AFRICA 2050

Realizing the Continent's Full Potential

Emerging Markets Forum

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List of Abbreviations

AfDB	African Development Bank
AU	African Union
DRC	Democratic Republic of the Congo
EAC	East African Community
ECA	(UN) Economic Commission for Africa
ECOWAS	Economic Community of West African States
FDI	Foreign Direct Investment
GDI	Gross domestic income
GDP	Gross domestic product
GMO	Genetically modified organism
IMF	International Monetary Fund
NIC	Newly Industrialized Country
OECD	Organisation for Economic Co-operation and Development
PPP	Purchasing power parity
R&D	Research and development
TFP	Total factor productivity
UN	United Nations

Foreword

Africa is a huge and highly diverse region. It has the second largest population and also the second largest land mass (after Asia) of all regions. Comprising 54 countries of different sizes and with widely different histories, culture, resource endowment, institutional and human capacity, and level of per capita income, the continent offers both a daunting challenge and a major opportunity for economic and social development. What happens in the countries during the next two generations will have a decisive impact not only on the wellbeing of the over two billion Africans who will inhabit the continent, but also on the rest of humanity.

Since 1995, Africa's social and economic performance has been strong. It became the second fastest growing region of world. Its per capita income grew at 2.2 percent annually and the poverty rate fell by a total of 10 percentage points, by far the best performance in the last 40 years. Simultaneously, the continent has made major progress in many, though not all, social indicators including childhood mortality and primary school enrollment.

Africans and their international development partners should derive much satisfaction from the economic and social turnaround since 1995; still, they should neither take this progress for granted nor become complacent. Over the longer term, though Africa has made some welcome progress since independence in the 1950s and 1960s, its progress has been slow compared to South East Asia. Yet this recent progress does provide an excellent foundation for Africa to do even better in the future and catch up with the faster growing emerging economies, particularly in Asia. Then, by 2050 the continent could occupy a place in the global economy that is more representative of its size, population, and resource endowment. To get there, Africa must embrace a more ambitious vision and then work hard to realize it.

We commend the Emerging Markets Forum for developing such a vision in response to a request by the 5th Joint Annual Ministerial Meeting of the African Union and the UN Economic Commission for Africa held in March 2012 in Addis Ababa. In our view, such an ambitious vision and related strategies are necessary to marshal Africa's vast resources—human, physical, and political—effectively and lift an average African's wellbeing to the level she/he aspires and deserves.

In our view, the vision portrayed in this report is ambitious but plausible. African leaders and people must embrace it and do their utmost to achieve it. Failure to do so could put the social and political fabric of the continent at risk.

The biggest danger is that Africans may feel satisfied with the current pace of change. Only if Africans—and their international partners, both public and private—raise their ambitions still further will the continent achieve its full potential.

We congratulate the authors for presenting such a compelling inspirational vision and for discussing some very sensitive topics with professionalism and, at the same time, due respect. The report deserves close attention from all Africans and their partners. We hope that it will lead to urgent action.

Benjamin Mkapa Horst Koehler Michel Camdessus

Preface

Africa is at a critical inflection point. After decades of disappointing performance a combination of sound macro policies and a commodity price bonanza has led to a dramatic and long overdue surge in African growth rates and concomitant improvement in social indicators.

This impressive performance has now created its own challenge for African leadership—the heightened aspirations of their own people and the expectation of the world at large. And responding to this challenge will definitely require more than staying the course—more of the same will not work. It will require bold and tenacious pursuit of multifaceted policies and initiatives that will call for intellectual integrity and single-minded determination combined with political courage at home and statesmanship abroad.

It is in this context that the experience of the other emerging markets economies may provide pointers as African leaders grapple with the complex multidimensional issues of not just maintaining but accelerating economic growth, prosperity and well-being of their populace. To set the stage for defining the opportunities and the promise that can lie ahead, this report sets out alternative scenarios of what the outcomes ***could*** be but not predictions of what they ***will*** be.

