pragmatic strategy—one that identifies the most critical infrastructure projects and programs to support agricultural transformation, industrialization (mainly manufacturing), and modern services through the development of competitive industries in carefully selected geographic zones and funds them adequately. Targeting sectors and locations is therefore a key policy recommendation. Fortunately, the current global financial conditions are still favorable and likely to remain so in the medium term, and new instruments are being developed to mitigate the higher risks facing investors in many African countries.

ANNEX 4.1 JOINT MDB STATEMENT OF AMBITIONS FOR CROWDING IN PRIVATE FINANCE

The Joint MDB Statement of Ambitions for Crowding in Private Finance collectively committed the MDBs to increase overall private sector mobilization by 25–35 percent over the next three years. The MDBs agreed to report annually on private financing mobilized using a standard, jointly developed methodology.[20] Baseline results for 2016, summarized in the following two tables, show the MDBs' total amount of direct and indirect mobilization from private investors in low- and middle-income countries of some $71 billion, of which the WBG accounted for more than half.

TABLE A4.1 Private finance mobilization by MDBs: All countries of operation

Total long-term financing	Private cofinancing ($ billion)	Private direct mobilization ($ billion)	Private indirect mobilization ($ billion)
ADB	9.0	0.5	8.5
AfDB	1.9	1.1	0.8
AIIB	0.0	0.0	0.0
EBRD	10.0	1.5	8.5
EIB	90.4	36.5	53.9
IDBG	1.7	0.7	1.0
IsDB Group	12.4	0.9	11.5
WBG	38.3	8.7	29.6
IFC	20.1	4.1	16.0
MIGA	7.2	4.0	3.2
WB	11.0	0.6	10.4
Total	163.6	49.9	113.7

Source: World Bank 2017b.

Note: Long-term financing comprises financial instruments with a tenor of at least one year. Short-term (< 12 month tenor) instruments are tracked and reported separately. Private direct mobilization is financing from a private entity on commercial terms due to the active and direct involvement of an MDB leading to commitment. Private indirect mobilization is financing from private entities provided in connection with a specific activity for which an MDB is providing financing, where no MDB is playing an active or direct role that leads to the commitment of the private entity's finance. Private cofinancing is the sum of the two. See World Bank (2017a) for more details on the methodologies.

TABLE A4.2 Private finance mobilization by MDBs: Low- and middle-income countries

Total long-term financing	Private cofinancing ($ billion)	Private direct mobilization ($ billion)	Private indirect mobilization ($ billion)
ADB	9.0	0.5	8.5
AfDB	1.9	1.1	0.8
AIIB	0.0	—	0.0
EBRD	6.4	1.2	5.3
EIB	8.2	4.5	3.6
IDBG	1.5	0.6	0.9
IsDB Group	7.3	0.7	6.6
WBG	36.8	7.9	28.9
IFC	19.1	3.9	15.3
MIGA	6.7	3.5	3.2
WB	11.0	0.6	10.4
Total	71.1	16.5	54.6

Source: World Bank 2017b.

Note: Low-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of $1,025 or less in 2015. Least-developed countries are defined according to the United Nations Committee for Development Policy (CDP) as low-income countries confronting severe structural impediments to sustainable development. There are currently 48 countries on the list of LDCs (as of May 2016), which is reviewed every three years by the CDP. Middle-income economies are those with a GNI per capita, calculated using the World Bank Atlas method, of between $1,026 and $12,475 in 2015.

NOTES

1. Lin and Monga 2017.
2. The findings presented here are taken from the World Bank's PPI Database Annual Report 2016. The World Bank PPI Database contains information on more than 8,700 infrastructure projects with private participation dating from 1984 to 2016. It is noteworthy that 2016 investment commitments to infrastructure with private participation in EMDEs totaled $71.5 billion across 242 projects, 37 percent lower than 2015 investments ($113.8 billion). According to the World Bank, PPI as a share of GDP also declined in 2016, dropping to the lowest level (0.3 percent) in the past 10 years. This is a 40 percent decline from 2015 when PPI investments in EMDEs were 0.5 percent of GDP. 2016 investment levels are 45 percent below the average of 0.54 percent as a share of GDP over the period 2011–15. By region, Latin America and the Caribbean had the highest investment as a share of GDP in 2016 at 0.9 percent, and Sub-Saharan Africa followed with 0.3 percent investment as a share of GDP.
3. Investment in Ghana amounts to 70 percent of the total PPI investments in countries that the World Bank classified as IDA countries in 2016.
4. OBA is a mechanism that ties the disbursement of public funding to the achievement of clearly specified results that directly support the delivery of basic services. Basic services include improved water supply, electricity delivery, health care and education, communications services (ICT), and roads. In the case of OBA, "outputs" are defined as close to the desired outcome or impact as is contractually feasible. For example, an output might be the installation of a functioning household connection to the water network. In some cases, an "output" might also include a specified period of water delivery demonstrated through billing and collection records. "Subsidies" are defined as public funding used to fill the gap between the total cost of providing a service to a user and the user fees charged for that service, justified by the need to improve basic living conditions or the existence of positive externalities. For more information on OBA schemes and the World Bank, please visit www.GPOBA.org.
5. Another interesting example of the applicability of OBA schemes can be found in the project for the expansion of water services in low-income areas of Jakarta, Indonesia. The objective of the project is to increase piped-water access to poor urban and slum households in Jakarta through the incumbent operator, PT Pam Lyonnaise Jaya (PALYJA). PALYJA, majority owned by international water management group Suez, has a 25-year water supply concession contract for western Jakarta and has been operational since 1997. The project uses output-based connection subsidies to connect low-income households within larger areas already served. The project is not focused on greenfield areas, but areas in the proximity of a secondary main. The project provides services to urban poor households that would not be served due to their inability to afford the upfront connection charge. The OBA subsidy transfers the performance risk to PALYJA by paying 75% of subsidy on successful independent verification of the connection. The remaining 25% is paid after three months of satisfactory service delivery. Construction began in mid-April 2008. A total of 3,324 household connections were made as of February 2009.
6. As mentioned previously, significant political and regulatory risks act as deterrents for developers to engage in long-term investments. This model provides certainty of funding of grantor obligations through the IFI loan. This also provides a guarantee to commercial lenders that payments to the subsidy fund will be made.
7. Faye and Mutambatsere 2018.
8. Dethier 2015.
9. McKinsey Global Institute 2013.
10. Dethier 2015.
11. World Bank 1994.
12. Dethier 2015.
13. Calderón 2009.
14. Garsous 2012.
15. Estache and Garsous 2012.
16. World Economic Forum, World Bank, and AfDB 2017.
17. World Economic Forum, World Bank, and AfDB 2017; Bräutigam and Xiaoyang 2011; Farole 2011.
18. Walde 2012.
19. Iweriebor 2018.
20. World Bank 2017a.

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COUNTRY NOTES

Algeria

Economic performance and outlook

Real GDP growth fell from 3.3% in 2016 to an estimated 2.5% in 2017. The decline is attributable to lower public investment due to declining government resources, despite stable growth in oil and gas since 2015. Projected growth for 2018 (3.5%) and 2019 (3.8%) suggests a return to levels comparable to those prior to 2017, due in part to fiscal consolidation, external rebalancing, continued recovery in oil and gas, and higher public spending. Inflation reached an estimated 5.3% in 2017 and is projected to fall to 4.5% in 2018 and 4% in 2019.

Macroeconomic evolution

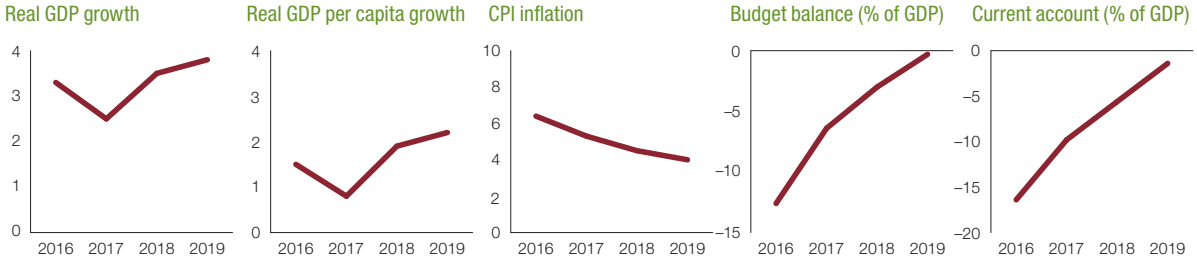
Although the impact of lower oil prices on the real sector has been limited, they have affected public and external accounts, which had to draw down government surpluses and foreign currency reserves to $97 billion at the end of 2017, from $179 billion at the end of 2014. After the budget deficit doubled between 2014 and 2015, from 7.1% of GDP to 15%, it declined in 2016 (12.6%) and 2017 (6.4%). The trend is expected to continue in 2018 (3%) until reaching near-balance by 2019 (–0.3%). The impact on external accounts raised the current account deficit from 4.3% of GDP in 2014 to 16.4% in 2016. However, the deficit fell in 2017 (to an estimated 9.8%) and is projected to continue to do so in 2018 (to 5.6%) and 2019 (to 1.4%). These developments are the result of efforts to consolidate the fiscal situation and rebalance the external accounts. The fiscal deficit worsened with the plunge in global crude prices, which also cut foreign reserves by nearly half. In September, the authorities released a new Government Action Plan, a bold five-year program to balance the budget by 2022. The plan includes direct borrowing from the central bank, to compensate for lower oil revenue without tapping international debt markets. With domestic debt currently around 20 percent of gross domestic product, Algeria has room to take on additional borrowing. The IMF has also suggested that the authorities turn to external debt to finance its deficit. But the government has publicly indicated that if it did that, it would need to borrow about $20 billion a year to finance the deficit and within four years might not be able to repay the debt. The government also argued that austerity measures and currency depreciation will have only a limited impact on the current account deficit, which is likely to be partly counterbalanced by stronger domestic demand.

Tailwinds

A new Government Action Plan adopted in September 2017 in a challenging financial context includes three major measures: continued consolidation of public finances, which began under the 2016–30 New Economic Growth Model and the 2016–19 Budget Trajectory signed by the government in July 2016; a ban on external debt; and nonconventional financing that draws on the Central Bank for the Treasury's financing needs, especially to reduce the deficit. Fiscal consolidation under the Government Action Plan will facilitate initiatives to rebalance the budget and external accounts—planned for 2017–19 under the Medium-term Budget Framework—and to allow for a balanced budget and balanced external accounts by 2020. Projections indicate progress in this direction, due in part to improving performance in oil and gas and rising oil prices since June 2017.

Headwinds

In 2017, budget consolidation led to 28% lower spending on equipment and a freeze on some projects in the 2014–19 budget. The drying up of banks' cash flows has restrained their capacity for financial intermediation, reducing their ability to finance public and private investment projects. The result has been lower real GDP growth, excluding oil and gas. Wage caps, a higher value added tax (2%), smaller subsidies, and higher energy prices will affect both public and private consumption. During the second quarter of 2017, the rising price of crude oil allowed for corrective measures that freed up banks' lending and increased investment expenditure to $4 billion. However, if these funds are not managed parsimoniously, the Government Action Plan's option to print money could push inflation well past the projections of 4%–5.3% for 2017–19.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Angola

Economic performance and outlook

As a result of lower international oil prices, real GDP growth was 4.7% in 2011–15, down from 12.6% in 2006–10. Lower oil prices hurt fiscal revenues, leading authorities to cut infrastructure expenditures 55% between 2014 and 2017. The decline in foreign currency supply and resulting local currency depreciation hampered economic activity and job creation in import-dependent industries, such as construction, manufacturing, and retail services. Economic growth slowed to 0.1% in 2016 but recovered to to growth (an estimated 2.1%) in 2017, due to strong performance in agriculture, fisheries, and energy. The economic prospects for beyond are subdued, with growth projected to remain modest, at 2.4% in 2018 and 2.8% in 2019.

Macroeconomic evolution

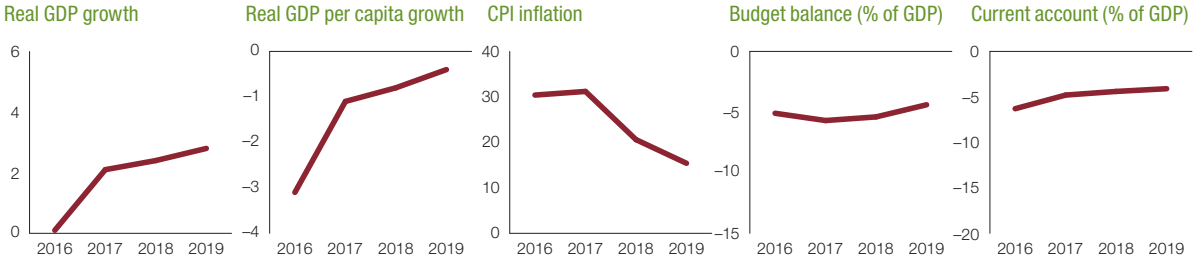
Government revenues declined 51% between 2014 and 2017, to $22.3 billion. Oil-related revenues accounted for 46% of total receipts in 2017, down from 67% in 2014. Total expenditure fell 44.8% between 2014 and 2017, to $29.3 billion, which was insufficient to prevent a budget deficit of 5.7% of GDP. Current expenditures dominate government spending: compensations to employees are $9.8 billion, and goods and services amount to $6.3 billion. More funds were allocated to social sectors (38%), reflecting the government's commitment to protect the most vulnerable groups and reduce the 37% poverty rate. Monetary policy was tightened to contain inflationary pressures arising from a weakening exchange rate, which was devalued 40% between September 2014 and April 2016. Public debt increased from 65.4% of GDP in 2015 to 71.5% in 2016, reflecting higher government borrowing in the domestic market to finance budget deficits in an environment of high domestic yields and weak oil revenues.

Tailwinds

Angola made significant strides in reducing the poverty rate from 54% in 2000 to the current 37%, but the economic slowdown driven by weaker oil prices requires structural reforms to support diversification. The government is allocating nearly $5.5 billion to finance private-sector projects in areas with high import-substitution and export-promotion potential—in particular, food production, fishery and agro-industry, oil and gas, mining, tourism, transport, and logistics. New electricity projects, approved prior to the oil shock—notably, the 960 MW Cambambe hydropower station, the 480 MW combined-cycle gas power station in Soyo, and the 2,070 MW Laúca hydropower station—will increase electricity supply. In transport, 2,725 km of railway network and 13,000 km of roads—including regional corridors connecting to the Democratic Republic of Congo, Namibia, and Zambia—have been rehabilitated. Construction of a new international airport in Luanda is ongoing, and a new commercial port north of Luanda with 44 logistical platforms to connect to railway lines and trunk roads nationwide has been planned.

Headwinds

The economic base remains narrow; oil accounts for more than 95% of export revenue, 46% of government revenue, and 30% of GDP. The slowdown in economic growth, below the average annual population growth of 2.7%, reduced income per capita to $3,514 in 2016, the lowest in a decade. Net international reserves declined from $20.8 billion (equivalent to 7 months of imports) in 2016 to $15.6 billion (about 6 months of imports) in October 2017, due to lower oil exports. Despite the country's economic potential, persistent structural challenges hinder economic diversification and inclusive growth, notably weak institutions, weak agricultural productivity, inadequate infrastructure, limited qualified human resources (in particular, in business management, science and technology, construction, and manufacturing), and weak trade facilitation and export support systems. Despite recent improvements, the business environment remains onerous, impeding private investment, as highlighted by the country's ranking of 175 out of 190 countries in the World Bank's 2018 *Doing Business* report.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Benin

Economic performance and outlook

Real GDP growth rose from 4% in 2016 to an estimated 5.5% in 2017. The next two years look similarly promising, with growth projected at 6.1% in 2018 and 6.5% in 2019. Economic performance in 2016–17 was principally the result of reforms taken under the 2016–21 Government Action Plan, known as Benin Revealed, to increase public investment in infrastructure, agriculture, tourism, and basic services. This positive outlook is also due to substantial increases in agricultural production, especially in cotton (estimated at 450,000 tons in 2016), an increase in electricity production, and economic recovery in Nigeria, an important trading partner.

Macroeconomic evolution

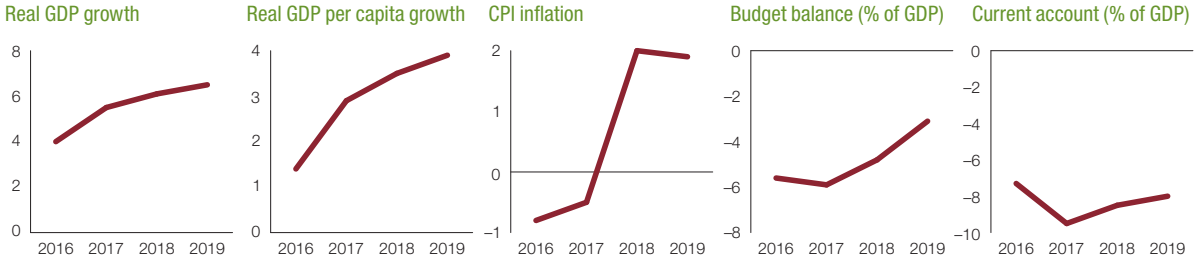
The budget deficit crept up from 5.6% of GDP in 2016 to an estimated 5.9% in 2017. With the government expressing interest in reining in spending, the deficit is projected to decline to 4.8% in 2018 and 3.1% in 2019. The tighter fiscal policy that took effect in 2017 aims to achieve the 3% target for the budget deficit set by the West African Economic and Monetary Union (WAEMU). According to an International Monetary Fund (IMF) debt sustainability analysis, Benin moved from a low risk to a moderate risk of debt distress. Public debt increased from 50.3% of GDP in 2016 to 53.4% in 2017 due to higher spending related to implementation of the Government Action Plan. Government efforts to mobilize resources through a bond issue, as well as technical and financial partnerships, are expected to reduce public debt to 51.5% of GDP from 2019 onward. Due to WAEMU's policy of price stability, good performance in agriculture, and weak oil prices, inflation is likely to remain below the 3% target. The current account deficit worsened from 7.3% of GDP in 2016 to an estimated 9.5% in 2017 but is projected to improve slightly in 2018 and 2019.

Tailwinds

In April 2017, the IMF approved a three-year $151 million arrangement to help implement Government Action Plan reforms by encouraging investment while preserving debt sustainability. The reforms are expected to allow Benin to diversify its economy by improving processing activities in agriculture through the development of agro-industry and modernization of the livestock, fisheries, and tourism industries. Political stability, as demonstrated by the relatively smooth presidential election in 2016, and stronger public-private partnerships have increased the country's attractiveness for investment. The Economic Community of West African States Common External Tariff, introduced in in January 2015, presents an opportunity for Benin to expand its production base and reap benefits from the West African market.

Headwinds

Uncertainty about the effects of climate change on agriculture and dependence on the Nigerian economy constrain growth projections. Nigeria introduced trade restrictions during its recession that affected Benin; if not lifted, they will fuel additional uncertainty. Despite efforts at reform and investment, Benin remains plagued by a lack of infrastructure, poor economic and financial governance, and private-sector difficulties. Although Benin was one of the 10 best business reformers in 2015/16, its ranking of 151 out of 190 countries in the World Bank's 2018 Doing Business report shows that much remains to be done to improve the business climate. With a poverty rate of 40.1% in 2015, persistent unemployment, and a Human Development Index value of 0.485, inclusive growth remains a major challenge.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Botswana

Economic performance and outlook

Botswana continued to recover from setback in 2015, when the economy contracted 1.7% due to weak demand for diamond exports, severe drought, and persistent electricity and water supply shortages. Real GDP growth increased from 4.3% in 2016 to an estimated 4.5% in 2017, driven largely by broad-based expansion in nonmining activities, notably water and electricity; trade, hotels, and restaurants; transport and communication; and construction. The nonmining sector's buoyancy was underpinned by improvements in the diamond trade and the continuation of countercyclical policies. Although diamond prices gradually rebounded, mining output contracted again, albeit less than in 2016. Extraction and processing of diamonds for export remain Botswana's main growth driver.

Macroeconomic evolution

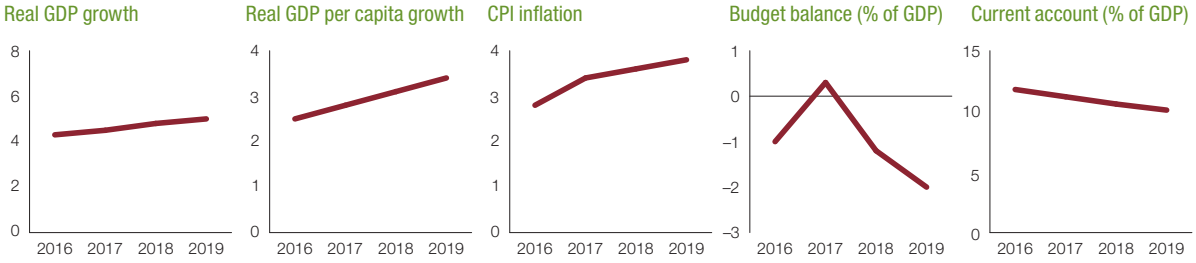
Inflation was estimated at 2.8% in 2016, outside the medium-term objective range of 3%–6%, due to low domestic demand and a modest increase in foreign prices. Monetary policy continues to take advantage of the prevailing low inflation rate. Authorities reduced the policy rate by 50 basis points to 5% in October 2017 to support domestic growth. The budget balance swung from three years of surpluses to a deficit in 2016 and back to a modest surplus in 2017. A modest budget deficit is projected for 2018, reflecting lower mining revenues, reduced revenues from the Southern African Customs Union (SACU), and higher spending associated with the economic stimulus program. Return to a surplus is projected in 2020. Public debt fell to 22.3% of GDP in 2017 and remains well below the statutory ceiling of 40%. The current account had an estimated surplus of 12% of GDP in 2017; international reserve coverage stood at 17 months of imports at end of 2016.

Tailwinds

The economy is projected to see a sustained pickup in the medium term, with real GDP growth projected to rise to nearly 5% in 2018. The good performance in nonmining and the continued recovery in mining are expected to support growth. Although mineral exports are likely to continue to rebound gradually, growth in nonmining is driven largely by service-oriented sectors, notably trade, hotels and restaurants, and transport and communications, supported by accommodative fiscal and monetary policies. The continued expansion of construction, associated with the economic stimulus program and planned upgrades of electricity and water infrastructure, is expected to further boost growth. Manufacturing will recover moderately, benefiting from improvements in electricity generation and water supply. The performance of these sectors will outweigh the sluggish performance in agriculture. Despite good weather, agricultural output will remain subdued as crop production continues to be hampered by traditional farming methods, erosion, and disease.

Headwinds

Downside risks to the positive medium-term outlook remain elevated. The dependence on diamonds for export and growth makes Botswana extremely vulnerable to external shocks. Key risks include the sluggish recovery of the global economy and uncertainty surrounding global trade and openness, which could reduce export earnings. The underwhelming economic conditions in South Africa could adversely affect SACU receipts, and adverse weather could further weaken agricultural growth and lead to water supply challenges. Delays in construction projects in electricity and water and a slow pace of structural reforms are also downside risks and underscore the need to resolve the energy and water crises and accelerate structural reforms—including reforms to reduce skill mismatches to facilitate economic diversification and increase productivity. Accomplishing these initiatives will promote economic transformation and enhance the resilience of medium-term growth prospects.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Burkina Faso

Economic performance and outlook

Real GDP growth was estimated at 6.7% in 2017, up from 5.9% in 2016, due to gains in mining, higher investment in construction, a healthy commercial sector, and improvements in agriculture. The economy is projected to grow 6.6% in 2018, bolstered by a public investment program in the 2016–20 National Economic and Social Development Plan that covers energy, hydro-agricultural development, and road and telecommunications infrastructure. Higher prices for gold and cotton are also expected to boost economic performance.

Macroeconomic evolution

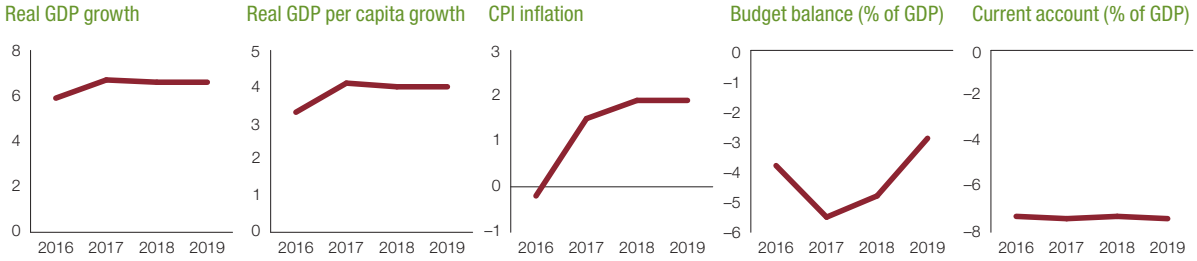
Higher investment under the National Economic and Social Development Plan and continued spending on social services and security will add to the budget deficit, estimated at 5.5% of GDP in 2017, up from 3.8% in 2016. Combined with greater public demand for social welfare in the run-up to the 2020 presidential election, the rhythm of investment and security challenges in the Sahel region will expand government spending in 2018–19. Strong economic growth is expected to reduce the budget deficit to 4.8% of GDP in 2018 and 2.9% in 2019. Public debt associated with the National Economic and Social Development Plan was estimated at 36.9% of GDP in 2017, far below the convergence criteria of 70% set by the West African Economic and Monetary Union (WAEMU), and is considered sustainable. Inflation was an estimated 1.5% in 2017, after falling 0.2% in 2016, and is likely to remain below 2% in 2018–19.

Tailwinds

Strong political support for the public investment program under the National Economic and Social Development Plan will substantially contribute to robust economic recovery. Burkina Faso also benefits from growth factors that can form the foundation of structural economic reform, including prospects in agro-ecology that are likely to accelerate growth in the rural sector, especially on the 4.9 million hectares of unused farmable land. Despite leading the continent in cotton production, Burkina Faso processes less than 1% of its production; substantial potential exists in large-scale cotton processing. The country also has vast, unexploited solar resources that could ensure the transition to renewable forms of energy. The strength of civil society and resilience of the country's civil service are additional assets to the structural transformation of the economy.

Headwinds

The outlook for growth depends on several sources of instability, including terrorism, adverse weather for farming, persistent social unrest, and price volatility for gold and cotton. Terrorism constitutes the most serious risk. Since 2015, Burkina Faso has suffered a series of terrorist attacks that killed more than 70 people and slowed the economic recovery. The capital Ouagadougou was struck in January 2016 and August 2017, and terrorist incidents and threats persist along the country's northern borders with Mali and Niger. The government has started to reorganize the military to more efficiently respond to security problems. Given the ongoing threat of terrorism in the Sahel, these challenges will continue to weigh heavily against the country's socioeconomic outlook, especially public finances.



