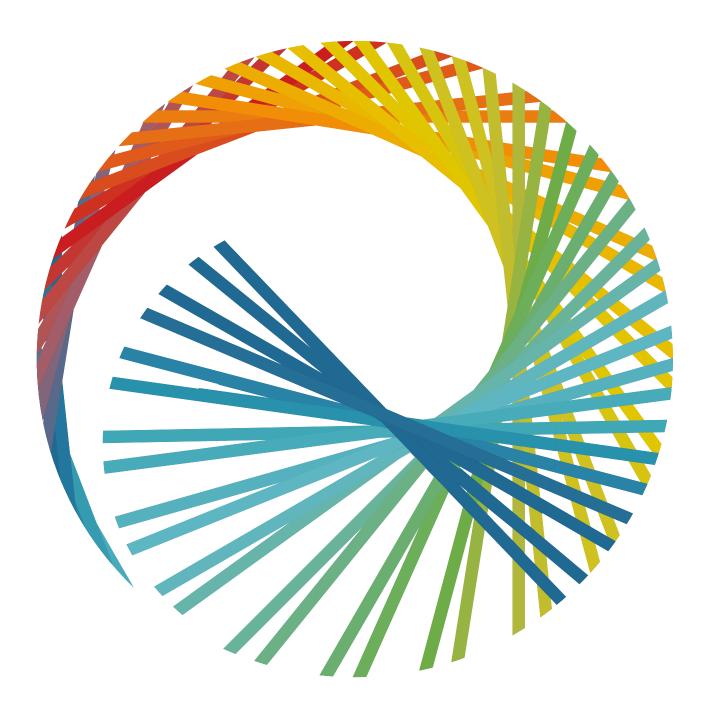
FORESIGHT AFRICA

Top Priorities for the Continent in 2018



Celebrating 10 years of the Africa Growth Initiative

 $B \mid \underset{{}_{\text{at BROOKINGS}}}{\text{Africa Growth Initiative}}$

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Top Priorities for the Continent in 2018

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Letter from the Director

BRAHIMA S. COULIBALY

Senior Fellow and Director Africa Growth Initiative, Global Economy and Development Brookings Institution

> In a world where China and other emerging economies are ascendant, where cooperation on global governance is under challenge, and where free trade faces headwinds, Africa needs its own institutions to play a more assertive role in advancing the continent's agenda. The potential for a more unified Africa to create never-beforeseen opportunities for trade and economic prosperity is gaining traction. Though the threat of terrorism and political instability still hangs over certain regional hotspots, neighboring African countries are leading peace negotiations and contributing to solutions. Democracy continues to spread, but hiccups seen in countries like Kenya and Zimbabwe, as well as temptations of third termism in others, underscore the need to consolidate the gains of good governance. Finally, the demographic tidal wave looms ever closer, and job creation has not yet been able to catch up.

> I am optimistic that Africans will rise to these challenges in 2018 and demonstrate strength, leadership, and greater ownership of their development agendas. *Foresight Africa 2018* reflects on the possibilities created by this energy.

In Chapter 1, African leaders describe initiatives to help **the continent harness its potential to secure its future**. African institutions—particularly the African Union, the United Nations Economic Commission for Africa, the African Development Bank, and regional economic communities—are already unveiling strategies to tackle the continent's challenges more effectively. Indeed, 2018 is the year in which Africa can unleash its inner strengths.

Realizing a future of African self-reliance will require concerted support for **sustainable development financing**. With external financing conditions likely to worsen in the medium term, it will become imperative for African countries to enhance domestic resource mobilization. In Chapter 2, our authors describe, and argue for, new and innovative instruments to better mobilize and leverage resources for development financing.

Striving for shared prosperity while tackling stubborn **human development** challenges is another priority. Despite robust aggregate economic growth across the region in recent years, extreme poverty persists, and far too many citizens face a bleak future. As

a result, migration out of the continent continues to be widespread and dangerous. In Chapter 3, our authors explore this disconnect and offer recommendations on policy interventions to broaden the benefits of future economic growth.

Indeed, a notable feature of growth in Africa is that it is not fundamentally transforming economies. The authors in Chapter 4 examine the continent's unique growth patterns and consider new pathways towards **structural economic transformation**. Challenges such as the threat of automation, the failure to scale up sustainable financing, and faltering progress toward halting women's continued disempowerment suggest a rethinking of traditional growth and development approaches. Building manufacturing complexity and developing sectors such as tourism and agro-industry, among other solutions, may offer new possibilities.

The advent of technology, despite its potential threat to labor-intensive jobs, is also offering innovative solutions to development challenges in various sectors. Africa continues to be a continent of rapid **technological innovation and adoption**. Each obstacle—in areas such as power, banking, education, and farming—throws up calls for tech entrepreneurs to create a solution, and young Africans are responding. In Chapter 5, our authors explore these innovations and their potential to transform the continent.

In Chapter 6, authors consider what the region's harnessed power means for **Africa's engagement on the global stage**. Is Africa creating opportunities and taking initiative for more balanced and mutually beneficial relationships, especially with powerhouses like China, the European Union, the United States, as well as with multilateral organizations and powerful constituency groupings, such as the G-20? What will the impact of reduced engagement from the United States be? How do development, defense, and diplomacy best fit into foreign policies toward the continent?

With this edition of *Foresight Africa*, we aim to capture the top priorities for the region in 2018, offering recommendations for African and international stakeholders to create and support a strong, sustainable, and prosperous continent. In so doing, we hope to promote and inform a dialogue on economic development that will generate sound strategies for sustaining economic growth and broadening its benefits in the years ahead.

Over the course of the year, we look forward to further exploring Africa's priorities through high-profile events at Brookings and across the continent, informed by research reports, commentary, engagement, and action.

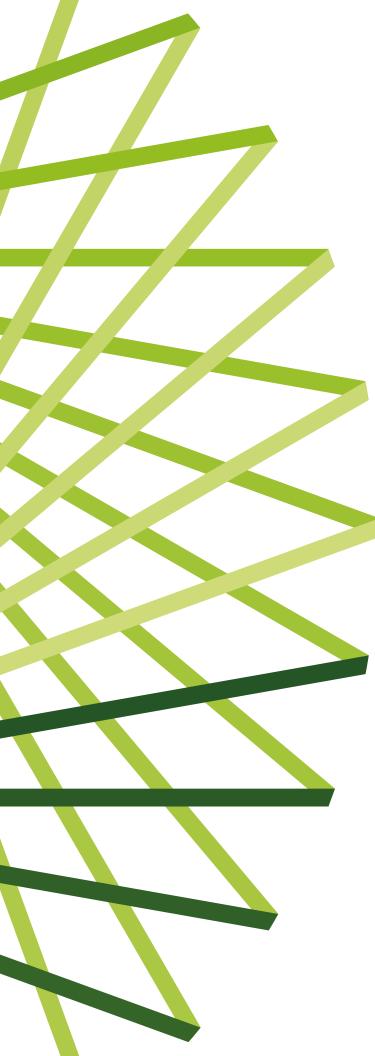
Finally, we invite you to join us in celebrating the 10th anniversary of the Africa Growth Initiative. For the past decade, AGI scholars have provided African, international, and U.S. policy communities with high quality research to inform policies in and toward Africa. Over a decade, AGI has served as an important neutral broker for policy discussions related to the continent, hosting high-level policymakers, including several heads-of-state, private sector leaders, and civil society actors for in-depth conversations. Our efforts have allowed experts to share insights on topics ranging from sustainable financing, to governance, to trade, to agriculture, to industrialization, to infrastructure, along with many other priorities covered in past editions of *Foresight Africa*.

We would like to express our gratitude to you, our donors, and to Brookings' leadership for the support and commitment to AGI.

BrahmpCaulibaly

UNLEASHING AFRICA'S INNER STRENGTHS:

Institutions, policies, and champions



CHAPTER 1

Building a stronger African Union

H.E. Paul Kagame @PaulKagame President of Rwanda

> Despite the myriad challenges we still face, over the past two generations our world has become more prosperous and equitable, and also safer. Cooperation among nations has been a foundation of that progress, as well as the best mechanism for sustaining it.

> This is nowhere truer than in Africa. At independence, our continent and our individual countries were profoundly divided and unable to capitalize on our own wealth. For decades, Africa only seemed to fall further and further behind the rest of the world.

Those days are drawing to a close, and closer regional integration within Africa is a major reason why. The benefits are already being felt as our markets become more visible to the global economy. Security issues are increasingly being handled constructively and sustainably by African institutions, in many cases in collaboration with partners, thereby reducing the burden on everyone.

But we still have a long way to go to build the Africa we want. This is why African leaders decided in 2016 to give full force to the African Union's founding ambitions by bringing to term the institutional reform of the organization.¹ The achievements of the African Union are significant and often unheralded, but it can and must do more.

The first pillar of the reform is to finance our activities ourselves. African Union programs are almost entirely financed by external partners. Africa's interests and sense of ownership get lost, and the interests of donors could be better served as well.

It is also unsustainable. It is reckless for Africa to rely so heavily on sources of funding that are likely to dry up sooner rather than later, especially when we have the means to pay for programs that are beneficial to us.

In July 2016, African leaders adopted a plan to finance the African Union with a 0.2 percent levy on eligible imports, a formula that has been successfully employed in other regional organizations. Twenty member states have so far implemented the mechanism, out of which 14 are already collecting funds.

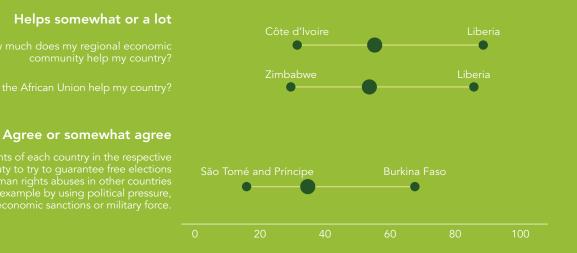
This strong momentum is solid evidence that there is political will to strengthen the capacity of the African Union, despite the complex politics involved in coordinating among more than 50 member states.

The achievements of the African Union are significant and often unheralded, but it can and must do more.

^{1.} Kagame, Paul. 2017. Report on the Proposed Recommendations for the Institutional Reform of the African Union. Addis Ababa. African Union. Available at: https://au.int/sites/ default/files/pages/32777-file-report-20institutional20reform20of20the20au-2.pdf.

FIGURE 1.1. VIEWS FROM THE GROUND: ARE REGIONAL ECONOMIC COMMUNITIES GOOD FOR MY COUNTRY?

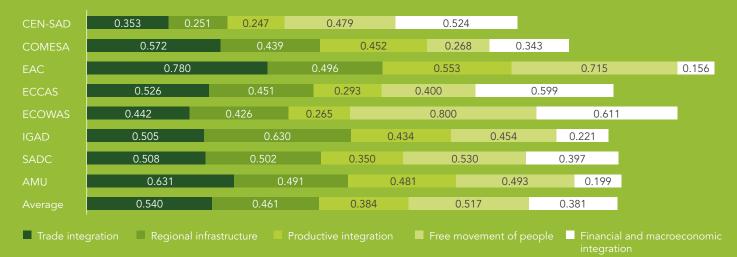
Regional integration is a major part of the development agenda of many countries on the continent. Indeed, these efforts to create new markets, lower transport costs, harmonize monetary policies, and promote African solutions to African problems offer much promise for accelerating economic growth and human development. But how do the people on the ground view regional integration and do they share beliefs on what these regional communities should be empowered to do? For example, respondents in a 2014/2015 Afrobarometer survey viewed their respective regional economic communities slightly better than the African Union, though opinions on both vary greatly across countries. The ranges below (showing the minimum, maximum, and average) demonstrate how much those responses differed.



Note: In the first two questions, respondents were asked to what extent they think the respective community helps their country, with the options "helps a lot, somewhat, a little, or not at all." In the third question, respondents were asked how strongly they agreed with either of these statements: "Statement 1: The governments of each country in [West] Africa have a duty to try to guarantee free elections and prevent human rights abuses in other countries in the region, for example by using political pressure, economic sanctions or military force. Statement 2: Each country in this region should respect the independence of other countries and allow them to make their own decisions about how their country should be governed." For the detailed questions and a breakdown of the responses, see Afrobarometer Survey 2014/2015. Source: Afrobarometer Survey (R6 2014/2015), 2016.

FIGURE 1.2. REGIONAL INTEGRATION IN AFRICA: HOW MUCH FARTHER DO COUNTRIES HAVE TO GO?

Regional integration is key to achieving the goals of the Continental Free Trade Agreement, and integrating goes beyond just monetary arrangements. The Africa Regional Integration Index measures the progress for African RECs in different categories, as seen below. The EAC has made the most progress by far, largely due to its achievements in regional trade and the free movement of people. ECOWAS has similarly come far, but has made more progress in terms of financial and macroeconomic integration.



Note: The Africa Regional Integration Index is a tool developed by UNECA, in collaboration with the AfDB and the African Union, in order to measure the progress Africa has made in moving toward regional integration. The index has five categories they deem important to regional integration: trade integration, regional infrastructure, productive integration, free movement of people, and financial and macroeconomic integration. The five categories are measured on a scale from 0 (worst) to 1 (best). Source: United Nations Economic Commission for African Union, African Development Bank. 2016. Africa Regional Integration Index Report 2016. Addis Ababa. Available at https://www.uneca.org/sites/default/files/PublicationFiles/arii-report2016 en web.pdf

After all, when you're spending your own money, you want to make sure it's being used well. The shift to self-financing has had another important consequence: increased attention to the efficiency and performance of the African Union Commission and associated organs. After all, when you're spending your own money, you want to make sure it's being used well.

Accordingly, African leaders decided to complete the institutional reform of the African Union, and mandated me to consult with stakeholders around the continent and present recommendations, which was done at the AU Summit in January 2017.

More than 30 separate recommendations were formally adopted, grouped into five main areas: (1) focus on key priorities with continental scope, and improve the division of labor with Regional Economic Communities; (2) re-align African Union institutions to deliver on those priorities; (3) connect the work of the African Union more directly to citizens; (4) manage the business of the African Union more efficiently at both the political and operational levels; and (5) sustainably self-finance its activities.

This reform had been pending for several years, and indeed most of the organization's problems had already been meticulously analyzed. Indeed, key reforms have been approved before, only to be abandoned.

Our focus therefore was to ensure implementation. From the outset, we were conscious that the risk of failure was real. The political obstacles are complex because change is required not only in the African Union Commission, but in each member state.

A Reform Implementation Unit is up and running in the Office of the Chairperson of the Commission, Moussa Faki Mahamat, who has left no doubt about his personal commitment to the reform agenda.

The politics is also not being taken for granted. While there is very strong support for the reform, the implementation process requires regular attention and consultation at the head-of-state level to address concerns and find practical solutions to technical issues experienced by individual states.

Myself, together with the current African Union Chairperson, President Alpha Conde of Guinea, and the previous Chairperson, President Idriss Déby of Chad, have been mandated to oversee the implementation.

What is important is to preserve the principles and purpose that inspired the reform, while showing flexibility on certain details where member states require it. In this way, momentum and progress can be sustained.

Africa is increasingly called on to speak with one voice on the global stage. A more effective African Union is not only good for Africa, but for all of us. A more unified and assertive Africa will mean improved coordination on common security challenges, where indeed Africa already shoulders a significant share of the common burden.

This may require some accommodation and adjustment in terms of how we do business with each other, and it should be seen as a positive evolution, not a challenge to the existing order.

What should never get lost is the urgent need to work together in good faith and with mutual respect to build a more stable and prosperous world for everyone. The momentum we have seen thus far in implementing the African Union reform suggests that good progress will continue to be made in 2018 and beyond.

A more effective African Union is not only good for Africa, but for all of us.

Emerging from crisis: Côte d'Ivoire's success story

H.E. Alassane Ouattara @Presidenceci President of the Republic of Côte d'Ivoire

Despite a lost decade, culminating in the post-electoral crisis of 2010, Côte d'Ivoire has become one of the fastest-growing economies in the world, with an average annual GDP growth rate of 9 percent since 2012.

During that decade, the country was marked by insecurity and political instability, public debt exploded, the business environment degraded, the total investment rate fell below 10 percent of GDP, and economic growth averaged close to zero. As a result, basic socio-economic infrastructures and services, including schools, health facilities, electricity, and water supply deteriorated, affecting youth employment and poverty.

Today, Côte d'Ivoire is a success story and one of Africa's most resilient economies to external shocks.

How did we achieve this success?

First, priority was given to security and political stability through the reform of the security sector including the demobilization of more than 64,000 ex-combatants, and a national reconciliation and social cohesion program.

Second, two comprehensive National Development Plans (2012-2015 and 2016-2020) worth around \$72 billion were designed with contributions from civil society, private sector, and development partners. To enhance accountability, they are monitored through key performance indicators.

We are creating inclusive growth by allocating more than a third of our annual budget to social expenditures, particularly in health and education, with a focus on gender equality, compulsory education, and universal medical coverage. From 2011 to 2015, we produced as much clean water as during the 50 years following our independence, and the access rate to electricity now stands at 80 percent of the population. Accordingly, the poverty rate declined from 51 percent in 2011 to 46 percent in 2015.



The main lessons of post-crisis management in Côte d'Ivoire can be summed up in the launching of a welldesigned strategy with the appropriate prioritization and monitoring, as well as a strong political will for its concrete implementation.

Facilitating private sector activity has been a key pillar of our strategy to diversify our economy and create employment, especially for youth. As a result, our business environment has improved and total investment has now reached 20 percent of GDP, compared to 9 percent in 2011. We have achieved a stable macroeconomic environment through strengthened public finance management, inflation below 2 percent, and a sustainable debt-to-GDP ratio of 42 percent.

The main lessons of post-crisis management in Côte d'Ivoire can be summed up in the launching of a welldesigned strategy with the appropriate prioritization and monitoring, as well as a strong political will for its concrete implementation.

Future challenges will be to maintain our current trajectory in becoming an emerging market economy, ensure a successful demographic transition, and lay the foundation for sustainable and inclusive growth in a peaceful environment.

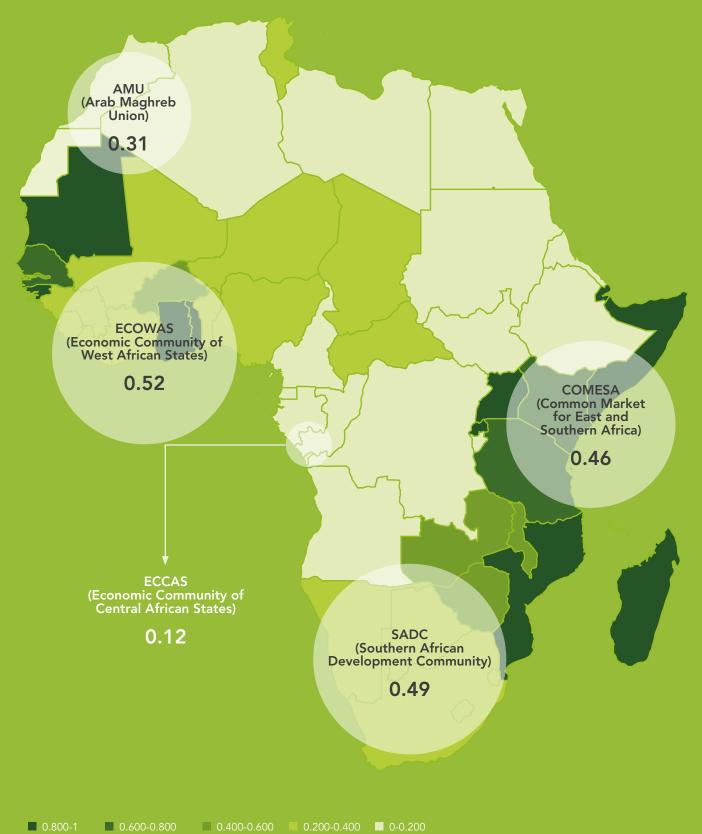
Africa continues to ease movement of people within the continent

In recent years, African countries have loosened visa restrictions on their neighbors in order to facilitate the free movement of people and goods, thus, regional integration. Indeed, visa openness is vital to increasing trade, filling labor gaps, diversifying economies, and attracting investment on the continent. The Africa Visa Openness Index examines the extent to which African countries restrict the free movement of people compared

Country	No visa required 2016	Visa on arrival 2016	Visa required 2016	Score	Rank
Seychelles	54	0	0	1	1
Uganda	18	36	0	0.867	2
Тодо	16	38	0	0.859	3
Guinea-Bissau	14	40	0	0.852	4
Cabo Verde	16	37	1	0.844	5
Ghana	17	35	2	0.833	6
Mauritania	8	46	0	0.83	7
Mozambique	8	46	0	0.83	7
Mauritius	26	22	6	0.807	9
Rwanda	6	47	1	0.807	9
Comoros	0	54	0	0.8	11
Madagascar	0	54	0	0.8	11
Somalia	0	54	0	0.8	11
Djibouti	0	54	0	0.8	11
Kenya	18	30	6	0.778	15
Senegal	42	0	12	0.778	15
Tanzania	6	37	11	0.659	17
Gambia	28	0	26	0.519	18
Malawi	14	13	27	0.452	19
Burkina Faso	15	11	28	0.441	20
Zambia	13	13	28	0.433	21
Zimbabwe	17	8	29	0.433	21
Côte d'Ivoire	21	0	33	0.389	23
Tunisia	21	0	33	0.389	23
Mali	20	0	34	0.37	25
Guinea	20	0	34	0.37	25
Niger	18	0	36	0.333	27
Botswana	18	0	36	0.333	27
Benin	18	0	36	0.333	27

to their fellow African countries. The larger the score, the more open it is. The continent is seeing a shift towards more free movement of people: In 2016, Africans did not need visas to travel to 22 percent of other African countries, compared to 20 percent in 2015. The small increase may indicate that the way forward will yield more visa openness, with African countries being more open to host African citizens from other countries.

Country	No visa required 2016	Visa on arrival 2016	Visa required 2016	Score	Rank
Nigeria	17	1	36	0.33	30
Swaziland	17	0	37	0.315	31
Lesotho	16	0	38	0.296	32
Sierra Leone	15	1	38	0.293	33
Liberia	14	0	40	0.259	34
South Africa	14	0	40	0.259	34
Namibia	13	0	41	0.241	36
São Tomé and Príncipe	13	0	41	0.241	36
Chad	11	2	41	0.233	38
Central African Republic	12	0	42	0.222	39
Republic of the Congo	0	13	41	0.193	40
Morocco	9	0	45	0.167	41
Algeria	7	0	47	0.13	42
Democratic Republic of the Congo	4		47	0.119	43
Egypt	0	8	46	0.119	43
Burundi	5	0	49	0.093	45
Cameroon	5	0	49	0.093	45
South Sudan	0		49	0.074	47
Gabon	3	1	50	0.07	48
Eritrea	2	1	51	0.052	49
Ethiopia	2	1	51	0.052	49
Sudan	1	2	51	0.048	51
Angola	1	1	52	0.033	52
Libya	1	0	53	0.019	53
Equatorial Guinea	0	0	54	0	54
Western Sahara	0	0	54	0	54



Note: Visa required means a visa has to be obtained before departure from an embassy, an honorary consulate, or another official representative. Visa on arrival means a visa has to be obtained on arrival in the country. This includes filling out any visa forms, paying the visa fee if applicable, and receiving a visa in a travel document. No visa required means that there is no visa needed either before departure or on arrival, with no entry authorization required to enter freely into the country. Entry procedures still need to be complied with. These can include filling out entry forms and receiving a netry stamp. Regional Economic Community (REC) scores are averages of country scores and reflect the individual openness of countries in the REC vis-a-vis their fellow African countries. After the January 2017 publication of the Visa Openness Index, a list of countries and regional economic communities loosened their visa requirements. For instance, in November 2017, Kenya and Namibia announced that they would be issuing visas on arrival to all African citizens and the Central African Economic and Monetary Community (CEMAC) lifted visa requirements for citizens traveling within the regional bloc. Source: Africa Visa Openness Index. African Development Bank, 2017, https://www.visaopenness.org/fileadmin/uploads/afdb/Documents/VisaOReport2017_web_12mai17.pdf.

A restructured and more effective African Development Bank

Akinwumi A. Adesina @akin_adesina President, African Development Bank

Over the past few years, the African Development Bank has confirmed its position as Africa's premier development finance institution, generating significant impact on the continent's economic and social development. To keep this positive momentum going, the Bank has recently re-designed its organizational structure as well as its development and business delivery model in order to become more effective and responsive to Africa's economic challenges.

A more effective Bank will help African countries address many long-standing challenges, namely the immense electricity and power deficit, food insecurity, poverty, poor job creation, low levels of regional integration and industrialization, gender inequality, low levels of financial inclusion, particularly for women, and the rise in terrorism.

Overall, the new structure will expand the Bank's business by moving it closer to its clients, improve the way it delivers services, and ensure that it can provide meaningful and effective development impact for its regional member countries.

A more effective execution of the Bank's High 5 strategy¹ will accelerate the continent's economic transformation since, according to the United Nations Development Program, the High 5s will allow Africa to achieve 90 percent of the Sustainable Development Goals and Agenda 2063. The High 5s are therefore the accelerators of Africa's development.

The High 5s are backed by exceptionally strong investment programs, such as the New Deal on Energy for Africa with investments of \$12 billion, the leveraging of an additional \$45 billion to \$50 billion into the power sector by 2020, as well as the delivery of 130 million new grid connections, 75 million off-grid connections, and secure access to clean cooking energy for 130 million households by 2025.

In agriculture and food, the Bank is investing a total of \$24 billion over the next 10 years to help African countries achieve food security and make Africa a net food exporter. In terms of industrial policy, the Bank will make investments of up to \$40 billion over the next 10 years under various flagship programs to raise Africa's industrial outputs.

Finally, the Bank is determined to raise the quality of life of all Africans and, among other programs, create at least 25 million jobs for African youth over a 10-year period, turning Africa's demographic assets into an economic dividend, accelerating the industrialization process of the continent, and tackling economic fragmentation across African countries.

In a nutshell, a more effective African Development Bank means a better developed Africa!

meaningful and effective development impact for its

The new structure will expand the Bank's business by moving it closer to its clients, improve the way it delivers services, and ensure that it can provide

regional member countries.

African Development Bank. (2015) AfDB's High 5s: A game changer in Africa's development discourse. Available at https://www.afdb.org/en/the-high-5

VIEWPOINT

Economic Commission for Africa: Priorities for a prosperous Africa in 2018

Vera Songwe @SongweVera

Executive Secretary, United Nations Economic Commission for Africa Nonresident Senior Fellow, Africa Growth Initiative, Global Economy and Development, Brookings Institution

As the youngest continent, Africa's ambitions are second only to the voracious appetite of the youth to realize their dreams and build the Africa they want. This journey to success requires a fundamental repositioning of growth strategies and policies. The Sustainable Development Goals (SDGs) embody this challenge; the United Nations Economic Commission for Africa (ECA) as a thought leader seeks to accompany countries through this journey.

Over 60 percent of Africa's population today had not been born in 1990 but they have enjoyed a period of relative stability and growth. Words like debt relief, the Highly-Indebted Poor Countries (HIPC) Initiative and much less so the Multilateral Debt Relief (MDR) Initiative do not resonate with them. Yet, thanks to these initiatives, several billions of dollars of debt were wiped off the books of thirty African countries, bringing the region's sovereign debt, which had averaged around 110 percent of GDP at the beginning of the millennium to sustainable levels of about 40 percent of GDP by 2010. However, for many, the torturous exercise of structural adjustments resulting from high debt levels still feeds the dialogue on why development has been stunted in Africa. Commodity price volatility was blamed for Africa's first bankruptcy. Many countries continue to face the same pressures with regional sovereign debt now averaging 60 percent of GDP but this is now coupled with accelerated population growth, increased climate variability, prevailing health risks especially from HIV/AIDS, malaria, and tuberculosis, a skills gap, gender inequity, and a less supportive external environment pose significant threats, all while at the same time global governance platforms are being stressed.

The primary focus of the Economic Commission for Africa (ECA) is to ensure that, in this increasingly uncertain environment with growing demands on scarce resources, growth-enhancing policies are adopted with the urgency and resolve required for success.

The road to sustainable double-digit growth

The challenge of achieving double-digit growth sustainably continues to elude the continent. Since 2005, countries like Angola, Rwanda, Ethiopia, Ghana, and Nigeria attained double-digit growth at some point but this has not been sustained except in Ethiopia. And—now more than ever—it is the only sure way to accelerate job creation in the face of huge demographic pressures. Importantly, the macroeconomic policy framework needed to generate employment, maintain long-term price stability, and balance external accounts in the face of increasing volatility requires a new look at how we sequence policy. Old prescriptions of pro-cyclical or counter-cyclical policies are no longer an appropriate remedy. Africa must learn to run and chew; manage its debt and grow; and support markets and protect the vulnerable.

Developing policies that support countries in their quest for this balance of a sound macroeconomic framework underpinned by prudent debt, monetary, and fiscal policy management while accelerating growth remains a priority for the ECA.

Building a nation requires firm, stable, and predictable finances

Many African governments have never moved out of a permanent state of pro-cyclical policies with high spending and limited or no increased taxation combined with passive monetary policy. The tax revenue-to-GDP ratio in the region is about 15 percent, lower than in emerging Europe, developing Asia, and Latin America. A few countries like Algeria, Botswana, Lesotho, Morocco, Namibia, and South Africa have recorded tax revenues to GDP in excess of 25 percent, comparable to several in fast-growing Asia. This policy mix has not yielded much economic growth.

Fundamental to any sustainable growth strategy will be financing, own financing in particular. How African economies build higher tax bases to support higher developmental spending—especially for physical and social infrastructure—will be crucial, especially given the targets set by the SDGs. In addition, countries need to mobilize all forms of savings, pensions, and insurance, as well as build institutions able to intermediate these savings into investment. Finally, countries cannot continue to lose the battle on illicit financial flows, mis-pricing, and other forms of capital flight, which is costing the African continent over \$50 billion annually.

At the global level, building on recent successes, more advocacy will be needed. The ECA proposes to work on these issues using technology as an enabler.

A strong public-private alliance to build functioning markets

The private sector, like the public sector, flourishes when financing is secured and tailored to the needs of the market. African countries in the last decade have increasingly turned to the market to raise capital for development financing, though the depth of capital markets available remains shallow. Excluding South Africa, stock market capitalization of listed companies is as low as 7 percent in Nigeria, 10 percent in Egypt, and 20 percent in Tunisia—all below the 58 percent average for low- and middle-income countries. Furthermore, the models for structuring financing under public-private partnerships remain limited.

ECA proposes to support a massive push to design new and innovative financing mechanisms to rapidly unlock capital to finance Africa's infrastructure, particularly energy, water, logistics, education, and health. How do we finance the re-tooling and skilling of the young population set to diversify, create increased value, and transform Africa? These questions need fresh answers for a fresh generation. Working with more of Africa's private sector so they can access the capital markets is the next big challenge; this will require rating more African corporates. The role of functioning markets in both the public and the private sector must grow, and Africa's transformation will be buoyed by increased intra-regional trade in value added goods and services, and global trade. With its youthful population, Africa stands to be the continent of innovation. Creating the right environment for market institutions and the private sector to flourish will be critical for a more robust, value adding, diversified, and job-creating growth process to take hold. The recently negotiated Continental Free Trade Agreement (CFTA) provides a unique opportunity for African countries to build on their competitive advantages and develop more robust trade platforms capable of integrating regional and global value chains.

ECA will continue to support this ambition, especially the implementation of CFTA. As African countries improve their environments, at the global level there is an increasing need to ensure that policies meant to manage risk in other markets do not unduly harm the growth efforts of the continent.