The preferred scenario—Africa 2050: Realizing the Continent's Full Potential—is admittedly very ambitious. Under it, between now and 2050 Africa could be transformed. Its people could be much more affluent with their per capita rising six-fold to reach US$17,000 p.a.; absolute poverty virtually eliminated; disparities much reduced; people could have universal access to power, clean water and basic health services; well-educated and trained Africans could compete in the globalized economy; and violence and civil wars could be a distant memory. African economies would under this scenario be vastly more diversified and competitive with a thriving private sector and Africa would become a magnet for global private capital flows and FDI. The economies could generate millions of well-paying jobs, lifting about 80 percent of people into middle class. In parallel, the continent's relations both internally and with the rest of the world could be transformed. The recommended scenario further foresees a seamless Africa with free flow of trade and investments within the region. In the global context, Africa's relations with the rest of the world could be characterized by much greater private capital flows and phasing out of concessional aid. In addition to standing on its own feet, the region could have a greater voice in global governance.

And all this is not just a pipe dream or wishful thinking. Transformative results comparable to this scenario have been achieved in a number of countries—large and small. Unfortunately the obverse is also true—there are a greater number of countries where reform has stalled and promise of a brighter future for their people has been denied. But what is evident is that in both cases the outcomes are traceable to actions of the country's leadership. Leadership matters more than natural endowment or external circumstances

This study outlines a framework and action agenda to realize this ambitious vision. The action agenda is undeniably daunting and many may consider it too difficult. But in my view Africa's leaders, if they are to meet the aspirations of their people, have little choice but to devise and undertake a multifaceted and mutigenerational set of policy actions that can deliver Africa's promise.

Africans deserve no less than herculean efforts by their leaders, present and future, to deliver prosperity and well-being. Even more importantly, the leaders owe this demanding and courageous effort to the billions of Africans in generations to come and to the memory and promise of the founding fathers who fought so hard to win independence and dignity for their people.

Gautam S. Kaji
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Chairman, Centennial Group International
Former Managing Director, World Bank

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The study was directed by a core team led by Callisto Madavo. Other members of the core team were Theodore Ahlers, Harinder Kohli, Praful Patel, and Anil Sood.

The study team worked under the guidance of Theodore Ahlers, who also served as the lead author. This Overview Report was drafted by him together with Harinder S. Kohli and Anil Sood, with information based on the background papers prepared by the following authors (mentioned here in alphabetical order): Emmanuel Akpa, Mahmood Ayub, Anupam Basu, James Bond, Fantu Cheru, José Fajgenbaum, Herve Ferhani, Birger Fredriksen, Jean-Pierre Guengant, Ruth Kagia, Harpaul Alberto Kohli, Brian Levy, Claudio Loser, John May, John McIntire, Serge Michailof, Letitia Obeng, Jeff Racki, Anil Sood, and Graham Stegmann. Drew Arnold provided valuable research support to the authors throughout the project. Kathryn Grober was responsible for preparation of the document. Charlotte Hess designed the cover.

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Key Messages

Africa is at a critical turning point—what it and its leaders do *now* will determine whether the rising aspirations of Africans are met or crushed.

Africa 2050 offers a ***vision of what could be***—an Africa that meets the aspirations of its people and is catching up with the rest of the world in living standards. In such a scenario, by 2050, average *per capita income would increase six-fold* to over US$17,000, moving from one quarter of the global average to one half. An additional *1.4 billion Africans would join the middle-class.* The number of *poor would be reduced ten-fold* to fewer than 50 million. Africa's *share of global GDP would triple* to 9 percent. For people, the biggest change would be *better, less vulnerable jobs with higher productivity.* For economies, the biggest change would be dramatic *productivity increases driven by private sector investment,* diversification and more competition. For the continent, the biggest change would be better integrated sub-regions and *relations with the world based on trade and investment* rather than aid. This ***vision is possible but certainly not guaranteed***—it is just one of several possible scenarios. ***Complacency and inadequate political resolve are the biggest threats*** to realizing it.

Eight drivers of change need to be leveraged and steered to positive outcomes:

- An increasingly *multipolar global economy* offers new markets and new sources of investment
- *Competition for finite natural resources* offers export opportunities for Africa's oil and minerals as well as for agricultural products
- An *aging world* offers growth prospects for Africa from its declining dependency ratio and growing labor force
- *Innovation and technological advances* offer catch-up opportunities
- *Climate change* will challenge Africa and require it to build resilience
- Africa's population will continue to grow—whether this yields *a demographic dividend or a social time bomb depends on accelerating the fertility transition*
- Africa is rich in oil and minerals—whether this constitutes *a blessing or a curse depends on how natural resource rents are used*

- Sixty percent of Africans will live in cities by 2050—whether they are d*ynamic centers of innovation and growth or explosive mega-slums* depends on how cities are planned and run