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Burundi

Economic performance and outlook

Economic growth remains severely affected by the acute political crisis that has gripped the country since 2015; real per capita GDP declined 1.6% in 2016. A succession of adverse events, including suspension of financial aid by major donors, shortage of foreign exchange reserves, imports price inflation, and declining investment, seriously weakened the country's economy, which contracted an estimated 1.3% in 2017. The economy, which depends heavily on agriculture, is expected to remain in recession until 2018 (0.3% decline in real GDP) before growing slightly in 2019 (1%).

Macroeconomic evolution

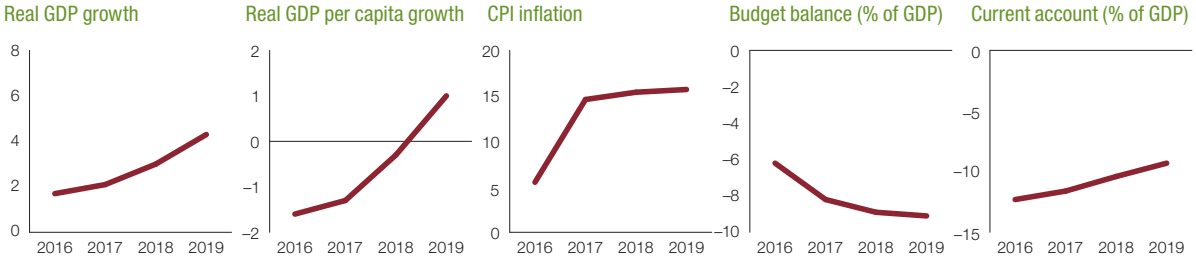
The suspension of foreign aid continues to hurt the budget, which posted an estimated deficit of 8.2% of GDP in 2017 despite higher taxes on commodities. The situation is likely to continue to deteriorate in the short term (with an 8.9% deficit projected in 2018 and a 9.1% deficit in 2019). The current account deficit, which reached an estimated 11.6% of GDP in 2017, reflects restrictions on coffee and tea exports as well as insufficient foreign exchange reserves. Despite falling slightly, the current account deficit is projected to remain high in 2018 (10.4%) and 2019 (9.3%). Compounding these challenges is the steep downward trend of the Burundian franc, which will continue to exert pressure on consumer prices: inflation is projected to increase from an estimated 14.6% in 2017 to 15.7% in 2019. Domestic debt is expected to remain high, and external debt is expected to remain stable. Overall public debt is expected to climb to 67.8% of GDP in 2018 and 72.1% in 2019.

Tailwinds

Burundi has made progress in improving its basic education system and is preparing to launch extensive reforms that extend primary schooling, as outlined in the Millennium Development Goals. The reforms will strengthen human capital over the medium and long term. The country is also likely to benefit from modest increases in international prices for tea and coffee, which account for over 80% of exports. Debt relief for 75% of the government's foreign debt under the Heavily Indebted Poor Countries initiative will help bolster the economy by stabilizing foreign debt. Finally, although the country has found itself increasingly isolated on the international political stage, Burundi will continue to benefit from economic integration with the East African Community and the African Union.

Headwinds

The sociopolitical and security crisis affecting Burundi is likely to weigh heavily on the economy and business climate. The World Bank's 2018 Doing Business report ranked the country 164 out of 190 countries, down seven places from 2016. The shortage of aid and foreign funding, on which the economy heavily relies, will also hurt the budget balance; scarce funding for major public investment will slow growth. Finally, the economy depends heavily on agriculture, which accounts for more than a third of GDP, on commodity exports, and on fuel and food imports. This leaves Burundi highly vulnerable to external shocks, as demonstrated by the severe impact of adverse weather and external trade restrictions on export revenues and the trade balance.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Cameroon

Economic performance and outlook

The strongest and most diversified economy in the Central African Economic and Monetary Community (CEMAC), Cameroon has long been resilient to shocks, but its economy is showing early signs of a slowdown. GDP growth has been steady since 2010, averaging 5.8% from 2013 to 2015 before falling to 4.7% in 2016. Lagging oil and gas prices resulted in postponement of investment in exploration and production, which led to a decline in extractive activities. The recession in Nigeria, the widening crisis in CEMAC, and unrest in the country's English-speaking regions hurt domestic and external demand. These headwinds lowered the growth rate to an estimated 3.4% in 2017. However, the outlook beyond remains positive, with growth projected at 4.1% in 2018 and 4.8% in 2019, spurred by higher exports to the European Union following an Economic Partnership Agreement (EPA) and increased energy supply due to new hydroelectric dams. Other tailwinds affecting growth include the development of forestry and agro-industrial value chains, as well as a reduction in imports in favor of local products.

Macroeconomic evolution

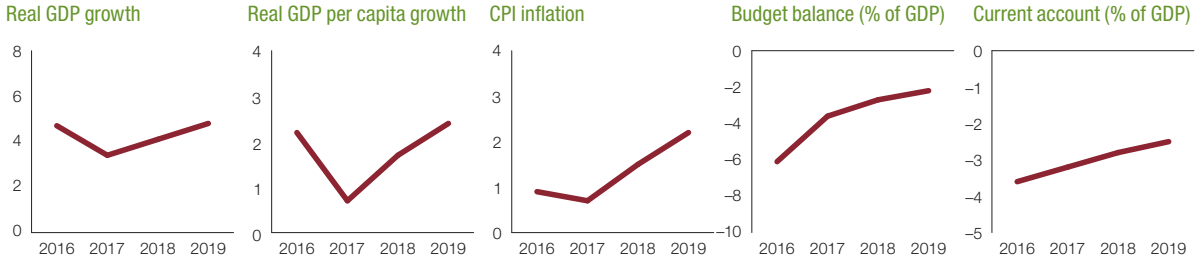
Cameroon has signed an economic and financial partnership agreement (the Extended Credit Facility) with the International Monetary Fund (IMF) that will stabilize the macroeconomic framework in the medium term by requiring a restrictive fiscal policy for 2017–19. Public investment is expected to drop from roughly 8% of GDP in 2016 to 6.7% in 2017 and 6.6% in 2019. Government revenues are projected to rise from 16.1% of GDP in 2016 to 17.7% in 2017 and 18.16% in 2019. The budget deficit dropped from 6.1% in 2016 to an estimated 3.6% in 2017 and is projected to remain below 3% in 2018–19. The debt ratio is below the CEMAC ceiling of 70% of GDP. However, the use of commercial loans to finance infrastructure projects caused public debt to spike to 34.1% of GDP in 2016, up from 15.6% in 2012; as a result, the risk of debt distress rose from moderate to high. Although the level of indebtedness remains viable, it needs to be managed with great care. The authorities should step up their efforts to expand the non-oil revenue base and better prioritize spending while preserving social spending. To maintain debt sustainability, new nonconcessional borrowing should be reserved for projects with a high social or growth impact, in industries and sectors with clear competitive potential. Additional measures to enhance public financial and debt management are needed to improve spending efficiency and control fiscal risks.

Tailwinds

The fiscal consolidation under the Extended Credit Facility with the IMF and the structural reform agreements with financial and technical partners, including the World Bank, will allow authorities to increase the effectiveness and efficiency of public investment through a better project maturity framework. Efforts will focus on collecting higher fiscal revenues to offset the decline in oil revenues and customs duties brought about by the EPA. By refining incentives policies and improving the business climate, the government seeks to diversify the economy and spur inclusive and job-generating growth. Membership in a monetary union helps Cameroon maintain low inflation rates. But it limits its options for adjusting to negative shocks and ensuring external competitiveness. Still, Cameroon is one of the most resilient economies in Africa. It is strategically located and blessed with excellent human capital and enormous natural resources.

Headwinds

Regional security threats from Boko Haram and rebel groups in the Central African Republic make it necessary to maintain spending on security, defense, and humanitarian issues; such spending reduces the resources available for social expenditures. Despite the relative political security that Cameroon enjoys, ongoing disturbances in English-speaking regions in the northwest and southwest areas could impede economic recovery in 2018.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Cape Verde

Economic performance and outlook

Following weak GDP growth averaging 1.8% between 2010 and 2015, the economy picked up in 2016, registering 3.8% growth, driven by agriculture and services (primarily tourism). Domestic demand showed signs of recovery following an increase in government spending and private-sector credit. The trend continues, with GDP growth estimated at 4% in 2017 and projected at 4.1% in 2018, boosted by the recovering tourism sector. Diversifying the economy remains a priority for long-term sustainable growth. Services account for approximately 70% of GDP, of which tourism accounts for 20%.

Macroeconomic evolution

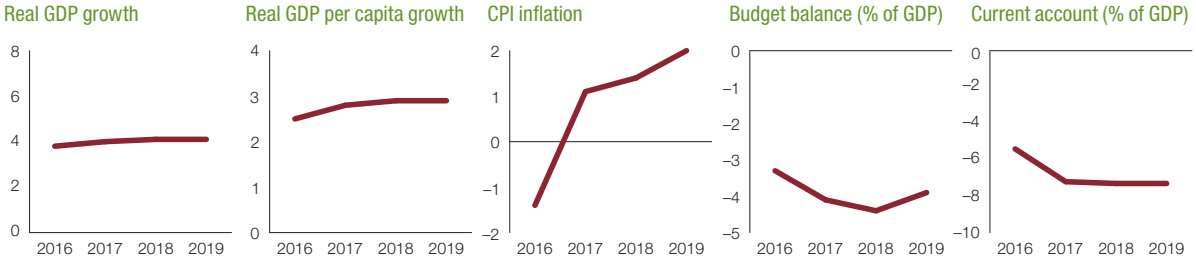
Since 2015, the government has engaged in fiscal consolidation by increasing pressure on the Public Investment Program and by expanding the tax base. The budget deficit fell from 4.1% of GDP in 2015 to 3.3% in 2016. However, public debt increased from 71.9% of GDP in 2010 to 130% in 2016. To alter course, the government intends to mobilize domestic resources, increase public expenditure efficiency, and reduce debt related to public enterprises. The budget deficit reached an estimated 4.1% in 2017 and is projected at 4.4% in 2018. In 2016, inflation was –1.4%, due mainly to low energy and food prices. Inflation was estimated at 1.1% in 2017 and is projected to rise to 2% in 2019. The current account deficit shrank to 5.4% of GDP in 2016 due to increased tourism, weak oil prices, and higher remittances from overseas nationals. It is expected to climb to 7.2% in 2017, tracking rising oil prices. Total reserves grew from 4.5 months of imports in 2013 to 6.5 months in 2016, mostly through lower imports and reduced public investment spending.

Tailwinds

Cabo Verde's economy depends heavily on tourism, which accounts for 47% of exported goods and services. In 2018, foreign direct investment is projected to rise considerably. Manufacturing and catering are likely to expand over the next three years. Despite weak growth in Europe, remittances (which accounted for 11% of GDP in 2016) are expected to continue to increase, helping economic growth. In 2017, Cabo Verde drafted a new Sustainable Economic Development Plan that focuses on promoting the private sector, stimulating economic transformation and diversification to improve resilience to climate change, and strengthening regional integration within the Economic Community of West African States.

Headwinds

The economic outlook depends on overcoming several challenges that affect long-term growth and development, including improving productivity factors, which are currently in decline; diversifying the economy; strengthening resilience to external shocks, notably those related to climate or trade dependence on Europe; and restructuring public enterprises, such as Cabo Verde Airlines and IFH (social housing), whose debts are close to 20% of GDP. Other recent external factors, such as rising borrowing costs resulting from an appreciating U.S. dollar, have exacerbated the country's macroeconomic situation. Unemployment among young people, who account for half of the working-age population, is problematic. In 2016, the unemployment rate was 28.6% among those ages 15–24, compared with 15% among the total population. Moreover, competitiveness is restrained by a mismatch between the skills of the domestic labor force and business needs.



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Central African Republic

Economic performance and outlook

Deteriorating security accounted for stagnant growth from 2016 to 2017. Security issues increased the number of displaced persons, hindering agricultural production, trade, and foreign investment. Real GDP growth in 2017 was estimated at 4.5%, indicating some economic recovery, but fell short of the projected 5.3%. Growth was driven primarily by recovery in forestry and mining following the lifting of international sanctions, as well as by the vitality of the tertiary sector and trade. Although returning farmers and insecurity continued to weigh on agriculture and livestock production, economic activity is expected to rise in 2018–19, and average annual growth is projected at 5% or higher. Growth in 2018 and 2019 will hinge on improved domestic security, which is crucial to agricultural recovery and implementation of investment plans and economic reforms supported by international partners.

Macroeconomic evolution

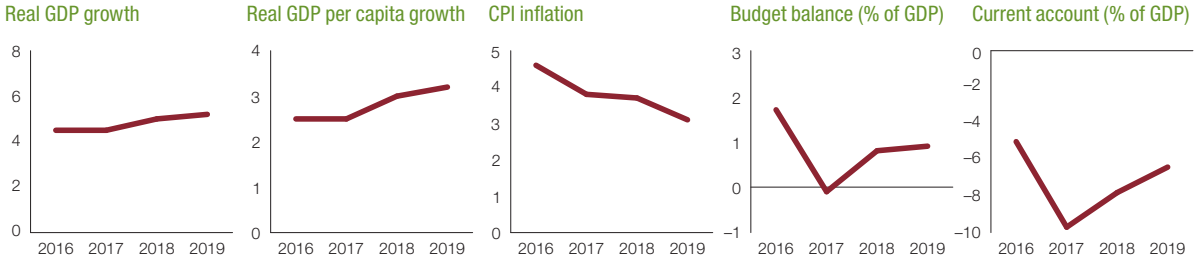
Ongoing efforts initiated during the transition period in 2017 to consolidate public finances made it possible to leverage more public resources while improving the management of public finances. The budget balance shrank to an estimated deficit of 0.1 of GDP in 2017 due to higher public expenditure, particularly social expenditure. Public expenditure exceeded 14.5% of GDP in 2017, and domestic revenues were 8.9% of GDP in 2016. Inflationary pressures fell with the gradual recovery in food production, improved security along the main transportation corridor for foreign trade, and overall currency stability within the Central African Economic and Monetary Union. Inflation fell to an estimated 3.8% in 2017, from 4.6% in 2016. Measures to clear arrears reduced public debt, allowing the debt-to-GDP ratio to drop from 44.3% in 2016 to 38.3% in 2017. The current account deficit rose to 9.7% in 2017, from 5% in 2016, due to a decline in exports; import volumes remained roughly the same.

Tailwinds

After three years of difficult political transition, the strongest tailwind was the return of constitutional order, during which the main civilian institutions specified in the Constitution were established. Another tailwind was the international community's support for the new leaders' efforts to promote a peaceful, democratic, and prosperous society. The structural and economic reforms resulted in significant progress, particularly in public finances.

Headwinds

The political transition following the overthrow of the Bozizé regime by the Seleka rebellion ended, but serious security issues remain. Although security in the capital Bangui improved sharply, intercommunity tensions and clashes between armed groups still plague the country. This unrest prevents public services and humanitarian organizations from reaching people affected by the crisis. The economy faces major structural problems, particularly a severe shortage of infrastructure and a business climate that remains unattractive to private investors.



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Chad

Economic performance and outlook

Economic activity in Chad continued to be hurt by the decline in world oil prices in mid-August 2014 and the security and humanitarian crises facing the country. GDP growth fell from 6.2% in 2014 to 1.8% in 2015 to –6.4% in 2016 and was estimated to turn positive in 2017. Inflation, –1.9% in 2016, increased in 2017 and is projected to do so in 2018 as well. Declining investment, particularly in oil and in building and public works, large workforce cuts, high domestic arrears, and the sharp decline in public spending largely explain the contraction over the past two years. The outlook for 2017 and 2018 depends heavily on the country's ability to intensify fiscal consolidation in an economic and financial environment characterized by falling oil prices.

Macroeconomic evolution

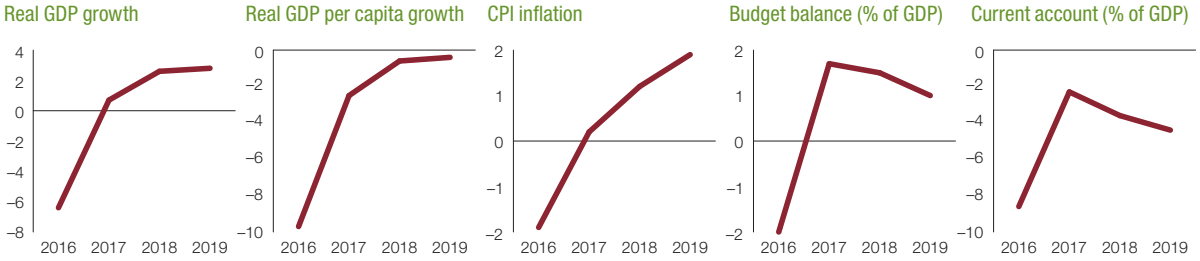
The decline in oil prices continues to impede growth and macroeconomic performance. Lower oil revenues and nonoil tax revenues led authorities to greatly reduce operating and capital expenditures to contain deficits in public accounts. Capital expenditure, which accounted for 9.6% of GDP in 2014, fell to 3% in 2016. The budget surplus reached an estimated 1.7% of GDP in 2017, up from a 2% deficit in 2016. The decline in oil prices also affected foreign exchange reserves, which in 2016 were only 0 months of imports of goods and services.

Tailwinds

The success of the September 2017 international donor conference in Paris to mobilize resources for financing programs in the National Development Plan 2017–2021, which was derived from Vision 2030—The Chad We Want, has led to promising actions. Development partners pledged $6 billion and private-sector actors pledged $13.2 billion to increase the country's economic diversification.

Headwinds

Despite progress, the business environment remains problematic, as highlighted in the World Bank's 2018 Doing Business report. Structural reforms are required to enhance the attractiveness and competitiveness of the domestic economy. Progressively closing the infrastructure deficit, particularly in the vital sectors of energy and transport, is essential to the success of the economic emergence policy.



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Comoros

Economic performance and outlook

The outlook for this fragile state has improved following the resolution of the electricity crisis in 2014 and 2015. Economic growth rose from 2.8% in 2016 to an estimated 3.4% in 2017 and is projected to reach 3.7% in 2018 and 4.1% in 2019. Growth was spurred by a broad investment program with both public (roads and a national hospital) and private (tourism and hospitality) components. The regularization of civil servants' salaries and cash transfers from the diaspora are likely to foster higher private consumption. In terms of supply, growth relies on a sharp recovery in the primary sector and to a lesser extent in services. In terms of demand, end-use consumption is the primary growth driver. However, the budget remains highly fragile, with the tax burden exceeding 10%.

Macroeconomic evolution

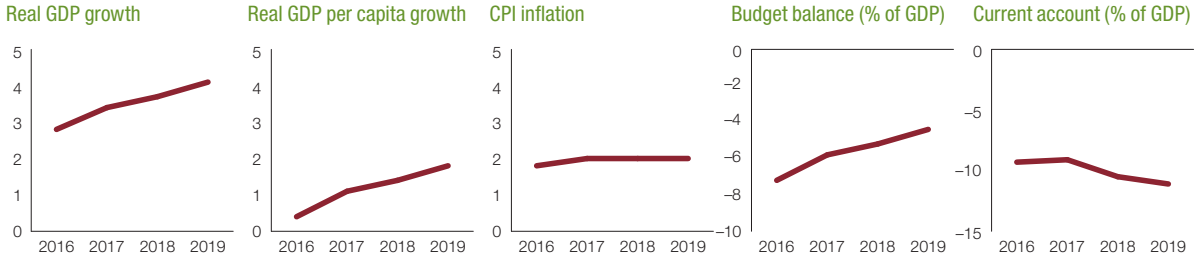
The government elected in May 2016 inherited a challenging budgetary position and had no cooperation program with the International Monetary Fund (IMF) in place since December 2015. The 2017 budget has been criticized as overly ambitious. Taxes accounted for 13% of GDP in 2016 and 22.3% in 2017, while capital expenditure rose from 10.7% of GDP in 2016 to 29.8% in 2017. Inflation is stable at under 3%, due to sound management by the Central Bank. Although the trade balance is expected to worsen slightly due to the economic recovery, this trend is likely to be offset by cash transfers from the diaspora, which average 25% of GDP. The risk of debt distress was ranked as moderate by the IMF's most recent debt viability analysis (2014), which includes cash transfers from the diaspora.

Tailwinds

The purchase of new power stations led to the recovery of electricity production, which revitalized entire sectors of the economy, including tourism, hospitality, trade, and distribution of fresh food products. Another important factor is rising international prices of the country's main export products, including Bourbon vanilla, whose price per kilo rose from $60 in 2014 to $400–$500 in 2017. Comoros, the world's second largest producer of vanilla, plans to expand production from 23 tons to 90 tons over three years. Vanilla accounts for 80% of exports and employs 45% of the workforce. The third tailwind is improved diplomatic relations with Saudi Arabia and its Persian Gulf allies, which have led to significant budget and off-budget support for public investment, including the project to build roads connecting Moroni to the airport and Ouani to Bambao.

Headwinds

The current political climate poses a serious risk to the economy. The country faces potential political and institutional instability as a result of the new leaders' decision to challenge the constitutional principle of alternating presidencies between the country's three main islands, a practice that has ensured institutional stability and peaceful transitions of power since 2001. Since the split in the Juwa-CRC coalition that brought the president to office, Comoros has experienced power sharing between the executive and legislative branches. Laws can be passed by Parliament only with support from the former majority, which was defeated in the most recent elections. Another important factor is the high cost of electricity to the government due to the large fuel subsidies it pays to the two public electricity companies (MAMWE and EDA). These subsidies absorb a sizable portion of the budget and create ongoing cash flow problems. The country continues to struggle with a high fertility rate and the heavy presence of the informal sector in the national economy.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Congo

Economic performance and outlook

The economy is expected to contract further in 2017 in response to the continued decline in oil prices, the country's main source of export revenues, and weak response from nonoil sectors. Real GDP declined an estimated 4% in 2017, following a contraction of 2.8% in 2016. The decline in international oil prices, compounded by dependence on oil revenues, continues to undermine Congo's efforts to diversify its economy and increase its resilience. The economy is projected to expand 3.1% in 2018 and 2.1% in 2019, driven by higher oil production, following the exploitation of the Moho-Nord oil field, which accounts for 19.3% of the country's production.

Macroeconomic evolution

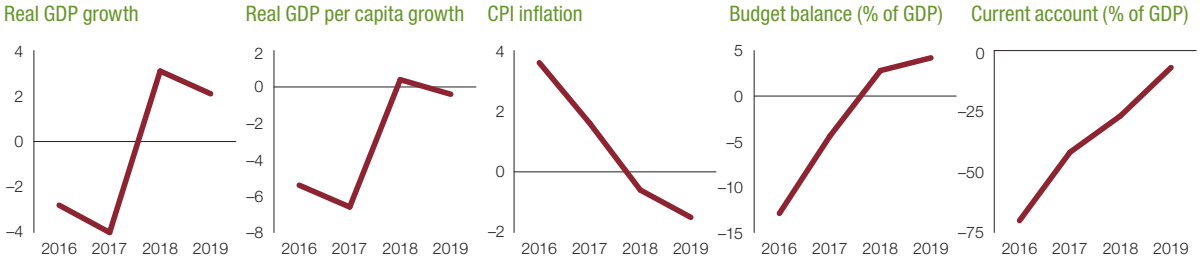
Weak economic growth prospects and lower oil revenues continue to dampen the budget balance. However, as the result of controlled government spending measures, the budget deficit was estimated at 4.4% of GDP in 2017, down from 12.9% in 2016. The budget is projected to turn a surplus of 2.8% of GDP in 2018 and 4.2% in 2019. Monetary policy is managed by the BEAC following the fixed parity between the CFA franc and the euro. Inflation was an estimated 1.6% in 2017, down from 3.6% in 2016, which was above the ceiling of 3% authorized in the Central African Economic and Monetary Community. External public debt, particularly from Chinese creditors, reached 110% of GDP in 2016 and is projected to further rise. This increased borrowing has raised the risk of debt distress and presents a serious threat to the government's plans to improve resilience. Unemployment remains a major challenge; approximately 30% of the workforce ages 15–24 has no job.

Tailwinds

Congo continues to grapple with low oil prices and lack of structural reforms to boost its untapped potential. However, weaker oil prices offer the opportunity to build the foundations for diversification. Reviving industries and construction will be key growth drivers. In addition to abundant natural resources in oil, forestry, and minerals, Congo can leverage its strategic position in Central Africa and its 170 km coast to boost its economy. Development projects to renovate and modernize the international airports in Brazzaville, Ollombo, and Pointe-Noire will support foreign investment. In transport, progress has been made on key economic corridors, existing highways have been modernized, and new ones have been constructed. Finally, the government has launched ambitious reforms, such as The March toward Development, to improve the quality of life over the next five years.

Headwinds

Although great strides have been made, Congo lags behind other African countries at a similar level of development. Heavy dependence on oil commodities exacerbates the already fragile external position. An onerous business environment impedes competition and investment and discourages potential investors. Congo fell two places in the rankings of the World Bank's 2018 Doing Business report, from 177 to 179 out of 190 countries. Congo's Human Development Index value was 0.592 in 2016, ranking it 135 out of 188 countries. The poverty rate, which fell from 50.2% in 2005 to 36.9% in 2011, remains one of the highest in Africa. With a Gini inequality coefficient of 0.489 in 2011, Congo's inequality is the second highest in Africa, after South Africa. Slow economic growth in developed countries or other economic partners could hurt demand for commodity exports.



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Côte d'Ivoire

Economic performance and outlook

Economic activity in 2016 was driven mainly by structural public investment and the dynamism of the private sector. This trend continued in 2017, with real GDP growth estimated at 8%, despite domestic and external shocks at the beginning of the year. The 35% drop in the price of cocoa, the main source of export earnings, between November 2016 and January 2017 led to an estimated CFAF 200 billion loss for local producers. Growth was helped by the upswing in the primary sector, the good performance of the energy sector, and higher domestic consumption. Due to the dynamism of the secondary and tertiary sectors, growth is projected to reach 7.9% in 2018 and 7.8% in 2019.

Macroeconomic evolution

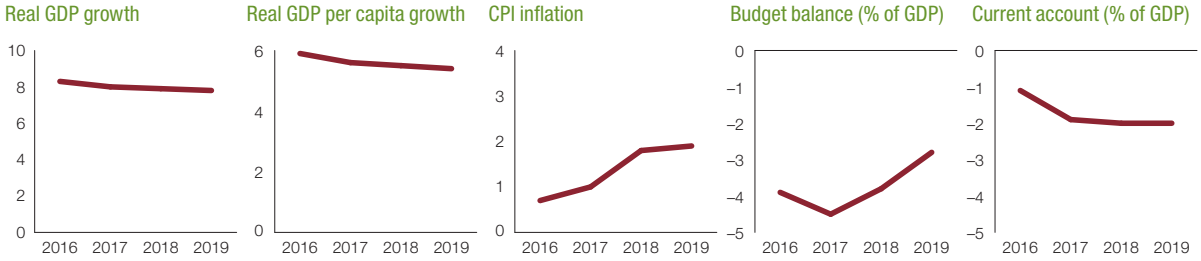
In December 2017, the IMF completed the second reviews of Côte d'Ivoire program supported by the Extended Credit Facility and the Extended Fund Facility, which allowed disbursements of $137 million. Performance under the program was considered strong enough for the decisions on the reviews to take place without a Board meeting. The budget deficit was estimated at 4.5% of GDP in 2017, higher than the anticipated 3.7%. This deterioration is explained by several internal and external shocks, including the downward revision of the single exit tax and registration duty, which are intended to support producer prices and to limit revenue losses to 0.5% of GDP. Social demands resulted in additional one-off expenditures of 0.6% of GDP in 2017 and are projected to require recurrent spending equal to at least 0.07% of GDP in 2018. The deficit is projected to gradually decrease to 3.8% in 2018 and to 2.8% in 2019. Inflation stood at 0.7% in 2016, was estimated at 1% in 2017, and is projected to remain moderate, at 1.8% in 2018 and 1.9% 2019. Debt remains under control; in 2016, the country was considered a moderate risk by the International Monetary Fund. However, the consolidation of repayments due on 2014 and 2015 Eurobonds over 2024–28 poses a potential risk to debt sustainability.