A stable and predictable social contract

Finally, institutions, governance, and leadership will ultimately determine how countries fare over the next decade in the quest for double-digit growth. The 2017 Mo Ibrahim Index of African Governance indicates that while 40 African countries have improved in overall governance over the last 10 years, the pace of improvement has either slowed in the last five years (Rwanda and Ethiopia) or shows decline (Mauritius, Cameroon, and Angola). For decades, ECA has been working on this agenda, first through its support to the African Peer Review Mechanism, but also through its work on country development plans. Tackling the arduous tasks of building institutions, and creating transparent processes for economic, social, and political participation remains crucial. As populations explode, more decentralized and more representative governance systems will be vital to ensure speedy results, as aspirations and ambitions will differ from rural to urban settings, and from women to men, for example. Governance systems like the African Peer Review mechanism will need to include people and the youth most especially in a new and more dynamic governance framework. Notably, the implementation of policies and projects for inclusive growth must be monitorable, measurable, and underpinned by reliable data. Through its work on improving statistics and tracking decisions, and most of all monitoring SDG progress, the ECA will work to improve all aspects of governance on the continent.

Africa's bold move towards integration: The Continental Free Trade Agreement

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After weathering the tumultuous year that was 2016, Africa's economies ended 2017 on a positive note, with an annual growth rate of 2.6 percent and projected increase in 2018 and thereafter. A number of African countries are growing at above 6 percent as foreign direct investment inflows surge. Commodity prices continued to recover in 2017, and global growth and trade are gaining momentum.

With these tailwinds, the continent is looking toward 2018 with renewed and improved prospects. The recent headwinds, however, must not be forgotten. There is an urgent need for all African countries—but especially commodity-dependent countries—to diversify, boost value-added, and industrialize, not only in order to weather future economic storms, but to ensure sustained and inclusive growth and development. African economies also face the potential tsunami, which can arise from a growing unemployed youth population, and a demographic trap that will hold back per capita income growth and possibly widen inequality.

These trends highlight why efforts to bring down tariff and non-tariff barriers among African countries to boost intra-African trade is crucial. The negotiations to establish Africa's Continental Free Trade Area (CFTA) are moving in the right direction and at the desired pace. Eight rounds of negotiations have yielded positive results: The December 2017 deadline has been met. It is now pending nominal technical work. The Protocol on Trade in Services was agreed upon and adopted by the African Ministers of Trade on December 2, 2017. While the Protocol on Trade in Goods will need more work on the rules of origin and application of the agreed modalities for the liberalization of trade in goods (an ambitious target of 90 percent); an extraordinary African Union Summit is envisaged before the end of March 2018 to complete and sign the entire CFTA Agreement.

The CFTA offers substantial opportunities for industrialization, diversification, and employment in Africa.

African countries trade more value-added products among themselves, unlike their exports to the rest of the world, which are mainly commodities. For example, in 2014 manufactured goods accounted for 41.9 percent of intra-African exports, significantly higher than the 14.8 percent share for exports outside the continent. Intra-African trade, however, is underexploited owing to high trade costs in the region: As a share of total African trade, it was only 15.3 percent in 2015. The CFTA will change this. The anticipated expansion in intra-African trade is key to creating decent jobs, improving productivity, increasing incomes, and reducing economic vulnerability and risks.

African countries have much to be proud of—negotiating a free trade agreement among 55 countries, each with its own interests, is not an easy task. Concluding the negotiations on schedule, however, is just the first step. The real challenge for 2018 and the years ahead will be implementation of the agreement.¹

Getting the implementation of Africa's CFTA right will have a game-changing impact on African economies. This will require leadership, an efficient and inclusive institutional architecture; a robust monitoring and evaluation framework; and innovative financing for much-needed investments in infrastructure and productive capacity.

Africa's bold new CFTA project should be watched during 2018. The landmark agreement can be pivotal; if implemented right it will uphold and strengthen the positive tailwinds of 2017 and protect the continent against possible future headwinds. The G-20, African conglomerates such as the Dangote Group, international organizations, and global consulting groups are already drawing the attention of international investors to savor the African opportunity: a single market of 1.2 billion people, over \$3 trillion in continental GDP, and a growing middle class. The CFTA strengthens the case for Africa as a preferred investment destination.

i. For an in-depth discussion on what strategies are needed to ensure that the potential of the CFTA is fulfilled, see United Nations Economic Commission for Africa, African Union and African Development Bank Group (2017), "Assessing Regional Integration in Africa (ARIA) VIII: Bringing the CFTA About," Addis Ababa, Ethiopia.

Elections in 2018

In 2018, the continent will see a series of presidential and parliamentary elections, including the Democratic Republic of the Congo's delayed presidential election—originally set

to take place in December 2016—and the first election in Zimbabwe since Robert Mugabe's abrupt departure.

Á	Chad 2018
Ê	Mauritius , 2018
0	Mali ,
Ĥ	Djibouti 23 February 2018
0	Sierra Leone 7 March 2018
Ŕ	Guinea-Bissau April 2018
H	Gabon by April 20, 2018
F	Togo June or July 2018
0	Zimbabwe by July 31, 2018
	South Sudan July (by 31 December) 2018
	São Tomé & Príncipe August 2018 Guinea
	September 2018 Rwanda
	September 2018 Swaziland
	September 2018
	October 2018 Mauritania November or December 2018
0	November or December 2018 Madagascar November or December 2018
0	November or December 2018 Democratic Republic of the Congo 23 December 2018
	General General Legislative Presidential

Source: Data are from the Electoral Institute for Sustainable Democracy in Africa, EISA, as of January 9, 2018. Available at: http://eisa.org.za/calendar2018.php.

Elections in Africa in 2018: Lessons from Kenya's 2017 electoral experiences

John Mukum Mbaku

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The year 2018 will see general elections in at least 15 African countries. Although many African countries have, during the last several years, strengthened their democracies, the rise of ethnic-based political parties has become a major challenge to electoral processes. Like Kenya's 2017 presidential elections, electoral contests in countries such as South Sudan, Cameroon, Democratic Republic of the Congo (DRC), and Mali are likely to involve some level of sectarian conflict, especially given the rise of identity politics. Kenya's elections offer a few lessons on how to deepen, institutionalize, and sustain democratic governance.

The Kenyan elections

Kenya is a relatively stable and mature democracy, and an economic powerhouse in a region beset by seemingly insoluble sectarian conflicts, dysfunctional governments, and humanitarian crises. The 2017 general elections tested Kenya's democratic system, which is undergirded by a separation of powers with checks and balances.

After the elections on August 8, 2017 the Independent Electoral and Boundaries Commission (IEBC) declared incumbent President Uhuru Kenyatta the winner with 54.17 percent of the votes¹. Opposition leader Raila Odinga claimed that the elections "were hacked and rigged in favor of the incumbent, Kenyatta," while international observers assessed the elections as "free and fair."² Odinga and his coalition appealed to the Supreme Court. On September 1, 2017, the court overturned the results and ordered a re-run election within 60 days. Reactions to the ruling were swift: Odinga and his supporters welcomed the decision, while Kenyatta expressed both anger and willingness to respect it.

Preparations for the re-run election were, however, marred by controversy. Odinga's opposition coalition argued that the October 17, 2017 date did not allow enough time for the IEBC to organize credible elections. Even after the commission moved the date up to October 26, 2017, the opposition still refused to participate. On election day, turnout was extremely low—less than 35 percent of registered voters participated. On October 30, 2017, the IEBC announced the results and declared the process "free and fair." Kenyatta, the only serious contender, captured 98 percent of the votes.

Odinga immediately rejected the results, characterizing them as a "mockery of elections," but decided not to challenge them in court as he had done previously. Several petitions filed by private citizens to nullify the elections were rejected by all six justices of the Supreme Court. Since then, Odinga has refused to recognize Uhuru Kenyatta as the legitimate president of Kenya. Nevertheless, late last year he called off an opposition-backed swearing-in ceremony that would have declared him President.

Kenya's experience offers Africans important lessons on the role that leadership, good citizenship, and strong democratic institutions can play in fostering a peaceful democratic process.

Lessons for 2018

First, acknowledge the rights and grievances of all citizens, not just those of supporters. No matter who

^{1.} Dahir, Abdi L. (2017). "Kenya's president has been re-elected with more than 54% of the vote." Quartz Africa. Available at https://qz.com/1051741/elections-in-kenya-2017-president-uhuru-kenyatta-has-been-re-elected-beating-raila-odinga/.

Obulutsa, George and Andrew Njuduna. (2017). "Observers declare Kenya election fair despite opposition leader's outcry over 'fake' results." Independent. Available at http:// www.independent.co.uk/news/world/africa/kenya-election-2017-latest-results-fair-observers-uhuru-kenyatta-raila-odinga-a7886651.html.

ultimately wins an election, all political actors must acknowledge the anxiety of those, including minority ethnic and religious groups, who feel marginalized. In Kenya's neighboring countries, such as South Sudan and Somalia, many groups that perceive themselves as marginalized have resorted to sectarian violence. The perception that the state is not providing all groups with opportunities for self-actualization is a major issue that must occupy the efforts of any government. Political and economic participation, as well as the creation within each country of an institutional environment within which citizens can organize their private lives must be a top priority for all governments and members of the opposition.

To foster political and social unity, in 2010, Kenyans enacted a new constitution with the goal of binding the country's subcultures through common ideals and shared values. Nonetheless, many citizens still feel marginalized. Kenyatta announced during his inaugural address that his government would encourage unity based on a common citizenship and the values enshrined in the country's constitution. He also committed to serve all Kenyans, be "the custodian of the dreams of all", and "the keeper of the aspirations of those who voted for me and those who did not." If Kenyatta is able to keep this promise, he will set a standard for many other African politicians.

Second, protest, but respect the laws and institutions of the land. The opposition must also take responsibility not to engage in extra-constitutional practices. Nurturing secessionist ideas and fomenting unrest undermines efforts by citizens on both sides to participate in nationbuilding. It is incumbent upon political elites to explain "the facts of life" to their constituents and emphasize that failure to consolidate peaceful coexistence will be detrimental for all. Mr. Odinga's decision last year to call off the opposition's ceremony to establish a so-called people's government is a step in the right direction.

Corruption and political opportunism do not augur well for each African country; in fact, these behaviors, left unchallenged, create dysfunction and distrust in government.

At the same time, in a democratic system, citizens must be allowed to exercise their constitutional rights to protest peacefully and benefit from the protection of the law. During Kenya's elections, law enforcement officers were criticized for brutally suppressing opposition protests.

Third, encourage participation in the process by all citizens. Only a country's citizens can make its democracy and government work. While boycotting elections, as did Kenya's opposition, is the right of every citizen, it is important that all citizens understand that participation is the key to an effective and fully functioning democratic system. Constitutional checks and balances alone are not enough to prevent government impunity. What has been referred to as "social checks and balances" are quite critical too.



Only a country's citizens can make its democracy and government work.

Fourth, fight corruption and halt the misuse of power. Impunity at the hands of the state remains a major concern across the continent. Corruption and political opportunism do not augur well for each African country; in fact, these behaviors, left unchallenged, create dysfunction and distrust in government.

In recent years, many African countries (e.g., Cameroon, Kenya) have enacted legislation to strengthen the ability of the government to fight terrorism and religious extremism and promote law and order. Unfortunately, in many of these countries, these laws have been used to muzzle the free press, silence critics, and suppress dissent. Even before Kenya's security forces were accused of brutally suppressing demonstrations in 2017, their anti-terrorism tactics had come under fire for allegedly violating the rights of many Muslim citizens.

Fifth, respect and protect the independence of the courts. Kenya's recent experience has helped to preserve the separation-of-powers regime, and the checks and balances enshrined in the constitution. During this tumultuous period, the Kenyan judiciary proved that it has the capacity and the wherewithal to act independently. In constitutional matters, there must be a final authority, one whose judgment must be respected by citizens. While citizens may disagree with such judgment, they must, nevertheless, respect it. Kenyatta's decision to accept the ruling to nullify the election was historic and paves the way for more respect for the rule of law across Africa. For Africa's judiciaries to serve as effective checks on governments, they must be independent. Minimum requirements for judicial independence include "security of tenure," "financial security," and "institutional independence with respect to the judicial function." Judicial officers must also be guaranteed a safe working environment.

The supremacy of law is the heart and foundation for a democracy; it is the mark of a free society; it is the most important characteristic of a governance system.

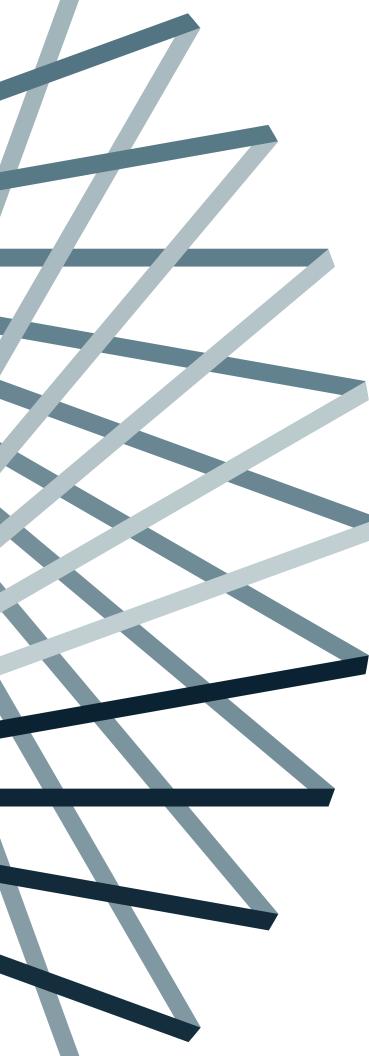
Sixth, inspire civil servants to lead by example and embrace diversity. Democratic institutions, including the Supreme Court, are the foundation and basis of a free society. The face of these institutions are the people who serve in them. In leading by example, civil servants and politicians must exhibit the highest levels of civility, professionalism, tolerance, fairness, and integrity. Public servants must value and respect dissent and diversity of opinion. This approach to public discourse is important in Africa where citizens quite often do not trust public institutions, especially those led by members of another ethnocultural group. The way forward for Kenya and other African countries with significant levels of ethnocultural diversity is for elites to form political parties that transcend ethnicity. The deepening of democracy demands significant political competition across ethnocultural divides. Across Africa, the ethnic group will remain an important institution, but it should be de-emphasized as the foundation for political organization and a major factor in public policy. To address these concerns, some countries (e.g., Rwanda) have attempted to eliminate ethnic differences and prohibit references to ethnicity in public life. That approach, unfortunately, may not be effective.

Finally, safeguard the rule of law. All political leaders and their supporters must understand that the rule of law cannot function in a country unless a majority of the citizens voluntarily accept and respect the laws. As Kenyatta said in his inauguration speech, "[h]owever serious our grievances, the law must reign supreme. That law should be the refuge for every Kenyan. None of us should break outside the law, or constitutional order, whatever our grievances or protestations." The supremacy of law is the heart and foundation for a democracy; it is the mark of a free society; it is the most important characteristic of a governance system.

In 2018, we hope that African countries holding general elections will reflect on these lessons and hold peaceful, fair, inclusive, and credible elections and that any election-related conflicts will be resolved peacefully through the courts and not violently on the streets.

SUSTAINABLE FINANCING FOR ECONOMIC DEVELOPMENT:

Mobilizing Africa's resources



CHAPTER 2

The imperative of domestic resource mobilization

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In 2018, the economic outlook across sub-Saharan Africa will continue to improve as the non resource-intensive economies expand at solid rates while the resource-intensive ones consolidate recoveries from the 2014 terms of trade shock. The latest projections have the region's aggregate gross domestic product (GDP) growth rising further this year, albeit at a subdued 3.4 percent rate, from a trough of 1.4 percent in 2016. Thereafter, growth strengthens to almost 4 percent by 2022.

This aggregate contour masks significant differences across countries. Importantly, the recovery will remain tepid in Angola, Nigeria, and South Africa, the continent's largest economies,¹ with growth averaging under 2 percent—which is below the rate of population growth—over the next five years. These large economies are at risk of a lost decade unless policymakers implement significant reforms to shift the growth model away from excessive reliance on oil in Angola and Nigeria and, in the case of South Africa, to overcome structural problems—many inherited from the apartheid era.

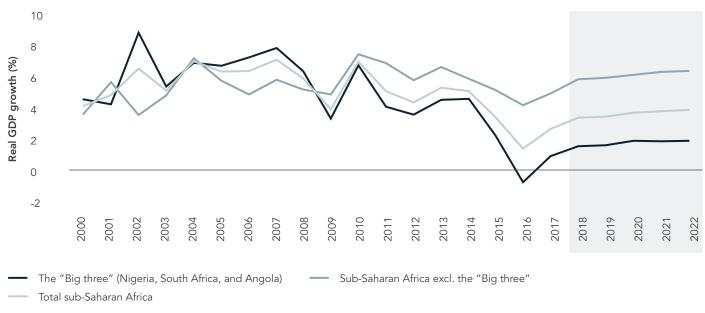
Excluding these large economies or focusing on the country-level growth rates reveals a significantly brighter outlook. Aggregate growth for the region rises to 5 percent in 2018 and reaches 6.4 percent by 2022 (Figure 2.1). About half of the world's fastest-growing economies will still be located on the continent, with over 20 economies expanding at an average rate of 5 percent or higher over the next five years, faster than the 3.7 percent rate for the global economy. **Ghana, Ethiopia, Côte d'Ivoire, Senegal, Rwanda, Tanzania, Burkina Faso, Sierra Leone, Benin**, and **Guinea** will continue to be the top-10 performers this year, respectively. Importantly, as shown in Figure 2.2, half of the economies in sub-Saharan Africa will expand over the next five years at an average rate similar to or higher than the rate that prevailed in the heyday of the "Africa rising" narrative between 2000 and 2014, suggesting that it might be premature to call for end of the region's economic promise.

Half of the economies in sub-Saharan Africa will expand over the next five years at an average rate similar to or higher than the rate that prevailed in the heyday of the "Africa rising" narrative.

^{1.} Angola, Nigeria, and South Africa make up 56 percent of the region's aggregate GDP estimated at market exchange rates.

FIGURE 2.1. THE EFFECT OF NIGERIA, ANGOLA, AND SOUTH AFRICA ON AGGREGATE REAL GDP GROWTH IN SUB-SAHARAN AFRICA

Economic growth in sub-Saharan Africa is rebounding with support from strong growth in the region's smaller economies.



Source: International Monetary Fund, World Economic Outlook database, October 2017.

TABLE 2.1. TOP AFRICAN ECONOMIC GROWTH PERFORMERS OF 2017-2018

The same 10 countries in 2017 will also be the top 10 economic growth performers in 2018, though some movement occurs within this group. For example, Ghana is predicted to grow at 8.9 percent in 2018 compared to 5.9 in 2017. In addition, overall, these estimates are higher than in 2017.

Top performers based on 2017 growth estimates		
Country	GDP growth (%) in 2017	
Ethiopia*	8.5	
Côte d'Ivoire	7.6	
Senegal	6.8	
Guinea	6.7	
Tanzania	6.5	
Burkina Faso	6.4	
Rwanda	6.2	
Sierra Leone	6.0	
Ghana	5.9	
Benin	5.4	

Top performers based on 2018 growth estimates		
Country	GDP growth (%) in 2018	
Ghana	8.9	
Ethiopia*	8.5	
Côte d'Ivoire	7.3	
Senegal	7.0	
Rwanda	6.8	
Tanzania	6.8	
Burkina Faso	6.5	
Sierra Leone	6.1	
Benin	6.0	
Guinea	5.8	

*Fiscal year data.

Source: IMF Regional Economic Outlook, October 2017.

VIEWPOINT

Sub-Saharan Africa can multiply its success stories. Donors can help.

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Board Chair, Gavi, the Vaccine Alliance Distinguished Visiting Fellow, Center for Global Development Former Finance Minister of Nigeria

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In 2014, the IMF hosted its "Africa Rising"¹ conference in Mozambique. Three years later, Mozambique defaulted on its debt. Steven Radelet's upbeat 2010 book on Emerging Africa² opened with a glowing summary of Ghana's achievements. By 2015, Ghana was back in an IMF program due to worsening macroeconomic fundamentals.

Yet many of the world's poorest countries in sub-Saharan Africa have shown they can reform and improve governance. The Heavily Indebted Poor Countries Initiative and Multilateral Debt Relief Initiative supported by the world's major donors in the early 2000s took \$75 billion in debt off the benefiting countries' balance sheets—see the March 2016 World Bank-IMF update³ and motivated wide-ranging macroeconomic and structural reforms that reduced poverty. Along with rapid growth in China and the commodity price boom, the result was a decade of high growth across the region.

But the momentum is fizzling out. In a new round of tough reforms, African leaders will need to do the heavy lifting. Africa is still poor, and not yet able to finance the investments critical to a new round of growth and poverty reduction. Here's what donors could do:

1. Help jump-start a big push on regional infrastructure to knit together many small economies and create economies of scale for local producers. That requires attracting FDI since even the best-managed countries in sub-Saharan Africa (consider Rwanda, Côte d'Ivoire, or Senegal) cannot rely on market financing because maturities are too short and interest rates too high.

- To find the money, securitize a small portion of the over \$40 billion in annual aid flows that sub-Saharan Africa now receives, as outlined in a recent Project *Syndicate* article,⁴ to finance the public portion of public-private "blended" investments in major cross-border power and transport (the Lagos-to-Dakar highway is a good example)—with benefiting countries servicing these loans, which will be superior to market alternatives on cost and maturity.
- 3. Tie this new front-loaded money (which will get the attention of the private sector worldwide) to a higher bar for reforms as set out in a recent article by Luisa Teixeira Felino and Brian Pinto,⁵ thus creating a bridge to African self-reliance.

Africa needs a new round of success stories. Success requires a big push not just on infrastructure but also on sustained policy and institutional reform. African leaders must take the lead. Donors can help.

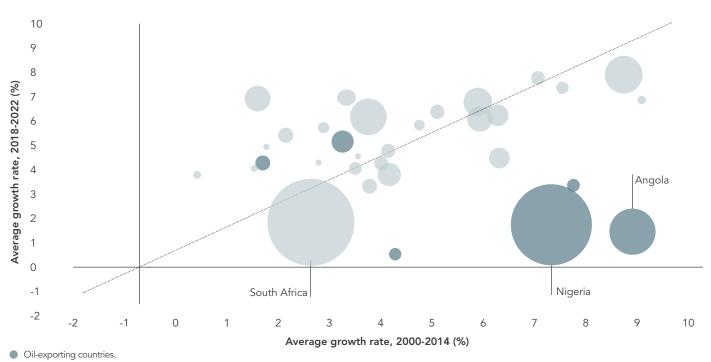
^{2.} Radelet, S. (2010). Emerging Africa: How 17 Countries Are Leading the Way. Brookings Institution Press.

International Monetary Fund (2016). Heavily Indebted Poor Countries (HIPC) Initiative And Multilateral Debt Relief Initiative (MDRI)— Statistical Update. Available at http://www.imf.org/external/np/pp/eng/2016/031516.pdf.
 For more details on this plan, see our proposal, "A Big Bond for Africa," in *Project Syndicate* at https://www.project-syndicate.org/commentary/africa-regional-infrastructure-investment-bond-by-nancy-birdsall-and-ngozi-okonjo-iweala-2017-04?barrier=accessreg.

at https://www.brookings.edu/blog/future-development/2017/10/17/a-bridge-to-african-self-reliance-the-big-bond/

FIGURE 2.2. REAL GDP GROWTH ACROSS SUB-SAHARAN AFRICAN COUNTRIES

The region's three largest economies, South Africa, Nigeria, and Angola, are expected to grow at a slower pace during 2018-2022 than between 2000-2014.



Note: Bubble sizes represent the relative size of each country's economy in terms of its 2017 GDP in current USD. Source: International Monetary Fund, World Economic Outlook database, October 2017.

Sustaining the economic momentum or, in the case of oil exporters, regaining it will require more efforts from their governments to mobilize domestic resources as external financing conditions will prove more difficult. Even with relatively bright economic prospects in several countries, the challenges facing the region's economies are daunting, particularly in the financing environment. Sustaining the economic momentum or, in the case of oil exporters, regaining it will require more efforts from their governments to mobilize domestic resources as external financing conditions will prove more difficult.

Revenues from commodity exports will still be lower in 2018

First, the relatively subdued outlook for several commodity prices will deprive many countries of vital export earnings to help finance their economic agendas. Although commodity, notably oil, prices have stabilized and generally been on the rise since 2016, they are projected to remain below pre-2014 levels, and the adjustment of oil-dependent economies to lower oil prices is still incomplete. These economies will continue to experience balance-of-payment pressures and loss of fiscal revenues. The necessary fiscal consolidation to preserve macroeconomic stability will entail further cuts in spending and require larger financing from alternative sources to sustain growth.

Rising public debt limits continued reliance on debt financing

Second, the scope to issue public debt to finance economic development will be more limited. Government debt, which has been an important source of financing,

FIGURE 2.3. TOTAL PUBLIC DEBT AS A PERCENTAGE OF GDP IN SUB-SAHARAN AFRICAN COUNTRIES

Public debt levels rose rapidly between 2013 and 2017 across the continent.



Source: International Monetary Fund, World Economic Outlook database, October 2017.

Government debt, which has been an important source of financing, has risen rapidly and is now approaching critical levels in some countries.

A policy priority in 2018 should be to ensure that the debts are sufficiently hedged against both currency and interest rates risks. has risen rapidly and is now approaching critical levels in some countries. The average public debt as a percent of GDP rose from 40 percent in 2013 to an estimated 56 percent in 2017, and debt levels now exceed 50 percent in 25 of the 45 sub-Saharan African countries, compared to just 11 in 2013 (Figure 2.3). Debt service ratios have also risen rapidly. The median debt service-to-revenues ratio in the region increased from 5 percent in 2013 to an estimated 10 percent last year; it is particularly high in oil-dependent countries where it likely exceeded 25 percent in 2017. Amid concerns about debt sustainability and other risks, several countries across the continent with sovereign ratings were downgraded over the past year, which puts upward pressures on external financing costs.

African economies remain vulnerable to tighter monetary policies in advanced economies

Third, the outlook for monetary policy in advanced economies points to continued reduction of policy stimulus. In 2017, the Bank of Canada and the Bank of England joined the Federal Reserve in reducing monetary policy accommodation. This year, the European Central Bank is expected to join its peers. A synchronized reduction of monetary policy accommodation in the advanced economies could push up global interest rates, resulting in a rapid increase in the cost of external financing for African economies. Moreover, an important and worrisome feature of the debt accumulation is the dominance of external debt, particularly that denominated in foreign currency. As monetary policy accommodation is reduced in the advanced economies, it could also contribute to depreciations of local currencies across sub-Saharan Africa against hard currencies and further raise debt ratios and debt servicing costs. A policy priority in 2018 should be to ensure that the debts are sufficiently hedged against both currency and interest rates risks.

The future of overseas development assistance is becoming more uncertain

Finally, the outlook for overseas development assistance, which has been an important source of financing for some countries, is increasingly uncertain. Discontent with globalization and changing political environments are causing governments in some advanced economies to revisit their commitments to development assistance. In some cases, large portions of funds earmarked for development assistance are being reallocated to more immediate humanitarian needs.

It is imperative that Africa mobilizes more domestic resources

The challenging external financing environment due to these various factors underscores the imperative for African countries to step up domestic resource mobilization efforts to help finance economic agendas more sustainably.

Most sub-Saharan African countries suffer from perennially low domestic saving rates, which average just 15 percent of GDP-among the lowest in the world. These low saving rates fall significantly short of financing needs. Based on projections in the International Monetary Fund's World Economic Outlook, the saving rates on the continent will remain around 15 percent over the next five years, while investment rates will average 21 percent of GDP. This trend suggests an external funding gap of 6 percentage points of GDP. In reality, the financing needs gap is even wider because historical experience suggests that countries at this stage of economic development need investment rates close to 30 percent of GDP or higher over a sustained period to achieve economic transformation. At the desired investment rates, the funding gap rises to 15 percent of GDP, which amounts to an annual funding gap of about \$275 billion. Filling this large void with external financing alone will entail substantial current account deficits and make the economies prone to balance of payment crises and macroeconomic instability. This conundrum highlights the importance of boosting domestic saving rates. The good news is that, across Africa, the scope for domestic resource mobilization is great.

There is room to boost tax revenues

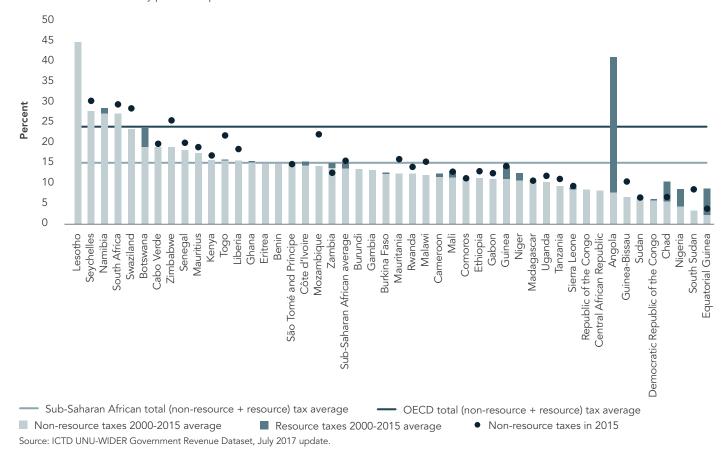
First, tax revenues are low. This state of affairs reflects not only the region's prominent informal economy, but also inefficiencies in revenue collection. Average tax revenues (excluding social contributions) stand at about 15 percent in sub-Saharan Africa, compared with 24 percent in OECD countries (Figure 2.4). For several economies, revenues are below 10 percent of GDP. Non-resource tax revenues are particularly low in some resource-intensive economies, suggesting there is scope to mobilize more revenues from the non-resource sectors. For example, in **Angola, Chad**, and **Nigeria**, revenues from non-resource sectors are only about 5 percent of GDP. The excess reliance on resource revenues exacerbates the effect of declines in commodity prices on these economies. In contrast, **Lesotho, Namibia, Seychelles, South Africa**, and **Swaziland** have been more successful, with revenue collection comparable to or even exceeding the OECD average. The lessons learned from these countries may provide useful guidance to others striving to promote tax revenue mobilization.

Most sub-Saharan African countries suffer from perennially low domestic saving rates, which average just 15 percent of GDP—among the lowest in the world.

The good news is that, across Africa, the scope for domestic resource mobilization is great.

FIGURE 2.4. TAX REVENUES AS A PERCENT OF GDP, AVERAGED FROM 2000-2015

Generally, resource-intensive countries underperform in generating non-resource taxes, as seen in Angola, Chad, Equatorial Guinea, and Nigeria. A focus on generating revenues from non-resource sectors, however, could not only boost their overall tax revenues, but also protect their economies from commodity prices slumps.



Countries must more efficiently manage natural resources wealth

Second, the continent is endowed with vast amounts of natural resources. Yet, these domestic resources are generally not managed efficiently. The most recent Resource Governance Index indicates that no sub-Saharan African country has a "good" rating in natural resource governance, and only Ghana and Botswana have "satisfactory" ratings (Figure 2.5). All other countries have "weak" or "poor" ratings, and seven of the world's bottom 10 performers with "failing" governance scores are in Africa, including the **Democratic Republic of the Congo, Equatorial Guinea**, and **Zimbabwe**.

Leaders must heighten efforts to combat illicit financial flows

Third, an estimated \$50 billion or more per year is lost to illicit capital outflows, roughly equivalent to the net official development assistance flows to the region in 2015.² These illicit flows deprive economies of important domestic resources and should be halted (see Figure 2.6). Effectively curtailing them will require great determination from governments and civil societies as well as cooperation of other countries outside of Africa where these funds are invested. The savings pool of the African diaspora, including remittances and diaspora bonds (see Michael Famoroti's viewpoint in this chapter), could also be important and reliable sources of financing, and governments should explore ways to facilitate the mobilization of these resources.