Tailwinds

Several factors could consolidate the health of the economy, including the Economic and Financial Program 2016–2019 and reforms set out in the Memorandum of Economic and Financial Policies 2016–2019. In addition, a $525 million grant for the Millennium Challenge Corporation Program Compact will strengthen economic competitiveness through investment in education, technical and vocational training, and transportation. The country was selected to benefit from the G20 Compact with Africa, which is expected to boost the private sector, particularly through increased foreign direct investment (FDI). In addition, Côte d'Ivoire is continuing to improve the business environment with its Focus on Doing Business program, which has increased digitization and simplified procedures.

Headwinds

Membership in a monetary union helps Côte d'Ivoire maintain low inflation rates. But it limits its options for adjusting to negative shocks and ensuring external competitiveness. Some major fiscal issues remain to be resolved. The government still carries large, unpaid bills and past liabilities of about CFAF 150 billion, dating back to extrabudgetary spending in 1993–2002. In addition, unpaid bills and liabilities to independent power and gas producers are estimated at 1.1 percent of GDP. The authorities should also monitor the arrangements reached with mutinous soldiers and striking civil servants to ensure that there are no new flare-ups and conflicts. The economy remains vulnerable to negative macroeconomic shocks, particularly those related to exports (lower commodity prices) and FDI. A continuing decline in the price of cocoa could lead to social tensions similar to those in 2017. This vulnerability is a reminder that the country needs to accelerate its economic diversification and identify alternate sources of growth to reduce its dependence on cocoa beans. The upcoming elections in 2020 and the uncertainty surrounding a reshuffling of political forces could be additional sources of instability.



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Democratic Republic of Congo

Economic performance and outlook

Economic growth averaged 7.7% between 2010 and 2015, but lower prices for export commodities (copper and cobalt) and political uncertainties hindered growth in 2016. Growth in 2017 was estimated at 3.3% due to the good performance of the extractive and manufacturing industries, construction and public works, and trade. The recovery is projected to continue into 2018 and 2019 with rising commodity prices and increased activity in the extractive industry as new mining projects start.

Macroeconomic evolution

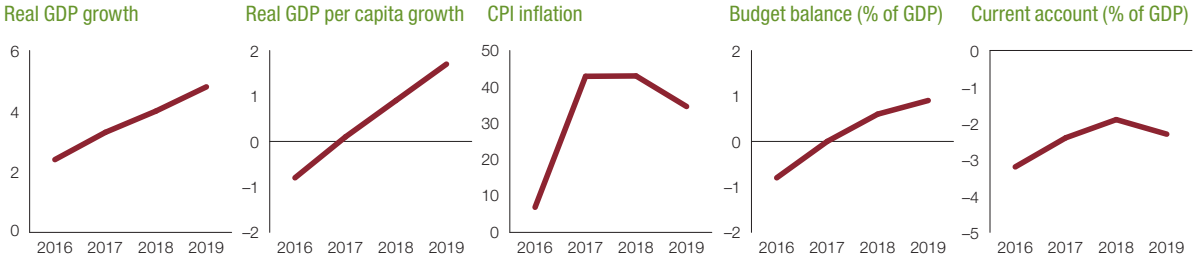
The economic slowdown hurt public finances. Government revenues (excluding grants) dropped from 13.6% of GDP in 2015 to 9.4% in 2016, causing a decline in public expenditure to 12.8% of GDP in 2016, from 17.3% in 2015. Foreign debt remains under control, with the debt risk identified as moderate. However, domestic debt rose from 3.6% of GDP in 2015 to 7.6% in 2016. Currency reserves fell from $1.4 billion in 2015 to $852.1 million in 2016 to $668 million in September 2017 (or 2.93 weeks of imports). The Congolese franc depreciated against the U.S. dollar by 23.7% in 2016 and 22.5% in late September 2017, which raised inflation from 0.8% in 2015 to 6.9% in 2016 to 42.9% in 2017. The current account deficit was 3.2% of GDP in 2016 and an estimated 2.4% in 2017 and is projected to continue to improve in 2018.

Tailwinds

Commodities play a vital role in the economy. Rising prices for copper (up 15.8%) and iron (up 87.9%) between December 2016 and September 2017 bode well for the economy; copper production rose 9.3%, and iron production rose 18%. If this trend continues into 2018 and 2019, government revenues, currency reserves, the exchange rate, and the balance of payments are likely to improve. In 2015, the extractive sector accounted for 97.5% of export earnings, 24.7% of current government revenues, and 20.9% of GDP. In agriculture, multiple feasibility studies on agro-industrial parks are under way. These parks are expected to help diversify the economy, which depends heavily on oil and several mineral products.

Headwinds

Not all stakeholders are involved in navigating the transition leading up to elections, making the political situation unpredictable. Threats to national unity and social peace raise questions about the economic outlook for 2018 and 2019. Security remains a pressing concern in the eastern and central areas of the country, where economic activity could be jeopardized if violence continues or worsens. The falling purchasing power of households caused by the rising prices of necessities and the depreciation of the Congolese franc could awaken a dormant social crisis. The country increased two places in rank in the World Bank's 2018 Doing Business report, from 184 to 182 out of 190 countries, but the business climate, among the 10 worst in the world, needs major improvements.



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Djibouti

Economic performance and outlook

Economic growth has exceeded 5% in recent years, reached an estimated 6.8% in 2017, and is projected to be 6.9% in 2018 and 2019. It is driven by continued investment in infrastructure, especially ports, justified by the transit of goods to and from Ethiopia. The government's long-term goal is to establish Djibouti as an emerging country by 2035; short-term goals are to accelerate growth and increase employment. Structural constraints on energy and water supplies are among the major challenges. The energy challenge is attenuated by a joint electricity transmission line with Ethiopia. The economy has a dual aspect: on the one hand, it has a modern sector based on revenues from ports and military bases leased by foreign countries; on the other hand, it has a large informal sector.

Macroeconomic evolution

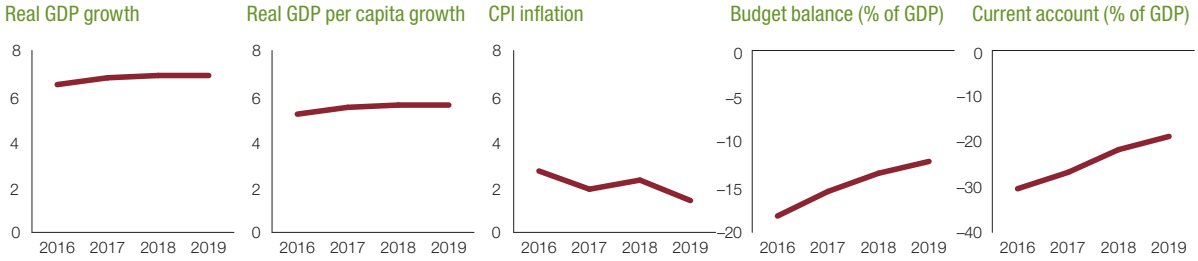
The budget deficit, which rose sharply from 5.9% of GDP in 2013 to 15.7% in 2015, widened to 18.2% in 2016 and fell to an estimated 15.5% in 2017. Between December 2015 and June 2016, the money supply increased 2.6%. The exchange rate between the Djibouti franc and the U.S. dollar has been fixed since independence in 1973. Inflation was 3% in 2014 and 3.1% in 2015 and is projected to fall to 2.3% in 2018. The country's indebtedness remains critical. Debt has risen from 52.5% of GDP in 2014 to 65.7% in 2015 to 78.3% in 2016 to more than 79% in 2017. Despite the economic upturn, extreme poverty and unemployment remain endemic.

Tailwinds

Djibouti is banking on infrastructure development, including ports, to promote rapid growth and reduce poverty. The infrastructure program financed in recent years by a massive influx of foreign direct investment remains concentrated in ports, roads, and hotels. The construction of railways and new specialized ports and terminals along the coast will consolidate the country's regional integration, strengthening its role as a platform for trade and services in the subregion. The growth and development model is focused on transport and related services, based on the exploitation of the country's geostrategic position on the Gulf of Aden, at the crossroads of important commercial shipping corridors for goods and oil transportation.

Headwinds

Economic growth and diversification remain constrained by several factors, including the poor quality of economic infrastructure, the high cost of services, and weak institutional capacity. More than 48% of the working-age population, especially young people and women, is unemployed; extreme poverty has not declined since 2002 and affects about 23% of a population of less than 1 million. Djibouti suffers from high exposure to environmental shocks. The country's progress is undermined by the low efficiency and poor quality of public services, despite the recent introduction of modern administrative management practices. Growing indebtedness could further impede development efforts. The political governance index has generally deteriorated in recent years.



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Egypt

Economic performance and outlook

In 2016/17, real GDP grew an estimated 4.1%, slightly underperforming the 4.3% in 2015/16. Growth is driven mainly by investment and private and public consumption, as well as by net exports, which contributed positively for the first time in two years. This positive performance reflects the government's reform efforts to achieve fiscal consolidation, more inclusive growth, and an improved business environment. The approval of a three-year International Monetary Fund (IMF) program in November 2016 showed the success of those efforts. Growth is projected to be 4.8% in 2017/18 and 5.5% in 2018/19, boosted by restored investor confidence but partially diluted by high inflation. Inflation rose to an estimated 23.3% in 2016/17, from 10.3% in 2015/16, and is projected to decline to 21.2% in 2017/18 and 13.7% in 2018/19.

Macroeconomic evolution

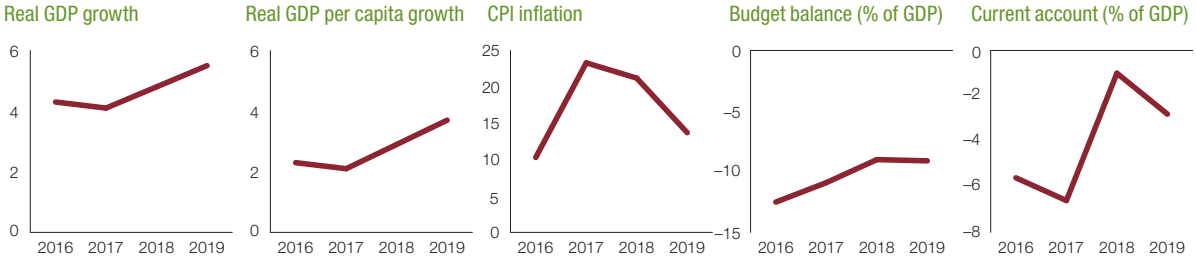
After facing important imbalances that led to high public debt, a widening current account deficit, and declining official reserves, Egypt embarked on a major IMF-backed economic reform initiative. It consists of exchange rate liberalization; fiscal consolidation, including energy subsidy cuts and reduction of the wage bill; and business climate improvement, including easier access to financing for small- and medium-size enterprises, mainly through targeted cash transfers for the most vulnerable. Macroeconomic conditions show signs of improvement. On the demand side, the Ministry of Finance's July 2016–March 2017 data indicate year-on-year growth of 17% for investment, 4.4% for private consumption, and 2.4% for public consumption. The 72% increase in exports was partly offset by the 47% increase in imports. On the supply side, eight key sectors, representing about two-thirds of GDP, led growth: telecommunications (grew 9.3%), construction (grew 8.5%), wholesale and retail trade (grew 4.7%), nonoil manufacturing (grew 4.7%), natural gas (grew 4.6%), real estate (grew 4.3%), agriculture (grew 3.1), and general government (grew 2.9%). Tourism declined 6.7%.

Tailwinds

The IMF-supported homegrown reforms, backed by the World Bank and the African Development Bank through budget support of $4.5 billion over three fiscal years, are paying off. Currency depreciation boosted foreign direct investment, the economy is considered more competitive, and business confidence has improved. Public investment, through a series of megaprojects, boosted growth in 2016/17. Better markets conditions have been a main factor in the return to growth, particularly benefitting exports, led by mining products, especially gold and oil (mostly crude petroleum). The program's fiscal consolidation aspect—which includes increasing tax revenues 2.5% from 2015/16 to 2018/19; reducing public expenditure by slashing subsidies, notably to fuel; and containing the government wage bill—has improved the macroeconomic environment. The government will implement the ongoing IMF–World Bank–African Development Bank program to consolidate the positive impact to date and enhance future prospects.

Headwinds

Moving the exchange rate to a floating regime resulted in depreciation of the Egyptian pound by 44% between October and November 2016. Inflation reached 31.9% in August 2017, after averaging 23.3% in 2016/17. Real interest rates remain negative despite steady increases in nominal interest rates. However, inflation is expected to decline to 21.2% in 2017/18 and 13.7% in 2018/19, as the Central Bank tightens monetary policy to support the Egyptian pound and reduce inflation. Another impact of the currency depreciation was the sharp increase in the stock of foreign currency–denominated debt, from 17.3% of GDP during the first quarter of 2016/17 to 41.2% a year later. Another aspect affecting growth is the security situation in the northeastern part of the country, as well as warnings that affect the tourism sector, which has yet to return to its pre-2011 levels.



Note: Data are in fiscal years, so 2016 data refer to the 2015/16 fiscal year.
Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Equatorial Guinea

Economic performance and outlook

Equatorial Guinea saw very rapid economic growth following the discovery of hydrocarbons in the 1990s. Since 2014, however, the protracted fall in global oil prices, combined with the decline in the country's output, the large budgetary surpluses that financed important investment programs that continue today have been declining. GDP continued to shrink in 2016 and 2017, and the forecast for 2018 remains unfavorable. The decline is expected to stabilize beginning in 2019. Authorities are relying on the stabilization of public finances and economic diversification to bring about new sources of growth. Consultations are under way with the International Monetary Fund (IMF) on the possible implementation of a program under its Extended Credit Facility.

Macroeconomic evolution

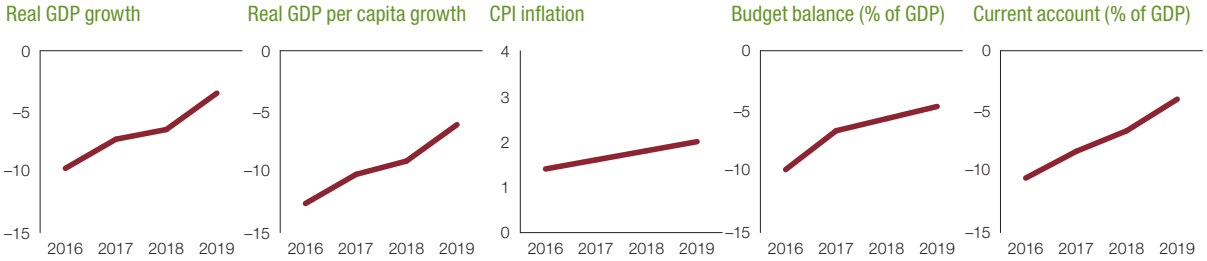
The recession of the past three years remains evident in macroeconomic and budgetary indicators. The decline in hydrocarbon prices directly hit public finances; a contraction of approximately 8% in public revenues was forecast between 2016 and 2017. This contraction adversely affected the current account balance, leading to a deficit of 10.5% of GDP.. The net government position with the Central Bank has been negative since July 2017. The arrears accumulated by the government as a result of ambitious public investment programs to support the country's emergence strategy are a major concern. The government started a medium-term expenditure reduction program; the focus is on its primary expenditure item of public investment, which will have a direct impact on construction and public works, a driver of the economy and employment.

Tailwinds

Equatorial Guinea has enjoyed significant political stability and an excellent security situation. It has substantially modernized its infrastructure in recent years, in accord with its National Economic and Social Development Plan. It has made major strides in human development, particularly in health and education, and is modernizing its public administration by attracting Equatorial Guinean managers trained abroad. Although evolving at a slow pace, economic diversification is moving forward, due largely to advances in construction, agriculture, forestry, fishing, and trade. The October 2017 decision to eliminate the requirements for visas for Central African Economic and Monetary Community citizens is expected to promote regional trade and stimulate economic growth.

Headwinds

At the December 2016 summit in Yaoundé, Cameroon, the CEMAC Heads of State endorsed policies to stop the depletion of BEAC reserves and preserve the fixed exchange-rate arrangement. These included tighter monetary policy and liquidity management, and measures to preserve financial sector stability. Membership in the monetary union helps Equatorial Guinea maintain low inflation rates. But it limits its options for adjusting to negative shocks and ensuring external competitiveness. The lack of economic diversification in Equatorial Guinea remains a major constraint and prevents gains from higher exports in non-oil sectors. Since 2014, the government has accumulated arrears with the private sector, including local small and medium-size enterprises and major international groups active in the country. In October 2017, the IMF estimated these arrears at CFAF 1 trillion. These hinder economic growth and job creation, as well as financial sector development. To truly benefit from its excellent infrastructure, the country needs to improve its business climate and governance.



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Eritrea

Economic performance and outlook

Eritrea's economy slowed more sharply than expected due to dwindling economic activities and poor weather conditions that adversely affected agricultural productivity. Real GDP growth declined to an estimated 3.4% in 2017, from 3.8% in 2016, and is projected to remain between 3.7% and 3.8% over the medium term. GDP growth in 2016 and 2017 was driven largely by investment at the Bisha mine. Agriculture, which accounts for 17.2% of GDP, provides most of the population with a livelihood and accounts for about 44% of commodity exports. Over the medium term, the government sees further prospects in improved food production due to investment in masonry dams, additional mining activities, growth in services, and fisheries development.

Macroeconomic evolution

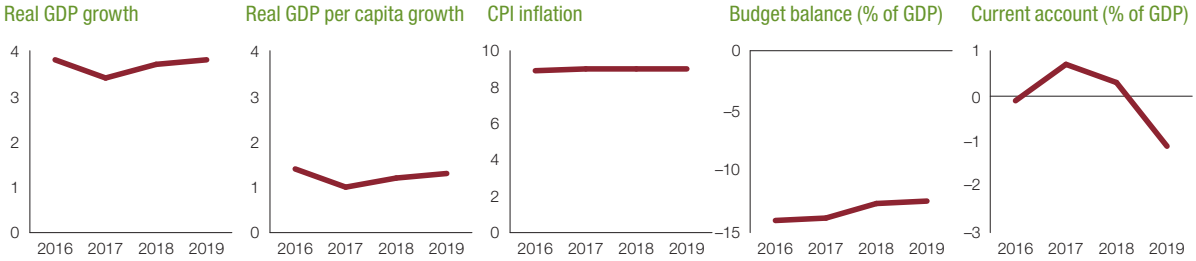
The overall budget deficit (after grants) continued its downward trend. The budget deficit declined to an estimated 13.8% of GDP in 2017, from 14% in 2016, and is projected to drop to 12.4% in 2019. The country's access to more grants and concessional resources, increasing revenue from mining projects, and control of unproductive expenditures are the main drivers of the decline. Inflation remained at an estimated 9% in 2017, driven by insufficient food supply and scarce foreign currency to finance imports of essential goods. Monetary policy has been geared to maintaining price stability. The broad money supply decreased from 17.5% of GDP in 2010 to 14.3% in 2014. The drop was attributable to the government's pursuit of fiscal consolidation and reduction of nonconcessional loans. Public debt was estimated at 105.8% of GDP in 2015, 3 percentage points lower than in 2013. External debt to official creditors, which declined from 41% of GDP in 2010 to 21.9% in 2014, remains above the Sub-Saharan Africa average of 10.5%.

Tailwinds

Low commodity prices for traditional gold and copper exports remain an ongoing challenge. The recent discovery of new gold deposits in commercial quantities will drive medium-term growth. However, weaker global prices for the minerals have provided the government with the opportunity to diversify its economy. Agriculture accounts for about 80% of employment in the rural economy. The government launched an Agriculture Development Agenda that focuses on agricultural value chains and the application of improved inputs to transform the sector. In energy, development partners, particularly the European Union, are investing in renewable energy. The government and the United Nations Development Programme are piloting a wind farm with capacity of 750 kilowatts in the port city of Assab to improve the electricity supply. The diesel power plant in Assab saves $730,000 a year in diesel costs. In transport, the main corridor from Asmara to the ports of Massawa and Assab is being rehabilitated.

Headwinds

The unresolved border issue between Eritrea and Ethiopia, as well as the continued isolation of Eritrea by the international community, has forced the government to adopt inward-looking policies. This situation has hindered regional development in the Horn of Africa. The country's unattractive business environment, highlighted by its ranking of 189 out of 190 in the World Bank's 2018 Doing Business report, continues to discourage investment. Eritrea also faces a serious skills gap due to the poor quality of education infrastructure. These problems continue to jeopardize human capital development, thereby constraining long-term inclusive and sustainable economic growth. The dependence on primary commodity exports and imports of food and petroleum products makes the country extremely vulnerable to external shocks.



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Ethiopia

Economic performance and outlook

Ethiopia is steadily recovering from the 2015/16 and 2017 droughts, with continued expansion of services and industry and a rebound in agriculture. At 39.3%, services accounted for the largest share of GDP in 2016/17, 39.3%, driven by trade, transport, and communications, although this share decreased from 47.3% in 2015/16. Industry's share of GDP increased from 16.7% in 2015/16 to 25.6% in 2016/17, driven by construction, electricity, and manufacturing. Implementation of the export-led industrialization strategy supported growth in industry. Although agriculture's share of GDP stagnated at 36%, the sector's growth rate increased from 2.3% in 2015/16 to 6.7% in 2016/17 due to rising commodity prices, notably for coffee. Growth continues to be led by investment in line with stable public infrastructure spending and higher foreign direct investment (FDI). Real GDP growth during 2017/18–2018/19 will be led by greater agricultural productivity and strong industrial growth.

Macroeconomic evolution

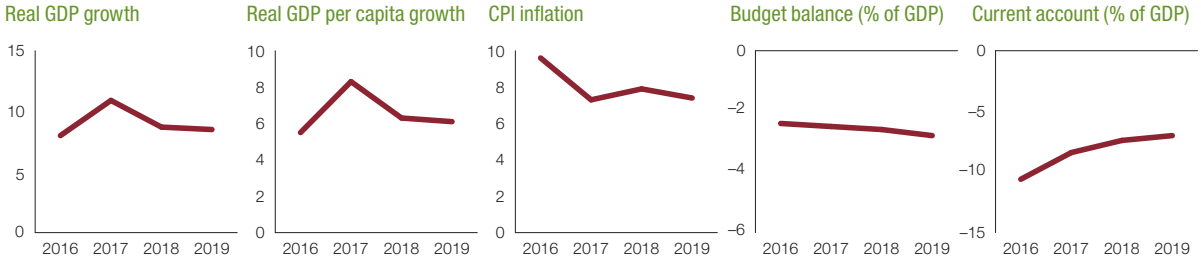
The government pursued a contractionary fiscal policy stance in 2016/17, prioritizing spending in pro-poor and growth-enhancing sectors, including education, health, agriculture, and roads. Capital expenditure accounted for a large share of the budget, though it decreased from 51% in 2015/16 to 46% in 2016/17. The 2016/17 budget deficit was 1 percentage point lower than programmed; the ratio of tax revenue to GDP remained low, at 12.9%. Revenue-enhancing measures are expected to increase tax collection. The monetary policy stance has been consistent with the Central Bank's objective of maintaining low and stable inflation, which was below the 8% target in 2016/17. The Central Bank is implementing a contractionary monetary policy to address inflationary pressures due to rising food prices. In October 2017, the birr was devalued 15% to boost exports. Merchandise exports increased 1.4%, while imports decreased 5.5%, reducing the current account deficit. Remittances remained stable at $4.4 billion (6% of GDP) in 2016/17; FDI increased 27.6%, to $4.2 billion.

Tailwinds

The economic outlook is positive due to the sustained implementation of the government's export-led industrialization strategy and investors' positive outlooks. Industrialization has been prioritized, notably through the development of industrial parks and other enablers, such as the 656 km Addis Ababa–Djibouti electric railway, to ease the cost of doing business. Investment in energy, such as the 6,450 MW Grand Ethiopian Renaissance Dam, is expected to boost energy exports. These initiatives are likely to reduce the structural trade deficit and foreign exchange shortages while supporting industrialization and job creation. Ethiopia was ranked as the second largest FDI host economy among the least developed countries in 2016, supported by its large market and affordable labor force.

Headwinds

Major downside risks include weak exports, climate change, and youth unemployment. Exports account for less than 20% of imports, leading to persistent trade deficits and foreign exchange shortages. The most recent debt sustainability analysis in 2016 indicates that Ethiopia's moderate risk of external debt distress is vulnerable to export performance. The development of industrial parks and devaluation of the birr are expected to increase manufacturing exports, which account for about 20% of total exports, thereby mitigating this risk. The negative effects of climate change have led to interventions to build resilience by focusing on drought-prone regions, in line with the Growth Transformation Plan II (2015/16–2019/20) and Climate Resilient Green Economy Strategy. Youth unemployment requires urgent attention; more than 70% of the population is under age 30. Although the unemployment rate among young people ages 15–29 was low in 2013, 6.8%, the urban youth unemployment rate (23.3%) was higher than the total urban unemployment rate (16.5%). The government established a $493 million Revolving Fund for Ethiopian Youth in 2016/17 to support youth entrepreneurship and job creation.



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Gabon

Economic performance and outlook

Economic growth continued despite the fall in oil prices, reaching 2.1% in 2016; however, it was estimated at less than 1% in 2017. In January 2017, authorities approved an economic revitalization plan to address the current economic crisis by containing macroeconomic and budgetary imbalances and stimulating growth. To tackle the economic shock that Gabon has been experiencing since 2014, the government has committed to revitalization measures, including implementing budgetary adjustments, developing infrastructure, and promoting the private sector as a driver of economic diversification and transformation.