2. Total net official development assistance flows from the Organization for Economic Cooperation and Development's (OECD) Development Assistance Committee (DAC) countries, multilateral organizations, and non-DAC countries to Africa amounted to \$42.7 billion in 2015.

An estimated \$50 billion or more per year is lost to illicit capital outflows, roughly equivalent to the net official development assistance flows to the region in 2015.

Debt by diaspora: Ties that bond

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Long seen as the Brain Drain continent, Africa looks to reap greater dividends from its diaspora, beyond the \$40 billion the World Bank estimates it receives in remittances. In 2011, Ethiopia floated a diaspora bond to fund the Grand Ethiopian Renaissance Dam. More recently, Nigeria successfully issued a \$300 million bond to fund infrastructure projects in the country.

Diaspora bonds are simple. A country issues foreigncurrency debt targeted at nationals living outside its borders, hoping to benefit from a patriotic dividend that offers lower pricing. If successful, the issuer receives crisisresilient foreign-currency funding; in return, the diaspora is given a chance to contribute their quota to national development.

Remittances are only a fraction of annual diaspora savings, believed to be more than 3 percent of regional GDP for sub-Saharan Africa alone. In Ghana, diaspora savings may be as high as 85 percent of gross national savings.

They are also potentially game changing. Remittances are only a fraction of annual diaspora savings, believed to be more than 3 percent of regional GDP for sub-Saharan Africa alone. In Ghana, diaspora savings may be as high as 85 percent of gross national savings.

To tap into this pool of capital, African governments must learn from the mistakes of the past—both theirs and others. For example, Ethiopia's first diaspora bond collapsed over environmental concerns and mistrust of the government. And outside Africa, Nepal's issue was significantly undersubscribed once it decided to offer well-below market rates. Regulation and culture are even trickier, yet provide avenues for short-term redress. After Ethiopia's state-owned electricity company got into hot water with the United States Securities & Exchange Commission (SEC) over its 2011 diaspora bond issue, Nigeria sidestepped such concerns, registering its bond with both the SEC and the United Kingdom Listing Authority. For diaspora, the tax and legal status of their bond holdings is a crucial variable in assessing the attractiveness of the offering.

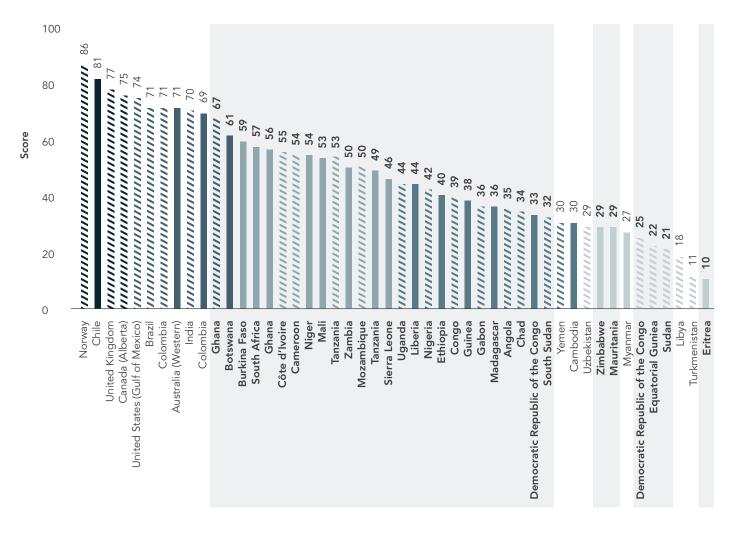
But for diaspora bonds to work on the continent, African nations must establish stronger ties with their diaspora. Israel, the most prominent success story of diaspora bonds, has a diaspora legacy that dates back to the 1950s. Other countries have gotten in on the act—Georgia recently established a Ministry of Diaspora Affairs, and Ireland has developed an aggressive strategy for courting its successful diaspora and, crucially, supporting its struggling ones.

But for diaspora bonds to work on the continent, African nations must establish stronger ties with their diaspora.

African countries may be taking note—Nigeria signed a Diaspora Bill into law in 2017. More can still be done, particularly in terms of marketing long-term development plans to diaspora and permitting them more influence in politics and society. The latter seems so obviously beneficial as it presents an avenue for the Brain Drain continent to benefit from its exceedingly talented diaspora. The message should be simple: Africa needs your money, but it could use your skills too.

FIGURE 2.5. RESOURCE GOVERNANCE INDEX SCORES FOR SELECT COUNTRIES

Despite the high endowment of natural resources on the continent, many African countries struggle with efficient resource management according to the Resource Governance Index. The figure below shows all sub-Saharan African countries on the index, as well as the top and bottom 10 performers globally. Not one sub-Saharan African country has a "good" rating, and seven of the bottom 10 are located in the region.



Oil and gas

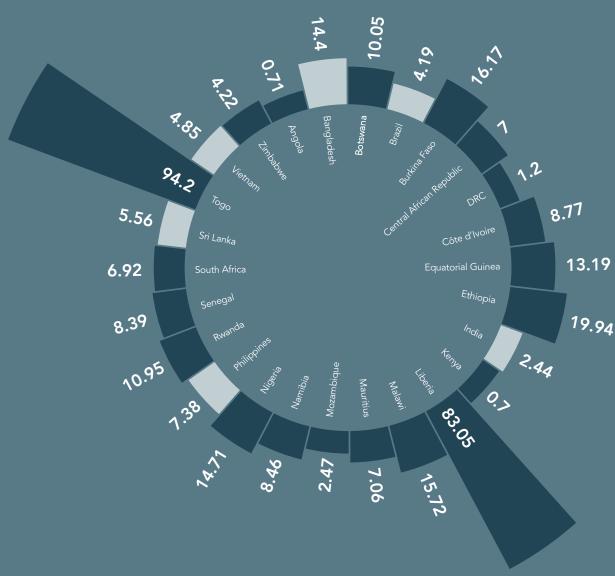
Mining

- Sub-Saharan African countries
- Good, greater than or equal to 75: a country has established laws and practices that are likely to result in extractive resource wealth benefiting citizens, although there may be some costs to society.
- Satisfactory, 60-74: a country has some strong governance procedures and practices, but some areas need improvement. It is reasonably likely that the eventual benefits are weak.
- Weak, 45-59: a country has a mix of strong problematic areas of governance. Results indicate that resource extraction can help society, but it is likely that the eventual benefits are weak.
- Poor, 30-44: a country has established some minimal procedures and practices to govern resources, but most elements necessary to ensure society benefits are missing.
- Failing, less than 30: a country has almost no governance framework to ensure resource extraction benefits society. It is highly likely that benefits flow only to some companies and elites.

Note: The countries selected include all sub-Saharan African countries, as well as the top 10 and bottom 10 performing countries in the index. Source: 2017 Resource Governance Index, Natural Resource Governance Institute.

Illicit financial flows in sub-Saharan Africa

Around \$50 billion or more per year is thought to be lost from sub-Saharan Africa in terms of illicit financial outflows. Sub-Saharan Africa ranks the highest in the world when it comes to illicit financial outflows, which measured between 5.3 to 9.9 percent of its total trade in 2014. Notably, the amount of these flows differs greatly from country to country. Global Financial Integrity tracks illicit inflows and outflows for countries around the world. The figure below shows the midpoint estimate of illicit financial outflows over 2005-2014 as a percent of total trade.



(Total illicit outflows as a % of total trade)

Sub-Saharan African countries Other

Source: Global Financial Integrity, 2017. Illicit Financial Flows to and from Developing Countries: 2005-2014.

Leverage technology to enhance domestic revenue mobilization

Domestic resource mobilization can also be greatly enhanced through continued development of financial sectors to offer more instruments to incentivize private savings and through financial inclusion to reduce informality. Advancement in technology presents opportunities for governments to do so. For example, earlier in the year, Kenya offered the world's first mobile-only retail bond with a subscription level as low as \$30 and a coupon rate of 10 percent (see Chapter 5 for a more in-depth discussion on this new tool). The bond, which was taken up mainly by small savers, allowed the government to tap into a new pool of funds and low-income Kenyans to earn interest on their savings. Technology also provides an opportunity to enhance revenue, modernize and streamline tax collection processes, seal leakages, and boost revenues. In Ethiopia, for example, the adoption of electronic sales register machines since 2008 has led to significant increases in reported sales and tax payments.³

In sum, a more difficult external financing environment lies ahead for African countries, precisely at a time when financing needs for economic development—especially to gain traction on the Sustainable Development Goals—are growing. Efforts along all fronts to boost domestic saving rates will go a long way to narrow the funding gap sufficiently for external financing to fill the remaining void without compromising macroeconomic stability. In addition, governments should resort more to innovative financing mechanisms, such as blended finance or public-private partnerships and other risk mitigation mechanisms, to crowd in more private sector investment and help preserve the solvency of public sector balance sheets.

REFERENCES

Ali, M., A. B. Shifa, A. Shimeles, F. Woldeyes. 2017. "Building Fiscal Capacity: The Role of ICT", Working Paper Series N° 290, African Development Bank, Abidjan, Côte d'Ivoire.

International Monetary Fund (IMF). 2017. Sub-Saharan Africa Regional Economic Outlook: Fiscal Adjustment and Economic Diversification. Washington, DC: IMF.

Natural Resource Governance Institute (NRGI). 2017. Resource Governance Index. New York, NY: NRGI.

United Nations Economic Commission for Africa (UNECA). 2015. Report of the High Level Panel on Illicit Financial Flows from Africa Commissioned by the AU/ECA Conference of Ministers of Finance, Planning and Economic Development. Addis Ababa, Ethiopia: UNECA.

^{3.} See Ali et al. (2017) for more discussion.

VIEWPOINT

Urban Africa: Avoiding the perfect storm

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About 40 percent, or nearly 1 billion people, of sub-Saharan Africa live in an urban area today. Over the next 25 years, that number is expected to double, raising unprecedented challenges for the region. The confluence of this rising urban population, relatively low income per capita, and a lack of infrastructure are serious causes for concern. As the region already confronts critical deficits in infrastructure and related funding, the looming crisis in the provision of urban infrastructure, especially transport, requires particular attention.

As the region already confronts critical deficits in infrastructure and related funding, the looming crisis in the provision of urban infrastructure, especially transport, requires particular attention.

Projecting the level of infrastructure funding required for urban Africa is fraught with complexities. The continent requires an annual \$93 billion to fund infrastructure needs, a large share of which is for urban areas. In fact, a 2016 African Development Bank study states that "twothirds of the investments in urban infrastructure to 2050 have yet to be made."

The infrastructure gap is notably reflected in the inadequacy of transport infrastructure in African cities. Compared with access to electricity, water and sanitation, and telecommunications, defining a target for urban

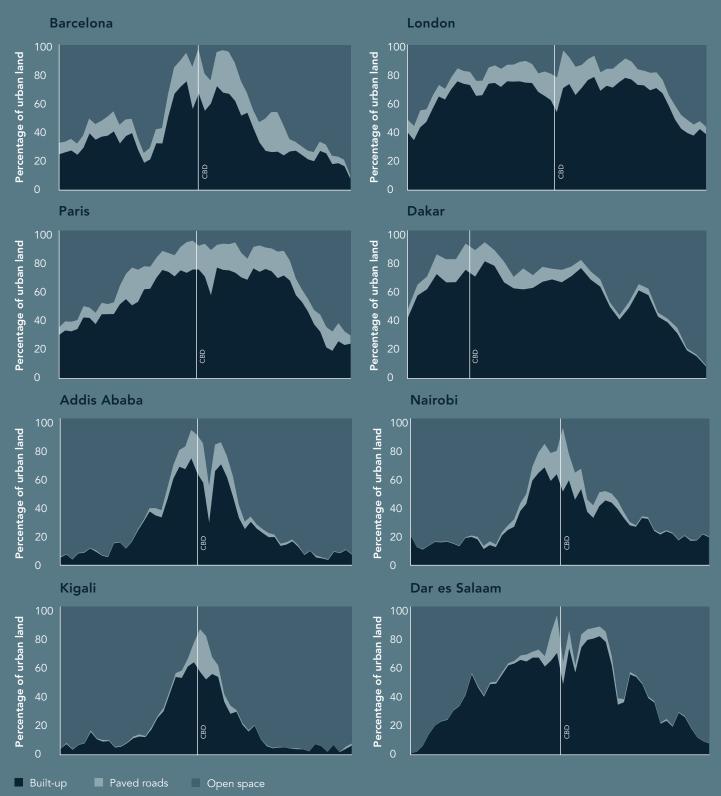
transport access is not clear-cut. Yet, it is evident that African cities are physically fragmented and dispersed with a lack of connective infrastructure. Compared with Paris, for instance, much of the area surrounding the central business districts of many of Africa's largest cities are without paved roads (Figure 2.7). This poor infrastructure leaves people and firms disconnected, constraining their accessibility to economic opportunity. Such inefficiencies in the design of the city can make urban living costs burdensome and jeopardize the potential benefits of agglomeration.

Africa's scope for public capital investment is well under what it ought to be if we compare it to other developing regions. Urban income levels in Africa are well below the levels witnessed in other regions when those regions reached an urbanization rate of 40 percent (Figure 2.8). When combined with the relatively high cost of living in African cities (Figure 2.9), there are very limited resources for public investment. This dearth is part of the reason that capital investment in Africa over the past 40 years has only averaged about 20 percent of GDP. In contrast, between 1980 and 2011, rapidly urbanizing countries in East Asia averaged capital investment above 40 percent of GDP, bringing many economic boons to the region and its cities.

Without a substantive revenue source and ability to pay, there are limited options to fund and finance urban transport. Concessional resources from the donor community have traditionally shied away from urban capital investments nor are they of sufficient scale. More recent efforts to attract private capital are more difficult in urban transport because of the lack of

FIGURE 2.7. RELATIVELY FEWER PAVED ROADS IN AND AROUND AFRICAN CITIES CONSTRAIN ECONOMIC OPPORTUNITIES

Compared to developed country cities, paved roads occupy a smaller share of urban land in Africa and usually drop off abruptly beyond the city center. This inefficiency often increases cost of living and obstructs potential benefits of agglomeration.



Note: CBD= Central Business District. The data for African cities come from very high-resolution (<1m) imagery using a semiautomated supervised classification approach (leveraging both textural and spectral data). The images are circa 2012 for Nairobi and Kigali, circa 2013 for Dar es Salaam, circa 2014 for Dakar and circa 2011 for Addis Ababa. The European data come from the Urban Atlas, published by the European Environment Agency (EEA) (http://www.eea.europa.eu/data-and-maps/data/urban-atlas). The layers in this atlas were created in 2010, based on 2005-07 imagery. The central business district was identified using the location of the oldest building as a proxy (or a government building if necessary).

Source: Data from Antos, Lall, and Lozano-Gracia 2016 and Felkner, Lall, and Lee 2016.

a revenue stream. Private participation in infrastructure in Africa has been more directed at information and communications technology and, to a more limited degree, to energy and transport in terms of sectoral and country coverage.

If Africa is to avoid the perfect storm that these trends imply, it will need "out-of-the-box" thinking particular to its unique context. While there are various opportunities and initiatives to finance equitable and sustainable urban growth in Africa, at the center of any effective effort is the issue of land in terms of the efficiency of transport provision as well as a source for funding. Getting land policy right and resolving the range of issues unique to African land will be key to supporting private sector growth, ensuring ample and affordable housing, and securing resources for infrastructure and other urban development needs.

FIGURE 2.8. GLOBAL URBANIZATION RATES AND GDP PER CAPITA

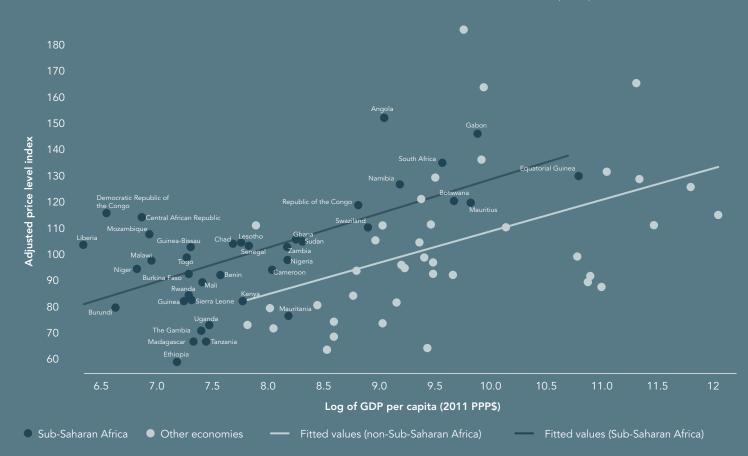
Though Africa is urbanizing at rates close to other developing regions, its significantly lower GDP per capita constrains financing from public capital investment. African countries, thus, may need to rely on other sources of funding.



Source: Lall, Somik Vinay; Henderson, J. Vernon; Venables, Anthony J. 2017. Africa's Cities: Opening Doors to the World. Washington, DC: World Bank.

FIGURE 2.9. AFRICAN CITIES FACE HIGH PRICES FOR THEIR CURRENT INCOME LEVELS

Urban living costs in sub-Saharan African countries in 2011 exceeded costs elsewhere, relative to Africans' lower per capita GDP.



Note: The adjusted price level index (PLI) for household consumption excluding housing rent is standardized so that the average PLI equals to 100. PLIs for 15 Asian countries are inflated by 10 percent.

Source: Nakamura et al. 2016, based on data from the 2011 International Comparison Program (ICP) and the World Development Indicators.

REFERENCES

African Development Bank, Organization for Economic Co-operation and Development, United Nations Development Program. 2016. African Economic Outlook 2016: Sustainable Cities and Structural Transformation.

Foster, Vivien and Cecilia Briceno-Garmendia. 2009. Africa's Infrastructure: A Time for Transformation. Africa Development Forum Series. Washington, DC: World Bank. http://documents.worldbank.org/curated/ en/2009/01/11487313/africas-infrastructure-time-transformation.

Gutman, Jeffrey; Sy, Amadou; Chattopadhyay, Soumya. 2015. *Financing African Infrastructure: Can the World Deliver*? Washington, DC: The Brookings Institution. https://www.brookings.edu/wp-content/uploads/2016/07/AGIFinancingAfricanInfrastructure_FinalWebv2.pdf.

Lall, Somik Vinay; Henderson, J. Vernon; Venables, Anthony J.. 2017. Africa's Cities: Opening Doors to the World. Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/25896.

Private Participation in Infrastructure Database, World Bank, 2017.

The Guardian (2016) Africa's urbanisation 'megatrend' needs to deliver growth, says report. https://www.theguardian.com/global-development/2016/ jun/07/africa-urbanisation-megatrend-needs-to-deliver-growth-says-report.

VIEWPOINT

The G-20 Compact with Africa: African-driven programs

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Structural features are driving Africa forward. Its demographics will dominate the global supply of young workers; its rural-urban transition will be at its peak, raising productivity; Chinese infrastructure is improving connectivity; and the fall in commodity prices forces diversification beyond natural resources. These changes open opportunities for investment. But Africa has been too complicated to attract much attention. Investing in Africa needs to get easier.

The G-20 accepts that Africa, like Asia, will be led out of poverty by those governments that pioneer change.

The G-20 Compact with Africa can bring change. Governments and agencies have recognized that Africa will develop through private investment. The G-20 has recognized that African governments themselves hold the key to breaking investor wariness of the continent. Preaching, cajoling, and paying African governments to say things they did not mean has changed to a menu of commitments that governments are free to make or ignore. The G-20 accepts that Africa, like Asia, will be led out of poverty by those governments that pioneer change. The compacts will help the most ambitious governments lead the way.

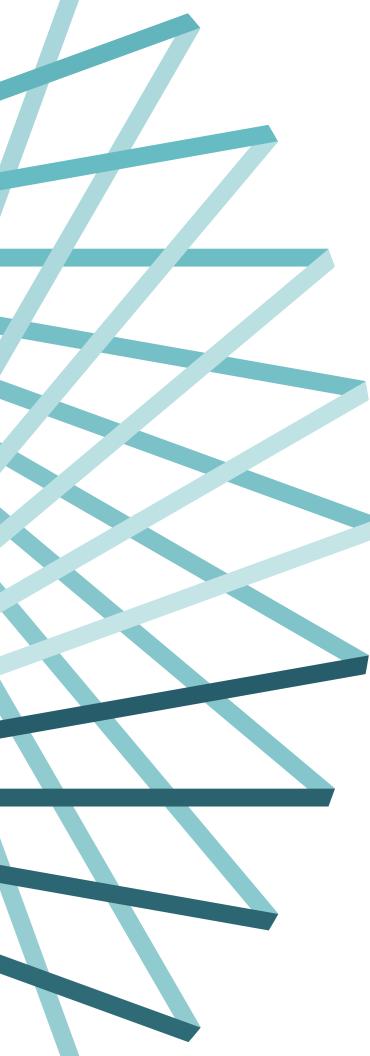
I have helped design this approach. Initially, a common reaction was that without money on the table, no African government would show interest. Now 10 governments are actively developing their own compacts. These plans combine practical detail and high-level commitment. For each, an integrated team of officials from the government and international agencies works on policy specifics clustered into three investor concerns: building a stable macroeconomic environment; providing a transparent and straightforward business environment; and deepening sources of investment finance. Governments choose their focus, and for each there is a further choice of suggested commitments. Once government commitments are determined, the complementary commitments that agencies and G-20 governments can make are negotiated. Again, there is no prior commitment for specific support, but there is a presumption of coherence.

These coherent packages of commitments will lower the costs and risks of investment. Since each process is driven by the government, no two compacts will look the same. But to be acceptable for the G-20, each must be credible, marking a quantum change to its chosen objective. High-level commitment from the G-20 has turned the new approach from a short-lived initiative into an enduring process: A standing committee will maintain momentum and provide continuity.

Over time, the new actions of the Compact with Africa governments, matched by complementary actions of supporting G-20 governments and the new investments that are attracted, will help change the realities on the ground. They will be tracked on the website www.CompactwithAfrica.org, administered by the IMF. As the compacts deliver, other governments will join. This is the lesson from Asia: Change happens not by reluctant governments being coerced, but as successful pioneers get emulated.

BROADENING THE BENEFITS OF GROWTH:

No one left behind



CHAPTER 3

Why has Africa's fast economic growth left more poor people behind and how do we fix it?

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Despite Africa's robust economic growth from 2000 to 2015¹, the absolute number of poor has increased on the continent. The World Bank estimates that Africa had at least 50 million more poor people in 2013 compared to 1990², and Homi Kharas and Wolfgang Fengler estimate that at least 2.4 million of new poor were added in 2017 alone.³ Even the fastest-growing countries have not always translated growth into significant poverty reduction. For example, as seen in Table 3.1, only two of Africa's top 10 fastest-growing countries are also among the top 10 outperformers in terms of poverty reduction rate (Rwanda and Chad) and of overall poverty levels (Mauritius and Sudan).

This essay explores three factors explaining the disconnect between African growth and poverty reduction, and provides some policy recommendations to broaden the benefits of growth going forward. Although the literature on the question provides a broad variety of factors, I focus on three of the most prominent ones: non-laborintensive driven economic growth (growth without quality job creation), the fast demographic growth in a context of deep poverty, and limited or ineffective propoor policy interventions and governance.

There has been growth without sufficient quality job creation

Although economic diversification is increasing on the continent, growth has not generated sufficient high-quality jobs. In addition, resource-rich countries remain overrepresented among the growth outperformers. For example, in 2013, the

Although economic diversification is increasing on the continent, growth has not generated sufficient high-quality jobs. In addition, resourcerich countries remain overrepresented among the growth outperformers.

^{1.} My forthcoming book discusses the role of institutions in shaping Africa's political and economic transformation. Landry Signé. 2018. African Development, African Transformation: How Institutions Shape Development Strategy. Cambridge: Cambridge University Press.

Beegle, Kathleen; Christiaensen, Luc; Dabalen, Andrew; Gaddis, Isis. 2016. Poverty in a Rising Africa. Washington, DC: World Bank. https://openknowledge.worldbank.org/ handle/10986/22575 License: CC BY 3.0 IGO.

Kharas, Homi, and Wolfgang Fengler. 2017. "Global Poverty Is Declining but Not Fast Enough," Available online: https://www.brookings.edu/blog/futuredevelopment/2017/11/07/global-poverty-is-declining-but-not-fast-enough/ (Accessed on January 5, 2018).

Universal basic income and Africa's oil countries

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For those of us who, around 2013, were optimistic about African economies, the past few years have been a disappointment. Whereas the continent averaged close to 5 percent annual GDP growth in the first decade and a half of this century, that growth rate has since fallen to 1-3 percent. The ostensible reason is the dramatic drop in commodity prices, especially oil, since mid-2014. Aggregate growth is pulled down by oil exporters, notably Nigeria and Angola, and to a lesser extent, South Africa. As so many African countries depend on commodities such as oil, copper, and cotton for their exports, the decline in the prices of these commodities amounted to a significant loss in income. But this explanation begs the question of why these governments did not save more of their revenues during the commodity boom in order to better cushion themselves when prices fell.

The latter question takes us into the realm of governance. Africa's oil exporters have systematically failed to use their oil revenues to benefit their citizens. Equatorial Guinea, with per capita income of around \$6,500 in 2016, has one of the lowest child immunization rates on the continent (much lower than, say, Burundi, with a per capita income of less than \$300). Nigeria earned about \$43 billion a year in oil rents between 2000 and 2014 and still has extremely weak infrastructure and high poverty. Devarajan, Giugale, and others (2013) show that transferring 10 percent of oil revenues as transfers to the population could eliminate poverty in Angola, Gabon, and Equatorial Guinea, and reduce poverty by 40 percent in Nigeria. Ghana, which discovered oil in 2007, immediately increased the public sector wage bill, causing the fiscal deficit to rise by about three percentage points of GDP by 2008. By the time the oil started flowing, most of the revenues had already been spent.

The reason for this pattern is that oil revenues go directly from the oil company to the government. Consequently, citizens often do not know the extent of these revenues. Furthermore, unlike tax revenues, they may not think of these revenues as "their money" and hence would not scrutinize government spending as closely. As a result, actors within government are able to capture these oil revenues for their private benefit, resulting in poor public spending outcomes.

Universal basic income (UBI) provides a possible solution to this problem. If, instead of spending oil revenues, the government were to transfer it directly to all citizens (in equal amounts), and then tax them to finance public goods, two changes happen. First, citizens will know the size of oil revenues. Second, they will have a greater incentive to scrutinize government spending, since it is financed out of their tax payments. Devarajan and others (2010) show that such a scheme could result in better public-spending outcomes.

Furthermore, thanks to biometric identification cards that also transfer money, it is now possible to implement this tax and transfer at low cost (India has issued these cards to over a billion people). UBI is currently being piloted in a number of countries, including Finland, Canada, and Kenya. Given the track record of poor public spending, the time to introduce UBI in oil-rich African countries has arrived.

REFERENCES

Devarajan, S., T. Minh Le, and G. Raballand. 2010. "Increasing Public Expenditure Efficiency in Oil-rich Economies." World Bank Policy Research Working Paper No. 5287. Washington, D.C.: World Bank Group. https://openknowledge.worldbank.org/handle/10986/3774.

Devarajan, S., M.M. Giugale, H. Ehrhart, T. Minh Le, and H. Mai Nguyen. 2013. "The Case for Direct Transfers of Resource Revenues in Africa." Center for Global Development Working Paper No. 333. Washington, D.C.: Center for Global Development. https://www.cgdev.org/publication/case-direct-transfers-resource-revenues-africa-working-paper-333.

The Global Goals business opportunity in Africa

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We are living in a world where there are significant risks to global growth. Resources are degrading and dwindling at a rapid pace. Work is becoming increasingly automated. Social and economic inequalities are on an upswing, creating widespread social unrest and political instability. We in the business community are not bystanders. We need to step up to address these global challenges. It is in our own interest to do so. There is after all no business case for enduring poverty and runaway climate change.

These challenges also offer companies many opportunities, as highlighted by the Business & Sustainable Development Commission's flagship report, *Better Business, Better World*, launched earlier this year. The report clearly shows why the Sustainable Development Goals (SDGs)—a global action plan for a more inclusive, fairer, and sustainable world by 2030—offers the private sector a compelling growth strategy. In fact, the goals open new market value worth more than \$12 trillion by 2030, while at the same time creating up to 380 million jobs. It is no surprise that the biggest opportunities are in emerging markets, not least in Africa, where sustainable business models could unlock an economic prize of at least \$1 trillion and create up to 85 million new jobs by 2030 in four key areas: food and agriculture; cities and mobility; energy and materials; and finally, health and well-being.

Africa is the continent where the potential for inclusive green growth and development remains most untapped. Many African countries have burgeoning populations with improving education levels and a growing middle class. There are more mouths to feed, housing and urban settlements to be provided, and power and infrastructure bottlenecks to be resolved. At the same time, they are also vulnerable to droughts, poor agricultural yields, poor management of the very bio-diversity that gives us life, an over-reliance on base commodities and global trade, and conflict. It is time for Africa's business community to embrace the SDGs as a unique opportunity to deliver the growth the continent so desperately needs. Technological innovation and entrepreneurs will be critical to unlocking many of these new opportunities. In Africa, entrepreneurs are already bringing new solutions to urgent challenges in remarkable ways. Investments in African tech start-ups have been increasing—up nearly 17 percent in 2016 over the previous year. Digital technologies are breaking new ground, bringing life-changing products and services to underserved—for example, South Africa's Vula app, which connects rural health workers to specialist support and information, or Rwanda's SafeMotos, which connects customers with moto riders for safer transportation. One need only look at how mobile phones have revolutionized banking, bringing financial services and an important lifeline to communities, particularly women and entrepreneurs.

But rapid progress towards achieving the SDGs can only be made if such platforms are supported with the right policies and regulatory frameworks. At the same time, a "new social contract" between business, government, and society is essential to defining the role of business in a new, fairer economy. Companies can do so in ways that align with recommendations and actions outlined in *Better Business, Better World*: by creating decent jobs, protecting human rights, investing in communities, and paying a fair share of taxes. Prioritizing youth and women's employment while upholding their rights will also be critical in the new sustainable economy. We cannot afford to delay. We must act fast to scale impact to deliver a better world.

^{1.} You can read the full report here: http://report.businesscommission.org/.

vulnerable employment rate (people without stable wage-paying jobs) was 77.4 percent in sub-Saharan Africa, the highest in the world.⁴

Additionally, the majority of the top 10 fastest-growing economies from 2000 to 2015 were resource-rich, mostly oil exporters (Equatorial Guinea, Nigeria, Chad, Sudan, Angola) with growth mostly driven by these natural resources.⁵ Labor-intensive sub-sectors have not evolved fast enough to generate quality employment growth. This potentially catastrophic situation is partly explained by its initial conditions, many countries starting from a very low level of poverty and vulnerable employment, in addition to the deteriorations resulting from conflictridden and fragile states.

TABLE 3.1. OUT- AND UNDERPERFORMERS IN ECONOMIC GROWTH, POVERTY REDUCTION AND POVERTY LEVELS

Despite high economic growth in many African countries, poverty reduction has been surprisingly inconsistent and uneven. As seen below, most of the countries with high growth from 2000-2015 have not been the best performers when it comes to reducing poverty.

	Countries	Poverty reduction rate	Overall poverty level	Countries	Poverty reduction rate	Overall poverty level
	Angola*^			Cabo Verde		
	Chad*			DRC		
	Equatorial Guinea*^			Gabon*^		
Top 10 country performers in GDP growth 2000-2015	Ethiopia			Guinea		
	Ghana			Guinea-Bissau		
	Mauritius			Lesotho		
	Mozambique			Liberia		
	Nigeria*^			Madagascar		
	Rwanda			Malawi		
	Sudan* ^t ^			Mauritania*		
	Burundi			Niger		
	Botswana			Seychelles^		
	CAR			South Africa		
	Côte d'Ivoire			Tanzania		
	Comoros			Uganda		
Top performers				Zambia		

Top performers

Bottom performers

Neither top nor bottom performer

* Oil-exporting countries

^tGDP per capita growth data for Sudan excludes South Sudan after July 9, 2011. Poverty data for Sudan only includes data from the Republic of Sudan for the 2009 observation.

[^] Countries with insufficient data on poverty in the World Development Indicators.

Note: This table includes countries with the highest average GDP per capita growth rates 2000-2015 as well as outperformers and underperformers in poverty levels and the poverty reduction rate. Due to limited number of observations, poverty change is calculated by subtracting the earliest observation available after 2000 from the most recent poverty data up to 2015. Due to data limitations, including several countries having only one poverty survey during 2000-15, we limit the number of underperformers to just five countries. For poverty level, we use the most recent data available up to 2015.

Source: World Development Indicators.

- Sy, Amadou. 2016. "Jobless Growth in Sub-Saharan Africa". Brookings: Available online: https://www.brookings.edu/blog/africa-in-focus/2014/01/30/jobless-growth-in-sub-4. saharan-africa/ (Accessed on January 5, 2018).
- New players in the oil and gas sectors, which are also outperformers, include Ghana and Mozambique. 5.

FIGURE 3.1

Lower poverty rates don't always mean there is less poverty

To end poverty in the region in 2030, the continent will have to reduce poverty by approximately one person per second—a rate it is far from achieving since more people are currently falling into poverty than escaping it. By 2030, the poverty rate in sub-Saharan Africa is estimated to fall to 26.7 percent from 38.6 percent in 2018. Ethiopia is expected to see the largest decline in its poverty rate, which will fall by more than 15 percentage points to less than 2 percent in 2030. Nigeria, on the other hand, will see an increase in the absolute number of people living in poverty while its population also grows by nearly onethird from 2018 to 2030. Still, it will achieve some modest success in poverty reduction, as its poverty rate will fall by nearly 4 percentage points over the period.

Between 2018 and 2030, a net 43 million people are estimated to escape poverty in sub-Saharan Africa.



At the same time, sub-Saharan Africa's population is expected to grow by 319 million people (30 percent) from 2018 to 2030. +34 million

Around 77 million people are estimated to escape poverty in 35 countries, with the following countries experiencing the largest declines in poverty headcount:

	2018 poverty rate	2030 poverty rate	Change in poverty headcount
Ethiopia	17.5%	2.0%	-16,062,613
Tanzania	37.1%	15.3%	-9,678,646
Mozambique	64.1%	35.3%	-5,882,039
Kenya	22.0%	8.3%	-5,710,040
Côte d'Ivoire	23.1%	1.9%	-5,089,496

In 13 countries, 34 million people are estimated to fall into poverty, with the following countries seeing the largest increases in poverty headcount:

	2018 poverty rate	2030 poverty rate	Change in poverty headcount
Nigeria	42.7%	38.7%	+16,689,963
Angola	30.3%	33.8%	+4,267,153
South Sudan	82.9%	77.2%	+2,603,800
Burundi	76.2%	74.5%	+2,592,975
Madagascar	76.7%	63.3%	+1,797,742

Source: World Poverty Clock, World Data Lab, December 2017. Available at: http://worldpoverty.io/.

In order to stimulate quality employment growth, governments should develop policies aimed to achieve economic structural transformation through diversification and development of labor-intensive sectors. Policymakers should identify the labor-intensive sectors for which they have a sustainable competitive advantage (manufacturing, industrial development, agriculture and agri-processing, tourism, etc.), and create clusters in order to enable the private sector to strive and facilitate the creation of well-paid and sustainable jobs. Amadou Sy has discussed solutions, including well-designed agricultural policies, increased productivity, transformation, and export of agricultural products.⁶ John Page examines these strategies in depth in Chapter 5 of this publication. Achieving diversification and job creation will also require addressing other considerations, especially in fragile countries, such as improving human capital (quality education and health systems to support capable, healthy, and skilled workers), reducing the cost of doing business (including infrastructure, security, property rights, etc.), facilitating access to finance, easing trade restrictions, shifting away the dependence to natural resources, and providing tax incentives for job-creating businesses, among others.

The deeply poor population is growing faster than the poverty reduction rate

Africa's rapid population growth, in a context where poverty levels are already profoundly high, is one of the main causes explaining the increased number of poor on the continent despite the fast economic growth. As noted by Laurence Chandy, the average poverty reduction rate is lower than the average population growth, which logically results in an increase of the number of poor despite the decrease of the proportion of poor people.⁷ In fact, the World Bank notes that the proportion of people living below poverty line has decreased from 55 percent in 1990 to 43 percent in 2012, but with the fast population growth, the absolute number of poor people increased.⁸ For example, nine of the top 10 economic outperformers in Africa have a high fertility rate (4-5 births or above per woman). The depth of poverty is also a contributing factor. At 16 percent, the regional poverty gap is five times higher than South Asia's, which means that the African poor are extremely poor.⁹ As such, incremental improvements in the levels of income are not sufficient to push households above the poverty line. Combining the depth of poverty with the high fertility rate makes it more challenging to pull populations out of poverty.

To make growth more effective at reducing poverty, policymakers should develop and implement policies aiming to control population growth so that the poverty reduction rate grows faster than the population while also enhancing well-paid employment opportunities. This task is particularly important as 70 percent of the population in sub-Saharan Africa is below the age of 30¹⁰ and the poverty rate among youth is also 72 percent.¹¹ In addition, the unemployment rate is likely to be twice higher for the current youth when they enter the labor force.¹² Promoting family planning, particularly in countries with rapid demographic growth, should be an important component of policies to achieve inclusive growth and shared prosperity.

- 6. Sy, 2016.
- Chandy, Laurence. 2016. Why Is the Number of Poor People in Africa Increasing When Africa's Economies Are Growing? Available online: https://www.brookings.edu/blog/ africa-in-focus/2015/05/04/why-is-the-number-of-poor-people-in-africa-increasing-when-africas-economies-are-growing/ (Accessed on January 5, 2018).
 Beegle et al., 2016.
- 9. Watkins, Kevin; Quattri, Maria. 2016. Child poverty, inequality and demography: Why sub-Saharan Africa matters for the Sustainable Development Goals. Washington D.C.: Overseas Development Institute.
- Boumphrey, Sarah. 2017. Special Report: The World's Youngest Populations. Euromonitor International Blog. Euromonitor. https://blog.euromonitor.com/2012/02/specialreport-the-worlds-youngest-populations.html (Accessed on January 5, 2018).
- 11. UNECA. 2015. Africa Regional Report on the Sustainable Development Goals. Addis Ababa: United Nations Economic Commission for Africa.
- 12. ILO. 2013. Global Employment Trends for Youth in 2013: A Generation at Risk. Geneva: International Labour Organization.

boom and in absence of quality employment growth, the poor populations are often left alone, facing serious risks and vulnerabilities (food insecurity, epidemics, pandemics, infant and maternal mortality, gender gap, education, etc.).

With the demographic

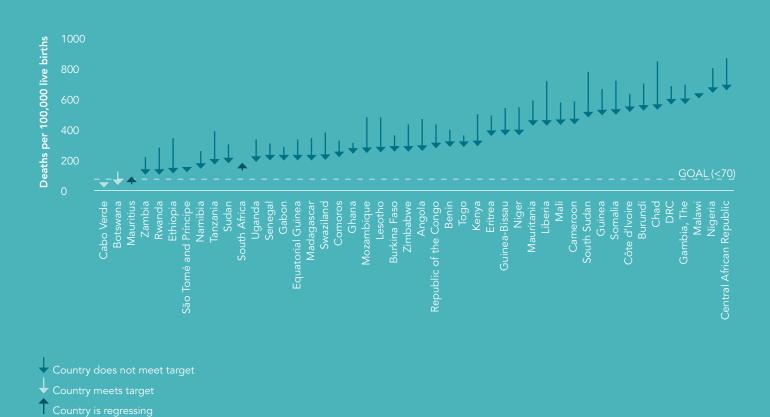
Current trajectories for achieving select Sustainable Development Goals by 2030

Despite efforts to achieve the Sustainable Development Goals, developing countries around the world—and particularly in Africa—are not on track to meet their targets. In fact, 28 sub-Saharan African countries are not on track to meet any targets for maternal mortality,

child mortality, and access to water and sanitation. In some cases, countries are actually regressing. The graphs below show how close sub-Saharan African countries are projected to get to these goals by 2030, starting from 2015.

GOAL 3.1. REDUCING GLOBAL MATERNAL MORTALITY

By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.



Not shown: 1) Seychelles due to lack of data. 2) Sierra Leone, which had a maternal mortality rate of 1,360 deaths per 100,000 live births and, though is not on track to meet Goal 3.1, is predicted to lower its rate to 768 per 100,000 live births.

GOAL 3.2a, REDUCING MORTALITY FOR CHILDREN UNDER 5 YEARS OF AGE

Deaths per 1,000 live births Cabo Verde Congo Burund DRO Gaboi Suda Guinea-Bissa Gambia. Th ц С Côte d'Ivoi **Mozambio** Burkina Fa Maurit Republic of the Central African Country is regressing

GOAL 6.1. SAFE AND AFFORDABLE DRINKING WATER FOR ALL

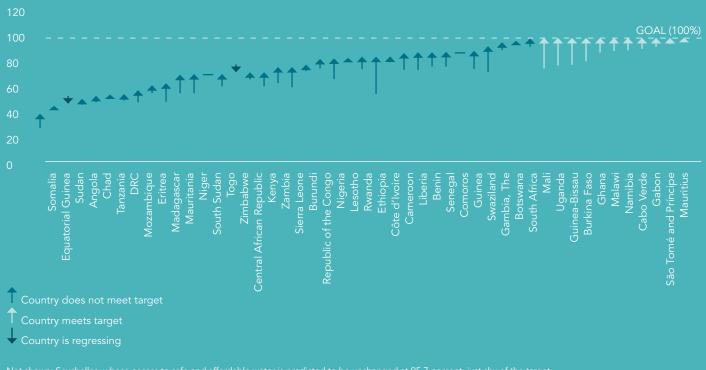
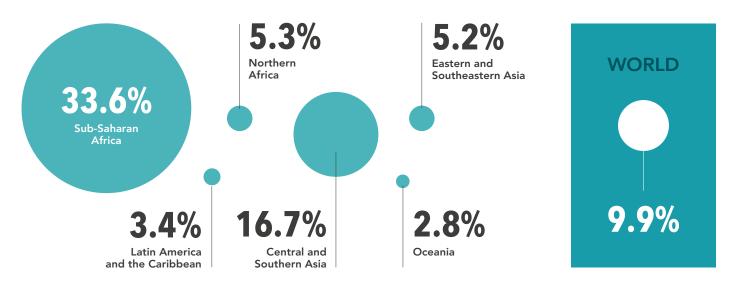


FIGURE 3.3. AFRICAN WORKERS TOO OFTEN FIND THEMSELVES BELOW THE POVERTY LINE

Unemployment in the region is a major challenge for sub-Saharan African policymakers, but creating enough jobs does not mean the elimination of poverty. As seen below, of those Africans employed, over one-third still fall below the poverty line of \$1.90/day—three times the world's proportion.



Note: The size of the bubbles suggests the relative differences in percent of employed workers that still remain under the poverty line. Source: United Nations Statistics Division. https://unstats.un.org.

In order to stimulate quality employment growth, governments should develop policies aimed to achieve economic structural transformation through diversification and development of laborintensive sectors.

Limited or ineffective pro-poor policy interventions and government

With the demographic boom and in absence of quality employment growth, the poor populations are often left alone, facing serious risks and vulnerabilities (food insecurity, epidemics, pandemics, infant and maternal mortality, gender gap, education, etc.). For example, 695 million people are living without basic sanitation access, only 34 percent have access to roads,¹³ and 620 million people don't have access to electricity (sub-Saharan Africa).¹⁴ In 2014-2015, 153 million people over 15 years of age suffered from severe food insecurity in sub-Saharan Africa.¹⁵ Africa also faces the highest challenges in terms of social protection, especially related to health access.¹⁶ Africa, especially sub-Saharan Africa, is also the region of the world with the highest proportion of workers living below the poverty line. Most vulnerable people do not necessarily have access to social assistance. The situation is worse in fragile and conflict-affected states, as civil war, terrorism, and political instability cause countries to lose decades of poverty reduction progress.

As achieving employment growth through structural transformation takes time, policymakers should simultaneously develop targeted policies, including with cash transfers,¹⁷ to improve immediate poverty alleviation. Policymakers should adopt, through social protection initiatives, targeted interventions addressing immediate needs (poverty reduction, education, health, food, security, etc.) through four mechanisms. First, policymakers should make direct transfers (social assistance) to extremely poor individuals in order to increase their income and reduce vulnerability.

14. International Energy Agency. 2014. Africa Energy Outlook: A focus on energy prospects in sub-Saharan Africa. Available at: http://www.iea.org/publications/freepublications/ publication/WEO2014_AfricaEnergyOutlook.pdf.

15. Signe, Landry. 2017. "The quest for food security and agricultural transformation in Africa: Is the CAADP the answer?" Brookings. Available online: https://www.brookings. edu/blog/africa-in-focus/2017/10/16/the-quest-for-food-security-and-agricultural-transformation-in-africa-is-the-caadp-the-answer/.

 ILO. International Labour Organization. Social Protection in Africa." Available online: http://www.ilo.org/addisababa/areas-of-work/social-protection/lang--en/index.htm. (Accessed on January 5, 2018).

17. U.K. Department for International Development. 2011. Cash Transfers. London: UKaid. Available online: http://www.who.int/alliance-hpsr/alliancehpsr_dfidevidencepaper.pdf.

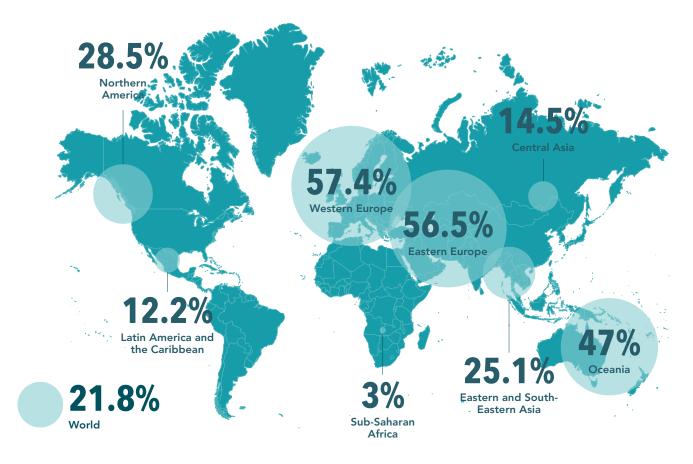
^{13.} World Health Organization. Joint Monitoring Report 2015 Key Facts. Available at: http://www.who.int/water_sanitation_health/monitoring/jmp-2015-key-facts/en/.

These non-contributory, predictable, and regular transfers constitute the most direct route to address the thorny issues of poverty and, possibly, a more efficient way to share natural resource wealth. (Shanta Devarajan discusses universal basic income in a Viewpoint in this chapter.) Second, a better system of social insurance should be developed, with mandatory contributions from all workers, so that they can benefit in case of income shocks due to injury, illness, unemployment, retirement, or old age. Now, even where such programs exist, they are not efficiently implemented, and too often, workers are left alone. Third, policymakers should adopt, but most importantly, enforce high labor standards to protect the rights of workers, to shift away from employment vulnerability. Finally, specific social services must be developed for some of the most vulnerable groups who do not fall into the previous categories, including children, women, elders, and people living in remote rural areas, among others. Government should gather reliable information and develop policy interventions aiming at fixing the immediate needs.

All in all, African policymakers should keep the continent's growth momentum, but keep reducing poverty a center of focus. They should act now, not later, to make growth more inclusive and leave no one behind.

FIGURE 3.4. THE AFRICAN UNEMPLOYED RARELY RECEIVE UNEMPLOYMENT BENEFITS

To compound the difficulties of not having a job, just over 3 percent of the unemployed in sub-Saharan Africa receive unemployment benefits. Without this form of assistance, the obstacles confronting an unemployed worker loom even larger.



Source: United Nations Statistics Division. https://unstats.un.org.

VIEWPOINT

Understanding the patterns and causes of African migration: Some facts

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The most important fact to note about migration rate in Africa, is that at 2.9 percent in 2017, it is one of the lowest in the world, only higher than that of Asia and North America.

The horrific images of African migrants drowning in the Mediterranean broadcasted live into the homes of millions of people has captivated the attention of the world in recent years, prompting many leaders to do "something about it." These images also give the impression that Africa is a crumbling and hopeless continent from which its young and strong are so desperate they risk their lives to escape. On the other hand, economic statistics coming out of Africa describe a continent on the move with unprecedented growth and economic opportunities. Why such a paradox? To appropriately inform policies related to illegal migration from Africa, we must first understand its patterns and underlying causes.

The most important fact to note about the migration rate in Africa, is that at 2.9 percent in 2017, it is one of the lowest in the world, only higher than that of Asia and North America. Over time, the migration rate in Africa has declined while the global average rate increased from 2.9 percent of total population to about 3.4 percent (Table 3.1). Since 1990, the number of African migrants has risen by about 80 percent. This rate is among the lowest in the world, only higher than that of North America and Europe. Clearly, migration from Africa is not as widespread as is widely perceived.

Migration from Africa is not as widespread as is widely perceived.

TABLE 3.2. GLOBAL RATES OF EMIGRATION: 1990-2017

Although the number of migrants originating from Africa increased by 80 percent from 1990 to 2017, Africa's emigration rate still declined from 3.2 percent to 2.9 percent over the period owing to a near doubling of the region's population.

Region of origin	Number of international migrants by major region of origin as a share of total population of region of origin						
	1990	1995	2000	2005	2010	2015	2017
World	2.9%	2.8%	2.8%	2.9%	3.2%	3.4%	3.4%
Africa	3.2%	3.0%	2.8%	2.8%	2.7%	2.9%	2.9%
Asia	1.8%	1.7%	1.7%	1.8%	2.1%	2.3%	2.3%
Europe	6.6%	6.7%	6.8%	7.0%	7.5%	7.9%	8.2%
Latin America and the Caribbean	3.4%	4.1%	4.7%	5.2%	5.8%	5.8%	5.8%
Northern America	1.0%	1.0%	1.0%	1.1%	1.2%	1.2%	1.2%
Oceania	3.6%	3.7%	4.0%	4.1%	4.3%	4.6%	4.6%

Note: This table shows the number of emigrants from a specific region as a share of the total population of the region of origin

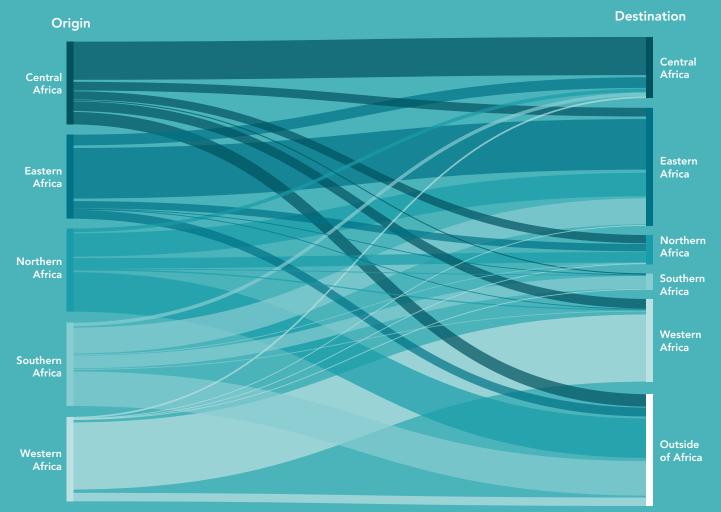
Source: Author's calculations, United Nations Population Division, International migrant stock: The 2017 revision, http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates17.shtml.

*This essay is based on a revised working paper Shimeles, A. (2010), "Migration trends, patterns and policy issues in Africa," AfDB Working Paper series No 119.

The other important factor to note about the pattern of migration in Africa is that generally the bulk of it takes place within the region (Figure 3.5). In fact, 79 percent of sub-Saharan African migrants move within the same region. Less than 22 percent of migrants from Africa emigrate outside of Africa, with less than 15 percent of African migrants emigrating to Europe or North America.

FIGURE 3.5. MIGRATION PATTERNS WITHIN AND FROM AFRICA IN 2017 (% OF MIGRANTS BY ORIGIN AND DESTINATION)

African migrants overwhelming remain within Africa; less than a quarter emigrate outside of the continent. East Africa and West Africa are host to the largest shares of African migrants, at 30 percent and 26 percent, respectively. Notably, a majority of migrants from East Africa and West Africa emigrate within their own sub-regions.



	Destination						
Origin	Africa	Eastern Africa	Central Africa	Northern Africa	Southern Africa	Western Africa	Outside of Africa
Africa	78.54	30.33	13.1	5.99	3.33	25.79	21.46
Eastern Africa	88.67	64.75	13.67	9.34	0.75	0.16	11.33
Central Africa	84.09		48.82	10.55	1.38	12.23	15.91
Northern Africa	49.56	29.93	4.56	13.36	0.05	1.67	50.44
Southern Africa	55.78	33.22	4.6	0.38	16.43	1.16	44.22
Western Africa	89.17	0.06	2.29	0.83	0.02	85.97	10.83

Note: This table shows the percentage of total African migrants who have emigrated to different parts of Africa and outside of Africa.

Source: Authors' computations based on data provided by U.N. Department of Population. http://www.un.org/en/development/desa/population/migration/data/ estimates2/estimatesorigin.shtml. Within each sub-region, we also see a pattern where, except for North Africa, the bulk of African migrants prefer to move within neighboring countries or subregions. The bulk of migrants from North Africa predominantly move to Europe, North Africa, or the Middle East.

The evidence also suggests that migrants from richer African countries tend to migrate to destinations outside of Africa.

Thus, migration from Africa generally is low by global standards, and most of the movement, except for North Africa, takes place within the region, partly reflecting the relatively more flexible migration policies adopted by African countries over the years. The evidence also suggests that migrants from richer African countries tend to migrate to destinations outside of Africa (Figure 3.6). This is not surprising. One of the determinants of migration is cost, including travel and relocation.¹ The

poorer a country is, the less affordable it becomes to travel far in search of better opportunities. In addition, migrants from relatively rich origin countries tend to be better educated and skilled. Thus, the rate of migration to richer countries from Africa could be projected to increase with rising economic opportunity, education, and other factors—called the Migration Hump—and recede once the wage differential between origin and destination countries narrows sufficiently, and other non-pecuniary considerations become important to the quality of life of migrants. For instance, populist views and less-welcoming regulations in richer countries could significantly dissuade migrants from richer African countries. This comes, however, with significant cost to the global economy, particularly to countries with an aging population. For a long time, migration has been a source of a sustained supply of labor at reasonably constant wages fueling growth in many advanced countries.



Seventy-nine percent of sub-Saharan African migrants move within the same region.

FIGURE 3.6. INTRA-AFRICAN MIGRATION AND PER CAPITA GDP (2006)

African emigrants originating from poorer countries generally remain within Africa, whereas African emigrants from middle-income countries tend to migrate to destinations outside of the continent. This suggests that the capacity and choice of African emigrants to migrate within or beyond Africa may depend on factors associated with the levels of development of their country of origin.



Source: Shimeles (2010).

An important element emphasized in the literature is the role that "cost of migration" plays in affecting migration flows. See for instance, Hatton and Willamson (2003) and also Rosenzwig, (2005) who showed that apart from the cost of migration, for a given level of skill price, the higher the per capita GDP of a country, the higher becomes the rate of out-migration.

Finally, migration has also served as a lifeline for many African countries through the flow of remittances. For African countries, these reliable flows have become the most important source of foreign exchange, provide consumption smoothing for poor families, and serve as a source of investment at the household level for education, assets, and other amenities. In addition, remittances serve as important factor in reducing asset inequality in Africa (Shimeles and Nabasaga, forthcoming).

The more formal and institutionalized migration becomes, the greater economic integration and its benefits will be.

In terms of policy implications, migration episodes that respond to incentives for economic opportunities generally reflect market forces in bridging excess demand in factor or goods markets, thus allowing efficient allocation of resources and fostering greater economic integration. Despite lack of evidence, it is plausible to expect that South-South migration is followed by increased trade flows and adjustment of labor markets in both sending and destination countries, which both play a crucial role in promoting growth and ensuring employment.² The more formal and institutionalized migration becomes, the greater economic integration and its benefits will be. The full benefit of such mobility of labor can be realized only if concerned national governments are able to jointly manage and coordinate the flow of migrants and protect basic rights for the entire duration of their stay. There are incidents of extortion, abuse, and exploitation of migrants bound to other parts of Africa as both legal and illegal migration became commercialized (Lucas, 2006; Shaw, 2007). Limited or lack of wellfunctioning financial intermediaries inhibit the flow of remittances, thus reducing their potential impact on household welfare. There are also a wide range of issues on property rights, licensing of businesses, and transfer of funds that African governments have not harmonized to encourage immigrants to engage in investment activities. Certainly this translates into areas of intra-African trade and investment, which has not improved much over the years. In principle, greater economic integration helps stem the flow of migration and limits its size and composition to what is allowed by economic fundamentals. The regional economic unions such as COMESA, ECOWAS, EAC, SACU, and SADC,³ have been around for the greater part of postindependence Africa and yet their effectiveness in managing migration flows is still not sufficient.

REFERENCES

Lucas, R.E.B. (2006), "Migration and economic development in Africa: a review of evidence," Journal of African Economies, Supplement 2, 337-395.

Rosenzwig, M. (2007), "Education and migration: a global perspective," mimeo, Yale University.

Shaw, W. (2007), "Migration in Africa: a review of economic literature on international migration in 10 countries," World Bank, memo.

Shimeles, A. and T. Nabasaga. "Why is inequality high in Africa," Journal of African Economies, forthcoming.

World Bank. (2010), "Migration and Remittances Fact Book 2011," Development Prospects Group.

^{2.} World Bank (2010) report suggests that in Southern Africa, generally wage rates follow that of South Africa with some lag for adjustment. Certainly the degree of adjustment is better for economies that are closely integrated with South Africa.

Respectively, Common Market for Eastern and Southern Africa, Economic Community of West African States, East African Community, Southern African Customs Union, and Southern African Development Community.

VIEWPOINT

Africa and Europe: Towards real partnership on migration

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The issues around refugees and migration remain some of the most hotly debated topics in Europe. With European per capita income roughly 11 times that of most of sub-Saharan Africa and tens of millions of young Africans with poor job prospects, the attraction of migrating to Europe is and will remain immense. While there is migration from all over the world into Europe, geography makes Africa the biggest potential source of migrants.

One approach that Europe (as well as others such as the United States) wants to take is to let in only skilled migrants. The aim here is to complement Europe's skilled labor with carefully filtered immigration. The numbers would be small, making the absorption of these migrants easier in terms of cultural barriers. While this may be a desirable objective from the point of view of the rich countries, it would have mixed results for Africa. The investment in human capital that these migrants embody would be largely lost. Then again, remittances could be an advantage, as would possible return of some of these migrants to their home countries. In any case, taking in small numbers of skilled Africans will not alleviate the strong pressure from the millions left behind.

In fact, the futures of Europe and Africa are intertwined. A growing, hopeful Africa will diminish this hard-tomanage migration pressure. A prosperous Europe will present good markets for African products. Thus, Europe should address the migration problem with a long-term perspective by investing in Africa. Potential returns are great when one averages. But individual projects are riskier than elsewhere due greater political uncertainty and regulatory deficits, as well as problems of transparency. This has constituted an important barrier for private investment, which is crucial given the scale of the challenge.

In any case, taking in small numbers of skilled Africans will not alleviate the strong pressure from the millions left behind.

That is why the public policy must be active in risk pooling and de-risking by accepting to bear some of the risk or supporting insurance mechanisms, leveraging its scarce funding capacity. Innovative financial engineering can bring together the private, public, and philanthropic sectors and create a virtuous circle with huge benefits for both Africa and Europe. Africa needs 8 to 9 percent sustained annual growth to really take off and create the hope its young population needs. The world, and particularly Europe, will benefit from it. This is totally achievable if the public and private sector partner in reducing risk. The future depends on it.

Nutrition security: The last mile of Africa's food security agenda

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Recognizing the importance of food and nutrition security (FNS) for improving public health, labor productivity, and economic growth, the world has committed to end all forms of hunger by ensuring access to sufficient and nutritious food for all people (Goal 2 of the Sustainable Development Goals).¹ Countries have made significant progress in their food security agendas by improving productivity and food production, by addressing socio-economic, gender, and regional inequalities in access to food, and by building resilient agricultural practices.

Recent AGI research on food and nutrition security² has found that, despite much progress in Africa on these issues, environmental shocks and other vulnerabilities; resource constraints and inefficiencies; and policy implementation gaps threaten the progress and sustainability of FNS interventions (Siba and Signé, 2017).³

Progress on nutrition security in particular has lagged largely because it is a lot more complex. Indeed, some countries with sufficient food continue to have pockets of nutritionally insecure communities and sub-regions.

First, **nutrition is cultural**. Populations are pre-disposed to consume mainly what they produce locally. For example, compared to Ghanaians and Senegalese, Ethiopians are more predisposed to eat enjera than fish, dictated by food preference and geography. The high dependence on locally produced food limits dietary diversity. Rural households are particularly affected by high staple dependence and are vulnerable to unexpected drops in harvests.



The high dependence on locally produced food limits dietary diversity, notably in settings where people primarily consume what they produce. Thus, rural households are particularly affected by high staple dependence and are vulnerable to unexpected drops in harvests.

In addition, nutrition security requires **integrated program interventions** beyond the agricultural sector. During our recent research and stakeholder interviews as part of select African cases studies in the Ending Rural Hunger project, we asked on-the-ground stakeholders about interventions they consider vital for nutrition security. The responses pointed to the importance of interventions in multiple sectors, including in infant and young child nutrition consultation, community-based nutrition programs, water, sanitation and hygiene, and health interventions.

Nutrition is also a **science and technology-intensive industry**. Lack of qualified professionals in nutrition and the high turnover in staff of implementing public institutions are important constraints to achieving nutrition security. For this reason, a number of African countries rely heavily on external technical assistance.

Despite the complexity of addressing FNS, governments across Africa should continue to make this objective an

According to the Food and Agriculture Organization's 2009 definition, "food security" exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (FAO, 2009). The most comprehensive measure of food security includes food availability, accessibility, stability, and utilization dimensions. The most severe form of food insecurity is typically associated with the possibility of being hungry but unable to eat due to lack of money or other resources (FAO, 2016).

^{2.} Nutrition security is a result of improvements in both nutritional status (hence of food security) and health status. Malnutrition is the most commonly used measure of nutrition insecurity. The United Nations Standing Committee on Nutrition (UNSCN) recommends the use of 'Food and Nutrition Security' jointly, to facilitate integrated actions. It proposes that "Food and nutrition security exists when all people at all times have physical, social and economic access to food, which is consumed in sufficient quantity and quality to meet their dietary needs and food preferences, and is supported by an environment of adequate sanitation, health services and care, allowing for a healthy and active life" (Wüstefeld, 2013).

^{3.} The Global Ending Rural Hunger project of the Brookings Institution was one of the many initiatives that the year 2017 has seen in tracking progress in FNS through desk review and stakeholder engagement of six African countries (Ethiopia, Ghana, Nigeria, Tanzania, Senegal, and Uganda). For more information, see the Ending Rural Hunger website: https://endingruralhunger.org/.

important priority in development agendas given its importance for human capital development. Nutrition security does not necessarily require large **investments**. For example, well-organized campaigns to raise awareness on the importance of good nutrition, dietary diversity, and good hygiene for kids, mothers, and farmers can go a long way.