Macroeconomic evolution

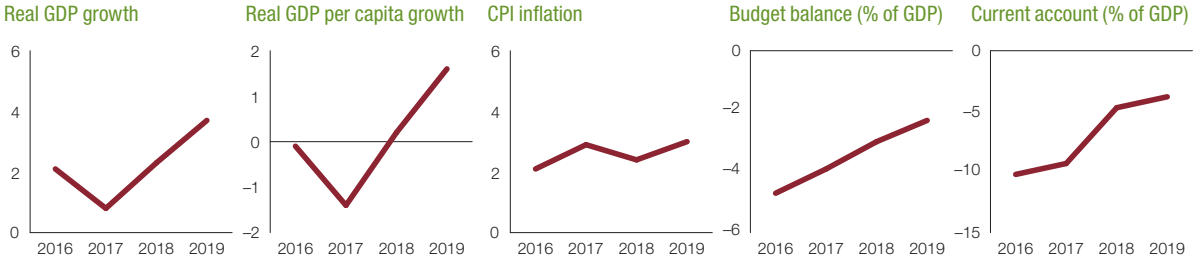
Since the decline in oil prices, Gabon has recorded revenue losses that have hurt public finances, the financial sector, and the productive sector. Despite adjustment efforts, the government has accumulated sizable budget deficits, particularly to pay a large wage bill (close to 40% of the budget) and support the investment program associated with the country's vision of emergence. In combination with the accumulation of arrears, the decrease in public investment has hindered economic growth, job creation, and the nonoil sector. The balance of payments is in deficit, and government reserves with the Central Bank have decreased sharply.

Tailwinds

Gabon is determined to reduce its dependence on raw materials, particularly hydrocarbons, and transform its economy to become an emergent nation by 2025. It has established a credible industrial policy, including setting up special economic zones and attracting foreign direct investment. These measures are seen in the public-private partnership with the OLAM Corporation, whose objective is to promote subsistence- and export-oriented agriculture as a bridge to growth. To improve public administration, the government has launched reforms that streamline the number of civil servants, re-examined the roles of certain ministries, and retargeted public resources to meet results. The reforms are supported by the international community through a $655 million triennial agreement approved in June 2017 under the International Monetary Fund's Extended Credit Facility, as well as through budgetary support from the African Development Bank, the World Bank, and the French Development Agency.

Headwinds

Membership in the monetary union helps Gabon maintain low inflation rates. But it limits its options for adjusting to negative shocks and ensuring external competitiveness. Limited economic diversification remains a major constraint and prevents gains from higher exports in non-oil sectors. Despite bringing civil service expenditure under control and refocusing public expenditure, the past three years have seen the government accrue significant arrears with the private sector. This situation hinders the development of the nonoil, is detrimental to employment, and runs the long-term risk of weakening the banking sector because of the accumulation of questionable loans. The level of public debt is also a concern because of the substantial increase in recent years, to approximately 59% of GDP in October 2017. The government needs to continue to invest heavily in infrastructure, particularly roads, to remain an attractive destination for foreign investment. The government needs to continue to invest substantially in infrastructure, particularly roads, to remain an attractive destination for foreign investment. But the financing strategy should preserve debt sustainability.



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Gambia

Economic performance and outlook

In 2014, the economy experienced exogenous shocks caused by erratic rainfall and spillover effects of the regional Ebola crisis, causing GDP growth to fall from 5.6% to –0.2%. Growth rebounded to 4.4% in 2015 but declined to 2.2% in 2016 due to policy slippages, electoral uncertainty, an unusually short rainy season, and a three-month border blockade by Senegalese transporters. GDP growth rebounded to an estimated 5.1% in 2017, driven primarily by agriculture and services, and is projected to stabilize around 4% over the medium-term, depending on the new administration's ability to conduct a robust transition, attract investors, and lay the foundations for economic transformation.

Macroeconomic evolution

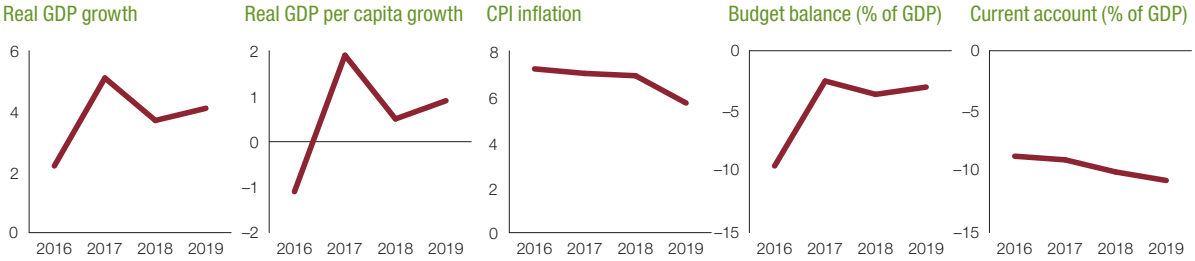
Higher spending pushed the budget deficit from 1.7% of GDP in 2008 to a peak of 10% in 2014, before settling at 9.5% in 2016. The deficit was financed largely from domestic borrowing. Domestic debt stock rose from 37.1% of GDP in 2013 to 67.9% in 2016, contributing to a sharp increase in total public debt stock, from 83.3% of GDP in 2013 to 120% in 2016. The 2017 budget is consistent with stabilization objectives to contain the deficit to 2.5% of GDP. Inflation reached 7.2% in 2016, up from 6.8% in 2015, driven by high food prices and depreciation of the dalasi against the U.S. dollar since November 2016. Inflation is expected to decline to 6.9% in 2018, benefitting from the normalization of monetary policy and a rebound in agricultural production. The current account deficit narrowed from 15% of GDP in 2015 to 8.7% in 2016 due to favorable terms of trade and moderate rebound in trade. The trade deficit decreased from 25.7% of GDP in 2015 to 17.9% in 2016. For 2017 and 2018, imports are expected to rise from 34% of GDP in 2016 to 38% in 2018, contributing to an increase in the current account deficit to 10% of GDP in 2018.

Tailwinds

The country has been on a difficult recovery path following the December 2016 elections, but key partners are re-engaging. The substantial resources that they have provided have increased official reserves from 1 month of imports in December 2016 to 3 months in August 2017. The political changes open a new window of opportunity. The country is preparing a long-term strategy, the National Development Plan, 2018–2021, which focuses on accelerating inclusive growth and generating employment opportunities. A donors roundtable to mobilize resources is scheduled to begin in 2018. Tourism, the second largest contributor to the national economy, is booming. To consolidate these gains, the sector needs to improve its competitiveness and address supply-side constraints that stifle growth. Remittances, which account for 10% of GDP, remain the main source of foreign exchange earnings and are expected to increase 5% a year.

Headwinds

The country remains vulnerable to shocks due to its size and overreliance on tourism and subsistence rain-fed agriculture. Energy shortages pose a major challenge. Insufficient access to electricity supply (47% at the national level) makes the cost of electricity among the most expensive in Sub-Saharan Africa ($0.26 per kWh). Rapid demographic changes are fueling intense urbanization. The poverty rate remained largely unchanged between 2010 (48.1%) and 2015 (48.6%). However, the number of poor people increased from 790,000 in 2010 to 930,000 in 2015. The high share of youth unemployment in total unemployment, about 70%, is pushing young people to seek alternative means of livelihood, including migration and illicit activities.



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Ghana

Economic performance and prospects

Economic growth fell from 14% in 2011 at the onset of oil production to 3.5% in 2016, the lowest in two decades. The economy recovered in 2017, growing an estimated 6.3%, spurred by recovery in nonoil sectors, lower inflation, and new hydrocarbon wells (the Tweneboa, Enyenra, Ntomme, and Sankofa oil and gas fields). Over the medium term, economic growth is expected to accelerate to 8.5% in 2018 and then moderate at 6.2% in 2019 as the budget and current account deficits narrow amid lower inflation and falling interest rates.

Macroeconomic evolution

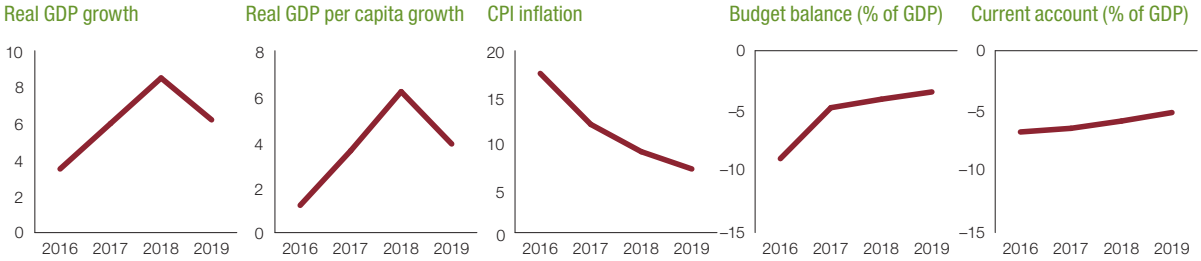
Weak economic growth squeezed by tight monetary policy and lower oil production in 2016 have led to a decline in government revenues. Budget performance is expected to improve after the budget deficit drop from 8.9% of GDP in 2016 to 4.7% in 2017. Higher oil production and tightly controlled expenditures are likely to boost revenues. Improvements in tax collection and falling inflation and interest rates will facilitate economic activity. Revenue mobilization and efficiency measures will continue to be key factors in budget implementation. Inflation continued to gradually drop from a peak of 19.2% in January 2016 to 12.2% in September 2017. The Bank of Ghana reduced its policy rate from 25.5% to 21%, the fourth consecutive cut since November 2016. Exchange rates remained stable compared with 2014 and 2015, with a cumulative yearly depreciation of 4.7% against the U.S. dollar as of August 2017. Ghana is at a high risk of debt distress as the debt-to-GDP ratio remains high at 73.3% in December 2016, down from 68% in June 2017. Debt sustainability remains a priority for the government's fiscal consolidation program.

Tailwinds

The smooth transfer of political administration following the December 2016 elections strengthened Ghana's democratic credentials. The promotion of private sector–led growth provides a key platform for reviving the nonoil sectors, as well as for links to stimulate manufacturing. Restoring and maintaining a sustainable fiscal and macroeconomic environment, improving the business-enabling environment while strengthening the electricity supply, and ensuring the energy sector's financial viability are requisite to enhanced productivity. The resolution of the production challenges of the Jubilee oil well and the September 2017 landmark ruling of the 2015 International Tribunal for the Law of the Sea on the boundary dispute between Côte d'Ivoire and Ghana in favor of Ghana pave the way for renewed drilling and exploration of oil and gas and offer the potential for new oil investment.

Headwinds

The wide budget overrun in 2016 calls for expanding Ghana's tax base, which is relatively low, with a tax-to-GDP ratio of about 16%. Revenue mobilization remains key in achieving the country's plans for a sustainable fiscal consolidation path while managing debt sustainability and funding of development objectives. Addressing the financial sustainability of state-owned energy enterprises is crucial to the financial health of the energy sector, as well as the banking sector, whose nonperforming loans rose sharply to 21.2% in June 2017. The increased minimum capital requirement of commercial and rural and community banks paves the way to consolidate and improve the health of the banking sector. The Bank of Ghana has taken steps to restore stability to the sector by requesting a recapitalization plan from banks with capital shortfalls, in addition to the implementation of collateral requirements and the development of an Emergency Liquidity Assistance plan.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Guinea

Economic performance and outlook

Reforms, investment in mines, agriculture, and infrastructure, as well as the end of the Ebola crisis, contributed to an economic upturn in 2016. Real GDP grew 6.6%, reflecting strong performance in agriculture (which grew 5.8%), mining (which grew 33.5%), and energy (which grew 34%). Real GDP growth was an estimated 6.4% in 2017 and is projected to average 6.2% in 2018–19, driven by strong performances in mining, agriculture, and construction.

Macroeconomic evolution

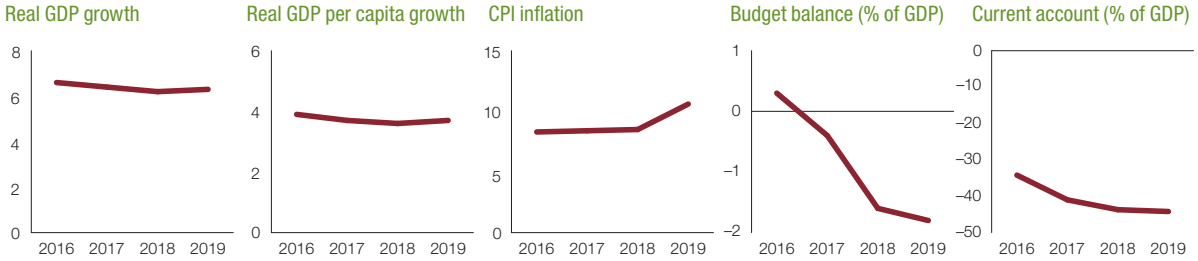
Cautious monetary policy is likely to keep inflation at 8.4% in 2017 and 2018, though it is projected to climb to 10.6% in 2019 due to rising import prices, particularly oil prices. Government policies succeeded in delivering a budget surplus of 0.3% of GDP in 2016. The budget deficit in 2017, estimated at 0.4% of GDP, is projected to deepen to 1.6% in 2018 and 1.8% in 2019 as a result of reforms to expand the scope of the budget and streamline public procurement. The current account deficit is expected to climb from 34.2% of GDP in 2016 to an average of 43% in 2017–19 as a result of imports related to mining projects, energy, and transportation infrastructure. Export income inflows helped widen foreign currency reserves from 1.7 months of import coverage in 2015 to 2.2 months in 2016 and an estimated 2.5 months in 2017–19. Foreign debt remained steady at 21% of GDP in 2016 and is not expected to exceed 50% in 2017–19, despite nonconcessional borrowing earmarked to fund infrastructure.

Tailwinds

The country has launched a proactive drive to reform its 2040 Vision for Guinea and its National Economic and Social Development Plan (2016–2020). Links with historic partners have been deepened, and the country is looking for new partners. Spending control has been tightened; nonconcessional loans have been sought for infrastructure projects due to better advisement to keep indebtedness at below 50%. Loans are backed by revenues from mining operations, rather than by the value of mining assets. In November 2016, the government secured public and private funding commitments of more than $20 billion under its National Economic and Social Development Plan. The planned investment will be used for both completed and current projects.

Headwinds

In addition to infrastructure shortfalls, the challenges are mainly institutional and are primarily connected with governance, particularly public administration. One of the biggest challenges is how to coordinate decisions to implement visions and policies by governing institutions and how to impose penalties on those who interfere with their execution. Striving for profit, which feeds corruption, hampers the continuous and sustainable implementation of policies and measures. Low civil service salaries, which lag behind the cost of living and private-sector practice, highlight the crucial issue of payroll allocations in public administration reforms. Combined with low budgets for agencies tasked with implementing visions and policies, this situation weakens the country's ability to develop and implement projects and use resources in a timely manner. Agricultural efficiency, in particular, fails to achieve its potential as a driver of job creation and economic growth.



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Guinea-Bissau

Economic performance and outlook

Economic growth dipped slightly from 5.8% in 2016 to an estimated 5.5% in 2017 and is projected to be 5.2% in 2018. Growth in 2017 was driven mainly by food crop production (which grew 8%, up from 5.6% in 2016) and the fishing industry (which grew 9.5%, up from 9% in 2016). In the secondary sector, construction grew 16.6% in 2017 following a sharp downturn of 17.8% in 2016. In the tertiary sector, retail was up 8.9% in 2017. On the demand side, the key determinants of GDP growth in 2017 were personal spending, public investment, and exports. These reflect situational factors, such as the rise in the price of cashew.

Macroeconomic evolution

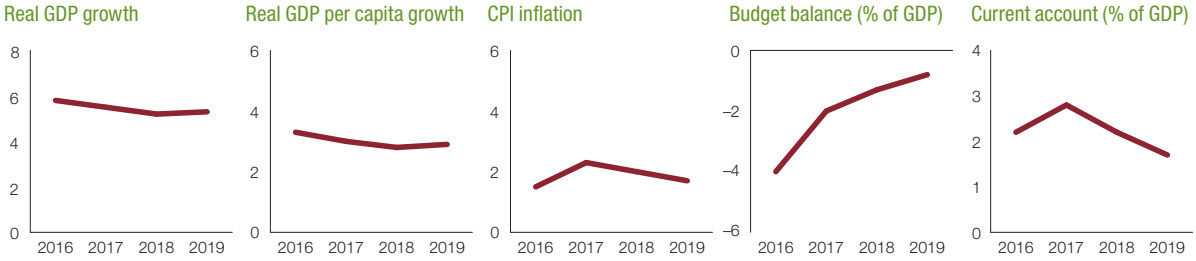
Public finances improved in 2017. The budget deficit (including grants) shrank from 4% of GDP in 2016 to 2% in 2017, mainly reflecting the increase in tax revenues from CFAF 66.1 billion in 2016 to CFAF 79.9 billion in 2017. Inflation as measured by the consumer price index was estimated at 2.3% in 2017—well below the West African Economic and Monetary Union (WEAMU) ceiling of 3%. Total outstanding public debt (domestic and foreign) is expected to be 43.3% of GDP, down from 47.3% in 2016, within the WAEMU ceiling of 70% of GDP. The current account was in surplus in 2016 (2.2%) and 2017 (2.8%), due to a trade surplus of 4.6% in 2016 and 3.1% in 2017.

Tailwinds

Tax revenues improved in the first half of 2017, up 36.3% from the same period the previous year. This reflects more efficient tax collection, particularly of customs duties, which leaped 26% from 2016. The 39.8% rise in the international price for cashew in 2017 (to $1,950 per ton) helped Guinea-Bissau's economy. Specifically, the decline in cashew exports (from 201,921 tons in 2016 to 192,661 tons in 2017) was offset by a rise in export prices, from CFAF 772 per kg in 2016 to CFAF 1,100 per kg in 2017. Cashew export revenues are expected to grow 31%, from CFAF 162 billion in 2016 to CFAF 212 billion in 2017.

Headwinds

Political uncertainty continues to dominate economic prospects. The November 2016 appointment of Umaro Sissoco Embalo as Prime Minister, following the Conakry accord of October 2016, was rejected after failing to win the approval of the African Party for the Independence of Guinea and Cape Verde. The Parliament, which was shut down in December 2015, has not resumed sitting. The date for parliamentary elections, which are expected to occur in 2018, has not been set. This situation hinders the business environment and governance and fuels social unrest. The country is ranked 176 out of 190 countries in the World Bank's 2018 Doing Business report and 168 out of 176 countries on Transparency International's 2016 Corruption Perceptions Index. According to the United Nations Development Programme's 2015 Multidimensional Poverty Index, 80% of the country's population lives in multidimensional poverty, 58% of those in deep poverty.



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Kenya

Economic performance and outlook

Real GDP growth was a robust 5.8% in 2016, driven mainly by services (which accounted for 66% of growth) and industry (which accounted for 19% of growth). Agriculture accounted for 15% of growth, the lowest in recent years. Growth in services was driven by real estate (which grew 12%) and transport and storage (which grew 10%), and growth in industry was driven by construction (which grew 8.2%) and manufacturing (which grew 6.2%). Real GDP growth declined to an estimated 5% in 2017, due to subdued credit growth caused by caps on commercial banks' lending rates, drought, and the prolonged political impasse over the presidential election. The half-year estimates show that the economy remained fairly resilient, growing 4.8%. Services accounted for 82% of that growth, and industry accounted for 17%; agriculture's poor performance continued. The economy is projected to rebound to GDP growth of 5.6% in 2018 and 6.2% in 2019.

Macroeconomic evolution

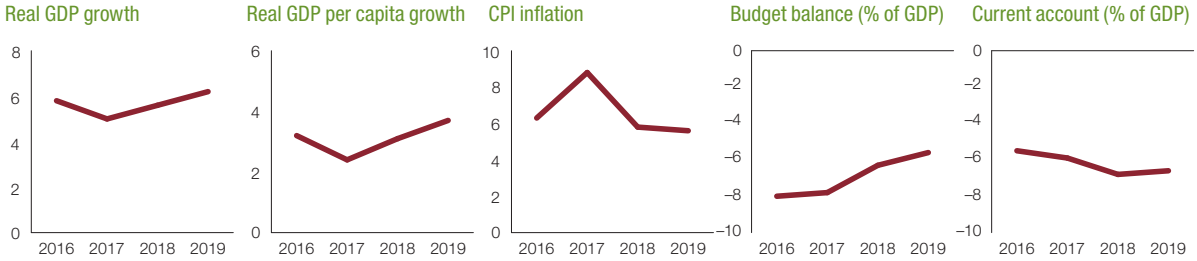
Overall macroeconomic fundamentals were stable in 2016. Authorities pursued prudent monetary, fiscal, and exchange rate policies. The central bank retained the policy rate at 10% to anchor inflation at the single-digit level (6.3%). Fiscal policy was expansionary and focused on financing infrastructure megaprojects. Higher government spending, coupled with weaker revenue mobilization, increased the budget deficit to 8% and the public debt–to-GDP ratio to 54%. The December 2016 International Monetary Fund (IMF)–World Bank Debt Sustainability Analysis put the country at low risk of debt stress. The balance of payments deficit improved slightly to 0.6% of GDP for the year ending June 2017, from 1.7% for the year ending June 2016, on the back of improved current, capital, and financial account balances. This progress increased foreign exchange reserves 0.8%, to a new high of $7.8 billion at end-June 2016. The increase in foreign reserves, as well as the precautionary arrangement with the IMF amounting to $1.5 billion, contributed to exchange rate stability. Economic performance in 2017 was mixed. The drought and the presidential election crisis likely affected macroeconomic performance. Inflation increased to an estimated 8.8%; the budget deficit remained high, at an estimated 7.8% of GDP; and the current account deficit increased to an 5.9% of GDP. The economy is projected to be stronger from 2018 onward.

Tailwinds

Kenya's economy remains resilient due to its diversity; services contributed the highest proportion to GDP growth. This is expected to continue as the country remains the leading regional hub for information and communication technology, financial, and transportation services. Recent investment in rail and road and planned investment in a second runway at Jomo Kenyatta International Airport are potential growth drivers. Macroeconomic stability continues, with most fundamentals projected to remain healthy. The business-enabling environment has improved as well; Kenya moved up 12 places to a ranking of 80 in the World Bank's 2018 Doing Business report.

Headwinds

Continued drought in 2016/17 hindered agricultural productivity and resulted in high inflation for food prices. Prolonged political activities and the presidential election impasse hurt private-sector activity. Although not conclusively assessed, interest rate caps have reportedly constrained credit expansion, leading to reduced private-sector investment. Continued high public consumption expenditure keeps the budget deficit at close to 10% of GDP, while the expected maturity of public debt could lead to debt distress.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Lesotho

Economic performance and outlook

GDP grew an estimated 4.6% in 2017, following 2.4% growth in 2016. Growth was driven largely by better performance in the primary sector, with production at the Lighongbong mine expected to rebound, accompanied by modest growth in the tertiary sector. The contribution of the secondary sector is constrained by lower construction activities. GDP growth is projected to moderate slightly to 4.3% in 2018, as mining growth drops, and to 4% in 2019. Growth will be driven mainly by enhanced construction activities under Phase II of the Lesotho Highland Water Project (LHWP). Manufacturing's contribution to GDP growth remained modest in 2016, due to slow growth in textiles and clothing for the U.S. African Growth and Opportunities Act (AGOA) market.

Macroeconomic evolution

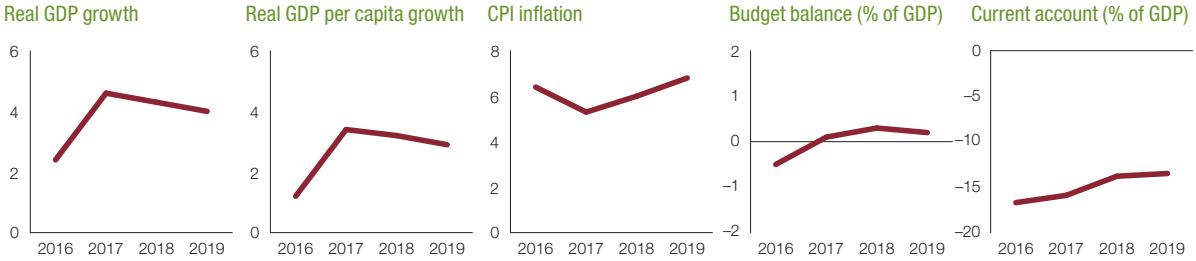
The government's fiscal stance is likely to be less expansionary. The budget balance showed an estimated 0.1% surplus in 2017, up from a 0.5% deficit of in 2016, and is projected to be 0.3% in 2018, before moderating to 0.2% in 2019. Underlying the surpluses is a recovery in Southern African Customs Union revenue and a modest increase in government spending. Private-sector credit is expected to grow faster in 2017 in response to higher growth and the crowding-in effect of the government's fiscal stance. Lesotho maintains parity between the loti and the South African rand and aligns its policy interest rate to South Africa's repo rate. Public debt dropped an estimated 1.5 percentage points, to 46.3% in 2017 and is projected to drop to 45.5% in 2018. The decline is driven largely by lower external debt (accounting for 83% of total public debt), which more than offsets the increase in domestic debt. External debt remains sustainable, and the risk of debt distress is modest. Inflation decelerated from 2016, to an estimated 5.3% in 2017. This was in tandem with drops in food prices as domestic production in the region recovered from the carryover effects of the Dry El Niño weather conditions. The current account deficit improved from 16.7% in 2016 to an estimated 15.9% in 2017 and is projected to be 13.8% in 2018. The budget surplus and expected improvements in the current account result in projected official international reserves of 5 months of imports by 2019.

Tailwinds

The emerging opportunities for diversification to the neighboring South Africa market are promising in the medium term. Activities for the second phase of the LHWP, together with booming wholesale and retail trade, are expected to boost construction activities. Achieving full production capacity of existing mines at Lets'eng and Kao will support medium-term growth. The enhancement of telecommunications internet services since 2017 will improve access to financial and insurance services, which are expected to benefit from enhanced reforms under the financial sector development strategy, particularly improved access to credit and financial inclusion. Increased official transfers and foreign direct investment (FDI) are projected to cushion the reduction in FDI following the completion of the Liqhobong mining plant.

Headwinds

The risks to the domestic growth outlook remain elevated. Export demand could be hindered by the uncertainties surrounding continued access to the U.S. market under AGOA. Uncertainties surrounding South Africa's growth prospects may constrain Lesotho's growth prospects. Carryover effects of political developments may weaken implementation of economic policies and threaten private investment in the medium term. Increased domestic demand is boosting import absorption of consumer goods, with limited impact on domestic investment but negative impact on gross international reserves.



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Liberia

Economic performance and outlook

Economic growth has stagnated in Liberia since 2014 due to low commodity prices and the Ebola outbreak in 2014–15. After estimated growth of 0.7% in 2014 and 0% in 2015, the economy contracted 1.6% in 2016. A modest pickup in gold exports supported growth at an estimated 2.6% in 2017. Further gold and iron ore expansion, commercial palm oil production, and normalization of investment after the political transition are projected to support a growth rate of 3.9% in 2018 and 5% in 2019. Nevertheless, medium-term growth is expected to remain below pre-Ebola levels of over 7%.