Lack of qualified professionals in nutrition and the high turnover in staff of implementing public institutions are important constraints to achieving nutrition security.

There also needs to be **shift in mindset of both agricultural policymakers and farmers**. Efforts on boosting productivity and food production need to embrace nutrition-sensitive agricultural practices by promoting the production of rich produce such as poultry and livestock, along with cereals. Educating farmers to consume these nutritionally rich products (not just sell them) may require integrating the work of agricultural development agents and health extension workers. The role of well-trained change agents is vital in settings where administrative structures are non-existent or barely functioning, particularly at lower administrative levels. Capacity building, through training change agents and ensuring implementing institutions are in place, is one of most pressing needs, as revealed in our stakeholders' engagements.

The **multi-sectoral coordination and horizontal accountability** necessary to address nutrition security require coordination among multiple ministries and sectors like agriculture, health, education, industry, and water. Multi-sectoral initiatives tend to be more functional when participating sectors are accountable to a higher office.

Addressing FNS challenges in **lagging regions and pastoral communities** merits a separate approach ranging from getting the wage and benefits incentives right, to ensuring the presence of sufficient number of qualified professionals, to designing livelihood and culturally sensitive FNS strategies.

Finally, to close the knowledge and policy gaps in the sector, **collecting national, subnational, and household data on a regular basis**, creating a unified nutrition database and establishing knowledge-sharing platforms among key national and international implementers are all vital. Data collected on major programs will allow for rigorous impact evaluation and ensure that FNS policies are evolving in the right direction.

Filling knowledge, technology, and policy gaps and supporting capacity building represent **complementary investments** to achieve Africa's FNS agenda.

REFERENCES

Ending Rural Hunger Project, Brookings Institution, October 2017 update. Available at: https://endingruralhunger.org/.

FAO. 2009. Declaration of the World Summit on Food Security, World Summit on Food Security, Rome, Italy, 16-18 November. http://www.fao. org/fileadmin/templates/wsfs/Summit/Docs/Final_Declaration/WSFS09_Declaration.pdf.

FAO. 2016. Methods for estimating comparable rates of food insecurity experienced by adults throughout the world. Rome, Italy: FAO. http://www.fao.org/3/c-i4830e.pdf.

Siba, E. and L. Signé. 2017. "Four things you should know about food security in Africa," Washington Post, October 30. https://www. washingtonpost.com/news/monkey-cage/wp/2017/10/30/four-things-you-should-know-about-food-security-in-africa/.

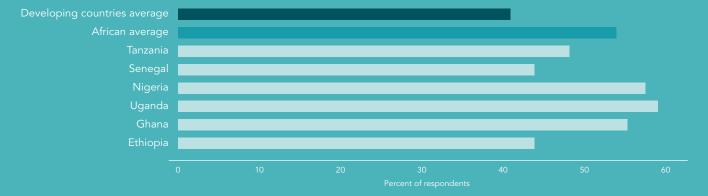
Wustefeld, M. 2013. Food and Nutrition Security, United Nations Standing Committee on Nutrition Meeting of the Minds, Nutrition impact of food systems, Geneva, Switzerland, 25-28 March. http://www.unscn.org/files/Annual_Sessions/UNSCN_Meetings_2013/Wustefeld_Final_MoM_ FNS_concept.pdf.

FIGURE 3.7

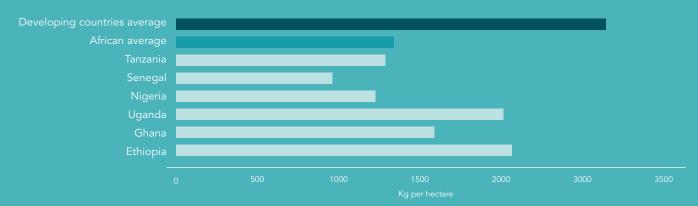
Ending rural hunger: Where do we go from here?

Ending rural hunger is one of the challenges enshrined in the Sustainable Development Goals, particularly Goal 2, "End hunger, achieve food security and improved nutrition, and promote sustainable agriculture." As seen in these graphs, food and nutrition security (FNS) is still a great obstacle for African countries. Poverty still holds citizens back from obtaining enough food, and child malnutrition (under-5 stunting) is not uncommon. Notably, while Africans have comparable levels of access to agricultural extension services as other developing countries globally, their average cereal yields are half that of their developing country counterparts. Access to food safety net programs is also generally low on the continent. Compounding these challenges, several African countries—Ghana, Nigeria, Senegal, Tanzania, and Uganda—are predicted to see declines in their agricultural yields due to climate change.

LACK OF ENOUGH MONEY TO BUY FOOD (2011-2015 AVERAGE)



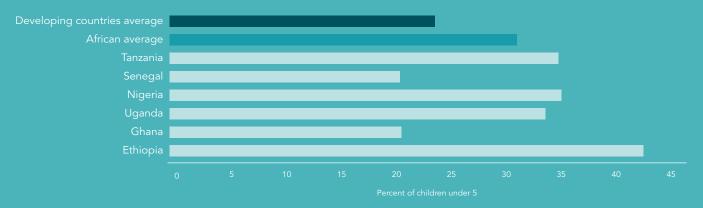
Note: Percent. This indicator is based off the following survey question: "Have there been times in the past 12 months when you did not have enough money to buy food that you or your family needed?" National level.



CEREAL YIELD (2011-2015 AVERAGE)

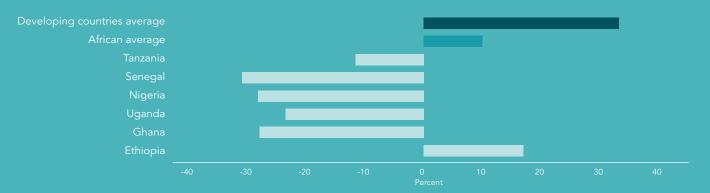
Note: Kg/ha. This indicator measures the total yield per country for wheat, rice, maize, barley, oats, rye, millet, sorghum, buckwheat, and mixed grains. Cereal crops harvested for hay or harvested green for food, feed, or silage and those used for grazing are excluded.

CHILD MALNUTRITION: UNDER-5 STUNTING (2011-2015 AVERAGE)



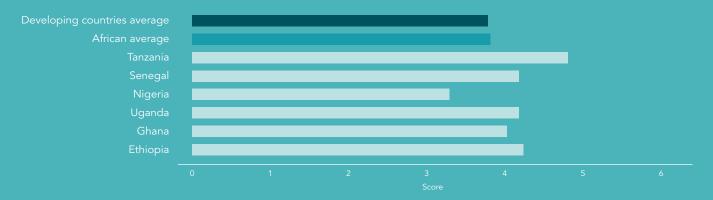
Note: Percent. This indicator measures the percentage of stunting (height-for-age less than 2 standard deviations of the WHO Child Growth Standards median) among children aged 0-5 years.

PROJECTED CHANGE IN AGRICULTURAL YIELD DUE TO CLIMATE CHANGE (2011-2015 AVERAGE)



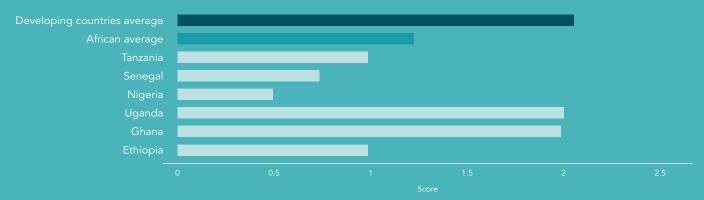
Note: Percent. This indicator is a proxy for what climate change implies for agricultural yield. The projected change is the percent change of annual yield from the baseline projection (1980-2009) to the future projection (2040-2069).



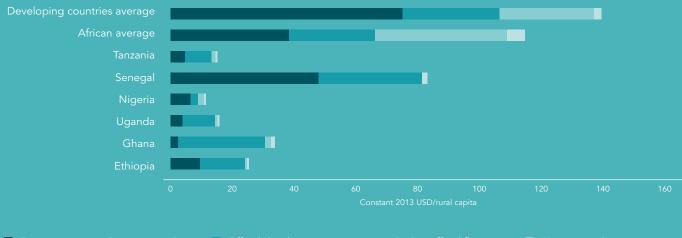


Note: Discrete 1-6. 6: Good for three years; 5: Government encourages the development of complementary pluralistic research and extension services; 4: Public agricultural research and extension have made major efforts to improve the participation of poor farmers in setting priorities; 3: The agricultural research and extension system is weak and does not address the needs of poor farmers; 2: Extension services are the exclusive preserve of government, and poor farmers have no say in setting priorities or in controlling funds for agricultural research and extension; 1: Unsatisfactory for three years.

ACCESS TO FOOD SAFETY NET PROGRAMS (2011-2015 AVERAGE)



Note: Score 0-4, with 0 representing minimal to no access and 4 representing complete or nearly complete access. This qualitative indicator (scored by EIU analysts) measures the variety of public incentives to protect the poor from food-related shocks. This indicator considers food safety net programs, which include in-kind food transfers (i.e., food vouchers), and the existence of school feeding programs by the government, NGOs, or multilateral sector.



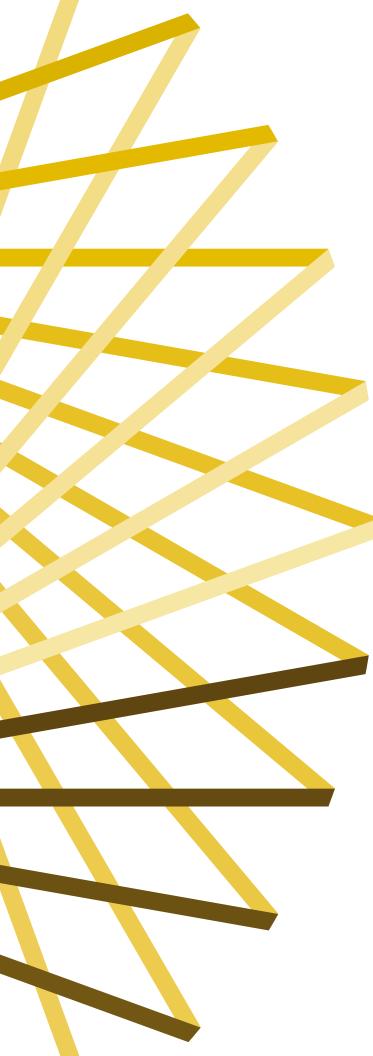
RESOURCES TO FNS (2011-2015 AVERAGE)

Government spending on agriculture
 Official development assistance and other official flows
 FDI to agriculture
 Philanthropy and NGO

Note: "African average" refers to the average values for 54 African countries, and "developing countries average" refers to the average values for 152 developing countries globally. The six African countries shown here are the six African countries selected for case studies for the Ending Rural Hunger project in 2017. Source: The Ending Rural Hunger Project, Brookings Institution, October 2017 update, https://endingruralhunger.org/.

RETHINKING AFRICA'S STRUCTURAL TRANSFORMATION:

The rise of new industries



CHAPTER 4

The road not taken: Structural change in Africa reconsidered

John Page

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Economists have long regarded structural change—the movement of workers from lower to higher productivity employment—as essential to growth in lowincome countries. Yet, until recently, Africa's economic structure had changed very little, worrying both policymakers and analysts. The African Union, the African Development Bank, and the United Nations Economic Commission for Africa have all voiced concern with Africa's slow pace of structural change. Earlier this year, *The Economist* noted, "Africa's development model puzzles economists."

Historically, manufacturing drove economic transformation. Today, new technologies have spawned a growing number of services and agro-industries—including horticulture—that share many characteristics with manufacturing. They are tradable, have high value added per worker, and can absorb large numbers of moderately skilled workers. Like manufacturing, they benefit from technological change, productivity growth, scale, and agglomeration economies. These are "industries without smokestacks," and in 2015, the Africa Growth Initiative and UNU-WIDER set out to study their role in Africa. The results are forthcoming in *Industries Without Smokestacks: Industrialization in Africa Reconsidered* (Oxford University Press, 2018).

We have found a new pattern of structural change emerging in Africa, one different from the manufacturing-led transformation of East Asia. ICT-based services, tourism, and transport are outpacing the growth of manufacturing in many African countries. Between 1998 and 2015, services exports grew more than six times faster than merchandise exports. Kenya, Rwanda, Senegal, and South Africa have vibrant ICT-based services sectors. Tourism is Rwanda's largest single export activity, accounting for about 30 percent of total exports. In 2014, 9.5 million tourists visited South Africa, contributing 3 percent to its GDP. Ethiopia, Ghana, Kenya, and Senegal all actively participate in global horticultural value chains. Ethiopia has achieved extraordinary success in flower exports, so much so that the country is now a global player in the sector.

We also found that, because tradable services, agro-industry, and horticulture share many firm characteristics with manufacturing, it is possible to develop a strategy for structural transformation based on three factors that have largely shaped the global distribution of manufacturing. The first is the "investment climate" (the environment within which firms operate). The second is the capacity to export, and the third is agglomeration. The three are inter-related, and to boost the pace of structural change African governments need to address them concurrently.

Today, new technologies have spawned a growing number of services and agro-industries—including horticulture—that share many characteristics with manufacturing.

VIEWPOINT

The global dividends of Africa's industrialization

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Many experts are lamenting the fate of advanced economies, still at risk of secular stagnation-a prolonged period of insufficient growth that can only be addressed by unconventional monetary policy and unsustainable financial conditions. In fact, the main problem that has plagued the global economy for much of the past decade is inadequate aggregate demand due to deflated balance sheets of households; constrained fiscal options in high-income countries where there seems to be a fiscal stimulus "fatigue" and an obsessive focus on public debt; and exhaustion of the uses of monetary policy, especially when the financial sector lacks the incentives and effective tools to fund medium- and long-term profitable investment. These suboptimal macroeconomic conditions are compounded by the perpetuation of inequality within nations-especially with respect to access to the job market, to education, and to capital. All these obstacles are fueling anger, resurgent populism, despair, and helplessness in many social groups.

Fortunately, the resilience of some emerging economies has kept global growth afloat. Last year they accounted for nearly 75 percent of global growth (China's annual growth average of 9.6 percent for the past 38 years is something that will be studied in economic history books for centuries to come). But as they approach the technology frontier, they too are facing the risk of lower potential output due to population aging and lower total factor productivity growth. African economies have substantially improved their general macroeconomic conditions and performance but are still trapped in the trade of unprocessed commodities whose prices declined sharply in 2014. Despite a remarkable performance (last year, 13 African countries grew above 5 percent and 17 grew between 3 and 5 percent), the continent is not creating enough wealth and jobs to help reduce poverty and mitigate the risks of conflicts and disorderly migrations.

Under such circumstances, a straightforward solution to the problem of global growth would be for rich economies to

devote a small fraction of their poorly used financial resources to finance infrastructure in developing countries where profitable investment opportunities and business ventures abound. African industrialization is indeed the most reliable driver for global prosperity and peace for decades to come. It would spur economic development on the continent, provide the much needed boost to aggregate demand, and lift global growth while generating new employment opportunities in advanced and developing economies.

African economies have substantially improved their general macroeconomic conditions and performance but are still trapped in the trade of unprocessed commodities whose prices declined sharply in 2014.

African industrialization should not be financed through old forms of foreign aid with miserabilist connotation but through a series of new global pacts combining substantial amounts of public and private money in search of good returns (including pension funds and sovereign wealth funds). This would require accommodative monetary policy and fiscal stimuli that are wasted in rich countries be channeled into profitable infrastructure projects that abound in developing countries. Instead of trying to fill large infrastructure deficits indiscriminately around the world, multilateral development banks could help build a series of welltargeted industrial parks and quality infrastructure in developing countries, and provide advice and training on products quality standards to make nontariff measures ineffective. Everybody would win. And the world would be a much safer, happier place.

Infrastructure, skills, and competition are key elements of the investment climate. African firms pay a high productivity penalty because of poor infrastructure.

Governments can support agglomerations by concentrating investments in high-quality institutions and infrastructure in a special economic zone.

Here, China could play a leading role by shifting its preferential trading agreements from bilateral deals to a single, wellpublicized Africa-wide initiative. Infrastructure, skills, and competition are key elements of the investment climate. African firms pay a high productivity penalty because of poor infrastructure. High-speed data transmission is critical to exporting a wide range of services and especially to IT-intensive exports. A necessary condition for developing tourism is adequate tourist-related infrastructure. Investments in trade logistics are essential to agro-processing and horticulture exports. Skills matter as well. Attempts to expand the IT-enabled services industry have encountered manpower constraints. The skills needed to interact with tourists and provide back office services are critical to high-quality tourism. Lack of competition in transportation markets represents a significant barrier to competitiveness.

Exporting offers opportunities to acquire capabilities and enhance productivity, but individual firms face significant barriers to export. To address this, governments need to develop a package of trade and exchange rate policies, public investments, regulatory reforms, and institutional changes designed to increase the share of non-traditional exports in GDP. To date, few countries have succeeded in implementing such an "export push" strategy.

Agro-processing, horticulture, and ICT-based services—like manufacturing—benefit from agglomeration economies. Geography also plays an obvious role in tourism; tourist facilities tend to cluster close to the tourism resource. Governments can support agglomerations by concentrating investments in high-quality institutions and infrastructure in a special economic zone (SEZ). Ethiopia is successfully pursuing such an approach in both manufacturing and services, but the majority of Africa's SEZs have failed to attract a critical mass of firms.

Globally, trade policy has an important role to play. Escalating tariffs in Asia for higher-stage processing of commodities discourages the development of Africa's agro-industrial value chains. Here, China could play a leading role by shifting its preferential trading agreements from bilateral deals to a single, well-publicized Africa-wide initiative. Another priority is to implement the World Trade Organization Trade Facilitation Agreement (TFA) fully. In recent years, as concessional finance has become constrained, governments have turned to private borrowing. Because sovereign borrowing often involves high costs and short maturities, a better alternative would be to allow creditworthy countries to borrow from the non-concessional windows of the World Bank and other multilateral development banks.

Structural change in Africa is a "road less travelled by." While some countries perhaps those in coastal locations—will transform their economies through manufacturing, others will be able to turn to high value-added agriculture, agroindustry, and tradable services. From the perspective of public policy, it is, happily, not an either/or choice. Better national and global policies can support structural change with or without smokestacks.

REFERENCES

Escribano, A., J.L. Guasch, and J. Pena. 2010. "Assessing the Impact of Infrastructure Quality on Firm Productivity in Africa: Cross-country Comparisons Based on Investment Climate Surveys from 1999-2005." World Bank Policy Research Working Paper 5191. Washington, D.C.: World Bank Group. http:// documents.worldbank.org/curated/en/792371467990385370/Assessing-the-impact-of-infrastructure-quality-on-firm-productivity-in-Africa-cross-countrycomparisons-based-on-investment-climate-surveys-from-1999-to-2005.

Ghani, E., and H. Kharas. 2010. "The Service Revolution in South Asia: An Overview" in E. Ghani (ed.), *The Service Revolution in South Asia*. Oxford, U.K.: Oxford University Press.

McMillan, M., D. Rodrik, and I. Verduzco-Gallo. 2014. "Globalization, Structural Change, and Productivity Growth, with an Update on Africa." World Development 63(1): 11-32.

Newman, C., J. Page, J. Rand, A. Shimeles, M. Soderbom, and F. Tarp. 2016. *Made in Africa: Learning to Compete in Industry*. Washington, D.C.: Brookings Institution Press.

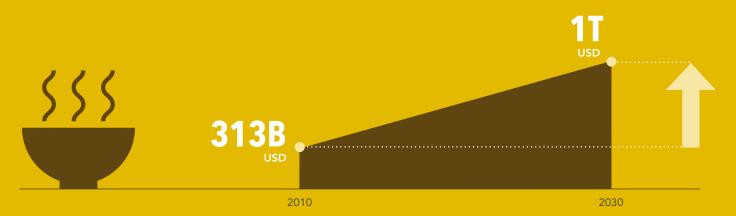
Stern, N. 2001. A Strategy for Development. Beijing, China: China People's University

UNIDO. 2009. Industrial Development Report, 2009. Vienna, Austria: United Nations Industrial Development Organization. https://www.unido.org/sites/ default/files/2009-02/IDR_2009_print_0.PDF.

Sector forecasts: Agribusiness and tourism

VALUE OF FOOD MARKETS IN SUB-SAHARAN AFRICA IS ON THE RISE

According to World Bank projections, the value of sub-Saharan Africa's food and beverage markets is expected to reach \$1 trillion by 2030—up from \$313 billion in 2010—driven in large part by rising incomes, urbanization, and growing food consumption in cities. This situation presents enormous opportunities for the agribusiness industry and suggests that targeted investment in processing, logistics, market infrastructure, and retail networks could help support the development and expansion of commercial value chains throughout the region.



Source: Authors' calculations, Growing Africa: Unlocking the Potential of Agribusiness, World Bank, March 2013. Available at: http://documents.worldbank.org/curated/ en/327811467990084951/Main-report.

TOURISM WILL CONTINUE TO GENERATE EMPLOYMENT OPPORTUNITIES IN SUB-SAHARAN AFRICA

Over the next decade, the travel and tourism industry will continue to be an important source of jobs for the region. Taking into account the total contribution of the tourism industry to employment, including broader effects from linkages and induced income impacts, it supported 16,289,000 jobs (6.0 percent of total employment) in 2017 and is projected to employ 22,361,000 people (6.1 percent of total employment) in 2027.



Note: Induced contribution includes the broader contribution to employment of spending by those who are directly or indirectly employed by travel and tourism. Source: World Travel and Tourism Council, Travel and Tourism Economic Impact 2017: Sub-Saharan Africa, March 2017. Available at: https://www.wttc.org/-/media/files/ reports/economic-impact-research/regions-2017/subsaharanafrica2017.pdf.

VIEWPOINT

Is automation undermining Africa's industrialization prospects?

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The adoption of labor-saving technologies associated with Industry 4.0—the Internet of Things, advanced robotics, and 3D printing—in high-income economies is reducing the importance of low wages in determining costs of production. China, too, is automating at a rapid rate and is projected to be the largest user of industrial robots by 2018. This trend potentially narrows the path for less-developed countries in Africa to industrialize—the expected en masse migration of labor-intensive manufacturing activities to poorer economies with lower labor costs, such as those in Africa, may not occur.

Given current automation trends, there will likely be fewer entry points in global value chains for African countries, and industrialization could become increasingly challenging.

But manufacturing is not monolithic in terms of the extent of automation. The adoption of robots, for example, varies considerably across sub-sectors (Figure 4.2). Some manufacturing industries are relatively unaffected and will therefore remain feasible entry points for less-industrialized countries. This includes a range of commodity-based manufactures such as basic metals, non-metallic mineral products, wood products, paper products, and food processing, which are also less traded and therefore subject to less international competition. Despite being highly traded internationally, there will also be opportunities for African countries to be competitive in the production of labor-intensive tradables such as textiles, apparel, and leather products, which is the least automated subsector—thus far.

Further, there will likely still be room for lower-quality, lower-price goods produced and consumed domestically. This possibility follows from the experience of large developing countries like China and India where highly traded manufacturing sectors have been characterized by segmented markets. The scope for productivity gains might be greater for those lower-guality, lowerprice goods that are regionally traded, where countries can exploit opportunities beyond the domestic market. This opportunity holds considerable promise in Africa where almost all manufacturing industries have seen large increases in their intra-Africa trade shares over the last decade and a half (Figure 4.3). Given current automation trends, there will likely be fewer entry points in global value chains for African countries, and industrialization could become increasingly challenging. While there may be opportunities to "leapfrog" to new technologies, developing the relevant worker skills, firm capabilities, and infrastructure is likely to be a more gradual process. Yet, there is still scope for countries using Industry 2.0 technologies to compete if other ecosystem requirements are met. If countries in Africa can integrate their growing labor force with substantial improvements in their business environments, logistics and other backbone services, regulatory requirements, and so on, this approach might slow down the adoption of Industry 4.0 technologies in the higher-income countries.

FIGURE 4.2. THE GLOBAL OPERATIONAL STOCK OF INDUSTRIAL ROBOTS VARIES BY MANUFACTURING SUBSECTOR

The adoption of robots in manufacturing varies significantly across subsectors, meaning that some industries are relatively unaffected by the uptake of labor-saving technologies and continue to be strong entry points for less industrialized countries in Africa.

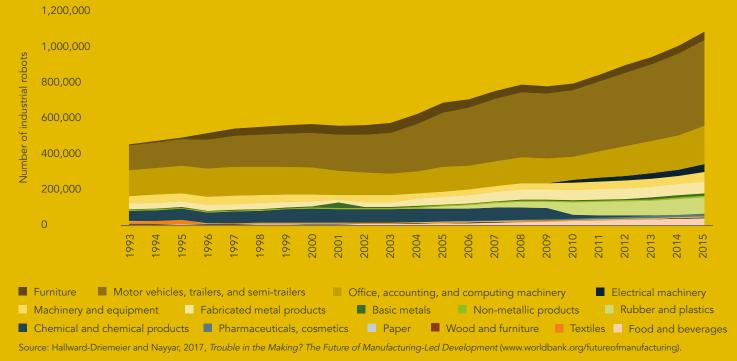
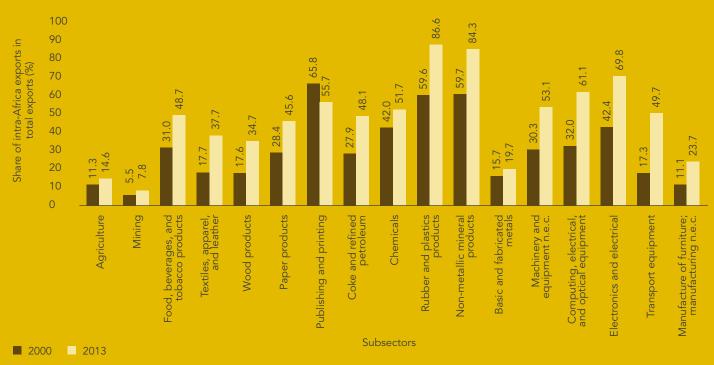


FIGURE 4.3. THE SHARE OF INTRA-AFRICA TRADE IN AFRICA'S TOTAL EXPORTS HAS INCREASED ACROSS MOST MANUFACTURING INDUSTRIES

Between 2000 and 2013, intra-African trade has seen a large increase in manufactured items in almost every subsector. Particular gains have been made in food, beverages, and tobacco; rubber and plastics; electronics; and non-metallic mineral products. It seems that Africa might have the potential for large productivity gains in regionally traded goods.



Note: All values are in units of 2010 constant USD using USA CPI. The sector classification is a variation of isic rev.3 2-digits.

Source: Hallward-Driemeier and Nayyar, 2017, Trouble in the Making? The Future of Manufacturing-Led Development (www.worldbank.org/futureofmanufacturing).

Manufacturing complexity in Africa

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One of the key challenges sub-Saharan African countries must address is the need to undergo structural transformation in the face of young and growing labor forces. As such, there are the twin imperatives of many economies: First, the need to grow, while, second, the need to provide employment opportunities for their growing populations.

Building complexity, and thus producing a diverse range of increasingly complex manufacturing products, is a path-dependent process.

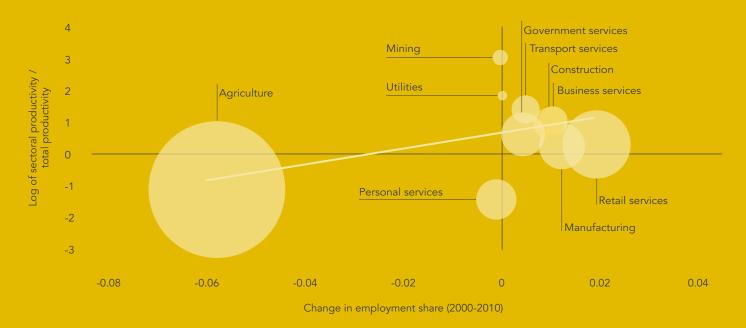
Although there is evidence of growth-inducing structural transformation in sub-Saharan Africa since the 2000s, this has not been manufacturing led as it was in the "East Asian model." Using the empirical technique employed by McMillan, Rodrik, and Verduzco-Gallo (2014), Figure 4.4 depicts sub-Saharan Africa's pattern of structural transformation in the post-2000 period. There is a shift of labor resources away from low productivity agriculture activities (in the bottom left quadrant). However, instead of substantial labor resources shifting toward high productivity manufacturing activities, much of the shift has been directed toward services-based activities, such

as government services and retail services. In contrast, the "East Asian model," depicted in Figure 4.5, shows manufacturing-led structural transformation with a substantial shift of labor resources toward a relatively large manufacturing sector (in the top right quadrant). Broadly speaking, this manufacturing-led growth has not occurred in sub-Saharan Africa. A key question, is why?

We posit that sub-Saharan African countries have low levels of economic complexity, which negates their ability to structurally transform (Bhorat, Rooney, and Steenkamp, 2016). Figure 4.6 shows the relationship between economic development and economic complexity, and it is evident that higher levels of economic complexity are associated with higher levels of economic development. Economic complexity measures the productive knowhow or capabilities inherent in an economy, and in order for a country to diversify into more complex productive activities-particularly those in manufacturing-it needs to accumulate productive capabilities. More complex countries are able to produce a diversity of more complex products, such as x-ray machines, while less complex countries are typically restricted to a concentrated portfolio of resource-based products, such as iron ore. It is clear from the clustering of sub-Saharan African countries in the lower-left segment of Figure 4.6 that these countries are characterized by low levels of economic complexity or limited productive capabilities, which constrains their ability to structurally transform.

FIGURE 4.4. SECTORAL PRODUCTIVITY AND EMPLOYMENT CHANGES IN SUB-SAHARAN AFRICA, 2000-2010

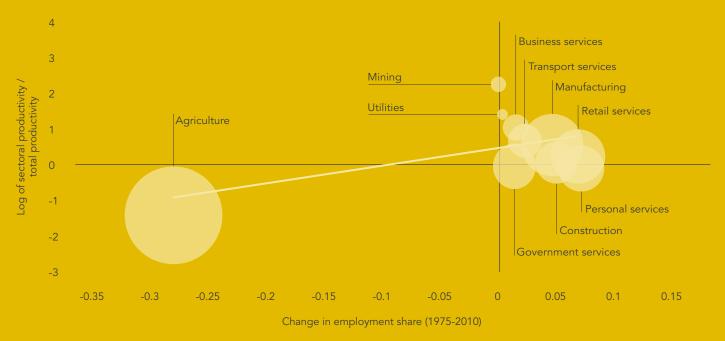
From 2000 to 2010, sub-Saharan Africa has experienced a shift in labor from the low-productivity agriculture sector to the services sector—a different pattern of structural transformation than the manufacturing-led "East Asian Model."



Note: African countries include: Botswana, Ethiopia, Ghana, Kenya, Malawi, Mauritius, Nigeria, Senegal, South Africa, Tanzania, and Zambia. Source: Authors' calculations using Groningen Growth and Development Centre 10-sector database (see Timmer de Vries & de Vries, 2014).

FIGURE 4.5. SECTORAL PRODUCTIVITY AND EMPLOYMENT CHANGES IN ASIA, 1975-2010

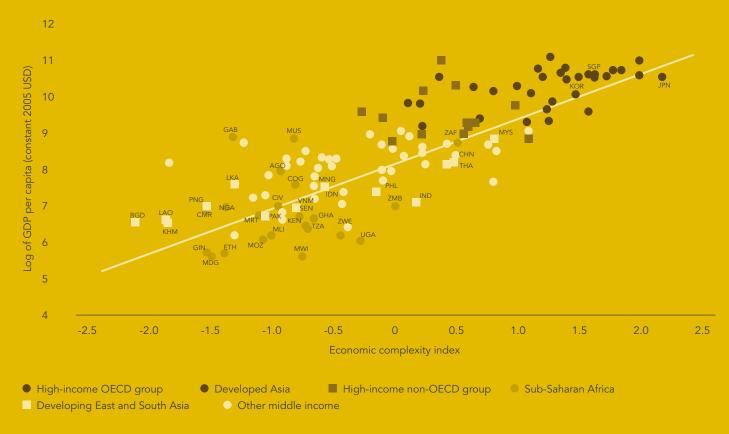




Source: Authors' calculations using Groningen Growth and Development Centre 10-sector database (see Timmer de Vries, & de Vries, 2014).

FIGURE 4.6. COMPLEXITY (ECI) AND THE LOG OF GDP PER CAPITA BY INCOME AND REGIONAL GROUPING, 2013

Higher levels of economic complexity correspond with higher levels of economic development, suggesting that structural transformation is associated with building productive capabilities to manufacture a diverse array of increasingly complex products.



Note: The sample of countries is reduced to those for which we estimate complexity measures. Source: Authors' calculations using trade data from BACI data (HS 6-digit revision 1992) and GDP per capita data from the World Development Indicators.

How can a country build economic complexity?

Building complexity, and thus producing a diverse range of increasingly complex manufacturing products, is a pathdependent process. This is best illustrated and explained using the Product Space analytical framework developed by Hidalgo, Klinger, Barabási, and Hausmann (2007). Countries shift more easily to products characterized by capabilities that are similar to those embedded in a country's current productive structure. For example, it is easier to shift production from iron ore to steel than it is to shift from iron ore to pharmaceuticals. Thus, if a country produces relatively lowcomplexity natural resource-based products, as many African countries do, the capabilities inherent in these products are relatively dissimilar to those needed to produce complex manufacturing products, meaning the ability to diversify, and hence structurally transform, is curtailed. The link between building complexity and employment creation is not a simple direct relationship; rather, it is nuanced. Increasingly complex products tend to be more capital- and technology-intensive, and thus the employment multipliers get lower for the most complex products (Bhorat, Kanbur, Rooney, and Steenkamp, 2017). However, in industrial terms, many African countries are starting from low bases, and thus the manufacturing products closest in terms of required capabilities are relatively less capital-intensive. Thus, African countries can build complexity by developing more diverse productive structures, characterized by a greater number of manufacturing activities, and thereby generate employment opportunities.

However, a key constraint to this process of building complexity in African countries is their current set of productive capabilities. These are distant from those needed in order to shift to more complex productive activities. For example, the shift to higher value-added agriculture, such as horticulture, may be constrained by the lack of scientific know-how needed to produce products that meet food standards in developed country markets. Shifting to manufacturing activities may be constrained by skills shortages or lack of access to financial, logistics, and input networks.

With the notion that building complexity is a pathdependent process shaped by the capabilities embedded in a country's productive structure, policymakers could do the following: First, using the Product Space and Economic Complexity analytical framework, identify products with capabilities similar to those inherent in a country's current productive structure. For example, if a country is producing motor vehicles, then the next product space would be vehicle parts. Second, test whether these products align with economic reality. This is done by speaking to industry associations, firms, and other public and private sector stakeholders in order to test whether the outcomes of the analytical framework align with what is happening in the economy. Third, identify appropriate target markets. For example, determine whether exports are to be directed toward high- or low-income markets, or international or regional markets.

The employment creation potential of building complexity is dependent upon the production function specific to each new industry. However, this process of diversifying toward a wide range of increasingly complex productive activities, by its very nature, will generate employment opportunities for sub-Saharan African countries.

REFERENCES

Bhorat, H., R. Kanbur, C. Rooney, and F. Steenkamp. 2017. "Sub-Saharan Africa's Manufacturing Sector: Building Complexity." African Development Bank Working Paper Series No 256. Abidjan, Côte d'Ivoire: African Development Bank Group. https://www.afdb.org/fileadmin/uploads/afdb/Documents/ Publications/WPS_No_256_Manufacturing__Employment-Complexity_Analysis_Zc_.pdf.

Bhorat, H., C. Rooney, and F. Steenkamp. 2016. "Africa's Manufacturing Malaise." United Nations Development Programme (UNDP) Regional Bureau for Africa Working Paper Series, Vol.1, No. 3. New York, NY: UNDP. http://jobsanddevelopmentconference.org/wp-content/uploads/2016/10/STEENKAMP-Africas-Manufacturing-Malaise.pdf.

Hidalgo, C.A., B. Klinger, A.-L. Barabási, and R. Hausmann. 2007. "The Product Space Conditions the Development of Nations." Science 317(5837): 482-287. http://science.sciencemag.org/content/317/5837/482.

McMillan, M., D. Rodrik, and I. Verduzco-Gallo. 2014. "Globalization, Structural Change, and Productivity Growth, with an Update on Africa." *World Development* 63(1): 11-32. http://drodrik.scholar.harvard.edu/files/dani-rodrik/files/globalization_structural_change_productivity_growth_with_africa_update.pdf.

VIEWPOINT

African economies and global value chains

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Global value chains (GVCs), in which production crosses at least one border and usually more than one, now make up about two-thirds of global trade. GVCs are a key reason China has been able to increase its role in trade so quickly and pull a large number of workers out of agriculture into labor-intensive manufacturing. But now labor-intensive GVCs are starting to leave China because of China's rising wages and move up the value chain. Much of the movement is to nearby Vietnam or Bangladesh. But some Chinese manufacturers are shifting production to Africa as well, especially to Ethiopia and other East African economies.

At the moment, no countries with high trade costs play a significant role in GVCs, hence the importance of trade facilitation, customs reform, and infrastructure development.

The first Global Value Chain Development Report¹ had many findings relevant for developing countries that would like to increase their role in GVCs. African economies have lowered tariffs on manufacturing products, including parts and components, by 25 percent over the past decade. In Africa today, non-tariff trade costs generally are much higher than any remaining tariffs. These costs include delays with customs clearance,

corruption, and infrastructure deficiencies. Importantly, in GVCs, trade costs cascade because products move across borders multiple times. At the moment, no countries with high trade costs play a significant role in GVCs, hence the importance of trade facilitation, customs reform, and infrastructure development. Of these areas, only South Africa compares favorably with East Asian economies, though some East African states are improving rapidly. In Ethiopia, a number of special zones have been set up to concentrate reform and infrastructure investment in a fixed number of locations. Special zones can be a good start but to have a large impact on the economy the benefits need to be spread to the whole country as soon as possible.

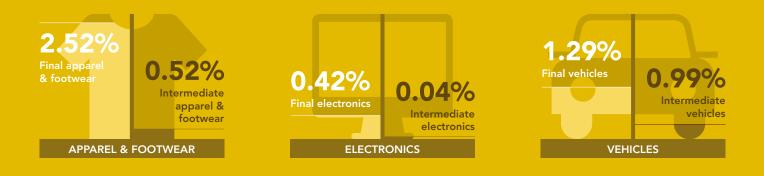
A second relevant matter concerns services. Mostly countries trade manufactured products. But when breaking down the value added in trade, services are playing a greater role and now account for about onehalf of world trade. This trend reflects the importance of software in many "smart" products as well as the growing role of services in managing supply chains—services such as finance, telecom, and logistics. Many African economies are dualistic in that they have opened up to foreign trade and investment in manufacturing, but remain relatively closed in services. This is a losing strategy, as services are needed to participate in modern manufacturing. All of the services mentioned require careful regulation, but if done right, opening up to foreign investment in services can be an effective support to industrialization through GVC integration.

^{1.} World Bank. 2017. Global Value Chain Development Report 2017: Measuring and analyzing the impact of GVCs on economic development. Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/440081499424129960/Measuring-and-analyzing-the-impact-of-GVCs-on-economic development.

FIGURE 4.7

Africa's role in global value chains

Last year, the World Bank Group's World Integrated Trade Solutions database created and published a tool to analyze country participation in three global value chains: apparel and footwear, electronics, and automotive goods. The role of sub-Saharan Africa in these global value chains has followed an interesting evolution in the last 10 years. Today, the export of apparel and footwear makes up 2.52 percent of total trade in sub-Saharan Africa, followed by the export of final and intermediate vehicles. In terms of destination, Europe and North America are the largest recipients of African apparel; apparel exports make up 47 and 35 percent of all African exports to those regions. The large export value of apparel is notably led by Africa's manufacturing pioneers such as Mauritius, where apparel made up 35 percent of it exports in 2016. The large export share of vehicles and car parts is a reflection of South Africa's large export value in that industry.



Africa's exports by category and partners, percent of total exports						
	Apparel & footwear		Electronics		Vehicles	
	Intermediate	Final	Intermediate	Final	Intermediate	Final
East Asia	0.89	1.25	0.17	1.2	0.4	3.97
Europe	4.36	47.44	1.2	6.91	7.62	28.05
Latin America	0.04	0.4	0.01	0.24	0.42	0.47
Middle East	0.24	0.3	0.17	8.13	0.17	1.51
North America	0.26	35	0.14	0.5	0.72	2.37
South Asia	0.3	0.08	0.03	0.2	0.15	0.66

Note: Percent of total trade.

Source: World Integrated Trade Solutions database, WITS, 2017.

Female entrepreneurship in Africa and globally

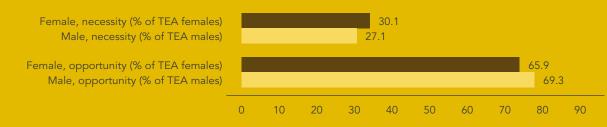
Women in Africa (15 percent) and Latin America and the Caribbean (17 percent) are more likely to start a new business than women in Asia and Oceania (9 percent), Europe (6 percent), and North America (12 percent). They are also more likely than their counterparts in other regions to cite necessity instead of opportunity as the motivating factor behind establishing their business. Still, two-thirds of female entrepreneurs in Africa state that opportunity is the primary motivation for starting their business. Meanwhile, men in Africa are more likely to start a business (20 percent) than women, and male entrepreneurs cite opportunity (69 percent) slightly more frequently than women do (66 percent) as the motivation for starting their business.

14.9 17 Early-stage entrepreneurial activity rates 8.7 (% of adult female population) 6.1 11.9 65.9 67 Motivation for entrepreneurship: 73.3 Opportunity (% of TEA females) 72.9 84.2 30.1 30.7 Motivation for entrepreneurship: 23.9 Necessity (% of TEA females) 23.8 13.1 0 10 20 30 40 50 60 70 80 90 Africa Latin America and the Caribbean Asia and Oceania Europe North America

FEMALE ENTREPRENEURS AROUND THE WORLD

Note: The Total Early-stage Entrepreneurial Activity (TEA) rate measures the percentage of the adult population (18 to 64 years) that are in the process of starting or who have just started a business. It measures individuals who are either nascent entrepreneurs (those who have committed resources to starting a business, but have not paid salaries or wages for more than three months), and new business owners (those who have moved beyond the nascent stage and have paid salaries and wages for more than three months). TEA Opportunity rates measure the percentage of entrepreneurs who reported choosing to pursue an opportunity as a basis for their entrepreneurial motivations, while TEA Necessity rates measure the percentage of entrepreneurs who reported starting a business out of necessity. Source: Global Entrepreneurship Monitor: Global Report 2016/2017. Available at: http://gemconsortium.org/report.

MOTIVATION FOR MALE AND FEMALE AFRICAN ENTREPRENEURS



Female Male

VIEWPOINT

Commitment to women's entrepreneurship and economic empowerment: Why 2018 will be a defining year

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The year 2017 has seen a commitment to furthering Africa's demographic dividend through inclusive access to productive resources and opportunities for all to achieve sustainable development.¹ As leaders grapple with striking the balance between modernizing economies, meeting skills needs, and achieving the demographic dividend, even more attention should be given to closing gender gaps in education, skills, and productive jobs.

We enter into 2018 with a renewed international commitment to the advancement of female entrepreneurship with the launching of the Women Entrepreneurs Finance Initiative (We-Fi) by the World Bank, which aims to leverage more than \$1 billion in commercial and international financial institution financing for women-owned small and medium enterprises.²

As we continue to support efforts like this, two outstanding questions need to be answered to guide investments to successfully advance women entrepreneurship and economic empowerment. 1) What exactly are we promoting (overall economic productivity, entrepreneurship, inclusion, or all)? And 2) what is the planning horizon (long term vs short term)? The answer to these should guide the skills investment strategy.

A persistent concern for policymakers, researchers, and development partners has been that female entrepreneurs are primarily engaged in low-productivity services and industrial sectors, running mostly small- and mediumsize enterprises (SMEs).³ So far, assisting SMEs through improving their access to loans, business trainings, and networking are the most common form of interventions to promote women's entrepreneurship and economic empowerment. However, results have been mixed.

Micro-interventions have proven ineffective.

Research has shown that micro-interventions to provide access to credit and business trainings for the poor have limited effectiveness in bringing major changes in women's economic empowerment.⁴ This calls for more integrated approaches to address women's simultaneous constraints, macro-level interventions, advocacy and collective action, and to promote government accountability to the gender equity cause in and of itself.

^{1.} The African Union for instance has chosen the theme of 2017 to be "Harnessing the demographic dividend and investment in Africa's youth," with a special focus on employment and entrepreneurship, skills development as well as the rights and empowerment of women and youth.

^{2.} Fourteen donor countries already committed over \$340 million to the initiative as of its launch in October 2017.

^{3.} See the AfDB, OECD, and UNDP (2017) report African Economic Outlook 2017: Entrepreneurship and Industrialization, available at: http://www.africaneconomicoutlook.org/en/theme/ Entrepreneurship-and-industrialisation.

^{4.} The World Bank's October 2017 African Development Bank, Organization for Economic Co-operation and Development, United Nations Development Program "African Economic Outlook 2016: Sustainable Cities and Structural Transformation" report, for instance, shows how universal access to foundational skills/primary education coupled with improved maternal and child nutrition could contribute to overall productivity of countries and close the skills gap of Africa's workforce. Read the full report here: https://openknowledge.worldbank.org/ handle/10986/28483.

Better cooperation between the stakeholder-led and bottom-up initiatives is vital.

Recent initiatives to improve women's access to markets and finance include government procurement for womenowned SMEs, gender budgeting, gender mainstreaming (audit) and quotas, and third-party guarantees by regional development banks.

Top-down approaches may run the risk of taking the sense of agency and ownership of women's empowerment from its ultimate owners-the very women these programs are trying to promote.

Government and stakeholder-led interventions can be important tools in promoting accountability to achieve gender-oriented goals by encouraging evidence-based interventions and instilling competition among various stakeholders in generating, seeking, and promoting innovative solutions. These programs' success hinges, however, on the validity of the assumption that decisionmaking bodies know what works best in promoting gender equality. Moreover, top-down approaches may run the risk of taking the sense of agency and ownership of women's empowerment from its ultimate owners—the very women these programs are trying to promote.⁵

Women as change agents and part of the collective action

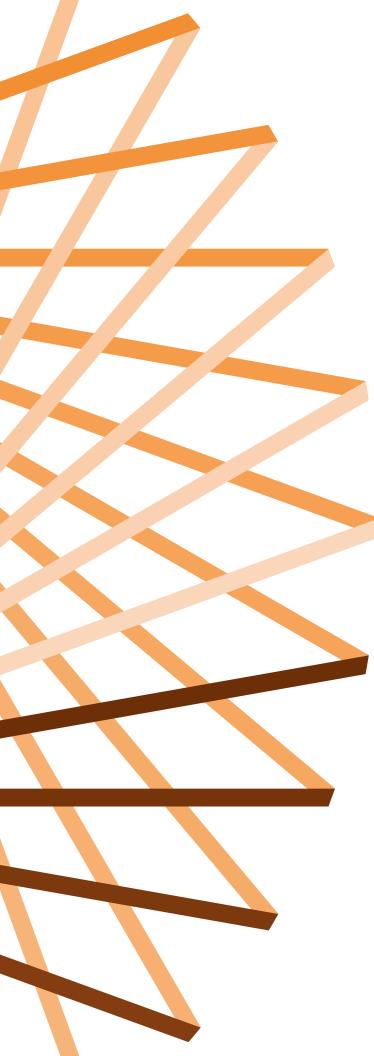
One remedy would be embracing a more pluralistic approach, including promoting and creating a generation of successful women entrepreneurs who are also social entrepreneurs (i.e., making women play leadership, by example, roles in promoting women's economic empowerment) and paying closer attention to the delivery methods of gender programming.

Increasing awareness about the importance of women's empowerment and promoting female entrepreneurship is a welcome trend in the debate about inclusion and economic development more broadly. It is important to maintain this momentum and to monitor the implementation of women's empowerment and entrepreneurship programs for early lessons on successes as well as on areas for improvement.

Psychology, aspiration, and behavioral economics literature for instance points towards the key role ownership and sense of control play in success. For instance, see Andrea Cornwall (2016), "Women's Empowerment: What Works?" *Journal of International Development* 28, 342–359, and Stefan Dercon et al. (2014), "The Future in Mind: Aspirations and Forward-Looking Behavior in Rural Ethiopia," CSAE Working Paper Series 2014-16. Oxford, U.K.: Centre for the Study of African Economies, University of Oxford.

HARNESSING AFRICA'S DIGITAL POTENTIAL:

New tools for a new age



CHAPTER 5

New frontiers in Africa's digital potential

Njuguna Ndung'u

Former Governor, Central Bank of Kenya

In 2018 and beyond, digitization will provide an important avenue for African economies to leapfrog not only financial development but also development across other sectors of the economy. There are infinite opportunities on the digital platform, and fintechs are working round-the-clock to develop and introduce new products here. However, these changes will benefit only those economies that embrace digitization, invest in the required infrastructure, and introduce commensurate regulatory technology. Digitization is transforming African economies in four major ways: retail payments systems, financial inclusion, sustainable business models, and revenue administration. Given that Kenya has stood out in its success in pursuing and utilizing digitization, the experiences of the country, explored in this essay, shed light on Africa's digitization potential in 2018 and beyond.

Digitization is transforming African economies in four major ways: retail payments systems, financial inclusion, sustainable business models, and revenue administration. **Digitization and retail payments systems:** Digitization has revolutionized the retail payments system and the payments infrastructure. Economies are saving billions of dollars per year by using electronic payments and centralizing those payments. The retail payments infrastructure is one of the earliest beneficiaries of mobile-phone based payments and transactions platforms. Electronic payments platforms save on transactions costs in terms of time, travel, and even unit costs. Indeed, this revolution cuts across rich and poor, underserved and unserved, and formal and informal businesses.

Given this transformation, it is time in 2018 for all African economies to join the Better Than Cash Alliance (BTCA)—a global partnership that encourages the shift away from cash and towards digital payments—advocate for electronic retail payments migration, and develop the requisite payments infrastructure so that government payments can be centralized into an electronic payments platform. The potential economy-wide benefits are immense. We expect African economies to benefit from all these developments.

Digitization and financial inclusion: Digitization has become an easier platform to support financial inclusion and female financial empowerment. Obstacles to financing access, such as physical distance, minimum balance requirements, little to no credit, and low-income flows can be circumvented. Savings have increased, micro-savers have opened bank accounts, and banks are now able to price short-term loans. In fact, currently there are over 20 million virtual savings accounts (one bank accounts for 18 million of these virtual savings accounts five years after the product was launched) that have been opened in the last five years compared to about 30 million deposit accounts in the banking sector. Not only has digitization in Africa brought financial services to the doorstep, it has been an important avenue for creating market access. The benefits are clearly widespread and attractive, and new virtual savings products and platforms continue to emerge (see Table 5.1).

TABLE 5.1. VIRTUAL SAVINGS AND SHORT-TERM CREDIT SUPPLY PRODUCTS FOR THE POOR IN EAST AFRICA

New and innovative products for financial inclusion through digitization are popping up around the continent. The four below show the variety and accessibility of these types of products in East Africa.

Product	Country	Launched	Number of accounts	Average savings	Average Ioan size	Average Ioan repay- ment period	Total loans disbursed	Non- performing loans (industry average is 5.3%)	Other notes
M-Shwari	Kenya	November 2012	20.4 million*	\$6.00	\$31.62	26 days	\$2.09 billion	2.30%	67% of users are under age 34
M-Pawa	Tanzania	May 2014	6.5 million (65% active)	\$1.51	\$16.60	28 days	\$63.7 mil- lion (2,612 loans per day)	7.4% for scored cu- stomers and at 17.2% for randomly selected customers	-
Mokash	Uganda	August 2016	2.71 million	\$0.41	\$7.75	19 days	\$9.2 million (2,761 loans per day)	-	-
Mokash	Rwanda	February 2017	556,202 (100,000 active)	-	\$10.25 with average Ioan fee of 9%	-	\$354,000 (1,004 loans per day)	7.7% for scored customers	Customers can borrow up to \$500 at an interest rate of 7%

Note: *M-Shwari Lock Savings accounts are flexible fixed deposit accounts offered depending on the customer's purpose of savings. The customers have a target to save. So far, 234,346 accounts are in this Lock Savings product, and the average savings target is \$220, with the average lock savings account of \$88 over an average period of 3.9 months.

The entry point of digitization has been through the telecommunications sector, given the diverse products available on the mobile phone and its replication capability across countries. Virtual savings and credit supply platforms enable users to apply for loans, better manage fluctuations in their cash flow, and cope with unexpected needs. This combination of savings and affordable credit shortens the savings/investment cycles for the poor, providing a strong avenue for the links among financial inclusion, inclusive growth, and sustainable poverty reduction. Financial inclusion is thus not an end in itself, but rather an enabler of development, a supporter of progress, and a powerful tool to achieve the Sustainable Development Goals. Notably, in those countries that have embraced digital financial services, financial inclusion has improved, and strong banks have emerged as more people are able to open bank accounts. The increasing deposits from these bank accounts have enhanced the capacity of banks to intermediate savings and innovate.

Digital financial services create opportunities beyond financial inclusion. For example, they have supported the formulation of effective and forward-looking monetary policy frameworks; the East Africa region is an important example. The fact that currency outside the banking sector has declined and innovations in the financial system continue to bring more products and participants into the banking sector is important for monetary policy signals. It has become easier to monitor transactions and activities in the financial system, and most countries in Africa continue to improve their anti-money laundering and combating the financing of terrorism regimes significantly.

FIGURE 5.1

Where is innovation highest in Africa?

Innovation "achievers" are countries that have higher than expected Global Innovation Index scores based on their level of economic development. As seen in the map below, many countries in East Africa are leading the way when it comes to innovation. Notably, Kenya, Mozambique, Malawi, Rwanda, Uganda, and Senegal (in West Africa) have consistently outperformed on the index, being classified as innovation achievers at least 5 times in the last six years.



Achiever
 At level
 Below
 Countries with no data

Source: Global Innovation Index, 2017.

Finally, digital payments promote women's economic empowerment by facilitating greater account ownership and asset accumulation, thus increasing women's economic participation. Women can save in platforms and products that cannot be encroached; they are able to borrow and invest. Women in Africa are efficient savers and investors. Digital payments enable confidentiality and convenience. In many cases, this is the first account that a woman has in her own name and under her control. As noted in the 2016 FinAccess survey results for Kenya, formal inclusion among women accelerated between 2009 and 2013 due to considerable adoption of mobile financial services.

Digitization and sustainable business models: Different products have been rolled out on the digital platform to cater to the other sectors of the economy, like energy and agriculture, to better reach a market segment or increase productivity. Digital platform sustainable business models can be developed across the economy to resolve the binding constraints and to support productivity growth in those sectors. Products like M-Akiba for micro-investors in government securities, M-KOPA for solar energy supply, and the One Acre Fund program in agriculture are making a difference outside the financial sector.

- One Acre Fund: Small-holder farmers in Africa require financial products that offer flexibility to accommodate their lumpy and seasonal income. One Acre Fund, operating in East Africa, has created a loan product that fits the needs of these farmers. The fund procures high-quality farm inputs (including improved seeds and fertilizer), ensures timely and convenient distribution of those inputs, trains small-holder farmers on the inputs to maximize returns on their investment, and assists in market facilitation to maximize profits. Since 2014, One Acre Fund has enabled farmers in Kenya to make loan repayments digitally using M-Pesa instead of cash. The loan product offers farmers flexible repayments with no repayment schedule on the M-Pesa platform: Borrowers can pay as little or as much as they want at any time and can complete repayment by the final deadline. This flexibility allows farmers to closely match repayments to cash flow and reduce pressure on household finances. The results from One Acre Fund show that a combination of farm inputs (including improved seeds and fertilizer) and convenient and timely delivery has enhanced productivity, increased income per acre by 50 percent and has generated a dollar impact of roughly \$135 per farmer.
- M-Akiba: Launched in March 2017, M-Akiba is a micro-investment in government securities using the mobile phone payments platform. Notably, it is the world's first mobile-only retail bond. The government aims to borrow KSh 5 billion (approximately \$50 million) through the M-Akiba bond to fund government infrastructural development projects with a coupon rate of 10 percent. With M-Akiba, Kenyans can save money and earn interest every six months, with a small initial minimum investment amount per account of KSh 3,000 (approximately \$30) and consecutive trades in multiples of KSh 500 (approximately \$5). Table 5.2 presents the first intake of the bond after the launch in March 2017. It shows that the KSh 150.04 million (approximately \$1.5 million) uptake of the M-Akiba bond was mainly dominated by small investors who invested less than KSh 10,000 (approximately \$100). Those who invested the minimum amount of KSh 3,000 constituted 31 percent of the total investors, whereas those who invested between KSh 3,001 and KSh 10,000 constituted 34.5 percent. So far, 5,691 Kenyans have invested in this product at its initial phase. Thus, digitization has made it possible for micro-savers and micro-investors to participate effectively and efficiently in the financial system. In addition, this innovative domestic resource mobilization strategy allowed the government to access a pool of

The KSh 150.04 million (approximately \$1.5 million) uptake of the M-Akiba bond was mainly dominated by small investors who invested less than KSh 10,000 (approximately \$100).

Rethinking African growth and service delivery: Technology as a catalyst

Rosanna Chan @l_am_rose Digital Economist and Entrepreneur

The digital internet age is presenting major opportunities in the development space in the 21st century. In every single sector, technology is disrupting the status quo: from financial access to property rights, from health to education, from energy to water, as well as government services, measurement of outcomes, implementation methods, and ways to connect to stakeholders like never before. For the first time in human history, we can theoretically connect to every single stakeholder. Technology can exponentially facilitate the achievement of development goals through rapid scale, and, hopefully, also provide dividends for the world's poorest people.¹

For the first time in human history, we can theoretically connect to every single stakeholder.

While 20th century development goals remain and the historical challenges to development persist, technology introduces both new tools and new objectives. How is technology re-defining the development space?

Creating a fundamental shift in structure of economies

Modern economies have followed a growth trajectory that transformed economic structure from agriculture to manufacturing to services. The 21st century introduces the next economic structural shift, where value will be driven by digital assets, intellectual and knowledge goods, data, and information. Economies will derive comparative advantages from their ability to transform, utilize, and process digital sources of value. This change poses both opportunities—and threats—to the economic growth of emerging markets and developing economies. On one hand, technology can help countries overcome many barriers to growth across the board very quickly: from online education to maternal health tracking, from food tracking along the value chain to drone delivery of medicines, from the provision of government services through mobiles, to accessing international markets by producers. The success of M-Pesa shows that Africa's large young population are tech savvy and quick to adapt to technological changes.

On the other hand, the digital divide separating economies that can adapt to new technologies to those who cannot can exasperate global inequalities, create poverty traps, and exacerbate vicious cycles of poverty.

Transforming the roles of producer and consumers, employers and self employed

In the digital age, technology has altered what traditional labor looks like. The 21st century saw the advent of consumers selling goods and services to other consumers at a global scale, acting both as producer and consumer. This includes the sale of personal goods online, such as through Amazon, eBay, and Etsy, to the sale of services, such as Airbnb, Uber, and Lyft, to financial services via peer-to-peer lending and crowd funding.

Within internet-facilitated peer-to-peer exchanges, shared economies allow optimization of underutilized resources by sharing access to goods and services among users—introducing an entirely new sector that

^{1.} Schiller, Ben. 2016. "How The Technology Behind Bitcoin Is Going To Change The Lives Of The Bottom Billion." co.exist.

generates additional income-earning opportunities. Shared economies blur the lines between formal versus informal sectors, producers and consumers, and employers and employees.

Not only does this new economic structure blur these lines but it also raises participation in the gig economy—nonpermanent employment usually across various tasks such as freelancing, impact sourcing, Uber driving, Samasource. org, Upwork (formerly eLance), and Airbnb. Most recent estimates indicate that as much as about 34 percent of the U.S. workforce participate in the gig economy, and this number is expected to rise to 43 percent by the year 2020.²

Now, African countries are already some of the most active participants in international outsourcing platforms such as Upwork, and the Nigerian government launched a "Microwork for Jobs initiative" Naijacloud in 2013.³ With these increasing global job opportunities, it is an imperative to invest in education, particularly in STEM (science, technology, engineering, and mathematics) and language skills to ensure competitiveness in the future digital global economy.⁴

Rethinking public provision and institutional relationships

Economic growth in 2018 and beyond depends on public sector digital adoption, just as much as on the

private sector, to ensure a cohesive digital environment for growth and to maximize human welfare. "Govtech" is a growing area of technology that aims at increasing efficacy and efficiency of government functions. In particular, the internet and blockchain technologies facilitate the growth of decentralized networks that reduce the need for third-party verification and minimize bureaucracy.



Economic growth in 2018 and beyond depends on public sector digital adoption, just as much as on the private sector.



Given that the internet now offers means of communicating like never before, it is changing the way that governments, citizens, and the private sector engage, as well facilitating global action, coordination, and implementation. From citizen engagement on pertinent policy changes, to greater facilitation of global trade, the advent of digital technology offers unprecedented opportunities to reimagine governing institutions not only to be better adapted to the 21st century, but to better the welfare and opportunities of all people on earth.

Gillespie, Patrick. (2017). Intuit: Gig economy is 34% of US workforce. CNN Money. Available at http://money.cnn.com/2017/05/24/news/economy/gig-economy-intuit/ index.html

^{3.} Aginam, Emeka. 2014. FG implements Naijacloud initiative in 36 states. Vanguard. Available at https://www.vanguardngr.com/2014/09/fg-implements-naijacloudinitiative-36-states/

Manlan, Carl. 2017. The gig economy is good but invest in education and SMEs. The East African. Available at http://www.theeastafrican.co.ke/oped/comment/Gigeconomy-good-but-invest-education-and-SMEs/434750-4083758-pet6pn/index.html

savings that was out of reach before to finance its projects and small savers to earn interest on their funds. The idea that small savers can use their savings to lend money to the government and make investments with good returns marks the success of digitization in Kenya transcending market segments.

TABLE 5.2. THE M-AKIBA UPTAKE

The M-Akiba bond (named after the word for "savings" in Swahili, "Akiba"), launched in March 2017, to great success. In fact, the bond sold out just 13 days after launching. This three-year bond is sold only via mobile phone and goes for as low as \$30, opening access to government bonds to low-income and rural citizens.

Amount analysis by band (KSh)	Value (KSh million)	Number of investors	Share in total number of investors (%)
Minimum amount = 3,000	5.31	1,772	31
3,001 - 10,000	13.3	1,963	34.5
10,001 - 20,000	9.74	595	10.5
20,001 – 50,000	25.19	677	12
50,001 – 100,000	28.52	366	6
Above 100,000	67.98	318	6
Total	150.04	5,691	100

Note: As of December 4, 2017, \$1 is equal to 103.09 KSh. Source: The National Treasury, Government of Kenya.