Macroeconomic evolution

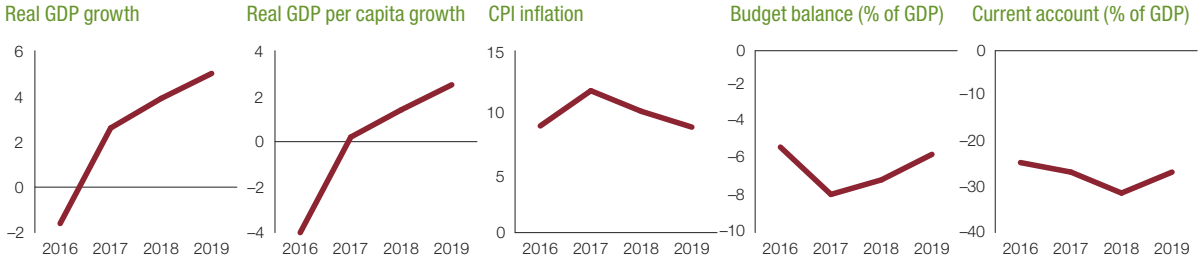
The fiscal outlook is challenged by weak economic growth, lower revenues, and expenditure pressures for elections and security. Recurrent expenditure dominates government spending; at $295 million, employee compensation accounts for more than 56% of total expenditure. Monetary policy continues to be constrained by high dollarization, estimated at 67% of broad money. As of October 2017 the Liberian dollar has depreciated 21% since 2013; the pace of depreciation has increased since 2016. Public external debt increased from an estimated 23% of GDP in 2015 to 28% in 2016 and is projected to be 35% in 2017. The risk of debt distress is moderate but close to high, according to a Debt Sustainability Analysis conducted in 2017 by the International Monetary Fund. Additional decreases in export values could put the country at high risk of debt distress.

Tailwinds

Liberia continues to grapple with low commodity prices for iron ore, but a recent increase in rubber prices could support production in the sector. Commercial gold production provided some cushion to exports in 2016 and is likely to continue in the medium term. Weaker commodity prices offer an opportunity to build the foundation for diversification, particularly in light of recent infrastructure improvements. Energy production and access are expected to improve; three heavy fuel oil plants were installed in 2016, and the relaunch of the Mount Coffee hydropower plant in 2017 added 88 MW of capacity during the rainy season. In transport, progress has been made in key economic corridors. The main corridors from Monrovia to the Ganta and the Guinea border have been paved, as well as the road from Monrovia to Buchanan, another economic center. The government launched an Agriculture Transformation Agenda focusing on agricultural value chains, which could help transform a sector that accounts for 70% of employment.

Headwinds

The drawdown of the UN Mission in Liberia underscores the urgency of the need for the government to fully provide and improve state security services and ensure political stability. The resolution of elections, followed by the expected political transition in January 2018, will test the capacity of already challenged state institutions. This greater uncertainty is slowing investment. An onerous business environment impedes competition and investment, highlighted by the country's ranking of 172 out of 190 countries in the World Bank's 2018 Doing Business report. The education system faces serious challenges, including untrained teachers, which could jeopardize human capital development and constrain long-term economic growth. Dependence on primary commodity exports and imports of food and fuel makes the country highly vulnerable to external shocks. A slowdown in advanced economies or China could hurt demand for Liberia's commodity exports. Changing aid policies in advanced economies, particularly in the United States and the United Kingdom, could reduce donor funding, which accounts for approximately 60% of GDP.



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Libya

Economic performance and outlook

After three years of economic contraction, GDP grew an estimated 55.1% in 2017, due to the significant increase in oil production. With the dire security, political, and humanitarian situation accompanied by the sharp decline in oil prices, real GDP in Libya contracted more than 50% in 2014 and continued to shrink through 2015 and 2016, although at a slower rate. With the Organization of the Petroleum Exporting Countries agreement to cut oil production to 32.5 million barrels a day starting January 2017, oil prices rose slightly and fluctuated between $52 and $60 from August to November 2017. Exempt from this agreement, Libya increased oil production substantially toward the end of 2016 and throughout 2017, boosting forecasted growth in real GDP for 2017 and 2018. The economic outlook remains highly uncertain and dependent on fluctuating oil prices and progress in achieving stability.

Macroeconomic evolution

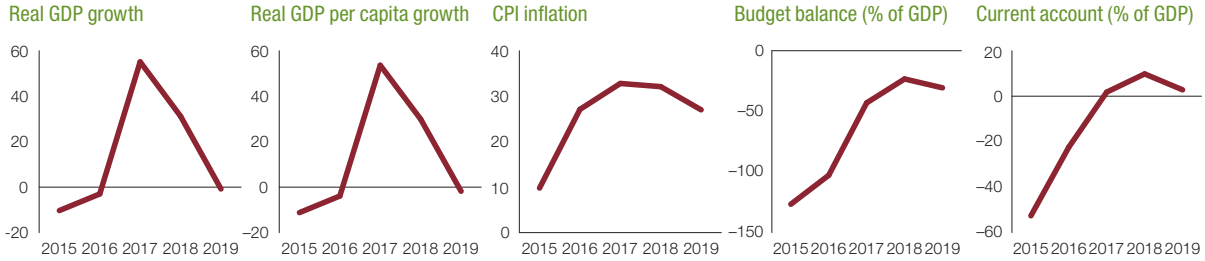
Higher oil production, from a daily average of approximately 400,000 barrels a day in 2016 to 900,000 in September 2017, improved economic performance. The current account deficit is expected to turn into a surplus of 1.8% of GDP in 2017, with an estimated increase in exports of 62.5% and an estimated increase of 4% in imports, which have been falling with the decline in foreign reserves. After peaking in 2015 at 126.6% of GDP, the budget deficit dropped to an estimated 43% of GDP in 2017. The de facto removal of the subsidy on food items fueled inflation, which reached 32.8% in 2017. The Libyan dollar depreciated against the U.S. dollar in the official exchange rate market toward the end of 2016 and the beginning of 2017 but stabilized around $1 for 1.37 LYD in July 2017, the same rate as before its depreciation wave in September 2016.

Tailwinds

The forecasted boost in oil revenues provides the Libyan government with means and resources to face longer-term challenges. The government will be able to launch its economic recovery plan by adopting an expansionary fiscal policy to improve public service delivery and rebuild damaged infrastructure as a first step. As a second step, the government will initiate policy reforms to diversify revenue sources and economic activity. One reform will encourage private investment in areas most likely to create jobs, such as infrastructure, agriculture, hospitality, and trade services, to address the rising unemployment rate that reached 20% in 2016.

Headwinds

Higher oil production is increasing tension among political factions. The UN-backed Government of National Accord struggles to gain the support of the House of Representatives in Tobruk and to limit the power of armed militias and extremists. The ongoing conflict has caused further deterioration in public services. A World Health Organization assessment identified severe shortages in medical supplies and doctors; approximately 1.3 million people have no access to basic health care. The humanitarian crisis is exacerbated by increasing causalities at migrant smuggling hubs and an estimated 400,000 internally displaced persons. Finally, spending on subsidies and wages exerts pressure on the budget; in 2017, spending on subsidies accounted for 8.9% of GDP, and spending on wages accounted for 33.3% of GDP.



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Madagascar

Economic performance and outlook

Since the end of the 2009–13 political crisis, Madagascar has experienced a slow economic recovery that is vulnerable to macroeconomic shocks, such as drops in nickel and cobalt prices, and climatic disasters, such as drought, hurricanes, and floods. Due to the slow rate of agricultural modernization, the primary sector regularly suffers from the adverse effects of climate change. In 2014–16, the economy grew a relatively modest 3.5% a year. Since then, economic performance has been encouraging, with real GDP growth of 4.2% in 2016 and 2017. Driven by the secondary and tertiary sectors, real GDP growth is projected to be 5.2% in 2018 and 6% in 2019.

Macroeconomic evolution

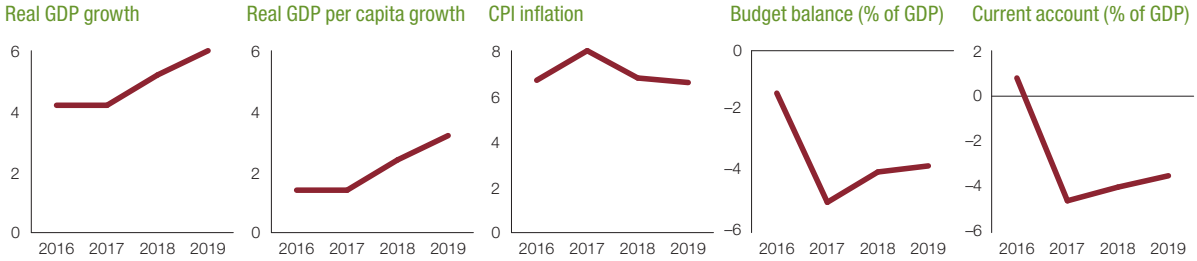
Continuing efforts to increase tax revenues and the efficiency of public expenditure will help expand the scope for public investment. Capital expenditure is expected to climb from 8% of GDP in 2017 to 10% in 2018; current expenditure is expected to shrink from 12% of GDP in 2017 to 10% in 2018. The sharp rise in current expenditure in 2016 partly reflects the massive impact on the public finances of the drought and the Enawo hurricane, estimated at $71 million or 0.6% of GDP. The expansionist budgetary policy is expected to produce a high budget deficit of at least 4% of GDP in 2018 and 3.8% in 2019; it could be funded by an increase in public debt, especially as the indebtedness risk remains relatively low. The Central Bank's May 2017 increase of its key rate from 8.3% to 9% is likely to facilitate price stability, with inflation running at 6.8% or below in 2018 and 2019.

Tailwinds

The conference of partners and investors in Paris in 2016 is expected to begin producing results in the form of public and private investment in infrastructure, which would stimulate growth in 2018 and 2019. The normalization of the political situation opened access for Madagascar's products to U.S. markets under the African Growth and Opportunity Act (AGOA) and to the European Union, helping stimulate economic growth. Exports are projected to continue to boom in 2018–19, with strong demand for textiles and essential oils produced in the free trade zone, as well as cloves and vanilla. Over the same period, the surge in tourism, especially ecotourism, could drive economic growth.

Headwinds

The country is a net importer of oil products and relies heavily on mining and agricultural exports, which account for more than 70% of physical exports. The main risks to the economic outlook are external shocks in the form of falling commodity prices and rising oil prices. Another risk is the high vulnerability of agriculture to the effects of climate change, which regularly causes severe droughts in the south and floods in the north. The economic outlook also depends on the government's ability to rapidly implement structural investment projects supported by partners and to maintain a peaceful political environment during the 2018 presidential election. The latter risk could provoke a wait-and-see attitude in the private sector in 2018.



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Malawi

Economic performance and outlook

Flooding in 2014/15 and drought in 2015/16 hurt agriculture, the economy's dominant sector. Erratic rains affected the country's hydro-dependent electricity generation, leading to widespread blackouts and water shortages. The power shortages severely affected small- and medium-size enterprises dependent on distributed power. Larger businesses generally have power backup systems to maintain production, but using these adds to the cost of doing business. In 2016/17, adequate rainfall improved agricultural production, increasing the maize, groundnuts, and beans harvests. The economy is expected to double its 2016 GDP growth rate of 2.3% to 4.5% in 2017. The medium-term outlook (5%–5.5% in 2018–19) is more positive as the economy stabilizes, but the country remains vulnerable to external shocks and fiscal slippages.

Macroeconomic evolution

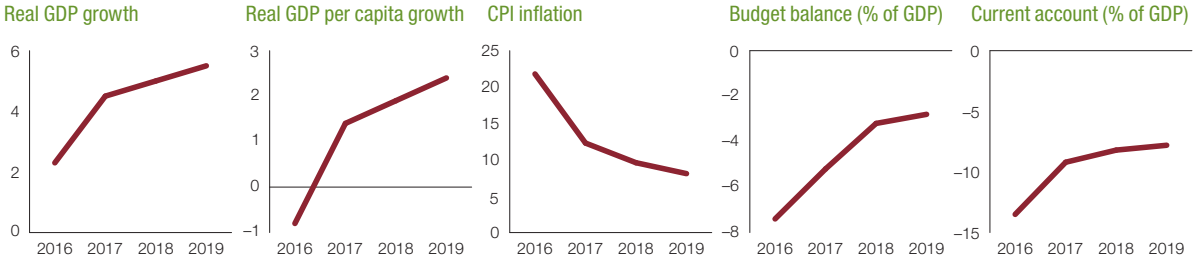
Macroeconomic stability showed signs of improvement during the past 12 months. Year-on-year inflation dropped considerably, from 218% in 2016 to 12.3% in 2017. Declining food price inflation has been the main driver in reducing overall inflation. Since early 2016, the Malawi kwacha further stabilized against the U.S. dollar, reducing exchange rate volatility while stabilizing nonfood prices and helping lower inflation. The Reserve Bank of Malawi started to ease monetary policy by reducing the policy rate by 600 basis points to 18% in July 2017. Although government revenues remained largely flat during the past two fiscal years, spending rose in 2014–16 as the government increased its maize purchases and repayments of arrears. Fiscal year 2016/17 showed signs of fiscal tightening as maize importation was curtailed. The government is expected to continue to reduce the budget deficit in the medium term. At moderate risk of debt distress, public debt stands at 54% of GDP and is projected to slowly decline in the medium term.

Tailwinds

Higher rainfall in 2016/17 was a key contributor to the overall macroeconomic situation in Malawi. First, domestic production of maize increased 36%, which eliminated the fiscal pressures of maize importation. The government is implementing fiscal reforms and improving accountability and transparency systems, which are starting to bring back development partners that withdrew budget support following the Cash Gate Scandal. Earlier in 2017, the government received $80 million in general budget support to strengthen policy and institutional reforms in agriculture and to enhance public financial management systems.

Headwinds

Economic performance depends largely on weather conditions, which are expected to be more variable due to climate change. The country's economic outlook is greatly influenced by agricultural performance, government economic management programs, global commodity prices, and donor support. Although the electricity supply improved during the rainy season, the flows in the Shire River—the source of 95% of Malawi's electricity production—are insufficient for generation at full capacity. Water levels in Lake Malawi, which feeds the Shire River, have been about 1 meter under historic averages; the below–full capacity supply is expected to continue. Elections in 2019 are expected to increase pressure on fiscal spending as the current administration strengthens efforts to win re-election. Maintaining financial sector stability is a key priority. Efforts are under way to strengthen capitalization of banks, but the sector remains exposed to high concentration risk due to the limited number of large creditworthy borrowers.



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Mali

Economic performance and outlook

Real GDP growth averaged 6.5% between 2014 and 2015 before slowing to 5.8% in 2016. The decline continued in 2017, to an estimated 5.5%, likely because of the primary sector's underperformance (38% of GDP) due to a poor agricultural season. In the medium term, the economic outlook remains positive; real GDP growth is projected to be 5% in 2018 and 4.9% in 2019. However, the economy still faces the risk of a downturn, particularly given the fragility of the security situation.

Macroeconomic evolution

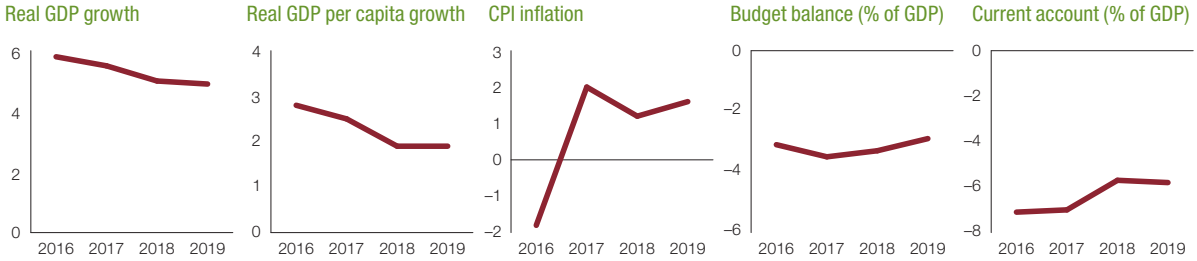
The budget deficit stood at 3.1% of GDP in 2016 and was estimated at 3.5% in 2017. Tax revenues as a share of GDP increased 0.3% percentage points, due to ongoing efforts to modernize the tax administration and broaden the tax base. Inflation in 2017 was estimated at 2%, up from –1.8% in 2016, below the West African Economic and Monetary Union (WAEMU) ceiling of 3%. The current account deficit was an estimated 7% of GDP in 2017, down from 7.1% in 2016, and is expected to decline to 5.7% in 2018 due to improvements in the terms of trade, which are likely to improve from –6.4% in 2017 to –0.1% in 2018. Public debt increased slightly to 31.8% of GDP in 2017, largely a result of an increase in domestic debt from 7% in 2015 to 15% in 2017. The most recent debt sustainability analysis in July 2017 indicated a moderate risk of debt distress.

Tailwinds

Mobilization of tax, customs, and land-related revenues continues to be at the core of public finance reforms to ensure the financing of increasing development needs. The government's commitment to make fiscal decentralization a key priority entails carrying out regional development projects as part of government-region contracts, supported by a transfer of necessary skills and resources, as well as greater regional accountability. Resource transfers accounted for 22.9% of budget revenues in 2016 and were estimated at 23.4% in 2017.

Headwinds

Despite economic recovery and efforts to gradually restore the government's ability to provide basic social services, three major challenges remain. First is lasting improvement in the security situation, a key factor in development. Second is private-sector development, which requires improving governance in public management by better mobilizing resources for growing investment needs, boosting the quality of public investment, distributing resources equitably across the country's regions and priority sectors, and achieving transparency in public procurement. Third is generating strong and inclusive economic growth, given the constraints created by the structural fragility of the economy and strong population growth of 3.6%.



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Mauritania

Economic performance and outlook

The decline in iron ore prices resulted in weak growth of 0.8% in 2014 and 1.7% in 2015, but 2017 brought recovery, with growth estimated at 3.6% and projected to be 3% in 2018 and 4.6% in 2019, due to a revival in the public investment program, structural reforms, recovery in metal prices, and exploitation of recently discovered offshore gas deposits. In 2017, growth was driven by construction, agriculture, fishing, and land use, as well as gold and copper mining.

Macroeconomic evolution

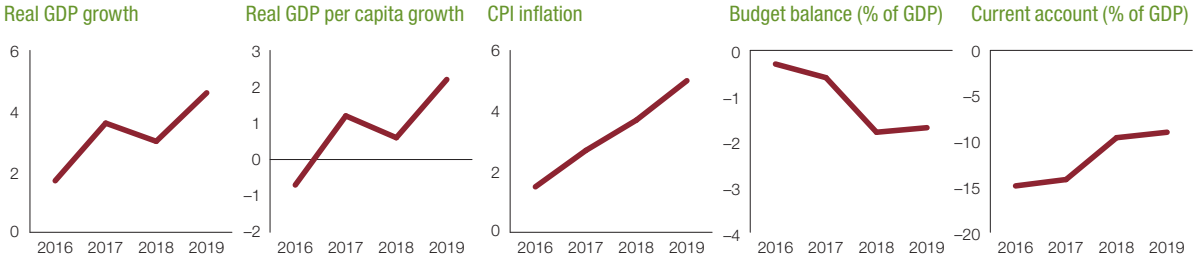
The decline in iron ore prices continued to weigh on the country's macroeconomic indicators; the budget deficit increased from 0.3% of GDP in 2016 to an estimated 0.6% in 2017, and foreign exchange reserves decreased from $100 million in 2016 (equivalent to 5.5 months of nonextractive imports) to $724.9 million in 2017 (equivalent to 4.2 months of nonextractive imports). However, the adjustment policy protected macroeconomic stability and reduced external imbalances. In 2017, inflation was contained at an estimated 2.7%, and the current account deficit as a share of GDP decreased an estimated 0.7 percentage point. The adjustment policy included fiscal consolidation, stronger banking supervision, gradual depreciation of the currency against the U.S. dollar, cessation of foreign exchange sales on the parallel market, and mobilization of external resources.

Tailwinds

For the third year in a row, Mauritania made progress in the World Bank's Doing Business ranking due to its structural reforms aimed at cleaning up the business environment to promote business creation and investment. In the 2018 report, the country jumped 10 places to rank 150 out of 190 countries. Mauritania intends to continue efforts to remove constraints to business development—namely, limited access to finance, infrastructure deficit, and corruption. In January 2017, the country adopted a public-private partnership law. In February 2017, the country began talks with the International Monetary Fund (IMF) over a new three-year economic program, and finalization of an agreement under the Extended Credit Facility is expected soon.

Headwinds

Low export diversification makes economic growth fragile and vulnerable. The economic outlook remains dependent on external factors, such as commodity prices and foreign direct investment in extractive industries. Measures to diversify the economy are required as part of the 2016–2030 National Strategic Framework for Accelerated Growth and Shared Prosperity. Despite resurgent growth, the risk of financial instability remains high. In 2015–16, the slowdown in economic activity led to deterioration in the quality of bank assets, limiting the capacity for financial intermediation. External public debt also remains problematic. A combination of high indebtedness (68.4% of GDP in 2017, apart from the passive debt contracted with Kuwait), possible deterioration of raw material prices, amortization of the Saudi loan and other multilateral loans in 2018–22, and weak debt management capacity continues to raise the risk of overindebtedness. Youth unemployment stands at 14.6%, higher than the national rate of 10.1% and the adult rate of 5.9%. Young people, who constitute about 60% of the population, are the most exposed to underemployment, thereby offering recruitment targets for the Sahel's terrorist groups, a situation that threatens the security of the country and the subregion.



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Mauritius

Economic performance and outlook

The economy continues to expand steadily, with GDP growth estimated at 4% in 2017, edging up from 3.9% in 2016. Services contributed the most to growth in 2016, notably financial services (which grew 5.8%), tourism (which grew 5.5%), and information and communication technology (which grew 5.3%). Growth was underpinned by higher household consumption. However, investment remained weak, falling to 17% of GDP in 2016, well below its recent high of 25% in 2012. The short-term economic outlook is positive. GDP growth rates are projected to increase to 4.2% in 2018 and 4.3% in 2019, due to stronger investment, an increase in tourism, and an expected increase in external demand following stronger regional and global growth.

Macroeconomic evolution

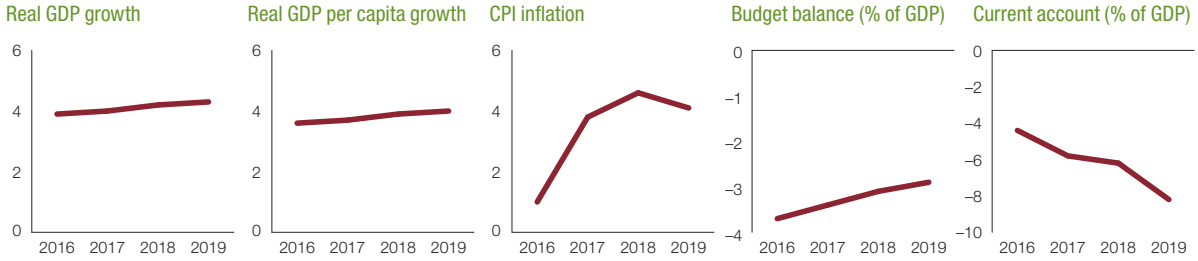
The fiscal deficit is expected to narrow slightly to an estimated 3.4% of GDP 2017, from 3.7% in 2016, and to decrease further in 2018, as the government implements fiscal consolidation measures and improvements in tax collection. The Bank of Mauritius continued to loosen monetary policy—the policy (repo) rate dropped from 4% in July 2016 to 3.75% in September 2017. The accommodative monetary stance of the Bank of Mauritius was widely considered appropriate in light of persistently low inflation, as low as 1% in 2016. However, inflation rose in 2017 as a result of anticipated increases in energy and food prices. The current account deficit increased from 4.4% of GDP in 2016 to an estimated 5.8% in 2017. The deficit is likely to widen in the short term, given the anticipated increase in private investment and the strong import component of the government's public infrastructure program.

Tailwinds

The medium- to long-term growth prospects are positive; key sectoral growth drivers are expected to continue performing well. Financial services, information and communication technology, retail and wholesale trade, and food processing are all likely to grow more than 5%. The economy is expected to diversify further into other higher value-added sectors, such as medical tourism and higher education services. A favorable business environment and recently adopted business-friendly regulations, such as the Business Facilitation Act, are expected to contribute to higher growth in foreign direct investment flows to the economy; an anticipated improvement in global economic demand is likely to boost exports of goods and services, as well as tourism arrivals and receipts. Government efforts to re-position Mauritius as a gateway for investment between Asia and Africa and further diversification of the country's export markets are expected to boost the wider economy and consolidate the economy's position as a regional services hub for Africa.

Headwinds

Increases in global energy and food prices are expected to hurt the economy's current account balance and add to inflationary pressures, with headline inflation likely to reach 4.6% in 2018. Projected increases in recurrent expenditure and a narrow tax base are likely to limit the fiscal space needed for infrastructure and human capital investment. Other factors that may limit growth potential include government bureaucracy, insufficient capacity to innovate, and skills constraints, which hamper economic development and contribute to unemployment, which remains stubbornly high at 7.5%. Furthermore, institutional constraints may undermine efforts to speed up public investment and improve public service delivery.



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Morocco

Economic performance and outlook

Real GDP growth was estimated at 4.1% in 2017, a year in which the agricultural season was exceptionally good. In September, cereal production reached 96 million quintals, up from 33.5 million in 2016. Much of this growth was driven by increased value added from agriculture (which grew 16.1% in 2017). Nonagricultural value added grew more slowly (3.1%), but its growth was higher than in 2016 (2.2%), driven mainly by services and extractive activities. Real GDP growth is projected to reach 3.1% in 2018.

Macroeconomic evolution

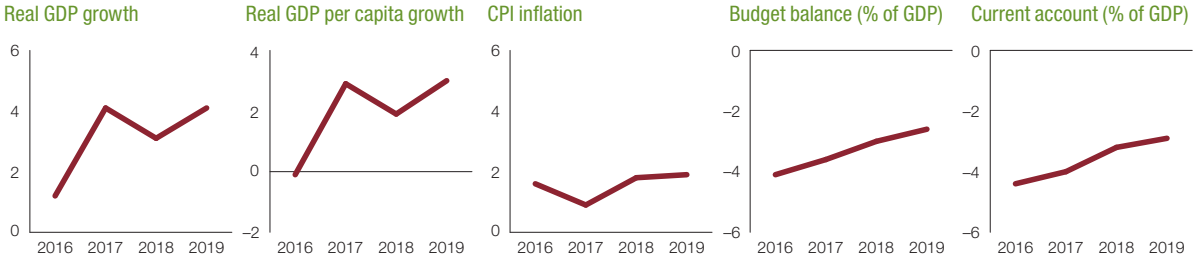
In 2017, Morocco continued its policy of fiscal consolidation that started in 2011. The budget deficit reached an estimated 3.6% of GDP in 2017, down from 4.1% in 2016, and is projected to be 3% in 2018. Foreign trade is expected to improve from 2016 as a result of lower wheat imports due to higher production and restrictions on imports and the evolution of exports resulting from new jobs in the automotive, aeronautics, and electronics sectors. Growth in exports (in constant prices) is expected to increase from 5.1% in 2016 to 6.6% in 2017 and to 6% in 2018. Despite the 30% increase in energy prices in 2017, growth in imports reached 5.7%, down from 7.2% in 2016, due to a 22% decrease in cereal imports. The current account deficit was an estimated 4% of GDP in 2017, down from 4.4% in 2016. This improvement is due to increased foreign direct investment (up 32% from 2016) and remittances (up 2%). Public debt decreased from 64.7% of GDP in 2016 to 63% in 2017. Inflation remains low at an estimated 0.9% in 2017.