- Water vending machines: Providing an adequate supply of water to households remains a challenge for government in several African countries. In Kenya, for example, an estimated 36 percent of the population does not have access to clean drinking water, with the problem acute in arid and semi-arid rural areas and urban slums. In Nairobi's Mathare slums, a public-private partnership between Nairobi Water and Sewerage Company, Safaricom (a telecommunication company), and Grundfos (a Danish water engineering firm) resulted in the installation of water vending machines. To buy clean water, users load points onto smart cards with credit bought on-site or via their mobile phones, then use the cards to access the water vending machines around the slum. With a simple swipe of their smart card, water is released from the main storage and into a waiting container. Through M-Pesa, payments are collected from customers more efficiently, while a cloudbased system receives and publishes all transactional and operational data from each water dispenser, ensuring accountability and reducing service costs. The machines are revolutionizing water availability and distribution to the poor slum dwellers that have long been at the mercy of water cartels. The outcome seems to show that with the introduction of this payments platform, unit costs have declined substantially. The weekly expenditure on water in the slum has been reduced from KSh 250 (\$2.5) to KSh 2.50 (2.5 cents)—a 100 percent reduction on water costs. Electronic payments not only increase efficiency and cut out the middlemen, but above all flatten the market segmentation introduced by cartels.
- M-KOPA Solar: M-KOPA is an innovative solar power solution program that helps low-income consumers acquire high-quality, affordable energy. The M-KOPA inventors developed a proprietary, patented technology platform that combines an embedded global system for mobile communications and mobile phone payments capabilities to facilitate financing of the solar power

VIEWPOINT

Can technology help leapfrog education in Africa?

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The talent and energy of Africa's young people is being poorly served by many of its underperforming education systems. Across low-income countries, only 8 percent of children are on track to master basic secondary education level skills in such areas as math, language, and critical thinking.¹ According to our analysis, it will take the average student in sub-Saharan Africa almost 100 years to catch up to the average student in high-income countries in terms of how many years of school she will attend and how much she will learn.² Given that the numbers of young people in Africa are only set to increase in the coming years, education systems must find new ways of fully supporting their talents.

It will take the average student in sub-Saharan Africa almost 100 years to catch up to the average student in high-income countries in terms of how many years of school she will attend and how much she will learn.

Investing in Africa's young people by giving them the skills they need for the future is perhaps one of the smartest strategies for accelerating progress in the region. Some argue that this education-led growth is the way of the future, particularly when analyzing the changes technology will likely reap on jobs, including transforming many low-skilled jobs into ones that will require more complex, non-routine cognitive and inter-personal tasks. Therefore, the question remains: Can the creativity and innovation that is taking place across Africa be harnessed to help rapidly accelerate education progress?

This is a question we examined in the recent report *Can We Leapfrog? The Potential of Education Innovations to Rapidly Accelerate Progress.* Around the world, Africa is well known as a leader in "leapfrog development," namely accelerating development progress by skipping entire phases of infrastructure- and institution-building. Mobile banking is a successful example. If such rapid, nonlinear progress is possible in these areas, why could the same not be true in education?

It is possible but will require significant shifts in the way education is done.³ Already, sub-Saharan Africa is ripe with education innovations, making up 23 percent of the catalog. In our study, countries such as Kenya, South Africa, and Uganda are hotspots of education innovations, hosting approximately 60 percent of the innovations from the region.

Kenya, South Africa, and Uganda are hotspots of education innovations, hosting approximately 60 percent of the innovations from the region.

Given the scope and scale of the education challenges we face, well-deployed technology can provide

^{1.} The International Commission on Financing Global Education Opportunity. The Learning Generation: Investing in education for a changing world. September 2016

In our report, Can We Leapfrog? The Potential of Education Innovations to Rapidly Accelerate Progress, we lay out a leapfrog pathway for education that centers on four essential domains: learning and teaching, recognizing and learning, people and places, and technology and data. Against this pathway, we have developed and analyzed a catalog of nearly 3,000 education innovations around the globe and identified promising approaches that could help young people leap ahead in their education.

meaningful support to global leapfrogging efforts. In sub-Saharan Africa, innovators are leveraging technology to reach out-of-school children, enhance classroom engagement, disseminate classroom materials, and track student progress, among other things. For example, television and SMS technology are often used to deliver content to children and teachers, and information and communication technology centers, providing materials and training opportunities, are increasing educational access both in and outside of schools.

Most technology-based education innovations in the region utilize existing tools in new ways. Eneza Education, with its reliance on SMS, is one example of such practices. A private sector program operating in Ghana, Kenya, Tanzania, and Zimbabwe, Eneza provides students with mobile access to quizzes connected to the national curriculum. After completing the assessments via text, students receive feedback and mini-lessons targeting areas where they need support. Teachers use their phones to track student progress, identifying students' strengths and weaknesses. The results of such interventions are promising: Internal evaluation results showed that students who used Eneza increased their scores by 5 percent compared to a control group.

Most technology-based education innovations in the region utilize existing tools in new ways.

With an openness to innovation, sub-Saharan Africa shows great promise for leapfrogging in education. Though projects that utilize technology to transform existing education practices are currently outliers in educational innovations, they offer bright examples of the potential to close the 100-year gap. If we are to leapfrog education for learners in Africa and beyond, we must make room for bold new approaches; transformative technology has the potential to support such rapid progress. equipment. Customers buy the solar home system on an affordable M-KOPA payment plan, with an initial deposit followed by daily payments through their mobile phones for up to one year. After completing payments, customers own the product outright. As of May 2017, M-KOPA had connected over 500,000 homes to affordable solar power with 500 new homes being added every day. The estimates from the M-KOPA solar program show that current customers will save up to \$375 million over the next four years on energy costs and enjoy 62.5 million kerosene-free months of lighting.

M-TIBA: The M-TIBA savings product is a mobile phone-based health wallet that enables one to save, send, and spend funds specifically for medical treatment. Money stored in M-TIBA can only be used to pay for treatment and medication at specific clinics and hospitals. M-TIBA uses the internationally recognized "SafeCare" standards to monitor the quality of care available at these facilities. Instead of paying hospital bills for relatives, friends, or staff, it is better to transfer funds from their M-TIBA account. This ensures that they can visit a licensed health care facility of their choice whenever they need to, empowering them to lead a healthy life. M-TIBA's goal of deepening health care inclusion in Kenya is contributing to the realization of the Sustainable Development Goals. Users are encouraged to save as much as possible so that they are able to pay for health care services in full.

Digitization will drive better revenue administration and service delivery: The fourth benefit of digitization is improved service delivery and better revenue administration.

Kenya's eCitizen digital platform has reduced bureaucracy and improved access to government services. Through the platform, Kenyans apply for Government to Citizen (G2C) services and pay via mobile money, debit cards, and eCitizen agents. The platform provides portals that enable individuals to access government services such as business licenses, permits, and registrations; obtaining driver's licenses; processing police clearance certificates; searching for official land titles for Nairobi blocks; and applying for passports.

Another lesson from Kenya is that once the whole economy has embraced digitization, it becomes easy to re-examine the payments platform that will support tax design. The principle of an efficient tax system is that it has low costs for collection and less room for evasion. New digital tax payments platforms are efficient and limit physical interaction between the taxpayer and the tax officer.

With increased financial inclusion and more taxpayers having access to banks accounts and financial services touch points, the Kenya Revenue Authority (KRA) introduced electronic banking to expedite payment of taxes through a secure electronic payments platform in 2016. This development, together with the recent launch of iTax, has enabled single-view of a taxpayer window (one does not need to visit several counters/windows for tax assessment), improved reconciliations, matched payment and bank reports online, allowed for real time monitoring of revenue collection, and introduced system checks and audit trails.

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VIEWPOINT

Fulfilling Africa's agriculture potential: The role of technology

Jennifer Blanke

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Agricultural technologies—improved crop varieties, fertilizers, agro-chemicals, inoculants, and crop management methods—have led to increased global food production of an impressive 3-4 percent on average over the past six decades. In all regions but Africa, crop yields have remained a step ahead of population growth, helping free the world of hunger and famine. Agricultural technologies have also helped dispel a longheld misconception that tropical regions cannot be as productive as the temperate regions of the world. Indeed, new crop varieties adapted to the tropics, combined with good soil science, turned tropical Brazil into one of the major breadbaskets of the world in a few decades. It also led to the green revolutions throughout Asia and other parts of the world. It can safely be said that agriculture as a science sustains agriculture as a business.

Yet decades after the green revolutions in other parts of the world, Africa has not managed to keep up with this trend. Less than a third of African farmers use improved crops, and fertilizer use is the lowest in the world. And the consequences are dire. One in five Africans—160 million people—still go to bed hungry at night, and a large number of children are malnourished, with one-third of Africa children moderately to severely underweight. The power of agricultural technologies to raise productivity and combat malnutrition are desperately needed.

There are some success stories, and the winds of change have started to blow. Efforts in individual countries like Ethiopia, Malawi, and Nigeria show that merely switching to modern crop varieties and modest fertilizer use doubles crop yields and reduces food and nutrition insecurity. Nutrient-dense varieties of crops are also becoming an important part of a powerful arsenal to combat the "hidden hunger" of micronutrient deficiency that robs Africa's children of their future by compromising their immune systems, sight, and cognitive abilities. Simple storage and processing technologies—including hermetically sealed bags and low-cost extruders (machines used in food processing to create uniform outputs such as pasta and breakfast cereals)—eliminate post-harvest losses and add value to the harvest.

More recently, digital technologies have started to transform the lives of small-holder farmers, offering them real-time access to market information and hassle-free direct access to subsidized inputs through efforts such as the e-wallet system, which allows African small-holder farmers to bypass decades of weak public institutions and corruption. Adding market access to these productivityboosting technologies raises farmers' incomes and improves rural livelihoods.

In an effort to accelerate this positive momentum, the African Development Bank is rolling out efforts to rapidly expand access for small-holder farmers—the majority of whom are women—to 21st century agricultural technologies. By taking a regional and agro-ecology crop approach rather than one dictated by national borders and policies, we can deliver high yield and nutritious crop varieties of rice, maize, wheat, sorghum, millet, and cassava, and improved breeds of sheep, goat, and fish to millions of farmers, as well as combat pests and disease threats.

Ultimately, the goal is a paradigm shift from "agriculture as a way of life" to "agriculture as a business" that will foster the positive feedback loop of increased gainful employment, rising incomes, and better nutrition and quality of life throughout the continent. Technologies hold the key to making this happen. Moreover, revenue administration through the Integrated Financial Management Information System (IFMIS), which is integrated into the Kenyan Central Bank's G-Pay system, and the use of the eCitizen technological platform has reduced paperwork and ensured direct transmission of money directly from the accounts at Central Bank of Kenya to intended recipients. Digitization has created more efficient revenue administration from the central government to county governments as well as payments to suppliers and for social protection of target groups by the government.

Also in Kenya, electronic payments platforms have supported the government's social protection programs, especially those that focus on social insurance, social assistance, and affirmative action funds targeted at youth, women, and the disabled, as well as devolved funds for constituencies and marginalized areas. The transmission of these funds to the targeted beneficiaries has been made easier by the digital financial system and without leakages.

These are just a few examples of the process of digitization where success is evident. It allows diversity of products and scalability depending on demand.

Mobile phone penetration across the continent has been unparalleled. The time is right for Africa to leverage this mobile platform to harness its digital potential and facilitate inclusive growth, efficiency, and productivity growth across all sectors of the economy. The economic and social benefits of embracing digitization are substantial.

REFERENCES

Leora Klapper and Singer, Dorothe. 2014. *The opportunities of digitizing payments*. Washington, DC : World Bank Group. http://documents. worldbank.org/curated/en/188451468336589650/The-opportunities-of-digitizing-payments.

Why technology will disrupt–and transform–Africa's agriculture sector in a good way

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Agriculture is critical to some of Africa's biggest development goals. The sector is an engine of job creation: Farming alone currently accounts for about 60 percent of total employment in sub-Saharan Africa, while the share of jobs across the food system is potentially much larger. In Ethiopia, Malawi, Mozambique, Tanzania, Uganda, and Zambia, the food system is projected to add more jobs than the rest of the economy between 2010 and 2025. Agriculture is also a driver of inclusive and sustainable growth, and the foundation of a food system that provides nutritious, safe, and affordable food.

At the same time, Africa's agriculture sector is facing mounting challenges.

While agricultural productivity in Africa has picked up in recent years, it still lags behind other regions, and currently one in four people in sub-Saharan Africa is chronically undernourished. In the coming decades, Africa's food system will be further strained by a population that is projected to rise by 1.3 billion by 2050. And the food security challenge will only grow as climate change intensifies, threatening crop and livestock production. If no adaptation occurs, production of maize—which is one of Africa's staple crops—could decline by up to 40 percent by 2050. Expanding the land that is under cultivation has boosted African agricultural production in the past, but it has come at an environmental cost. Moving forward, the focus must be on intensifying production on agricultural land sustainably without harming the environment.

Clearly, business-as-usual farming is not the right way forward.

Whether it's satellites that provide accurate climate data, Internet of Things devices like smart phones, or cutting-edge innovations like blockchain, technology could be a game changer in boosting agricultural productivity and resilience in a sustainable way. The World Bank is incorporating precision technology into its agriculture projects around the world. We're exploring Internet of Things-enabled smart irrigation devices that combine automated soil water sensors and cloud-based data analytics. These devices can boost crop yields while cutting water use. In Kenya, the World Bank is deploying big data from remote sensing and GIS-enabled technologies to support the implementation of agro-weather analytics that enable accurate weather monitoring. This data will enable small holders to know how and when to apply inputs for optimal results.

All over the African continent, startups and other institutions are leveraging technology in transformative ways.

In Nigeria and Kenya, Hello Tractor is reversing the trend of low mechanization by allowing farmers to hire affordable tractors to work their land, all through their mobile phones. The start-up, which has served 22,500 farmers to date, reports a 200 percent increase in customers' yields. Solar refrigerators are helping dairy farmers in Kenya cool their milk products and reduce spoilage. About 1.2 million farmers in Ethiopia, Ghana, Malawi, and Niger are learning best farming practices through engaging videos from Digital Green—a low-cost way to deliver agriculture extension.

There's more on the horizon. The much-hyped blockchain technology could expand rural finance by making financial transactions more accessible and less expensive, and allow farmers and others throughout the value chain to manage their supply chain more efficiently.

Throughout Africa, technology-led transformation of the agriculture sector is already underway, from farm to fork. And as technology improves and becomes more widely available, disruption in agriculture promises to accelerate.

VIEWPOINT

African entrepreneurship in technology: Challenges and opportunities in 2018

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Technology entrepreneurs in Africa enter 2018 in a precarious position. Fortunately, we've seen gradual improvement in key areas. For instance, venture capital activity has grown and there are more transactions: Since 2012, venture capital has grown by a factor of 8.7 (\$366,000,086 in 2016)¹ and we've seen a 40 percent year-over-year growth in deals closed.²

We need massive investments in decentralized, renewable, and flexible energy solutions to increase access to energy beyond urban areas.

There are also notable improvements in the ease of doing business. According to the World Bank's Doing Business 2018 Report,³ the following African countries were among the top 10 improved nations across the globe: Nigeria, Malawi, Zambia, and Djibouti. Nigeria moved up 24 spots (from 169 to 145).

Because of the global slowdown in 2016, many African markets looked inward and set a foundation for inclusive and more sustainable growth. Specifically, they focused on macroeconomic reform, supported diversification, and emphasized domestic goods. Certain key indicators of growth have demonstrated healthy progress. Namely, there have been more venture capital deals, increased connectivity between markets and entrepreneurial ecosystems, and their macro conditions are heading in the right direction. There are major challenges, however, that require collective problem-solving to unlock the real power of technology entrepreneurship in Africa.

Increase access to capital for early-stage businesses. Foreign direct investment (FDI), venture capital, and financial products from banks are often distributed to established and later-stage companies. The lack of earlystage "market validation" capital must be addressed so that there are sufficient resources to get companies off the ground. Emerging technologies like artificial intelligence, virtual reality, and blockchain will require significant resources to get started and will lean on earlystage capital to build out teams of specialists, acquire required data, and scale technical infrastructure.

Radical solutions to energy deficiency. There's great work under way by African public and private sector stakeholders to bring energy projects to fruition and improve energy regulations and policy. However, Africa's energy needs are urgent and traditional ways of increasing electricity capacity are inherently slow. We need massive investments in decentralized, renewable, and flexible energy solutions to increase access to energy beyond urban areas and serve as a catalyst for growth in an equitable and sustainable way.

Embrace globalization while protecting indigenous industries. Aging in advanced economies and some parts of emerging Asia is weighing on global economic growth. That reality provides African countries with possibilities for

Partech Ventures (2017), VC funding raised by African tech startups totals a record-breaking \$366.8 million in 2016. https://goo.gl/cjP5Bm At the time of publication, the total amount of venture capital investment in 2017 had not yet been reported.

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^{3.} World Bank. 2017. Doing Business 2018: Reforming to Create Jobs. World Bank. Available at: www.doingbusiness.org.

growth and global partnerships. African governments will have to balance courting multinationals to do business in their countries while also supporting nascent indigenous technologies and industries.

Vocational and skills-based training can rapidly mobilize the job force necessary for key industries in a short period of time.

Train youth to be globally competitive. Improving access to quality education and professional outcomes is essential for long-term transformation. However, vocational and skills-based training can rapidly mobilize the job force necessary for key industries in a short period of time. Investing in education and practical and transferable skills training is an opportunity to fortify Africa's greatest asset—its people.

challenges and see opportunities for value creation. Companies like Gebeya prepare young adults in East Africa with 21st century skills like programming, data science, and user interface design—all skills needed to create solutions with emerging technologies. Another company, Scholarx, leverages the African diaspora and innovative financial instruments to make education more affordable for Nigerian students. Aledin Nano and Jamii Africa are two innovative companies taking traditional financial products and leveraging technology to distribute micro-lending and micro-insurance services to the masses. I've met founders who look at the energy deficiency as a massive opportunity to bring renewable and decentralized solutions to market.

African governments will have to balance courting multinationals to do business in their countries while also supporting nascent indigenous technologies and industries.

In the face of uncertainty and adversity, the African entrepreneur not only finds a way to make it work, but also creates solutions that shape the future of the entire continent.

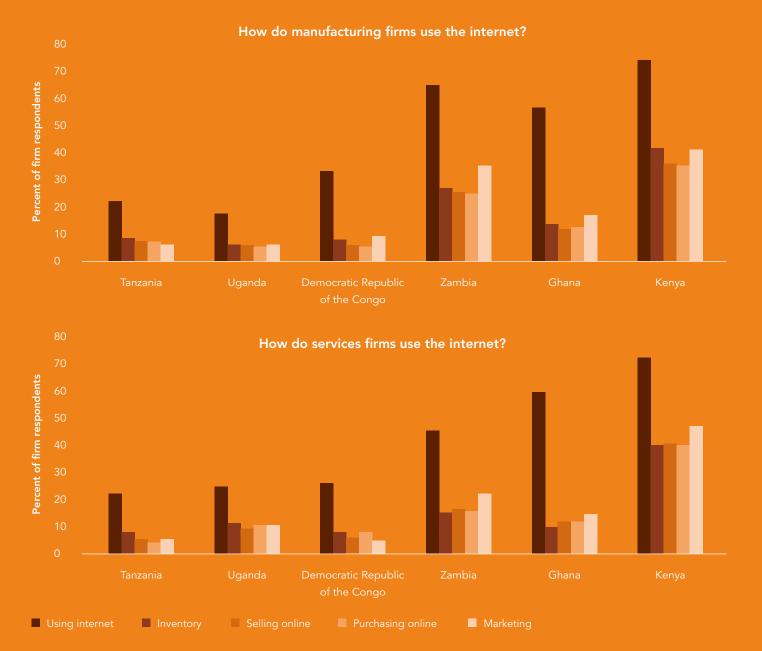
At tiphub, I have had the chance to work with companies faced with some of the above-mentioned

Therein lies the key differentiator of the African entrepreneur. In the face of uncertainty and adversity, the African entrepreneur not only finds a way to make it work, but also creates solutions that shape the future of the entire continent. African entrepreneurs have the ingenuity to solve problems and they will continue to do so. Nevertheless, collaboration and coordination among companies and stakeholders like government agencies, multinationals, and non-governmental organizations can accelerate the path forward toward rapid and inclusive growth for all.

FIGURE 5.2

Firms' use of the internet varies among African countries

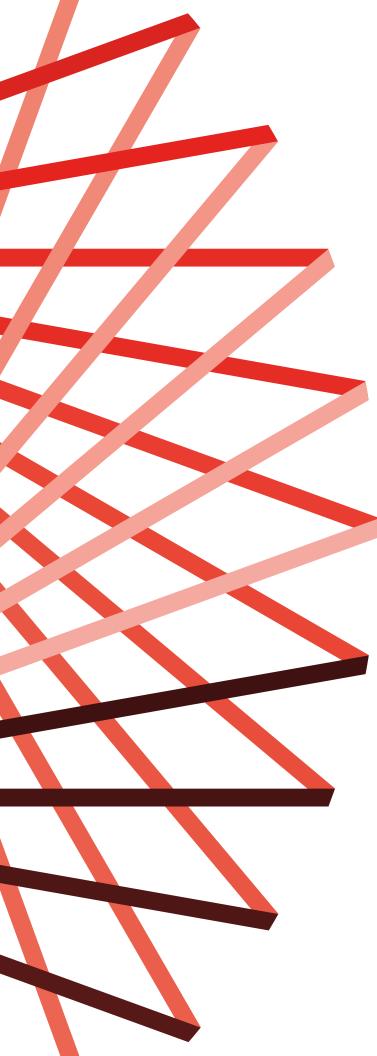
Both manufacturing and services firms in sub-Saharan Africa are increasingly using the internet to manage more and more tasks. Notably, though, use of the internet doesn't vary much when it comes to the sector nor the task. In fact, the country seems to play a bigger role in determining whether a firm is likely to use this technology. The graphs below show the different tasks African firms in select countries in 2014 performed using the internet.



Note: The figures show the shares of firms in the manufacturing and services sectors with at least five employees that use the internet to manage their inventory, sell their goods or services, and do marketing. The results are based on 2,843 firms (1,458 manufacturing and 1,385 service firms) in these six African countries in 2014. Source: Cirera, Xavier; Lage, Filipe; Sabetti, Leonard. 2016. ICT Use, Innovation, and Productivity: Evidence from Sub-Saharan Africa. Policy Research Working Paper; No. 7868. World Bank.

REASSESSING AFRICA'S GLOBAL PARTNERSHIPS:

Approaches for engaging the new world order



CHAPTER 6

China and Africa:

Crouching lion, retreating dragon?

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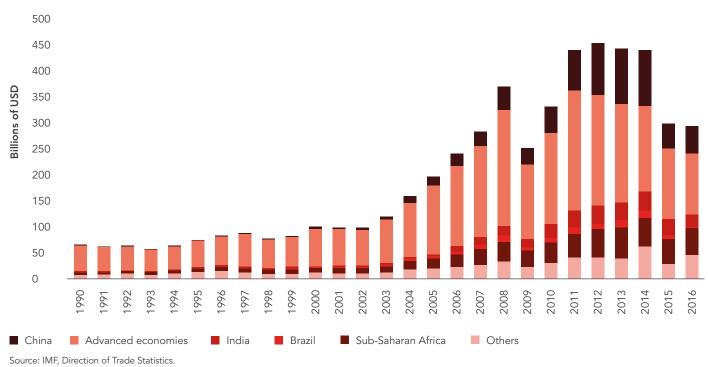
Roger Nord

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China has become, by far, the largest source of bilateral loans, accounting for about 14 percent of stock of total debt contracted by sub-Saharan African countries, excluding South Africa. Africa has forged close economic ties with China over the past 20 years. There are two main channels of economic engagement between Africa and China. The main channel, by far, has been through trade, having risen more than 40-fold over the period. Most sub-Saharan African exports to China are fuels, metals, or mineral products. On the other hand, imports from China to sub-Saharan African countries comprise mostly manufactured goods, followed by machinery. The second main channel of engagement between Africa and China is through Chinese lending. China has become, by far, the largest source of bilateral loans, accounting for about 14 percent of stock of total debt contracted by sub-Saharan African countries, excluding South Africa. Contrary to popular perception, Chinese foreign direct investment (FDI) in Africa remains small—accounting for only a little over 5 percent of the total FDI flow in 2015.

FIGURE 6.1. SUB-SAHARAN AFRICA: TOTAL EXPORTS BY PARTNER

Sub-Saharan Africa's exports to China have grown significantly since the mid-2000s, but in recent years has tapered off, largely due to China's turn toward domestic consumption and away from commodity importing.



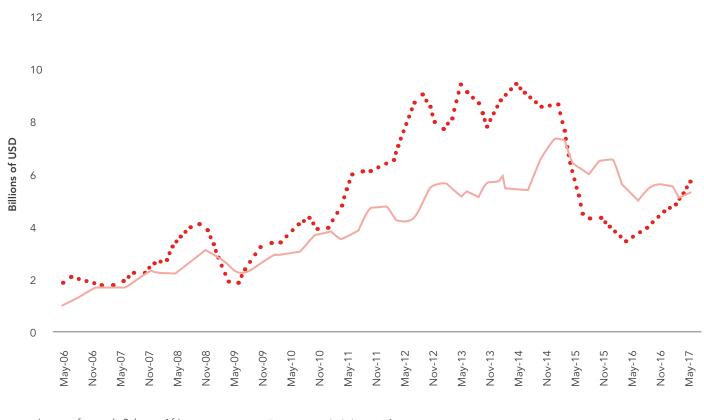
This rapid growth in trade and project financing has served both Africa and China well. For Africa, trade has boosted economic development in many countries, and the financing of infrastructure projects, for which little concessional financing is available, has helped address crucial bottlenecks to industrial development and structural transformation. For China, while trade with Africa remains a small part of its total foreign trade, many of its project loans are tied to Chinese suppliers, and, as a result, about a quarter of all Chinese engineering contracts worldwide by 2013 on a stock basis went to sub-Saharan Africa, with most of these contracts being awarded in energy (hydropower) and transport (roads, railways, ports, or aviation).

Africa's almost decadeold trade surplus with China has now turned into a trade deficit as lower growth in Africa curbs import demand.

Nevertheless, these synergies are coming under severe strain. On the trade side, China's growth is rebalancing away from investment toward relying increasingly on domestic consumption. The resulting drop in China's imports of commodities has hit Africa's commodity exporters hard, especially the oil producers, through sharp declines in both the volume and prices of major commodities (Chen and Nord, 2017). Africa's almost decade-old trade surplus with China has now turned into a trade deficit as lower growth in Africa curbs import demand (IMF, 2017).

FIGURE 6.2. CHINA'S TRADE WITH SUB-SAHARAN AFRICA, MAY 2006-2017

China has recently reduced its aggregate commodity imports, as reflected by the total decline in imports.



••• Imports from sub-Saharan Africa

Exports to sub-Saharan Africa

Source: IMF, Direction of Trade Statistics.

Africa's partnership with the G-20: Compact with Africa in 2018

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Germany's presidency of the G-20 in 2017 introduced a new initiative for supporting African countries' development: the G-20 Compact with Africa.¹ The compact brings together interested African countries with the World Bank Group, the International Monetary Fund, the African Development Bank, and other multilateral and bilateral partners to develop and support policies and actions that are essential for attracting private investment. To date, 10 countries have signed up for the initiative and outlined their aspirations and reform programs under a framework² adopted by the G-20 finance ministers in March 2017.

The compact differs from past initiatives by focusing explicitly on facilitating private investment. Rather than relying on public aid flows, it seeks to create a new dynamic under which African governments work with their partners to target reforms that are essential for attracting private domestic and foreign investment. The compact reflects the reality that public resources are scarce, and only private sector-led growth can meet the aspirations of the continent and its young population for enough well-paying jobs.

The year 2018 will be a critical period during which to make the compact a success. The initial country reform proposals have been encouraging and have galvanized new and additional technical and implementation support from development partners. However, for the Compact countries to meet their objectives, they need to move from processes that are mainly centered on government and traditional donor groups to a deeper dialogue and more dynamic interaction with the private sector. Partner countries, notably G-20 governments, can facilitate this process if they nudge and incentivize their own private sectors to take a closer interest in the opportunities offered by African economies.

What would an eventual success of the Compact with Africa look like? Here are four ingredients:

- Compact countries continue to pursue sound macroeconomic policies and invest in state capacity and good governance.
- Countries and their partners invest in deeper diagnostics of private sector constraints including through a systematic, sustained, and open dialogue with domestic and foreign private actors to pinpoint additional reforms that further reduce country risks and remove specific sector bottlenecks.
- G-20 governments encourage close engagement of G-20 private sector actors with Compact countries to help transform risk perceptions and identify new investment opportunities.
- International financial institutions, such as the International Finance Corporation, and other development finance institutions support new investments with their instruments where risks remain too elevated.

The G-20 Compact with Africa supports a new dynamic focused on the private sector. It relies on close interaction of the public and private sectors to open space for private investment. African governments have a unique opportunity in 2018 to leverage the G-20 initiative and build a better future for all Africans.

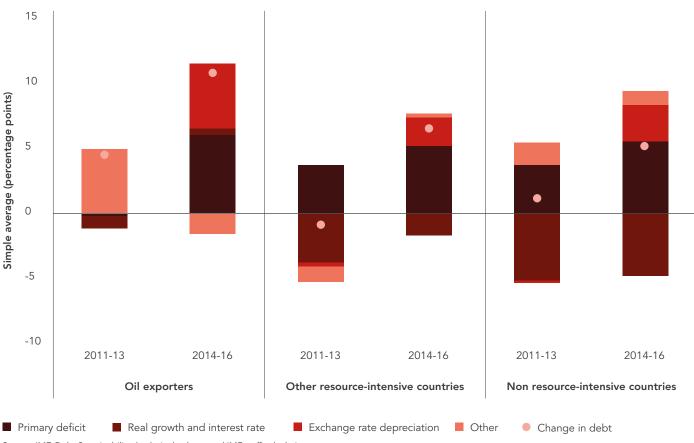
^{1.} For more information, visit https://www.compactwithafrica.org/content/compactwithafrica/home.html.

African Development Bank, International Monetary Fund, The World Bank Group (2017). The G20 Compact with Africa. G-20 Finance Ministers and Central Bank Governors. Meeting March 17-18, 2017 Baden-Baden, Germany. Available at https://www.compactwithafrica.org/content/dam/Compact%20with%20Africa/2017-03-30-g20-compactwith-africa-report pdf

^{3.} For more information, visit https://www.compactwithafrica.org/content/dam/Compact%20with%20Africa/cwa_report_oct_2017/CwA_ReportMinisters_Final_20171012.pdf.

FIGURE 6.3. PUBLIC SECTOR DEBT ACCUMULATION IN SUB-SAHARAN AFRICA, 2010-2016

Rising debt levels in the region are likely to reduce demand for Chinese project financing.



Source: IMF, Debt Sustainability Analysis database and IMF staff calculations.

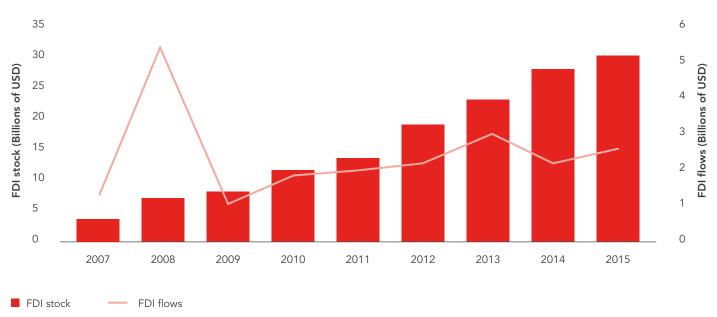


Additionally, borrowing space in African countries is shrinking rapidly. Despite the availability of financing, such as under China's One Belt One Road Initiative, the sharp slowdown in growth in commodity exporters is reducing the demand and the feasibility of large infrastructure projects in those countries. Some are already facing difficulty servicing existing loans. Moreover, while growth is holding up in many non-commodity exporters, rising debt levels are likely to curb Chinese appetite for future project financing. Indeed, public debt in the median sub-Saharan African country rose from 34 percent of GDP in 2013 to an estimated 53 percent in 2017, and debt service as a share of revenue has doubled. In some oil-producing countries such as Angola, Gabon, and Nigeria, debt service amounts to more than 60 percent of government revenues. So, with trade and project financing under pressure, can FDI pick up the slack?

Based on official data from China's Ministry of Commerce, FDI flows from China to Africa peaked in 2008 and 2013 and have slowed down markedly since then. Notably, this decline in Chinese FDI to Africa is occurring despite a surge in Chinese outward capital flow, especially by Chinese corporations, signaling investors' continued appetite for investments and high returns outside China. Of course, this trend is only indicative of the short term.

FIGURE 6.4. CHINESE FDI TO SUB-SAHARAN AFRICA, 2007-2015

After peaks in 2008 and 2013, Chinese FDI to Africa has slowed in recent years.



Source: Chinese Ministry of Commerce.

In the longer term, whether and how much Chinese FDI flows to Africa will depend on how African countries, especially those reliant on commodities, weather this period of low growth and fiscal pressures. The non-commodity-dependent frontier economies in East Africa, for example, could be very attractive new growth markets in the medium term. In fact, this area might be particularly attractive to Chinese FDI that extends well beyond the natural resource sector (Chen, Dollar, and Tang, 2016). As China continues to move up to higher-value-added supply chains, wages move up, and its population ages, sub-Saharan Africa has a unique chance to step into this space. However, the structural transformation needed to achieve that will require investment, notably in infrastructure, just as the official borrowing space is shrinking. That will put a premium on careful project selection to ensure maximum impact. It will also require looking beyond debt-financed investment. Attracting more FDI is one option. The other, inevitably, is building stronger domestic revenue bases so that Africa becomes less dependent on foreign sources of capital.

REFERENCES

Chen, W., D. Dollar, and H. Tang. 2016. "Why Is China Investing in Africa? Evidence from the Firm Level." World Bank Economic Review, published online September 30.

Chen, W. and R. Nord. 2017 "A Rebalancing Act for China and Africa – The Effects of China's Rebalancing on Africa's Trade and Growth". International Monetary Fund, African Departmental Paper Series, 2017.

International Monetary Fund (IMF). 2017. Regional Economic Outlook: Fiscal Adjustment and Economic Diversification. Washington, DC, October.

VIEWPOINT

China's engagement in Africa: What can we learn in 2018 from the \$60 billion commitment?

Yun Sun

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Since 2000, six FOCAC (Forum on China-Africa Cooperation) summits have been held at three-year intervals, with the next one scheduled for 2018 in Beijing if the tradition is to continue. FOCAC has been the primary institutional platform and mechanism for the economic cooperation between China and African states. Perhaps as a part of President Xi Jinping's prestige diplomacy, the level of commitment China made at the 2015 summit in Johannesburg was surprisingly high: The \$60 billion funding promised tripled the previous \$20 billion commitment made during the 2012 FOCAC Summit.

These funds are expected to help address the bottleneck in Africa's economic and social development. In 2015 Xi announced 10 comprehensive and ambitious plans covering industrialization, agricultural modernization, trade and investment, and public health, among others. The implementation of the Chinese commitments in the past two years is indicative of the priority and pace of China's engagement in Africa in 2018 if China is to complete them before the next FOCAC Summit. Three priority areas of China's 2015 FOCAC commitment: industrialization, agricultural modernization, and infrastructure.

China has been ambitious in engaging Africa. In 2018, China will keep promoting the development of industrial parks and attracting investors for them as its feature programs for African industrialization. China has also emphasized industrial partnering and industrial capacity cooperation in Africa-committing to facilitate Chinese private investment, provide technical assistance, and train at least 200,000 local workers.² Already, in Ethiopia, China completed the \$250 million Hawassa Industrial Park in nine months between 2015 and 2016.³ According to Chinese officials, the park has attracted 15 leading textile and garment companies and six are already exporting to the international market.⁴ The China Civil Engineering Construction Company (CCECC) is building three other industrial parks in the country, also financed by Chinese loans and investment.⁵ In Kenya, China's Guangdong New

The \$60 billion includes \$5 billion for grants, \$35 billion for concessional loans and export credits, \$5 billion each for the China-Africa Development Fund and the Special Loan for the Development of African Small- and Mid-Sized Enterprises, and \$10 billion for a China-Africa Industrial Capacity Cooperation Fund.

Interpretation on the Ten Cooperation Plans from the FOCAC Johannesburg Summit and Ministerial Meeting," [中非合作论坛约翰内斯堡峰会暨第六届部长级会议⁶十大合作 计划⁹经贸领域内容解读], December 12, 2015, Chinese Ministry of Commerce, http://www.mofcom.gov.cn/article/ae/ai/2REPORT ON CROP AND LIVESTOCK PRODUCT UTILIZATION01512/20151201208518.shtml.

^{3. &}quot;Hasawwa Industrial Park Attracts First-Tier Companies in the World," [阿瓦萨工业园吸引世界一流公司], June 27, 2017, Afrindex, http://news.afrindex.com/zixun/article9170. html.

 [&]quot;Hawassa industrial park model for Africa: Chinese Ambassador," July 19, 2016, Ethiopia Investment Commission, http://www.investethiopia.gov.et/information-center/newsand-events/344-hawassa-industrial-park-model-for-africa-chinese-ambassador; and Ibid.

 [&]quot;China Provides 260 M USD for Construction of Industrial Park in Adama," May 19, 2017, Ethiopian News Agency, http://www.ena.gov.et/en/index.php/economy/item/3216china-provides-260-m-usd-for-construction-of-industrial-park-in-adama.

South Group started the country's first private industrial park in Uasin Gishu in July 2017 at the cost of \$2 billion.⁶ This park will be an important component for Kenya's Zhujiang Special Economic Zone (SEZ), which is partially inspired by China's SEZ development model. In 2018, China will keep promoting the development of industrial parks to support Africa's industrialization.

One prominent feature of China's agricultural aid to Africa has been through agricultural technology demonstration centers, which integrate with local agricultural industries, but also aim to create solid footholds for Chinese companies in the new markets.

In terms of Sino-African agricultural modernization cooperation, China has targeted improving African agricultural capacity and productivity primarily through experience-sharing, technology transfer, encouraging Chinese agricultural investments in Africa, and setting up new exchange frameworks and programs to bring Chinese experts to these African countries.7 One prominent feature of China's agricultural aid to Africa has been through agricultural technology demonstration centers, which integrate with local agricultural industries, but also aim to create solid footholds for Chinese companies in the new markets. As of 2017, 23 demonstration centers are operating across the continent.8 In addition to demonstration centers,⁹ just recently China agreed to give Zambia new concessional loans to improve its agricultural capacity as well as skills training and increased Chinese investment in the sector.¹⁰ With South Africa, China signed new agricultural sector-related agreements that aimed at facilitating the exchange of experts and technology between the two countries. Similar agreements have surfaced with Nigeria as well. It is foreseeable that China will be pushing agricultural development as a key agenda item in 2018, and hopefully across the continent rather than on a few priority countries.

China's interest in infrastructure goes beyond an increase in trade and population flow via traffic, but also in improving civil aviation traffic capacity, power grids, telecommunication networks, and human resources training.¹¹ Importantly, China's 2015 commitment on infrastructure focuses on the cooperation in railway, highway, and port projects through a variety of financing methods. The successful May 2017 launch of the Chinese-built and financed Mombasa-Nairobi Standard Gauge Railway (the Madaraka Express) in Kenya will only be continued in years to come: If things proceed smoothly, the Mombasa-Nairobi line will eventually link Kenya, Tanzania, Uganda, Rwanda, Burundi, and even South Sudan and Ethiopia.

Looking into 2018, China's infrastructure interests will increasingly diversify into the field of power generation and transmission. Indeed, without electrical power, an industrialization plan will only remain a blueprint. Associated with the power shortage, China seems to echo some African countries' call for the development of renewable energy as the alternative source, which might be counter-intuitive given China's pragmatic and highly cost-conscious approach toward investment in Africa.

Do the numbers add up?

The most intriguing question in assessing China's fulfillment of the 2015 FOCAC commitment lies in the numbers: How much of the committed financing has been disbursed? The answer to that question will determine the level and pace of Chinese financing in 2018. Despite the impressive progress China has made on various fronts, the statistics from the Chinese side are vague and inconclusive. For example, according to *People's Daily*, 243 cooperation agreements were signed between December 2015 and July 2016, with a total amount of \$50.7 billion, including \$46 billion for direct investments and commercial loans by Chinese companies.¹² When interpreting the numbers, the Chinese vice foreign minister

 [&]quot;China firm to build Sh200bn industrial park in Uasin Gishu" Business Daily, http://www.businessdailyafrica.com/news/counties/China-firm-build-Sh200bn-industrial-Uasin-Gishu/4003142-4001688-nnn57w/index.html.

 [&]quot;Interpretation on the Ten Cooperation Plans from the FOCAC Johannesburg Summit and Ministerial Meeting,"[中非合作论坛约翰内斯堡峰会暨第六届部长级会议'十大合作计划'经贸领域内容解读], December 12, 2015, Ministry of Commerce, http://www.mofcom.gov.cn/article/ae/ai/201512/120151201208518.shtml.

^{8. &}quot;China is on a mission to modernize African farming – and find new markets for its own companies" https://qz.com/788657/a-chinese-aid-project-for-rwandan-farmers-isactually-more-of-a-gateway-for-chinese-businesses/.

^{9. &}quot;Zambia, China agric co-operation in fast development mode," April 8, 2017, Zambia Daily Mail Limited, https://www.daily-mail.co.zm/zambia-china-agric-co-operation-in-fast-development-mode/.

^{10.} Ibio

^{11.} Interpretation on the Ten Cooperation Plans from the FOCAC Johannesburg Summit and Ministerial Meeting," [中非合作论坛约翰内斯堡峰会暨第六届部长级会议'十大合作计划'经贸领域内容解读], December 12, 2015, Ministry of Commerce, http://www.mofcom.gov.cn/article/ae/ai/201512/20151201208518.shtml.

^{12. &}quot;Letting the Result of the Cooperation Benefit the 2.4 Billion People in China and Africa Faster and Better," [让合作成果更快更好惠及中非24亿人民], People's Daily, July 31, 2016, http://paper.people.com.cn/rmrb/html/2016-07/31/nw.D110000renmrb_20160731_1-03.htm.

did not explain what percentage of the \$50.7 billion came from the \$60 billion official commitment of financing from the Chinese government. Instead, the official explanation is that the \$60 billion commitment by the Chinese government had achieved a multiplier effect by inspiring private capital and commercial financiers.¹³ Positive as that sounds, it does not answer the question.

At the current rate, the China-Africa Industrial Capacity Cooperation Fund is unlikely to achieve the goal of \$10 billion financing by the end of 2018.

Some statistics from China are less inspiring. The China-Africa Industrial Capacity Cooperation Fund, swiftly established after Xi's announcement in Johannesburg and with the \$10 billion start-up capital from the Chinese government, started operations in January 2016.14 However, after 18 months of formal operation, the fund only approved six projects with a total investment of \$542 million, among which only four received disbursed investment of \$248 million.¹⁵ According to its officials, the fund prioritizes risk management and mid- to short-term equity investment over speed and volume of investment.¹⁶ In particular, the fund cited the dropping investment in sub-Saharan Africa and the plummeting interests by Chinese companies due to the domestic economic slowdown as the key factors influencing the pace of the fund. At the current rate, the China-Africa Industrial Capacity Cooperation Fund is unlikely to achieve the goal of \$10 billion financing by the end of 2018. China might play the word game by pointing out that the capital is indeed disbursed to the fund, yet that hardly counts as funding provided to Africa.

Statistics on the \$35 billion committed concessional loans are even less readily available. In the FOCAC Johannesburg Achievements Implementation Coordinators Conference held in Beijing six month later, it was disclosed that the Chinese Export-Import Bank had approved \$4.3 billion concessional loans to Africa after the 2015 FOCAC Summit.¹⁷ At that rate, China should be able to meet the \$35 billion threshold by the end of 2018.

One issue worth observing in 2018 is how China applies and accounts for the PPP model (public-private partnership) for new investment in infrastructure projects in Africa. Chinese players have taken note of various African governments' interests in the PPP model to meet the funding gap in infrastructure development. However, beyond pure observation, real participation by Chinese companies in such projects have yet to pick up speed. However, given the popularity of PPP for China's discussion of overseas investment, such as for the One Belt, One Road Initiative, it will be highly interesting whether China will experiment more with PPP in 2018.

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2018 will be the last year for China to complete its Johannesburg commitments. China has been making steady progress in meeting its financing promises in areas such as industrialization, agricultural development, and infrastructure. Given its current pace, meeting most of the \$60 billion financing commitment should be on track. However, China will have to make substantial progress under specific categories, such as the China-Africa Industrial Capacity Cooperation Fund in 2018, to meet its promise. New focuses, such as power generation/transmission and the PPP model will be interesting areas to observe in 2018 to identify the next steps of China's priority in Africa.

14. "GM of China-Africa Industrial Capacity Cooperation Fund: The Largest Risk of Investing in Africa Lies in the Exchange Rates," [中非产能合作基金总经理:投资非洲最大的风险是汇兑风险], Caixin, May 12, 2017, http://finance.caixin.com/2017-05-12/101089504.html.

16. Ibi

 [&]quot;\$50 Billion Economic and Trade Agreements Signed between China and Africa in Six Months Does Not Indicate the Official Investment Is over," [中非半年签下500亿美元经 贸协议并不等于官方投资告罄], Yicai, July 31, 2016, http://m.yicai.com/news/5053526.html.

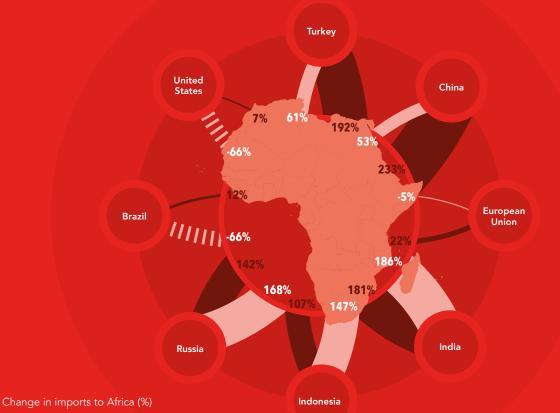
 [&]quot;Investment Roadmap of China-Africa Industrial Capacity Cooperation Fund," [中非产能合作基金首披投资路线图], Jingjicankao, May, 12, 2017, http://dz.ijckb.cn/www/ pages/webpage2009/html/2017-05/12/content_31645.htm.

^{17. &}quot;40 Cooperation Agreements Signed between China and Africa Totaling \$18 billion," [中非双方共签署40项合作协议 总金额约180亿美元], Jingjicankao, August 1, 2016, http://intl.ce.cn/sjjj/qy/201608/01/t20160801_14356597.shtml.

FIGURE 6.5

Africa's new trading partners

Over the last 10 years, sub-Saharan African trade has slowly trended away from developed countries and toward emerging economies. In fact, since 2006, the region's exports to the United States and the European Union have declined by 66 and 5 percent, respectively. For comparison, exports to India, Indonesia, and Russia have more than doubled, as did imports from these three countries and Turkey. While the share of total exports to traditional trading partners (the EU, U.S., and China) remain considerably higher than that of new partners, this progression paints a new picture for the future of African trade.



Change in exports from Africa (%)

Change in exports negative (%)

Countries	Change in imports (2006-2016)	Total value of imports (in millions of USD)	Share of total imports (%)	Change in exports (2006-2016)	Total value of exports (in millions of USD)	Share of total exports (%)
Brazil	12%	51,849	1.5	-66%	95,516	2.7
India	181%	156,632	4.6	186%	310,787	8.7
Indonesia	107%	30,825	0.9	147%	32,847	0.9
Russia	142%	19,675	0.6	168%	5,241	0.1
Turkey	192%	26,139	0.8	61%	10,023	0.3
China	233%	435,737	12.7	53%	459,206	12.9
European Union	22%	874,981	25.5	-5%	827,417	23.2
United States	7%	219,091	6.4	-66%	482,189	13.5
World	56%	3,432,539	100	18%	3,573,221	100

Source: IMF, Direction of Trade Statistics, 2017.

The U.S. and Africa in 2018

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There has generally been continuity in United States policy toward Africa over the last three administrations, and there is potential for that continuity to be sustained under the Trump administration. However, the lack of key appointments and a growing emphasis on security and counterterrorism so far define the Trump administration's approach to the continent. Key Africa policy positionsmost notably the assistant secretary of state for African affairs-have yet to be filled by a Senate-confirmed appointee, and ambassadorships across the continent, including in pivotal countries such as South Africa, Tanzania, and the Democratic Republic of the Congo, remain unoccupied. These vacancies make designing and executing a comprehensive strategy for a diverse, fast-changing continent—a tall task at the best of times virtually impossible.

A year into the Trump administration, which included two days of meetings in November with the chair of the African Union and 37 foreign ministers from the continent, the U.S. approach to the region is still unclear.

Developments in Africa will not wait for U.S. policy to catch-up, and 2018 promises to be an eventful year. Challenges concerning violence, extremism, governance, and human rights will persist, but at the same time the enormous opportunities in Africa, especially in trade and investment, will continue to expand. In past administrations, the United States has engaged Africa through an array of initiatives, such as the African Growth and Opportunity Act (AGOA), the Millennium Challenge Corporation, the President's Emergency Plan for AIDS Relief, Power Africa, the Young African Leaders Initiative, and the Security Governance Initiative. A year into the Trump administration, which included two days of meetings in November with the chair of the African Union and 37 foreign ministers from the continent, the U.S. approach to the region is still unclear.

Concerning peace and stability challenges, the civil war in South Sudan has displaced more than a third of the population of approximately 12 million. The United States has traditionally played a leadership role with South Sudan, but the Trump administration, in part through the closure of the office of special envoy of Sudan and South Sudan, has demonstrated that it does not embrace these historical obligations. In the Democratic Republic of the Congo, President Joseph Kabila's strategy of glissement-slowrolling preparations for elections now scheduled for December 2018, in which he is barred from running due to term limits-threatens to throw the country and, possibly the region, into political chaos. No meaningful actions or pressures have been taken against the regime despite a visit by U.S. Ambassador to the United Nations Nikki Haley, the apparent leader of U.S. policy on these issues.

Violent extremism persists in several African countries with al-Shabaab in East Africa and Boko Haram in the Lake Chad basin. In addition, the multitude of extremist groups operating in the Sahel are likely to garner increasing U.S. attention in 2018 following the death of four American soldiers in Niger in October. The growing U.S. military footprint in Africa, highlighted by an estimated 6,000 troops in the region, the attack in Niger, and a stepped-up response to ISIS militants in northeastern Somalia could overshadow other priorities, such as good governance and human rights, especially given the many diplomatic vacancies and reduction in the State Department budget. Nevertheless, advancing democratic governance should continue to be a top priority for the Trump administration. The greatest potential for democratic progress in 2018 may be found in Zimbabwe, where President Robert Mugabe was dramatically removed from office late in 2017. The United States will face policy decisions concerning how to engage new President Emmerson Mnangagwa (who is closely linked with human rights abuses over decades), whether to remove long-standing sanctions, and how to support elections scheduled for the summer of 2018. Even as Mugabe departs, some of Africa's long-serving leaders, including Ugandan President Yoweri Museveni (a U.S. ally in counterterrorism) and Burundian President Pierre Nkurunziza, are maneuvering to remain in office, which will test the United States' tolerance for leaders to remove term limits and rule indefinitely. In Kenya, another U.S. counterterrorism ally, the political uncertainties resulting from tumultuous 2017 elections may limit democratic and economic progress, and again will test the United States' foreign policy position on democratic governance.

Finally, trade and investment appears to be a secondtier priority for the Trump administration in Africa even though last year U.S. direct investment in the region grew to \$57.5 billion, the highest level ever, according to the State Department. In addition, United States Trade Representative Robert Lighthizer's showed leadership at the AGOA forum in Togo in August. The continuation of the Obama-era Presidential Advisory Committee on Doing Business in Africa housed in the Commerce Department is a positive signal. Commercial opportunities on the continent, especially in infrastructure, power, mobile banking, financial services, and consumer products, will continue to expand, but it remains to be seen whether the administration has the interest or personnel to take advantage of them. There are no indications that the administration plans to transition any time soon to a more reciprocal trade agreement following AGOA to support U.S. exports and investments in the face of the growing dominance throughout Africa of European and Chinese companies.

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VIEWPOINT

Banking on peace in Africa's conflictaffected African states

Raymond Gilpin

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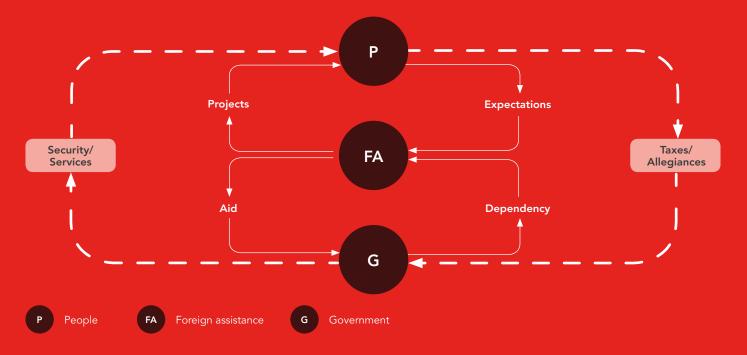
Impressive economic growth rates and increased democratization across Africa are occurring alongside persistent fragility. In some African countries, deepseated governance challenges remain, low-intensity violent conflict persists, and political volatility threatens to undermine democratic gains. This is particularly true in countries that are currently affected by violent conflict. While violence might abate and peace deals get signed, the mammoth goal of stabilizing these countries, rebuilding communities, and ensuring that every African citizen feels secure continues to elude practitioners and policymakers.

Persistent low-intensity conflict undermines recent progress and amplifies existing challenges. Addressing endemic insecurity in Africa's conflict-affected states requires a lot more than peace accords and peacekeeping troops. Repairing the broken contract between those in government and the governed is crucial, though often neglected. Economic revitalization programs, an important part of reform and recovery, are often led and financed by foreign assistance. Unfortunately, "side effects" of these programs are aiddependency, elite capture, a protracted war economy, and perverse political economy relationships. There is an urgent need to rethink the nature, design, and application of foreign assistance in this context.

As Figure 6.6 illustrates, the design and delivery of external assistance programs has fostered a generation of aid-dependent democracies, which have a semblance of participatory and representative governance but are

FIGURE 6.6. AID-DEPENDENT COUNTRIES

Post-conflict external aid has, in come cases, cultivated democracies that are neither effective nor accountable as governments focus on relationships with actors outside the country, especially donors.



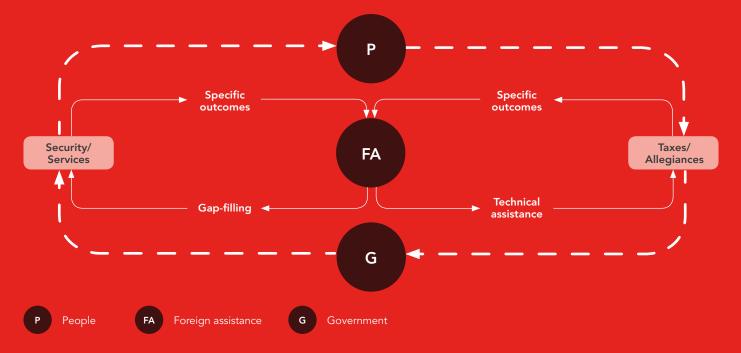
neither effective nor accountable. Matt Andrews et al. (2013) describe this phenomenon as "isomorphic mimicry."¹ While external assistance is necessary in countries recovering from trauma, evidence suggests that by establishing parallel relationships with both the citizens and the governments, such assistance subverts the social contract. Both governments and their citizens invest more time developing relationships with external partners (NGOs, bilateral agencies, and multilateral institutions) than with each other. Consequently, Africa's aid-dependent economies have anemic rates of domestic resource mobilization, weak institutions, entrenched inequality, institutionalized politics of exclusion, and (most importantly) persistent insecurity.

Africa's financial sector could offer a pathway to understanding and addressing this malaise. The government of Poland used foreign assistance differently during its post-Berlin Wall reconstruction phase (Skrobiszewski, 2012).² Rather than do "development as usual," the government used foreign assistance from the United States to establish the Polish-American Enterprise Fund in 1989. Foreign assistance, which was routed through the banking sector and managed commercially by Polish expatriates, was used to jump-start the country's private sector and help create conditions for sustained peace. This innovative approach limited the scope of resourcecapture, forestalled aid dependence, and bolstered domestic resource mobilization. Post-apartheid South Africa also experimented with an enterprise fund with mixed results, largely because their fund was run like a development project and did not have an independent and technical oversight board.³

While external assistance is necessary in countries recovering from trauma, evidence suggests that by establishing parallel relationships with both the citizens and the governments, such assistance subverts the social contract.

FIGURE 6.7. AID-ENABLED COUNTRIES

When external assistance is used to jump-start the financial sector and leverage other financing sources, post-conflict countries can more easily avoid rent capture and support domestic institution building.

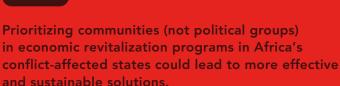


- 1. Andrews, Matt, Lant Pritchett, and Michael Woolcock (2013). Escaping capability traps through problem driven iterative adaptation (PDIA), World Development, Volume 51, pages 234-244. Available at https://doi.org/10.1016/j.worlddev.2013.05.011
- 2. Francis J. Skrobiszewski (2012) Market Making: How Enterprise Funds Can Jump-Start Stagnant Economies --- Innovations, Volume 7, Number 2, pages 33-61. http://www. mitpressjournals.org/doi/pdf/10.1162/INOV_a_00127
- For more information, see: the Southern Africa Enterprise Development Fund Implementation Assistance Report from USAID, available at http://pdf.usaid.gov/pdf_docs/ PNACC728.pdf and the Huffington Post article End of an Era: Southern Africa Enterprise Fund Inspired By Nelson Mandela Comes to a Close, https://www.huffingtonpost. com/carlton-a-masters/end-of-an-era-southern-af_b_3232440.html

Furthermore, foreign assistance could be leveraged to include resources from corporate social responsibility funds, African government programs, and diaspora remittances. This would broaden the scope and scale of program oversight. Rather than replicating traditional development models, Africa's banking institutions and mobile telephony could provide an ideal conduit for reform. As Figure 6.7 illustrates, channeling post-conflict foreign assistance in this manner could contribute to building peace and security in Africa's conflict-affected states by bolstering domestic institutions and bridging the yawning state-society divide. Evidence suggests that communities and countries whose citizenry have a greater stake in economic prosperity and politics are less likely to perpetrate and reignite violent conflict.

Engendering economic recovery in Africa's conflictaffected states is challenging, in part because vulnerable communities are not easily reached with traditional financial instruments. Many of these communities, by virtue of this exclusion, are more susceptible to extremist radicalization.

First, we need a shift in focus from donor-led economic projects to targeted initiatives promoting private enterprise. After decades of policy-driven foreign assistance, it might be time to consider re-configuring our approach in order to prioritize entrepreneurship and leverage other funding streams. This will require audacious leadership, strong partnerships, and innovative thinking; not necessarily new money.





Second, Africa's fledgling mobile banking innovations could be leveraged to facilitate domestic resource mobilization, particularly among the unbanked. The availability of financial instruments at household and community levels could build a viable constituency for peace that rewards the innovators and risk-takers. Digital money platforms could be utilized as mechanisms to enhance accountability. Ultimately, supporting digital and financial innovation is paramount.

Third, prioritizing communities (not political groups) in economic revitalization programs in Africa's conflictaffected states could lead to more effective and sustainable solutions. The use of familiar institutions, relationships, and technology is often better than establishing project-driven parallel delivery mechanisms. Investing in the development of resilient local institutions could serve as a bulwark against what sometimes seems to be an inexorable slide toward violent extremism.

Events to watch

January 22-29, 2018

African Union Assembly Meeting

The 30th Ordinary Session of the African Union (AU) Assembly will take place at AU headquarters in Addis Ababa, Ethiopia, under the theme "Winning the Fight against Corruption: A Sustainable Path to Africa's Transformation." During the meetings, heads of state and government will discuss corruption and other important issues, including the adoption of the Protocol to the Treaty Establishing the African Economic Community Relating to the Free Movement of Persons, Right of Residence and Right of Establishment; the launch of the Single African Air Transport Market; and the implementation of decisions from the report of President Paul Kagame of Rwanda on AU reform.



The adoption of the Continental Free Trade Area (CFTA)

Meetings by African trade ministers in December 2017, during which a broad framework for the Continental Free Trade Area (CFTA) was agreed upon, have paved the way for African heads of state to sign an agreement creating the CFTA in March 2018. Once established, the CFTA will be one of the largest trade agreements in the world and will encompass a market of 1.2 billion people in 55 countries representing a combined GDP of \$3.4 trillion.



The Seventh Forum on China-Africa Cooperation: Beijing, China

China is expected to host the Seventh Forum on China-Africa Cooperation (FOCAC) in 2018, which will serve as a platform for outlining the country's agenda for engagement with Africa until 2021. Since the last FOCAC in 2015, China's partnership with Africa has emphasized investments in industrialization, agricultural modernization, and infrastructure. The seventh FOCAC will take stock of progress in these areas and define new priorities for the three years ahead.

About the Africa Growth Initiative

Who we are

The Africa Growth Initiative (AGI) at Brookings conducts high-quality, independent research, which helps establish long-term strategies for economic growth and strong policies for development in Africa.

Our work & approach

Our interdisciplinary team of experts draws on the core strengths of Brookings—authoritative and nonpartisan research, a depth of practical expertise, and unparalleled convening power—to develop effective solutions that maintain the momentum and broaden the benefits of growth in Africa. AGI distinguishes itself by ensuring that the analysis it produces is:

- **Quantitative:** AGI uses data analysis and empirical research to inform its findings, providing an "economic lens" that is applicable to all discussions on Africa and can help pull together disparate narratives on security, humanitarian crises, geopolitics, and extractive industries.
- **High Quality:** AGI delivers research conducted with the most rigorous academic discipline and subjected to thorough peer review.
- **Collaborative:** AGI partners with experts throughout Brookings and the academic community, as well as with stakeholders around the world to draw on perspectives from business, government, and practitioners in the field.

Our priorities

Pillar I: Sustainable Financing for Economic Development

AGI explores mechanisms for African governments to fill the gaps in their domestic resource mobilization policies

and thus create more sustainable development financing overall through two main themes:

- Domestic resource mobilization (looking inward)
- Financial innovation (doing more with less)

Pillar II: Structural Economic Transformation

In order to build resilience against shocks and looming challenges linked to rapid population growth and high unemployment on the continent, AGI is committed to exploring pathways for structural economic transformation in Africa to achieve sustainable and inclusive growth.

- Maintaining the growth momentum (economic diversification and management of risks)
- Broadening the benefits (no one left behind)

Cross-cutting Pillar: Innovative Technologies for Economic Development (leapfrogging)

The potential for technology to leapfrog in African development cannot be overstated. Under this theme, AGI explores where the next technological innovation can be transformational and how they can be leveraged to deliver on development challenges in various areas.

Pillar III: US-Africa Relations (fit for the 21st century?)

AGI's relationships on the continent and strategic placement in Washington D.C. create opportunities for AGI to engage U.S. and multilateral policymakers on recommendations for an updated and mutually beneficial U.S.-Africa relationship.

- US-Africa and China-Africa relations
- Nexus of economic development, security challenges, and humanitarian issues

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