Tailwinds

Morocco has embarked on careful implementation of fiscal decentralization, a comprehensive reform of the civil service, strengthened oversight of state owned enterprise, and improved targeting of social spending to protect vulnerable segments of the population. The sectoral strategies launched in the late 2000s to transform the economy and strengthen its resilience are showing results. In addition to favorable weather conditions, the excellent performance of the agricultural sector in 2017 is linked to a 52% increase in the use of certified seeds (1.66 million quintals, up from 1.09 million in 2016) and the good performance of livestock, market gardening, fruit, and fisheries. The Green Morocco Plan adopted in 2008 made it possible to diversify the sources of growth and increase agricultural productivity, thereby strengthening the resilience of agricultural GDP. In 2017, a new investment charter replaced that of 1995, turning the National Pact for Industrial Emergence into an Industrial Acceleration Plan. The development of the automotive sector through the influx of foreign direct investment, joint ventures, and local industrial integration is starting to be reproduced in other sectors, including renewable energy.

Headwinds

Despite improved GDP growth in 2017, the unemployment rate increased slightly, from 9.1% in 2016 to 9.3%, with a rate of 14% in urban areas compared with 3.2% in rural areas. Addressing pressing social issues may affect the government budget deficit, which stood at an estimated 3.6% in 2017.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Mozambique

Economic performance and outlook

Mozambique has yet to recover from the economic downturn that started in 2015. The combination of declining prices for traditional export commodities, persistent drought effects from El Niño, internal military confrontations, and large decreases in foreign direct investment (FDI) nearly halved the past decade's 7% GDP historical average growth to 3.8% in 2016. This drop was compounded by the 2016 governance crisis, which reduced external financing and donor support. The recovery of GDP growth to an estimated 4.7% in 2017 and a projected 5.3% in 2018 is due to increased coal exports and agricultural production; other sectors are likely to underperform.

Macroeconomic evolution

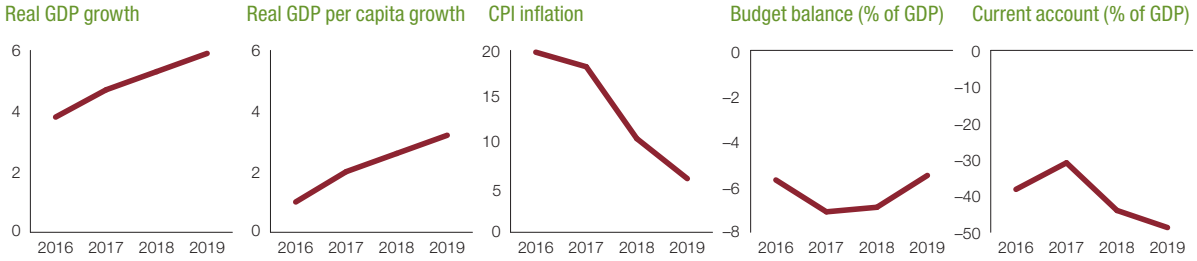
In the financial crisis following the 2016 disclosure of secret debts worth nearly 10% of GDP, the debt-to-GDP ratio reached an estimated 125% at the end of 2016, while the metical registered a 40% devaluation against the U.S. dollar and inflation suffered a 10-fold increase to 19.8%. With a strong monetary policy tightening by the Central Bank, assisted by higher coal exports, the metical recovered 16% and stabilized, and inflation abated to 16% in September 2017. International reserves reached 5 months of import cover ($2.2 billion). After years of expenditure expansion that pushed debt to unsustainable levels, the government defaulted on its sovereign bond in January 2017. Faced with financing constraints, the government is implementing a fiscal consolidation effort. Expenditure as a share of GDP is forecast to decline from an estimated 33.9% in 2017 to 30.5% in 2018. The projected deficit after grants in 2018, excluding repayment of debt capital, is 6.9% of GDP, down from the estimated 7.1% in 2017.

Tailwinds

Due to infrastructure improvements and rising international prices, minerals exports will be the main contributor to growth in 2017 and 2018. By end of June 2017, the mining sector registered a 59.4% year-on-year increase, driven by strong exports of coal, as well as graphite, titanium, rubies, and iron ore. Better weather patterns facilitated 2.2% growth in agricultural production, the mainstay of the economy. From a structural perspective, FDI inflows are expected to be a main growth driver. The ongoing initial development stage of the first offshore natural gas extraction project is expected to be followed by exploration projects in other offshore areas, potentially bringing FDI to over 40% of GDP, in line with 2013 levels. The pre-investment decision preparations for the large-scale onshore liquefied natural gas projects continue to progress. The projects' sheer magnitude, estimated to double GDP within 10 years, will continue to be the main positive for Mozambique.

Headwinds

Discussions with the International Monetary Fund on a new support program have stalled due to the governance crisis; the fiscal position is fragile and deteriorating. Despite the fiscal consolidation effort, if international financing does not resume, the country faces challenges to its ability to continuously finance its deficit domestically; it already systematically resorts to financing from the Central Bank. The 2018 budget is silent on the restructuring of the $2.2 billion in defaulted sovereign commercial debt, which has a debt service–to-revenue ratio above 30%. Public arrears to the private sector are estimated to exceed $500 million (4% of GDP). The private sector is further strangled by high credit rates (on average 35% for a one-year commercial loan) and depressed private consumption. The result is a contracting real economy, except for the primary sector and some services. Despite the positive developments of the permanent ceasefire between opposition elements and the government, recent attacks by newly arrived terrorist groups in the gas-rich northern province cast new shadows over the investment environment.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Namibia

Economic performance and outlook

Following sluggish growth of 0.2% in 2016, the economy recovered in 2017, with real GDP growth estimated at 0.8%. The main growth drivers were agriculture and forestry—which benefitted from a favorable rainy season—and diamond mining, electricity, and water. Wholesale and retail trade, education, and services underperformed, reflecting depressed demand from external trading partners, particularly Angola. In 2018, continued signals of a stronger recovery in agriculture and mining are projected to facilitate 2.6% GDP growth. A boost in uranium mining is expected as new mines achieve full production capacity. The small open commodity-driven economy will continue to be permeable to exogenous external shocks, conditioning macroeconomic stability.

Macroeconomic evolution

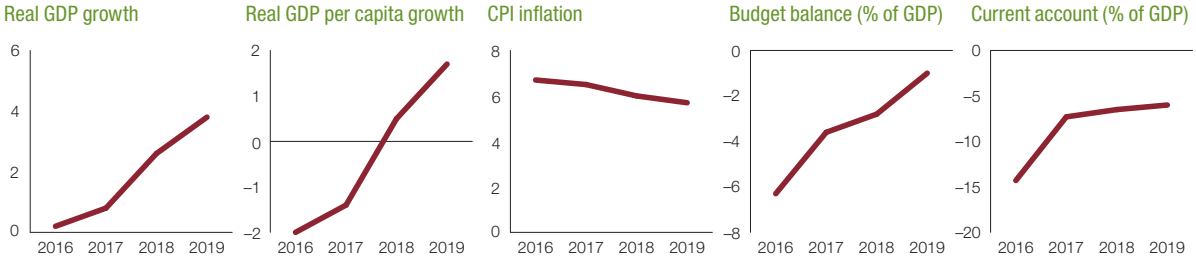
Expansionary fiscal policies stimulated economic growth, increasing the country's budget deficit and public-sector debt. As of end-2016, public debt was 41% of GDP, breaching the government's 35% limit. Since then, fiscal consolidation efforts have reduced the debt increase to 0.1%. Public and publicly guaranteed debt stands at 46.9% of GDP in 2017. A considerable fiscal consolidation effort reduced the budget deficit from 6.3% in 2016 to 3.6% in 2017. Sluggish economic activity with less public spending eased inflationary pressures. Consequently, inflation decreased 0.2 percentage point from 2016, to 6.5% in 2017, driven by a decline in food price inflation. Growth in credit to the private sector slowed to 7.3% at the end of the first half of 2017 from 11.7% one year before. Despite the Namibian dollar peg to the South African rand, the Bank of Namibia reduced its policy rate by 25 basis points to 6.75% to foster economic growth.

Tailwinds

The economy, with its high dependency on trading partners, is expected to benefit from projected growth in emerging markets and advanced economies. Higher global demand for raw materials and improvements in mining infrastructure, particularly for diamonds and uranium, will fuel the development of the mining sector. Production of uranium is expected to grow 47.7% in 2018 as a new mine comes online. Moreover, with better rainfall patterns subduing the recent regional drought caused by El Niño, agriculture and forestry will round out the group of highest-performing sectors, making the primary sector the growth driver in the country for the short term. Investment in infrastructure, namely, in solar power, boosted domestic power generation and led to a 22% decline in electricity imports in 2017. The services sector is expected to profit in the short term from the projected improvement in the Angolan economy due to better terms of trade and the recovery in oil prices.

Headwinds

The main risk for the economy, with its over-reliance on the extractive sector, lies in the slow recovery of world demand for commodities, affecting both growth and fiscal revenues. In 2017, mining production was lower than expected due mainly to a decline in international uranium prices. The slow pickup in Angola, one of Namibia's main trading partners and client for services, is a particular risk. The sluggish performance of South Africa's economy poses another potential risk. The slow recovery of both private and public demand will continue to weaken the secondary and services sectors. In addition, fiscal consolidation could face added difficulties if the Southern African Customs Union's reduced revenues inflows persist. The fiscal consolidation trend of the medium-term fiscal framework will weigh down public investment, further hurting the secondary sector, in particular, construction and related subsectors. Private investment and private consumption in the short to medium term remained subdued.



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Niger

Economic performance and outlook

Economic growth, estimated at 5.2% in 2017, was driven largely by the secondary sector, particularly oil, which increased activity when the Zinder (SORAZ) Corporation's refining facilities reached full operating capacity. This corporation is jointly owned by the China National Petroleum Corporation (which holds a 60% stake) and the Nigerian government (which holds a 40% stake). Growth is projected to be 5.4% in 2018 and 5.2% in 2019, due to the performance of the oil and agricultural sectors. Agricultural performance is expected to rise as a result of good rainfall, as well of the 3N initiative, Nigeriens Feed Nigeriens, which promotes irrigation and livestock farming.

Macroeconomic evolution

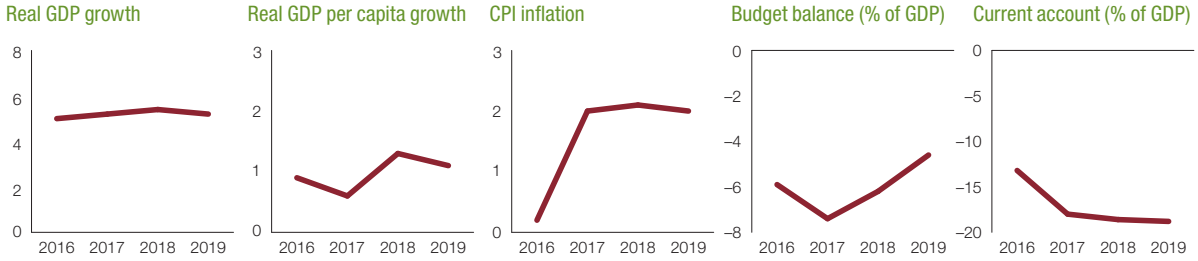
Security spending to combat Boko Haram and jihadists widened the budget deficit in 2017. Security spending accounted for 7.4% of GDP in 2017, up from 5.9% in 2016, but is likely to decline in 2018 and 2019. Niger's debt risk remains moderate. However, debt has increased sharply in recent years; the public debt–to-GDP ratio rose from 33.7% in 2014 to 51.1% in 2017, due to the pace of capital expenditures and narrow budget margins. Although the primary aim of the monetary policy of the Central Bank of West African States to ensure price stability has been achieved, the policy has been rigid. Despite the low inflation between 2014 (–0.9%) and September 2017 (1.8%), the Central Bank left interest rates essentially unchanged.

Tailwinds

The political situation is stable, despite lingering security issues. Democracy is on a firm footing following failed attempts to seize power, and elections are held regularly. Rising oil prices and higher production are expected to offset the country's declining external position. The oil and gas potential remains high, with two large sedimentary basins covering 90% of the country. In addition to uranium and gold, Niger could use coal reserves to relieve a steep energy deficit. The Salkadamna site alone, under development, could produce roughly 600 MW of electrical power. Another tailwind for growth is the ongoing 3N initiative.

Headwinds

The primary macroeconomic headwinds in 2018 and 2019 include security threats, effects of climate change, and volatility in uranium and oil prices. Armed conflict with terrorist groups has created waves of refugees throughout the country, as well as internally displaced persons; Niger suffers directly from the consequences of the Libyan and Malian crises. As in other G5 Sahel countries, security challenges will continue to weigh heavily on Niger's socioeconomic outlook, particularly public finances. Another headwind relates to demographics: population growth is 3.9%, and the female fertility rate is 7.1, both of which are among the highest in the world. These indicators present a challenge to food security, education, health care, and employment, as demand for social services far exceeds what the country is able to provide.



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Nigeria

Economic performance and prospects

The economy continued to show signs of recovery from the 2016 recession. GDP growth was estimated at 0.8% in 2017, up from –1.5% in 2016. The outlook beyond is positive, with growth projected at 2.1% in 2018 and 2.5% in 2019. This outlook is anchored in higher oil prices and production, as well as stronger agricultural performance. Oil prices rebounded to an average of $52 per barrel (Brent crude) in 2017 and are projected to reach $54 in 2018, up from $43 per barrel in 2016. Oil production also increased from 1.69 million barrels per day in the first quarter of 2017 to 2.03 million in the third quarter of 2017 following de-escalation of hostilities in the delta region and is expected to remain at the same level in 2018 and 2019, in tandem with the Organization of the Petroleum Exporting Countries production restrictions.

Macroeconomic indicators

Fiscal policy remained expansionary in 2017 as in 2016. Although total spending as a percentage of GDP declined from 13% in 2014 to 10.3% in 2017, revenues declined more sharply, from 11.4% to 5.6%. The budget deficit was estimated at 4.8% in 2017, up from 4.7% in 2016, and is projected to improve to 4.3% in 2018 and 4.1% in 2019, as revenue performance improves. At 14%, unemployment remained high in 2017, the same as in 2016, and is expected to decline only slightly in 2018, to 13.5%, as recovery eases production constraints in manufacturing and agriculture.

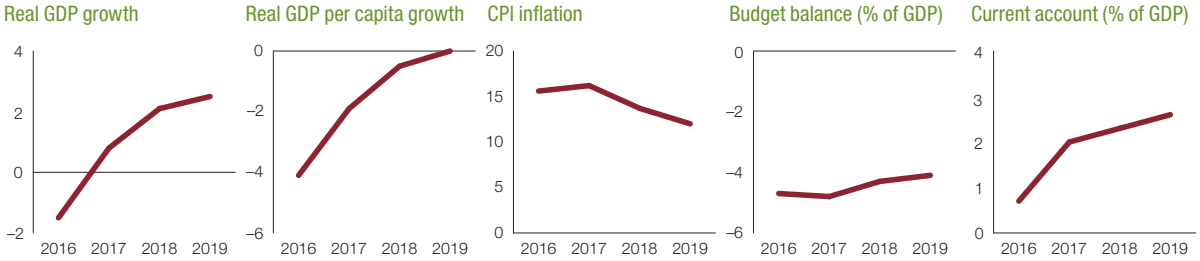
Monetary policy continued to be contractionary in 2017 and is expected to remain so in 2018; the policy rate has been kept at 14% since July 2016 to support the naira and control inflation. Inflation has remained stubbornly high and in the double digits—an estimated 16.2% in 2017, up from 15.6% in 2016—but is projected to ease to 13.7% in 2018 and 12% in 2019. Foreign currency liquidity has improved following the introduction of administrative measures by the Central Bank since early 2017. The measures include a trading window for portfolio investors at market-determined rates and the introduction of the Nigerian Autonomous Foreign Exchange Rate Fixing, which allowed commercial banks to quote forex rates that are close to parallel market rates. The naira remained stable for most of 2017 and is expected to strengthen slightly as the economy continues to recover.

Tailwinds

The recovery in oil prices and production will help drive growth and provide fiscal space as the government pursues important structural reforms to diversify the economy. Faithful implementation of the Economic Recovery and Growth Plan (2017–20) holds the promise of weaning the country off its dependence on oil. The plan focuses on six priority sectors: agriculture; manufacturing; solid minerals, including iron, gold, and coal; services, including information and communication technology, financial services, tourism, and creative industries; construction and real estate; and oil and gas. The government has produced specific programs for each sector and defined broader growth policy enablers to drive the plan.

Headwinds

Nigeria still faces some challenges, including disruptions in power supply, and insecurity in some parts of the country. Revenue mobilization efforts are insufficient; at 5%, value added tax rates are among the lowest in the world, and overall revenue administration should be made more efficient.



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Rwanda

Economic performance and outlook

Real GDP growth in the first half of 2017 was an estimated 2.9%, down from 8.2% in the same period in 2016, due to weak performance in services and industry. Services, which accounted for 46% of GDP, increased 6% in the first half of 2017, short of the 9% in the same period in 2016, due to contraction in trade and transport. Steady recovery in 2016 and higher commodity prices, particularly for coffee and tea, led to 5% growth in agriculture during the first half of 2017, down from the 6% in the same period in 2016. Agriculture accounted for 32% of GDP. Industry, which accounted for 15% of GDP, posted zero growth in the first six months of 2017, down from 10% in the second half of 2016, due mainly to completion of major construction projects and weak performance in mining and quarrying. Economic performance improved in the second half of 2017 and is projected to continue to do so in 2018, due to favorable weather conditions and higher commodity prices.

Macroeconomic evolution

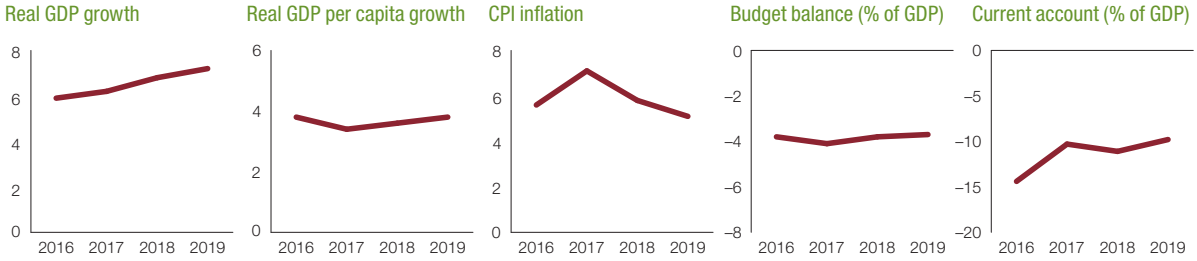
The government's 2016/17 fiscal policy remained focused on public expenditure efficiency to support growth and reduce poverty, in line with its fiscal consolidation strategy. The fiscal deficit in 2016/17 was 1 percentage point lower than projected. The tax-to-GDP ratio in 2016/17 remained stable at an estimated 15.6%, due to tax incentives that support the Made in Rwanda campaign to increase domestic production. The 2017/18 budget is expected to continue fiscal consolidation and is characterized by stable development spending and gradual growth in recurrent spending, due partly to a new teacher's statute and increasing wages. The Central Bank implemented an expansionary monetary policy in the first half of 2017 to support growth in private-sector credit. In the same period credit to the private sector increased 8.3%, slightly higher than the 8% in 2016, and headline inflation was 7.5%, above the 5.1% in the first half of 2016, due to higher food prices. The trade deficit narrowed due to increased exports as a result of improved production and higher commodity prices. The Rwandan franc was relatively stable. The risk of external debt distress remains low, though greater domestic revenue mobilization is required to maintain debt sustainability.

Tailwinds

Agriculture remains an important contributor to growth; industry's contribution is expected to increase with industrialization efforts. Three factors are likely to influence the economic outlook. First, the recovery in commodity prices and global demand is expected to increase export revenues and contribute to a buildup in official reserves. Second, ongoing investment in fertilizer, improved seeds, and irrigation, as well as higher prices for coffee and tea, are expected to boost food and export crops. Third, the Made in Rwanda campaign and public infrastructure investment are projected to boost growth in industry.

Headwinds

The country is vulnerable to weather shocks affecting the largely rain-dependent agriculture sector; ongoing investment in irrigation will reduce rainfall dependence. Given that the country exports predominantly unprocessed raw materials, any fluctuations in commodity prices will reduce export earnings and increase external sector vulnerabilities. Initiatives such as Made in Rwanda seek to increase value addition, reducing vulnerability to commodity price fluctuations. Insecurity and instability in the Great Lakes Region, a major trading partner, pose risks. Regional peace and security measures, including those under the African Union and the International Conference on the Great Lakes Region, are expected to increase peace and stability.



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São Tomé and Príncipe

Economic performance and outlook

The economy saw growth above 4% in 2010–15, driven mainly by foreign direct investment (FDI) in agriculture and construction. The economy grew an estimated 5.2% in 2017, boosted by services and construction. The short-term economic outlook is positive; GDP growth is projected at 5.5% in 2018 and 5.8% in 2019, fueled by investment in infrastructure. Services are expected to be the main contributor to aggregate output in 2017, accounting for an estimated 60% of GDP, followed by industry (20% of GDP), and agriculture (10% of GDP).

Macroeconomic evolution

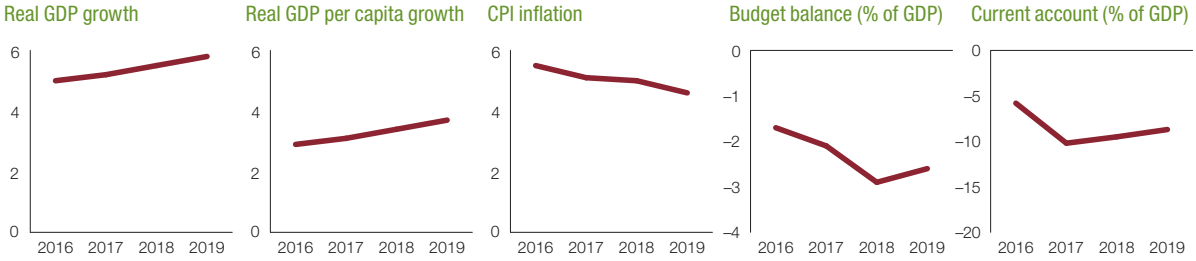
The economic framework is anchored in a three-year (2015–18) Extended Credit Facility (ECF) agreement with the International Monetary Fund. On the fiscal side, the government has undertaken reforms—a tax on service delivery for nonresidents and a value added tax to be introduced by 2019—to sustain fiscal consolidation and reduce debt. Current expenditure continued to dominate government spending, despite a 2% decline in 2017 (mainly wages and salaries), while tax revenue remained subdued. The budget deficit is projected to increase from 1.7% of GDP in 2016 to 2.1% in 2017 to 2.9% in 2018 but is projected to decline to 2.6% in 2019. Inflation declined to an estimated 5.1% in 2017, from 5.5% 2016, as a result of lower food prices, and is projected to further decline to 5% in 2018 and 4.6% in 2019, supported by the peg of the dobra to the euro since 2010. The current account balance deficit (including transfers) is expected to reach 10.2% of GDP in 2017, up from 5.8% in 2016.

Tailwinds

The government implemented reforms to improve public financial management, revenue collection, the economic regulatory environment for business, and the banking system. Reforms include the judiciary system (creation of data center for registry and public notary; agriculture (preparation of irrigation strategy); education (construction of new classrooms); and the business environment, which ranked 169 in the World Bank's 2018 Doing Business report, down from 162 in 2017. The government also adopted a National Employment Policy in 2016 and implemented an automatic fuel price adjustment mechanism to ensure full cost recovery and prevent debt accumulation. The country achieved tangible results in governance (scoring 60.5 out of 100 on the 2015 Mo-Ibrahim Index) and the eradication of malaria (three-time winner of the African Leader Alliance for Malaria). Energy production and access are expected to improve in the coming years, with investments pledged by the African Development Bank, the European Investment Bank, and the World Bank.

Headwinds

High public debt and lower revenue collection, coupled with a narrow export base, remain key challenges to inclusive growth. Poor economic infrastructure—including transport, roads, water, and energy—is a major constraint to inclusive development. The risk of debt distress is high, with public debt (including arrears) projected to reach 97.2% of GDP in 2017 (despite having benefitted from debt relief under the Highly Indebted Poor Countries Initiative in 2007). Key risks are also linked to the legislative elections scheduled for 2018, particularly the high risk of extrabudgetary spending and political instability, along with the increasing level of nonperforming loans in the financial sector. The dependence on primary commodity exports and imports of food and fuel makes the country extremely vulnerable to external shocks.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Senegal

Economic performance and outlook

Economic growth is projected to increase from an estimated 6.8% in 2017 to 7% in 2018, fueled by the secondary sector (projected to grow 7.4%) and the tertiary sector (projected to grow 7%). Demand is driven primarily by increased gross fixed capital formation (which grew 8.9% in 2017). The budget deficit is projected to drop from 3.7% in 2017 to 3% in 2018; the current account balance is projected to drop to 5.2% in 2018. This marked improvement from 2015–16 is due to robust exports, particularly of phosphate, peanuts, and zircon.

Macroeconomic evolution

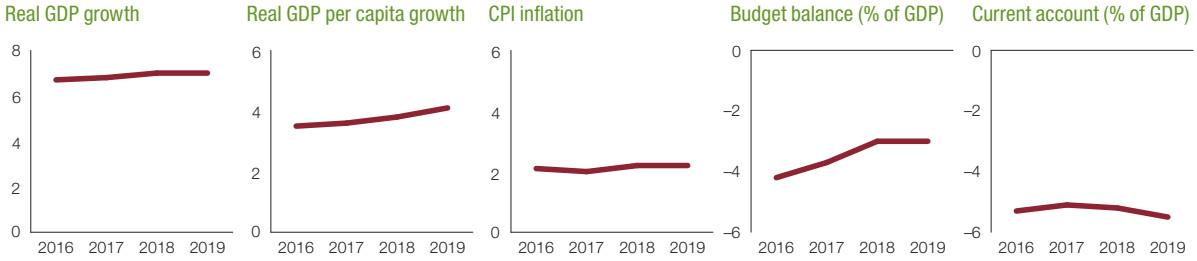
Fiscal policy in 2017 was bolstered by stronger revenue collection and control over current expenditures. The inflation rate remained low at 1.7% in mid-2017, well below the West African Economic and Monetary Union (WAEMU) ceiling of 3%. Exchange rate policy is based on a fixed rate for the CFA franc, which appreciated in 2016 against the naira (up 52.1%), the British pound (up 20.4%), and the Guinean franc (up 16.3%). Public debt reached 62% of GDP in 2017, up from 59.5% in 2016. Although public debt increased sharply, from 19% of GDP in 2006, the debt ratio remains below the WAEMU ceiling of 70%. The increase is attributable to large infrastructure programs with high long-term impacts that have been implemented in recent years in agriculture, transportation, and special economic zones. According to the International Monetary Fund (IMF) and the World Bank, the public debt is sustainable and presents no major risks.

Tailwinds

Senegal has worked to improve services that support production, particularly energy and transportation. The country has taken advantage of lower oil prices in recent years. Energy output jumped sharply, with installed capacity rising from 898 MW in 2015 to 1,168 MW in 2016 as new power plants came online. The average cost of production dropped from CFAF 62 in 2015 to CFAF 45 in 2016. There are now fewer power outages, and the national electricity company, SENELEC, received no subsidies in 2016 and 2017. Thanks to resources mobilized by the government, infrastructure and transportation services were constructed or updated, with information technology–related reforms and policies facilitated substantial changes. The mining sector grew stronger; Grande Côte Opération increased zircon production, and Sabodala Gold Opération increased gold production.

Headwinds

The main challenges to growth are delays in implementing reforms and the effects of climate shocks. Another headwind is security in the subregion. Subsidies for electricity may be needed again if oil prices rise substantially. Human capital objectives have yet to be realized, despite investment in education and training. The main challenges include improving the primary school completion rate, examination results, and work schedules of teachers. Preventative measures and actions need to be taken in risk and disaster management. In terms of local governance, initiatives are required to increase the endowment and capital development funds allotted to local communities and to continue reforming local taxation.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Seychelles

Economic performance and outlook

Overall economic performance has been remarkable, especially over the past decade, albeit with a few setbacks. The 5.9% real GDP growth in 2016 was driven primarily by tourism and fisheries. These sectors also contributed considerably to foreign exchange earnings, employment, and growth in auxiliary sectors. The medium-term growth outlook is favorable. GDP growth was estimated at 4% in 2017 and is projected to be 3.4% in 2018, resulting in a continued increase in real GDP per capita; the traditional tourism and fisheries sectors are expected to remain the main growth drivers. Inflation was –1% in 2016, due to lower than anticipated prices of oil and other imports, as well as tight monetary policy.

Macroeconomic evolution

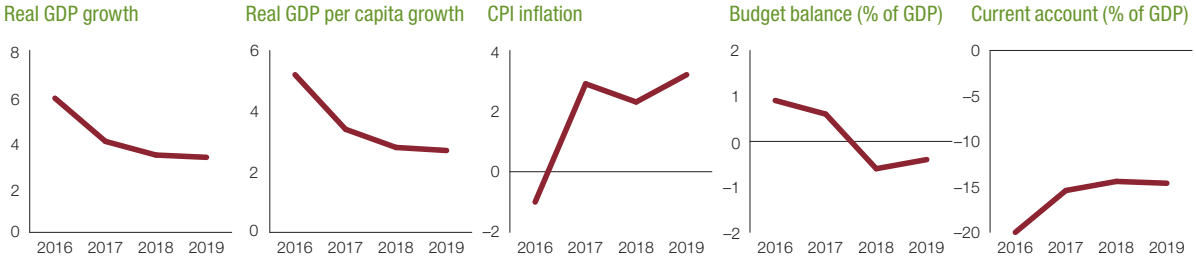
Inflation is expected to remain low, although rising international fuel prices since late 2016 and the government's expansionary fiscal measures in 2017 could trigger inflationary pressures. The increase in current expenditure (which rose from 26.9% of GDP in 2014 to an estimated 33.5% in 2017) was partially offset by a corresponding increase in total revenue (from 34.5% of GDP in 2015 to an estimated 39.5% in 2017) and the continued tight monetary policy. Lower than budgeted capital outlays and strong tax revenue growth helped increase the 2016 budget surplus to almost 1% of GDP. The budget position remained in surplus in 2017 but is projected to decline to a small deficit in 2018 and 2019. The government is mindful of its debt management policy and commitment to reduce the debt-to-GDP ratio from its present 64% to less than 50% by 2020. Fiscal discipline, coupled with effective debt restructuring in the wake of the 2008 financial crisis, have supported the debt reduction strategy. Gross official reserves in 2016 and 2017 were equivalent to around 4 months of imports.

Tailwinds

Foreign direct investment (FDI) continued to be strong, notably in the hospitality sector, helping finance the current account deficit and build up international reserves. Continued vibrant tourist arrivals and higher revenue from tourism (which saw almost 20% growth in mid-2017 from one year before), have been key drivers of economic growth. Domestic private investment is increasingly important, notably in growing small- and medium-size enterprises. The sustainability of this source of growth depends on the extent to which challenges in access to finance and a skilled labor force are addressed. The government is paving the way for private sector–led growth by promoting FDI and improving the business environment for local investors. Public investment is expected to increase in 2018–19 as the government continues its infrastructural development program. The reintroduction of the Unemployment Relief Scheme in 2017 is likely to increase employment.

Headwinds

Growth rates in 2017 and 2018 are expected to be slightly lower than in 2016, due largely to risks associated with the external sector. These risks include vulnerability to developments in Europe—the origin of most tourists—including Brexit and rising international fuel prices since late 2016 that could put pressure on inflation and the balance of payments. Domestically, a slowdown in the construction sector is expected to hinder growth. There is need for continued focus on economic diversification, structural transformation, and regional integration to deal with major challenges, notably a small domestic economy, geographical remoteness, high transportation costs, insufficient skilled labor, and vulnerability to external shocks.



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Sierra Leone

Economic performance and outlook

With the discovery of iron ore in 2011, mining became the main growth driver, resulting in an unprecedented growth rate of 21% in 2013. However, following the downward trend in the international price of iron ore and the outbreak of the Ebola virus in 2014—the economy contracted 20.6% in 2015. Resumption of operation by one of the two iron ore companies led to a rebound of the economy, with a growth rate of 6.3% in 2016 and an estimated 5.7% in 2017. The outlook for 2018 and beyond will continue to be challenging, due to the uncertainty surrounding the international prices of iron ore. GDP growth is expected to be 6.1% in 2018 and 6.5% in 2019.

Macroeconomic evolution

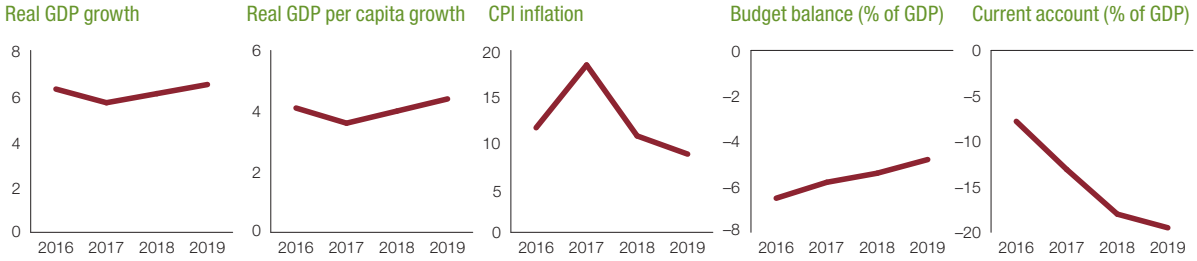
Lower revenue and substantial expenditure needs, coupled with the impact of the twin shocks, led to deterioration of the fiscal situation. The budget deficit stood at 6.5% of GDP in 2016 and is estimated at 5.8% in 2017. Lower export receipts created a shortage of forex, leading to a sharp depreciation of the leone against the U.S. dollar by an average of 20% in 2016. The pass-through effect of this depreciation set in motion an inflationary trend, 11.5% in 2016 and an estimated 18.4% in 2017, far above the single-digit targets set by the authorities. This development challenged the monetary policy operation throughout the review period. To contain the pressure, the monetary authorities adopted a tight monetary policy stance by increasing the monetary policy rate from 11% in 2015 to 12% in 2016 to 13% in 2017. According to the latest debt sustainability analysis by the authorities, the country remains at moderate risk of debt distress. Contracting nonconcessional finance needs to be avoided.

Tailwinds

The success, albeit limited, in closing the infrastructure gap in roads, energy, and telecommunications will help boost economic growth and reduce poverty through private-sector development and attraction of foreign direct investment. It also has the potential to support the economic diversification drive currently advocated by the government and development partners. In 2018, Sierra Leone will hold its sixth democratic elections since the end of conflict and is ranked 39 out of 163 countries on the 2017 Global Peace Index. This relative peace may, however, be put to a real test in the months leading to and following the March 2018 presidential and parliamentary elections, based on the current situation and expectations.

Headwinds

The historically low fiscal revenue was exacerbated by the fall in international iron ore prices and subsequent closure of the iron ore sector. Revenue fell from 13% of non–iron ore GDP in 2013 to 10% in 2015. Higher domestic borrowing is an issue, and government finance costs could rise substantially. Expenditure adjustment will be difficult in an election year, which may derail compliance with the International Monetary Fund's Extended Credit Facility (ECF) program. There are indications that the first review under the ECF will not be completed on the grounds that the government has not curtailed the fiscal deficit enough. These developments could worsen the inflation rate, which is trending upward. The dependence on primary commodity exports makes the country extremely vulnerable to external shocks. All these challenges are compounded by the lack of good governance practices as the fragile country continues to do poorly in most international assessments on the fight against corruption.



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Somalia

Economic performance and outlook

Over the past four years, real GDP growth has been moderate, averaging about 3.4%. Real GDP growth slowed to an estimated 2.4% in 2017, due mainly to the ongoing drought, and is projected to recover to 3.5% in 2018 and 2019. The main drivers in 2017 were construction, telecommunications, and financial services. The rise in GDP growth in 2018 and 2019 is expected to be driven by a recovery in the agriculture, higher private-sector investment, and improved security. Inflation, which has been contained by dollarization and the sharp decline in oil prices, is predicted to remain around 2.7% in 2018 and 2019.

Macroeconomic evolution

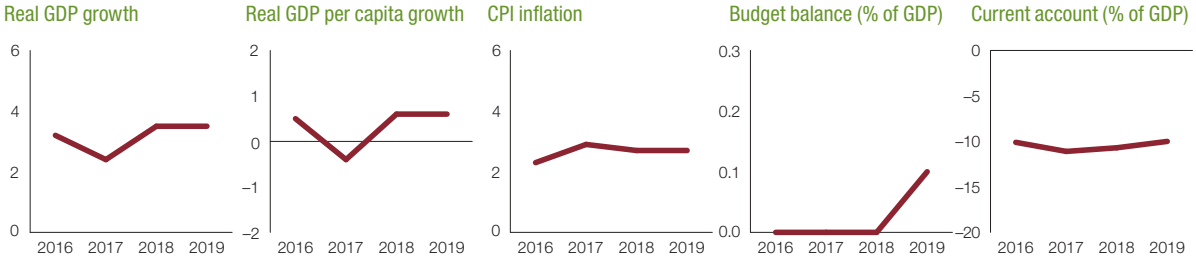
Domestic revenue increased from 0.6% of GDP in 2012 to 1.8% in 2016 due to better tax administration and greater engagement with the private sector. Government capacity to generate sufficient revenues and stabilize the macroeconomic environment continues to be constrained by the small size of the formal economy and limited capacity to collect taxes due to widespread insecurity and institutional constraints. The government continues to rely on official development assistance, which was 21% of GDP in 2016 and is expected to drop marginally through 2018. External debt stock, estimated at $5 billion, continues to accumulate arrears, precluding access to external borrowing, particularly concessional debt. Since April 2016, the exchange rate has remained relatively stable. The Central Bank has not issued any bank notes since 1991; it does not have control over the exchange rate or the supply of the currency, which is printed by private players.

Tailwinds

Major achievements include conducting peaceful elections in February 2017, in which a new president and Federal Parliament (with greater representation of women and youth) were elected, and creating several autonomous Federal Member States. Key economic achievements include drafting the first National Development Plan (NDP) 2017–19, which fully articulates economic reconstruction and development priorities. The private sector demonstrated impressive resilience in telecommunications, financial services, and construction. The diaspora played a major role by investing funds from abroad and returning with critical skills. Continued political stability, focused implementation of the NDP, and sustained interest of the diaspora in key growth sectors are expected to drive growth in 2018. Development programs are being implemented to revive the education sector; initial achievements include enrolment of more children in formal primary education.

Headwinds

Despite progress, Somalia faces many security, political, and economic challenges that will constrain growth in 2018. Terrorism continues to threaten peace and stability in the country and its neighbors. Work to address constitutional issues needs to be accelerated, and agreement needs to be reached on a federal settlement to define the allocation of powers and decide how to best allocate economic resources and revenues. Security reforms have not progressed as quickly as envisaged; the threat of piracy continues, which discourages increases in foreign direct investment and diaspora investments in 2018. Further progress on democratization, human rights, and the rule of law is needed, as well as strong anticorruption initiatives. Dependence on livestock and agriculture as the major source of export earnings reflects the narrow economic base. The economy remains highly vulnerable to market shocks, particularly commodity price fluctuations, and environmental shocks. The humanitarian crisis, exacerbated by the prolonged drought, is expected to continue into 2018 and dampen economic recovery. The estimated unemployment rate among those under age 30 remains high, at 67%.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

South Africa

Economic performance and outlook

Since 2012, following the sharp decline in international commodity prices for the country's four key exports—coal, platinum, iron ore and gold—economic growth slowed, compounded by domestic structural weaknesses and subdued investor confidence. After reaching 3.3% in 2011, growth fell to 0.3% in 2016. Growth in output from the country's key sectors, including manufacturing, dropped from 3% in 2011 to 0.7% in 2016; the contraction in output from mining increased from 0.7% to 4.7% over the same period. Medium-term growth prospects remain subdued; economic growth is was estimated at 0.9% in 2017 and was projected to reach 1.1% in 2018 and 1.6% in 2019.

Macroeconomic evolution

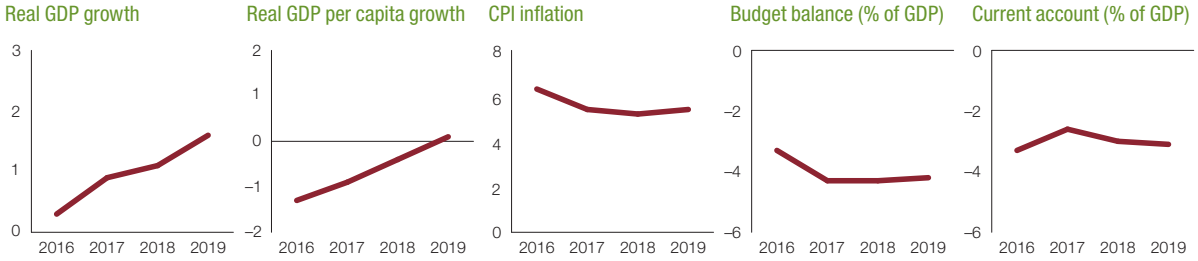
The consolidated budget deficit deteriorated to an estimated 4.3% in 2017 from 3.3% in 2016 as a result of revenue shortfalls. Total public debt is increased to an estimated 54.2% of GDP in 2017 from 50.7% in 2016 but remains sustainable. The Central Bank, through adjustments of the repo rate, kept inflation within the monetary policy target range of 3%–6% in 2017. Inflation declined to 5.1% in September 2017 from a peak of 6.8% in December 2016, due to lower food prices. The rand appreciated nearly 20% between January 2016 and July 2017, primarily as a result of higher export prices. The current account deficit improved to an estimated 2.6% in 2017 from 3.3% in 2016, reflecting lower imports. The current account deficit was financed mainly by non–foreign direct investment flows.

Tailwinds

South Africa struggles with the challenges of a dual economy: high poverty, unemployment, income inequality, and spatial socioeconomic disparities. This struggle is exacerbated by prolonged deindustrialization. Industry accounted for 19% of GDP in 2016, of which 12% is manufacturing, compared with 73% for services. According to the Industrial Policy Action Plan 2017–20, several sectors, including agro-processing clothing, textile, leather, and footwear, show potential for reindustrialization. Some key structural constraints to growth have been addressed. The electricity crisis was reversed in 2016 as additional electricity generation plants came online, adding more than 6,000 MW to the national grid. The government's top priority in the medium term is infrastructure for transport (which accounts for 34.6% of total infrastructure investment) and water (which accounts for 13% of total infrastructure investment). The prices of major commodity exports increased from 2015 to 2016.

Headwinds

The perception of corruption in public services remains high. The overall business environment is well developed; it is ranked 82 out of 190 countries in the World Bank's 2018 Doing Business report, but major challenges remain, notably in energy supply, trading across borders, and red tape. Inadequate quality of basic education remains a critical constraint to generating a skilled labor force. Lack of skills is the main cause of high unemployment, 27% in 2017 and more than 50% among young people ages 15–25. Standard and Poor's downgraded South Africa's long-term local currency credit ratings to a subinvestment grade in November 2017. It also downgraded the long-term foreign currency sovereign credit rating two steps below a subinvestment grade. The agency affirmed the positive outlook for both local and foreign currency credit ratings. This led to a temporary depreciation of the rand against the U.S. dollar by 2%, but the local currency has since regained value. As Moody's maintains South Africa's sovereign credit rating at investment grade, South Africa will not be removed from the World Government Bond Index, making higher capital outflows unlikely.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

South Sudan

Economic performance and prospects

South Sudan is the most oil-dependent country in the world; oil accounts for the bulk of its exports, approximately 60% of GDP and more than 95% of government revenues. Economic performance has been hindered by current global headwinds and the country's fragility challenges. The combination of the sharp drop in oil prices (from $110 per barrel in 2014 to roughly $50 in 2017) and the reduction in oil production following the outbreak of the ongoing civil war sharply reduced the growth rate. Real GDP contracted 5.3% in 2015 and 13.1% in 2016, and it is projected to decline 6.1% in 2017.

Macroeconomic evolution

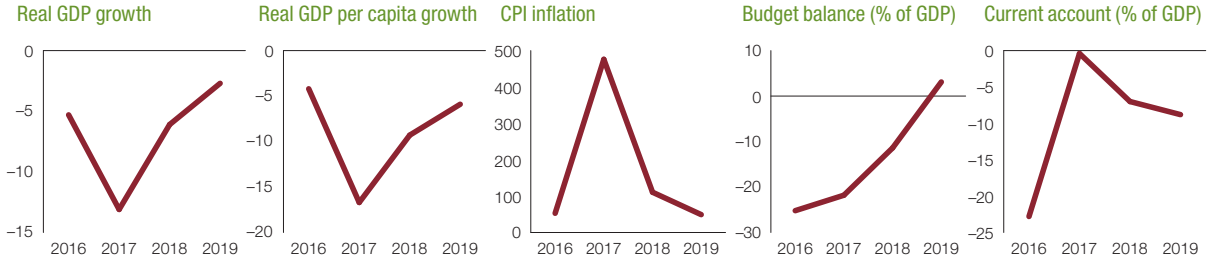
Falling oil prices and low oil production since 2013 have halved fiscal revenue as a percentage of GDP, resulting in a substantial drop in foreign reserves and acceleration in consumer inflation. The budget deficit in 2016 was 25.2% of GDP; if again financed by Central Bank borrowing or accumulation of arrears, the deficit will continue to fuel domestic currency depreciation and high inflation. Government gross debts increased from zero in 2011 to an estimated 15.5% of GDP in 2017. Since the South Sudan pound (SSP) was liberalized in December 2014, its exchange rate against the U.S. dollar depreciated from SSP 2.95 to more than SSP 170 as of October 2017. High youth unemployment and underemployment are problematic; more than 50% of young people are underemployed, and only 12% of the workforce is in formal employment.

Tailwinds

In August 2015, parties to the civil conflict signed a peace agreement, led by the Intergovernmental Authority on Development. Implementation will put the country on the path to economic recovery and development. The abundant natural resources include fertile agricultural land that is potentially irrigable, aquatic and forest resources, and mineral resources. These resources have the potential to drive the sustainable economic development agenda. Although 70% of the land is suitable for agriculture, only about 4.5% is cultivated. Lack of investment in high-yielding farming technology and inputs are the main constraints to increasing agricultural productivity. In light of its landlocked situation, the government has engaged in regional integration by joining most regional organizations. Membership in the organizations is likely to facilitate recovery, and benefits can develop quickly once stability is restored. The recovery in oil prices will provide additional fiscal resources to ease budget constraints, provided institutional and human capacity in public financial management is built.

Headwinds

Economic prospects remain bleak due to the unresolved political, social, and economic fragilities and continuing global headwinds. The civil conflict has resulted in serious humanitarian and social crises and diverted resources from development needs. As of September 2017, about 2 million people remained internally displaced; more than 1.8 million fled to neighboring countries; and 213,000 sought UN shelter. An estimated 6 million people faced severe food insecurity. Given the country's overdependence on crude oil exports, slight changes in oil production, prices, and demand can quickly translate into massive economic shocks. The prolonged civil war left the country with an extremely poor and underdeveloped infrastructure and limited human capital critical for promoting sustainable economic growth and development. The country has one of the most constrained business and investment climates in the world, according to the ranking on the World Bank's 2018 Doing Business report.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Sudan

Economic performance and outlook

From 2011 to 2016, real GDP growth averaged 3.3%, down from 7.1% from 2000 to 2010. Growth was estimated at 3.5% in 2017, reflecting lower domestic demand due to the removal of energy subsidies and weaker imports due to the depreciation of the exchange rate and U.S. sanctions, which were permanently revoked in October 2017. Medium-term growth in 2018–19 is projected to average 3.7%, driven by private and public consumption and reforms induced by the removal of sanctions. The immediate impact of reforms will hinder growth, but this is expected to recover with higher domestic supply and exports over the medium term.

Macroeconomic evolution

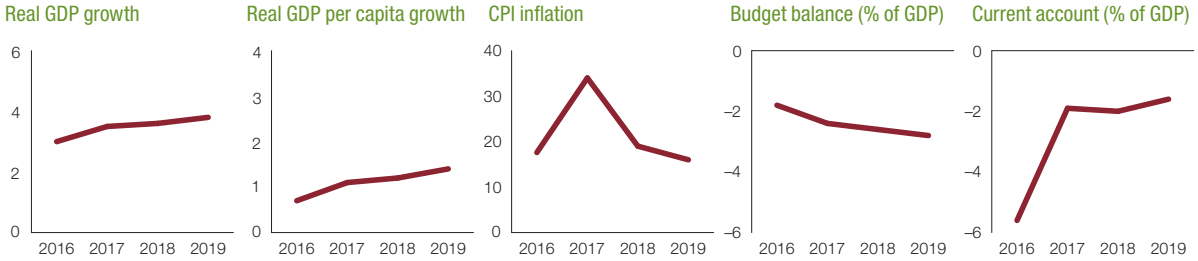
Despite estimated revenue shortfalls in 2017, government expenditure remained constant; the budget deficit widened an estimated 0.6 percentage point to 2.4%, up from 1.8% in 2016. According to the International Monetary Fund (IMF), the actual deficit is expected to be much larger (7.7% of GDP) because subsidies linked to official exchange rates are recorded only in the Central Bank's balance sheet. Monetary policy continues to be expansionary to accommodate growing fiscal financing needs. The Central Bank's higher purchases of gold, which accounted for 39% of exports in 2017, coupled with lending to agriculture, caused reserve money to grow from 27.5% at the end of 2016 to 52% in June 2017. Inflation soared from 17.2% in September 2016 to 35.1% in September 2017. The current account narrowed, reflecting reduced imports. The public external debt, most of which is in arrears, remains high and unsustainable.

Tailwinds

The permanent lifting of economic sanctions after 20 years is expected to strengthen competitiveness and stimulate economic growth. The IMF estimated a full-year revenue gain of 5.2% of GDP from the exchange rate unification, giving the country more fiscal space for social and capital spending. A unified exchange rate will also increase gold exports. Rigorously implementing the exchange rate and tax and subsidy reforms planned for 2018 will enhance diversification from minerals-led growth into agriculture and manufacturing. Rehabilitating cross-border trade corridors, by improving Sudan's sea port services delivery, will provide a solid foundation for implementing the bilateral agreements that Sudan signed with Chad, Egypt, and Ethiopia in 2016 to boost trade and regional cooperation, including on security issues. In September 2017, the United States removed Sudan from the list of countries whose citizens are subject to travel restrictions, and, in October 2017, permanently lifted sanctions on Sudan. This positive development opens a new window of opportunity for Sudan to fully integrate into the world economy and to boost economic growth through trade and unhindered financial flows.

Headwinds

Final settlement of the conflicts in Darfur, Blue Nile, and South Kordofan states is important for embarking on deep macroeconomic and structural reforms critical to the country's sustainable development. While the exchange rate and subsidy reforms are fundamental for macroeconomic stability, the IMF estimated that inflation could increase significantly, which would require further measures to enhance supply responses and provide cushions for poor people. Overhauling the business environment continues to present grave challenges. Foreign direct investment declined in the first two quarters of 2017, to $4.8 billion, down from $5.8 billion in the first two quarters of 2016. As highlighted by the World Bank's 2018 Doing Business report, Sudan slipped two positions, to a ranking of 170 out of 190 countries; major weaknesses were protection of minority investors, access to credit, and cross-border trade. Sudan's 2016 value on the United Nations Development Programme's Human Development Index (0.490) is below the average of countries in the low human development group (0.497), which suggests that greater efforts are needed to improve institutional capacity and reduce inequality.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Swaziland

Economic performance and outlook

Real GDP growth declined to an estimated 1% in 2017, down from 1.3% in 2016. Sluggish growth was observed mainly in wholesale and retail trade, as well as financial services, where output was hindered by reduced government spending due to ongoing fiscal challenges. Although agricultural output buoyed by good weather conditions following the El Niño–induced drought of 2015, as was agro-processing, the sector contracted, dragged down by livestock production, which suffered heavy stock depletion following the drought. Manufacturing bounced back in 2017, driven mainly by investment in textiles. Construction activity contracted due to limited fiscal space, which hindered implementation of public projects in 2017.

Macroeconomic evolution

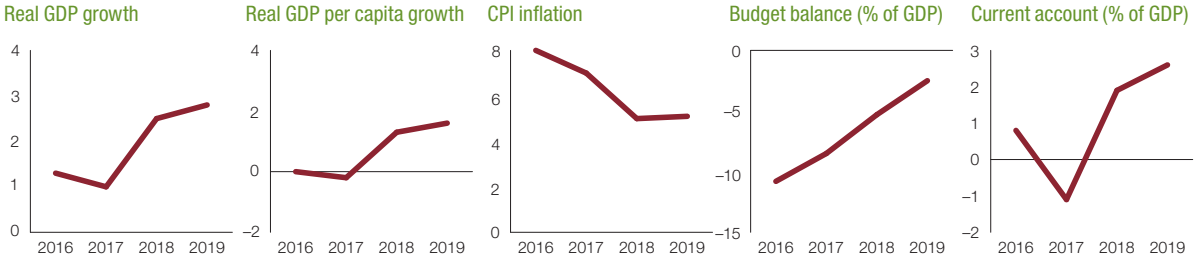
Inflation was estimated at 7% in 2017 after peaking at 8% in 2016, largely reflecting the decline in food prices following adequate precipitation. To protect the currency peg to the South African rand, the Central Bank raised the discount rate by 25 basis points to 7.25% in January 2017. While the monetary stance has tightened, fiscal policy remains expansionary to boost economic activity. The budget balance swung into a deficit in 2014–15, which widened sharply to double digits in 2016 following a sharp decline in Southern African Customs Union (SACU) revenues and an upward adjustment of public-sector wages. The 2017 budget showed a slightly lower fiscal deficit, due mainly to a surge in SACU revenues. The deficit is financed through domestic borrowing, including Central Bank financing, and accumulation of domestic arrears, which threatens banking sector stability and potentially crowds out the private sector. Public debt, which rose rapidly in recent years to 19.3% of GDP in 2016, remains sustainable. Impacted by the prolonged expansionary fiscal stance, the current account deteriorated and international reserve coverage declined to 3.4 months of imports at the end of 2016.

Tailwinds

Medium-term growth is projected to improve to about 2.5% in 2018. The recovery depends on a continued rebound in agricultural output and higher construction activity. Agricultural activity will be facilitated by completion of the Lower Usuthu Smallholder Irrigation Project and by an uptick in livestock production as farmers restock. The outlook for mining is positive, due to the rebound in international commodity prices and increased coal production following the renewal of a mining license. Manufacturing growth is expected to be boosted by increased food processing, reflecting higher sugar cane production and sustained expansion of the textile industry, which has successfully diversified to new markets, particularly South Africa, despite the loss of access to the U.S. market. Domestic growth is also likely to be driven by the sustained expansion of construction activity associated with the planned construction of infrastructure projects, such as the Lothair railway link.

Headwinds

Downside risks to the medium-term outlook remain elevated. The main risk stems from further tightening of budget financing due to the accumulation of domestic arrears, which could delay project implementation. Arrears could also lead to additional risks emanating from deteriorating banks' asset quality. Lower export earnings on account of subdued demand for mineral exports, adverse weather conditions, and lower SACU revenues are other risks that need careful monitoring. These risks underline the importance of accelerating growth-enhancing reforms to boost private investment and put the country on a sustained growth path. The deteriorating fiscal position threatens macroeconomic and financial stability; the government needs to undertake durable fiscal adjustment efforts focusing on containing the public wage bill, prioritizing capital outlays, and boosting tax revenues.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Tanzania

Economic performance and outlook

Economic growth has slowed since the last quarter of 2016, following real GDP growth of at least 7% between 2013 and 2016. Growth in the first two quarters of 2017 averaged 6.8% and was estimated at 6.5% for the full year. Construction, mining, transport, and communications were key growth drivers in 2017. Growth is projected to remain robust at 6.7% in 2018 and 6.9% in 2019, representing one of the best performances in East Africa. A tightening trade deficit, with a drop in imports outweighing a decline in exports, is likely to support growth. Public investment, particularly with ongoing implementation of larger infrastructure projects, is expected to boost growth in 2017 and beyond. However, uncertainty in the business environment, combined with stalling private-sector credit growth, could hinder private-sector investment.

Macroeconomic evolution

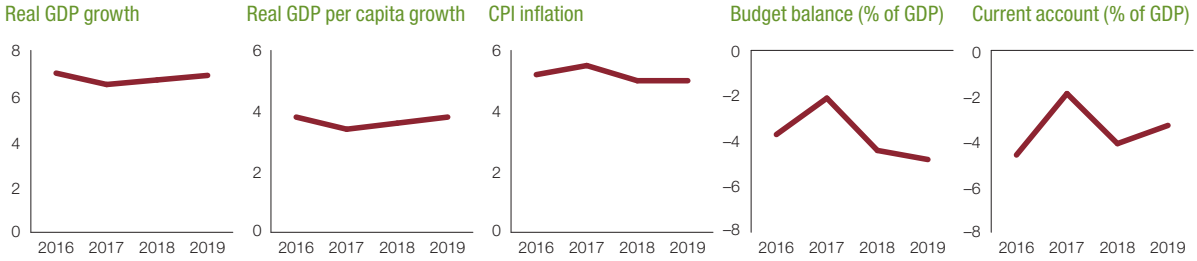
Lower than expected revenues in 2016 and 2017 led to a higher fiscal deficit than expected, 3.7% of GDP in 2016 and 2.1% in 2017. Government expenditure was 20.7% below its target, although 8.4% above the previous fiscal year. The fiscal deficit is projected to expand slightly in 2018, to 4.4% of GDP. Although public debt levels are sustainable, debt service costs increased considerably in recent years, which could reduce fiscal space. Inflation was well contained at 5.3% in September 2017 and is projected to remain around 5% through 2019. The Bank of Tanzania loosened monetary policy in 2017 to address liquidity constraints and support credit growth, after private-sector credit growth fell from 24.8% in 2015 to 7.2% in 2016 and to 0.3% in August 2017.

Tailwinds

General macroeconomic stability continues to support growth. The government has made considerable efforts to contain recurrent expenditure and inefficient spending, including reducing the public-sector payroll and nonpriority spending while increasing development spending, particularly for infrastructure, to support medium-term growth. The government also increased efforts to improve tax revenue administration by driving out corruption and tackling tax evasion in a bid to increase the fiscal space. The Bank of Tanzania also loosened monetary policy in 2017 to support credit expansion, although this has yet to offset reduced private-sector lending.

Headwinds

The economy is vulnerable to considerable downside risks. Uncertainty in the business environment following changes in policies, regulations, and tax administration could weigh on private sentiment and slow growth and investment, particularly in the mining sector. Credit growth stalled, while nonperforming loans rose to more than 10%, which could further hinder private investment. Although government development spending has increased considerably over the past two years, slow implementation of public infrastructure projects could limit growth. Moreover, overly ambitious revenue projections in national budgets could increase already high arrears and damage budget credibility. Current debt levels are considered sustainable, but effective measures to continually monitor debt service costs and ensure appropriate financing will support long-term fiscal sustainability.



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Togo

Economic performance and outlook

Economic growth was estimated at 4.5% in 2017, down from 5% in 2016, but is projected to return to 5% in 2018. If rainfall amounts remain favorable, growth could reach 5.3% in 2019. Agriculture remains the foundation of the economy, accounting for 1.7 percentage points of growth in 2017. In 2018/19, the tertiary sector is likely to benefit from the increased capacity of the port of Lomé due to the installation of modern transshipment equipment. However, the political protests that have slowed economic activity since August 2017 could lead to a downward revision of growth estimates for 2017 and projections for 2018 and 2019.

Macroeconomic evolution

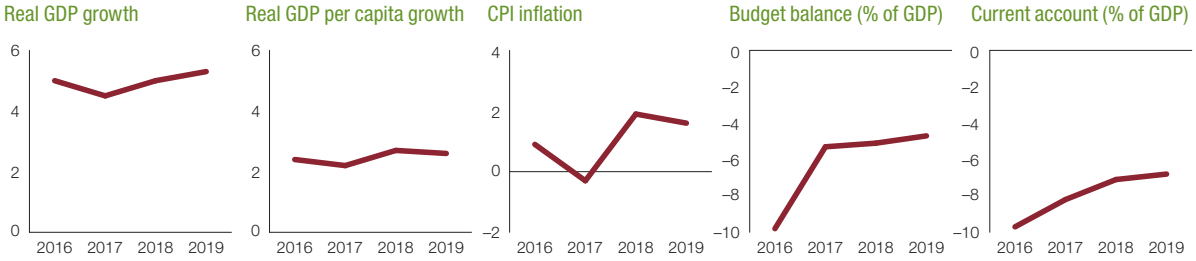
In 2015/16, the government took on large debts to finance investment. Debt rose from 73.3% of GDP in 2015 to 79.2% in 2016, exceeding the 70% threshold set by the West African Economic and Monetary Union. The International Monetary Fund (IMF) is monitoring the increase under its 2017–19 Extended Credit Facility (ECF), with a view to reducing it to 69.9% in 2019. The government's policy to reduce public investment is expected to reduce the budget deficit from 9.8% of GDP in 2016 to 4.7% in 2019. The external current account deficit is projected to improve from 9.7% in 2016 to 6.8% in 2019 as a result of reduced government imports. Inflation approached zero (an estimated –0.3%) in 2017. Combined with a strong appreciation of the CFA franc, this could impede exports. The Central Bank is pursuing an accommodative monetary policy by setting the key interest rate below 3%.

Tailwinds

Togo is aiming to stabilize public finances under a program launched in January 2017 under the ECF. The first IMF review, conducted in October 2017, concluded that all quantitative performance criteria had been met and that structural reforms were being pursued. In 2017, the government began to reduce its capital expenditure to 14% in 2018 and to 4.3% in 2019. These reductions are expected to end pre-financing mechanisms for public investment through commercial banks, thereby reducing the dominance of the government in financing economic activity. Private investment will become the main source of wealth creation, with a projected annual growth rate above 10% between 2017 and 2019. The acceleration of property transfers will encourage private investment, whose share in total investment is expected to increase from 52% in 2015 to 60% in 2017, then to 62% in 2018 and 64% in 2019.

Headwinds

Although Togo has made progress on the path to development, most of its population has not yet benefitted. Half of the Togolese people have no access to drinking water or electricity, and 55.1% live in poverty; the country has only one doctor per 14,500 inhabitants. The training provided by public higher education institutions does not reflect the needs of the labor market or the development challenges that the country faces. Togo ranks 162 on the United Nations Development Programme's (UNDP) 2016 Human Development Index; according to UNDP, 51% of the population lives in multidimensional poverty. In a context marked by the resurgence of political demonstrations, the organization of legislative and local elections in 2018 and a possible referendum on the constitution could hamper economic activity.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Tunisia

Economic performance and outlook

After stagnating at 1% in 2015 and 2016, economic growth increase to an estimated 2.2% in 2017, due to the good performance in the third quarter of 2017 (1.9% year on year). GDP is projected to grow 2.8% in 2018 and 3.5% in 2019, subject to an acceleration of structural reforms, a strong upswing in the industrial sector to meet external demand, and the easing of the cyclical nature of agricultural growth. Achieving these rates depends on the country's ability to consolidate and sustain the growth of the real economy that began in 2017, particularly in the manufacturing and nonmanufacturing industries of phosphate, oil, and gas, as well as market services.

Macroeconomic evolution

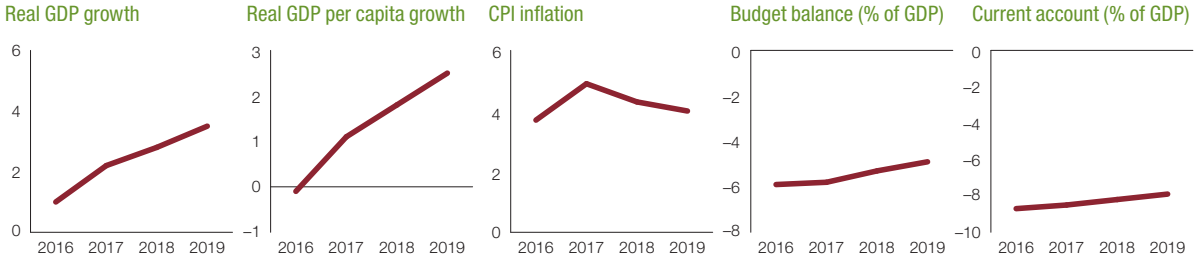
Since 2011, Tunisia has pursued economic revitalization through public spending. This policy has made public and private consumption the main growth driver at the expense of public investment (16.1% of the 2017 budget) and given rise to significant macroeconomic imbalances by laying the foundations for a substantial dual deficit (budget and current account). The sequence of primary deficits linked to an increase in current expenditure—particularly the public service wage bill (41% of the budget in 2017)—have widened the public debt (70% of GDP at the end of 2017, up from 39.7% in 2010), which is denominated mainly in foreign currency, and led to a 104% depreciation of the dinar against the U.S. dollar over the same period. This sharp drop fueled inflation by raising the cost of imports; the Central Bank tightened monetary policy by increasing the money market rate to 5.22% in September 2017, up from 3.9% in 2012.

Tailwinds

Several positive factors are expected to support growth in 2017 and subsequently in 2018–19. The improved security situation has revived the badly hit tourist industry. Tourism saw a 32% increase in 2017 that is likely to improve the balance of payments and help stabilize the dinar. Phosphate production and exports rebounded strongly, and investment (foreign and domestic) shows preliminary signs of picking up. Tunisia also continues to benefit from strong support from the international community. Growth is also likely to benefit from the continued recovery in the euro area, which began in 2012, particularly in France, Germany, and Spain, and is expected to drive up exports. Finally, Tunisia may benefit from the dividends of strategic reforms adopted since 2015. These include the Law of November 27, 2015, on public-private partnerships and that of September 30, 2016, on investment to boost the investment rate in accordance with the Strategic Development Plan 2016–2020, which anticipates an increase from 19% of GDP in 2016 to 24% in 2020.

Headwinds

Since 2011, public accounts have continued to deteriorate. Dominated by current expenditure (72% of the budget in 2017), public spending does not reflect the need for capital expenditure, particularly in infrastructure, which is required to maintain long-term competitiveness. Despite some advances, the progress of structural reforms remains limited because of resistance to changes to the development model that has supported the economy since the 1970s. However, acceleration of these reforms remains essential to the country's ability to benefit from the support of development partners and the confidence of the markets in its ability to (re)finance debt. Other negative medium-term factors are a deterioration of the security situation due to the crisis in Libya and a possible resurgence of social conflicts related to public sector reform and the decline in purchasing power.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Uganda

Economic performance and outlook

Economic performance generally remained strong despite the recent slowdown in real GDP growth, which is projected to reach 5.9% in 2018, up from 4.8% in 2017 and 2.3% in 2016. The increase in economic growth in 2018 is expected to be driven mainly by public infrastructure investment; recovery in manufacturing and construction; and improvements in the services sector, particularly financial and banking, trade, transport, and information and communication technology services.

Macroeconomic evolution

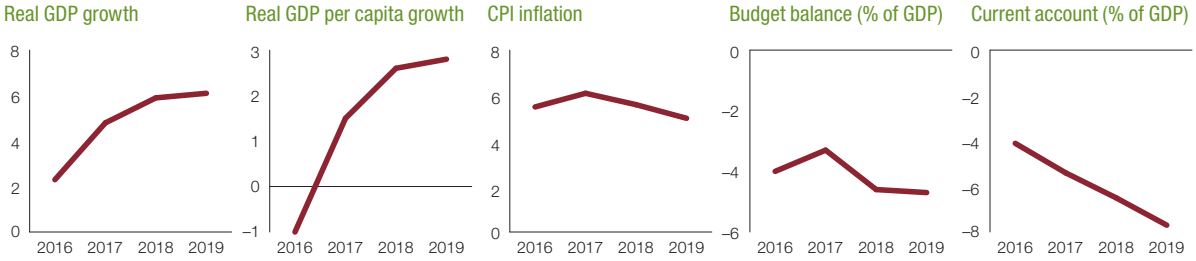
Uganda pursued a cautious expansionary fiscal policy stance to support key infrastructure projects in transport and energy, while keeping recurrent expenditure under control. The overall budget deficit was slightly high in 2016, improved in 2017, and is projected to increase in 2018 and 2019. The balance of payments deteriorated, mainly as the result of external economic headwinds, including low commodity prices due to slow growth in Europe and China and tightening global financial and monetary conditions. The macroeconomic policy stance remains focused on containing inflationary pressures, enhancing exchange rate stability, and stepping up domestic resource mobilization growth by 0.5 percentage point of GDP. Uganda continues to have a low risk of debt distress. However, the debt-to-GDP ratio is increasing and is projected to reach 38.6% of GDP in 2016 and 45% by 2020 from 34.1% in 2014. At these growth rates, the debt burden is growing faster than government resources; the revenue-to-GDP ratio stands at only 13.4%. However, the most recent International Monetary Fund and World Bank Group debt sustainability analysis in 2016 gives Uganda's risk of debt distress a low rating.

Tailwinds

The main tailwinds for the 2018 economic outlook include increased agricultural production due to better weather conditions; higher foreign direct investment (FDI) flows following the recent issuance of oil exploration licenses; and the expected decision by the government to invest in oil infrastructure development in early 2018, given the projected increase in oil prices to an average of $55 a barrel in 2017–18 from $43 a barrel in 2016.

Headwinds

Major external risks to economic performance include low commodity prices and demand for the country's exports in major markets, appreciation of the U.S. dollar due to expected monetary tightening by the United States, tightening of global financing conditions that could discourage FDI and development assistance, adverse spillover shocks from fragile regional neighbors, and adverse environmental shocks. Major internal risks include reduced domestic revenue mobilization and higher public spending on contingencies, poor institutional capacity and governance, and weak public financial and investment management systems.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Zambia

Economic performance and outlook

Zambia weathered two years of below-average rainfall in the agriculture seasons of 2015 and 2016. The two dry periods affected the regeneration of key hydropower reservoirs, which lost about 50% of their generation capacity, leading to significant load shedding of up to 12 hours. Combined with low copper prices, economic activity declined to its lowest in more than a decade, reaching 2.9% GDP growth in 2015; it rebounded to 3.4% in 2016. Good rains in 2017 increased agricultural production and ended load shedding. Growth is projected to exceed 4% in the medium term, aided by rising global demand for copper that boosted prices by more than 16% this year.

Macroeconomic evolution

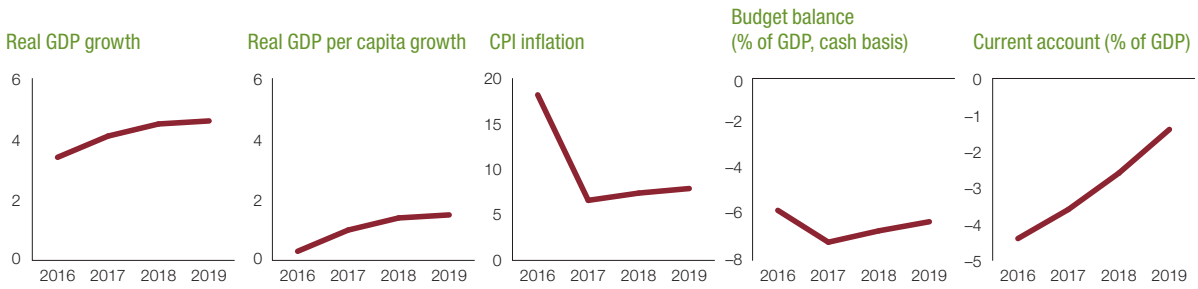
Indicators show improvement throughout 2016 and 2017, despite slow growth. Following a spike in inflation that reached 18.2% in 2016 and excessive exchange rate volatility in 2016, the Central Bank effectively controlled prices by tightening monetary policy. The monetary policy rate was raised to 15.5% and the statutory reserve ratio to 18%, reducing market liquidity. Following a return to single-digit inflation in November 2016 and stable exchange rates, the Central Bank gradually rolled back the policy rate to 11%. The government's aggressive spending program increased public borrowing in 2014 and 2015 and widened the budget deficit. In 2016, the deficit reached 6%; it is expected to decline in the medium term as the government implements its Economic Stabilization and Growth Program. Accrued public debt reached 61% of GDP in 2016, up from 21% in 2011. Higher debt and depreciation of the Zambian kwacha increased debt servicing. Despite high debt levels, international investors are regaining confidence in the government's ability to manage the economy.

Tailwinds

Demand for copper in China is projected to continue to 2018; combined with the forecasted copper supply deficit, prices are expected to remain at their current levels or rise slightly into 2018. From 2016, the stability of the mining tax regime increased, which is expected to support copper investment and production in 2018. Ongoing energy reforms, driven by higher electricity tariffs, will continue into 2018; revisions to the Electricity Act and the Energy Regulation Act will increase guidance on grid access and encourage private-sector involvement. Reduced subsidies to the electricity and oil subsectors will help offset some fiscal pressures caused by higher interest payments and continued infrastructure investment drive. In 2016, international portfolio investors returned to Zambian securities, maintaining international reserves at $2.3 billion and raising domestic borrowing to more than 4% of GDP in 2017. The high domestic borrowing is expected to dampen growth of credit to the private sector.

Headwinds

Fiscal consolidation will be the key driving force for spending in 2018 as the government strives to meet its targets. The International Monetary Fund's (IMF) October 2017 reclassification of the country as being at high risk of debt distress in October 2017 will pose challenges for the government in the coming years. The reclassification is expected to add upward pressure on lending rates, although the more positive growth outlook is likely to push interest rates downward. Agreeing to a fiscal stabilization program with the IMF in 2018 would help offset some of the effect. The government needs to prioritize lending in the coming years as it tries to regain market confidence, leading up to the rolling over of the 2022 Eurobond. Contractor-financed projects, with no clear tendering process, increased the cost of projects, leading Zambians to question whether their taxes are achieving value for money.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

Zimbabwe

Economic performance and outlook

Economic growth is expected to improve to an estimated 2.6% in 2017 from 0.7% in 2016, driven by stronger performance in agriculture, mining, electricity, and water. Economic performance in 2018 is likely to be affected by political changes; real GDP growth is projected to be 1% in 2018 and 1.2% in 2019. The economy continues to face structural challenges from high informality, weak domestic demand, high public debt, weak investor confidence, and a challenging political environment. The country is experiencing a liquidity crisis, which is a manifestation of structural deficiencies and distortions in the economy. Progress was made in improving the business climate, but governance and accountability remain problematic.

Macroeconomic evolution

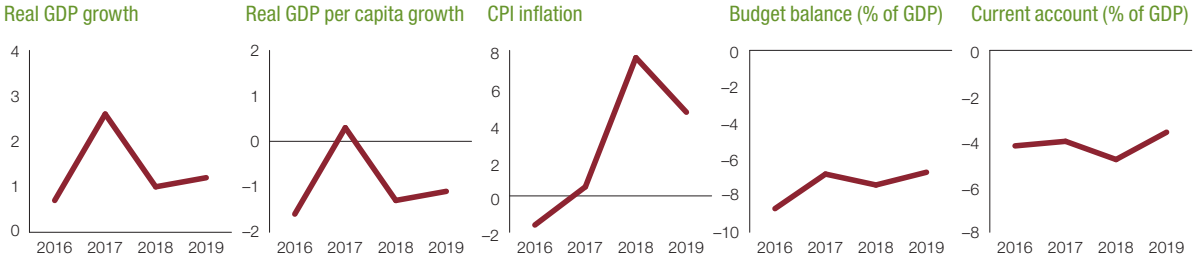
Fiscal policy is highly consumption-oriented, limiting fiscal space for capital and social expenditures. Total expenditure picked up as the government expanded the Command Agriculture Program and maintained the high public-sector wage bill (around 19% of GDP). With limited access to foreign inflows, the budget deficit reached 8.7% of GDP in 2016, up from 2.4% in 2015. The 2018 elections are likely to put further pressures on the budget, and the government is resorting to domestic borrowing to cover the budget deficit. Public domestic debt almost doubled, to 25% of GDP in 2016; external debt stood at 42.6% of GDP. The government cleared its debt arrears with the International Monetary Fund, and a debt arrears clearance strategy is ongoing with the African Development Bank and the World Bank. Monetary financing of the budget deficit led to sharp increases in money supply by about 24% in 2017, fueled inflationary pressures, and undermined banks' ability to finance private-sector activities.

Tailwinds

A modest recovery in international commodity prices is projected to spur growth in mining. Energy production is expected to improve following the completion of the Kariba South Extension Plant in December 2017. Agricultural output growth will be supported by scaled up coordination and funding from the government and private-sector and greater investment in irrigation development. Agriculture is expected to grow strongly in 2018 due to good rainfall and targeted support to farmers. Manufacturing is likely to see growth on the back of a protectionist policy to support local industry. This intervention resulted in significant increases in capacity utilization in local industry, from 34.3% in 2015 to 47.4% in 2016, before declining to 45.1% in 2017.

Headwinds

Weak economic activity in 2016 led to a fall in total revenues of 6% (in nominal terms), exacerbating liquidity shortages. The 2016 introduction of bond notes pegged to the U.S. dollar saw the emergence of a parallel market for foreign exchange, owing to the shortage of foreign currency. The real exchange rate remains overvalued, undermining external competitiveness. The external sector position is weak; net international reserves declined from $339 million in 2015 to $310 million in 2016, equivalent to 0.6 month of imports. The elections scheduled for 2018 are likely to generate uncertainties that will hinder economic growth and investment. The investment environment remains gloomy. According to the World Economic Forum's 2017/18 Global Competitiveness Report, the most problematic factors for doing business include policy instability, inadequate foreign currency regulations, inefficient government bureaucracy, difficulties in access to finance, inadequate supply of infrastructure, restrictive labor regulations, and inefficient tax administration and regulations.



Source: Data from domestic authorities; figures for 2017 are estimates; figures for 2018 and 2019 are predictions based on authors' calculations.

ABBREVIATIONS

ACG	Arab Co-ordination Group
AEO	African Economic Outlook
AFD	Agence Française de Développement
AfDB	African Development Bank
AfIF	Africa Investment Facility
AGOA	African Growth and Opportunities Act
AICD	Africa Infrastructure Country Diagnostic
AIDI	Africa Infrastructure Development Index
ALM	Asset–liability management
ASCE	American Society of Civil Engineers
AU	African Union
CAF	Corporacion Andina de Fomento
CDP	Cassa Depositi e Prestiti
CDP	United Nations Committee for Development Policy
CEMAC	Central African Economic and Monetary Community
DFI	Development finance institution
DIAL	Développement, Institutions et Mondialisation
DISCO	Distribution to final consumer
EAIF	Emerging Africa Infrastructure Fund
EC	European Commission
ECF	Extended Credit Facility
EDF	European Development Fund
EPA	Economic Partnership Agreement
FDI	Foreign direct investment
FFEM	Fonds Français pour l'Environnement Mondial
GNP	Gross national product
HIPC	Heavily Indebted Poor Countries
ICA	Infrastructure Consortium for Africa
IFI	International financial institution
IIFCL	India Infrastructure Finance Company Limited
ILO	International Labor Organization
IMF	International Monetary Fund
IPP	Independent power producer
IPPF	Infrastructure Project Preparation Facility
ITF	Infrastructure Trust Fund
LHWP	Lesotho Highland Water Project
MDB	Multilateral development bank
MDRI	Multilateral Debt Relief Initiative
MGI	McKinsey Global Institute
MIGA	Multilateral Investment Guarantee Agency
NDP	National Development Plan
OBA	Output-based aid
OECD	Organisation for Economic Co-operation and Development
OSeMOSYS	Open Source Energy Modeling System
PICC	Presidential Infrastructure Coordinating Commission
PIDG	Private Infrastructure Development Group
PPI	Private participation in infrastructure
RDB	Regional Development Bank
REIPPP	Renewable Energy Independent Power Producer Procurement Programme
RONET	Road Network Evaluation Tool
SACU	Southern African Customs Union
SDG	Sustainable Development Goal
SEZ	Special economic zone
SME	Small and medium-sized enterprise
SPV	Special-purpose vehicle
SSP	South Sudan pound
TFP	Total factor productivity
TRAC	Trans African Concessions
UN	United Nations
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
WAEMU	West African Economic and Monetary Union
WEF	World Economic Forum
WHO	World Health Organization