...and three specific risks need to be managed:

- *Fragility that can lead to continued conflict* poses a threat to security and undermines prospects for investment and growth
- *Inequities within countries and disparities across countries* are slowing the pace of poverty reduction and hampering broad-based economic growth
- *The risk of being mired in the middle income trap* is already holding back the growth of some African countries from middle income to advanced economy status

Africa 2050 offers a strategic framework for managing these drivers and risks and for realizing the bold vision. The framework comprises three dimensions: prosperous people and cohesive societies; competitive economies; and an integrated Africa. Jobs and sustained growth lie at the core of the framework and are the vehicle to build Africa 2050. The specific action agenda is, of course, country-specific but ten issues cut across the continent:

Prosperous people and cohesive societies will require policies to:

- *Promote inclusion*—Inclusion requires equalizing opportunity so that talent and effort determine outcomes and not parent's income, place of birth, gender, or ethnicity. This is a big challenge—Africa is the second most unequal region in the world and disparities are growing.
- *Accelerate the demographic transition*—Educating and creating jobs for 600 million more working-age adults by 2050 in a context of fewer dependents per worker is a challenge but doable. Doing so for 900 million with a growing number of dependents per worker is probably not doable. The pace of fertility decline makes the difference and will depend on progress in educating girls and increasing the contraceptive prevalence rate.
- *Build human capital*—Beyond equalized opportunities, education and skills are the cornerstone of future economic growth. They require action on expanding early childhood interventions, adult literacy and "second chance" programs, education quality, and vocational training.
- *Reduce conflict and fragility*—More than one quarter of Africans are affected by conflict. Regionally, there is a need to strengthen the pre-conflict mediation role of regional institutions and, where mediation fails, their capacity to intervene militarily to halt conflict. Nationally, there is a need to focus on state institutions assuring security and economic ones assuring public services.

Diverse, competitive economies that create jobs will require action to:

- *Foster private sector job creation*—Only the private sector can create the requisite jobs. In order for firms to grow and create jobs they require, in addition to macroeconomic stability, adequate *confidence in the rules of the game* to invest and *exposure to real competition* to drive improved competitiveness and reallocation of resources to the most productive firms. Both require an end to crony capitalism and bureaucratic rent extraction. In addition firms require access to reliable, affordable infrastructure services. Two areas stand out for continent-wide action: *transport logistics* and *electric power.* High transport costs are in part attributable to inadequate infrastructure but also to policies and how infrastructure is managed. Action is needed to improve port performance, foster competition in truck transport, and introduce open-skies policy. Enterprises, whether large or small, cannot be competitive without reliable access to electric power. Continent-wide action is needed to expand the grid for electricity distribution and increase investment in power production—private investment for thermal production and public-private partnerships for hydropower and off-grid solar.

- *Transform agriculture*—There is potential to raise agriculture productivity, increase rural incomes, and expand exports of agricultural products through extensive, mechanized rainfed farming in sub-humid areas; intensive export-crop farming in humid areas; and intensive peri-urban farming around cities. Key areas for action include: improving land access/security, promoting irrigation, strengthening incentives for fertilizer use, and harnessing global technology (including genetically modified organisms).
- *Mobilize and invest natural resource rents*—Africa is rich in oil and minerals. For this wealth to drive the 2050 vision, Africa must mobilize a larger share of the resource rents; transform them into human, physical, and financial wealth; and foster development of world-class ancillary service industries. This requires transparency in terms and payments, world-class expertise in contract negotiation, locked-in revenue management rules, rule-based stabilization and wealth funds, and strong public finance programming.
- *Manage urbanization for growth*—It is private firms that will drive growth and job creation. Cities must provide not only traditional urban services to their residents but also be focused on creating the environment required to attract and nurture private businesses. Urban leaders must pay explicit attention to business-friendly policies, spatial planning, facilitating the links between industry and universities and, importantly, physical security. Progress will require action to establish sound political and fiscal enabling frameworks, effective accountability mechanisms between elected municipal officials and city residents, and a "learning by doing" approach to building municipal capacity.

A continent playing a global role and benefitting from the global economy will require action to:

- *Promote regional trade and cooperation*—Most African markets are small and there is little prospect for firms to grow, specialize, and increase productivity—and thus create jobs—without access to larger markets both sub-regionally and globally. The simplest and highest return activity is to "take down the roadblocks" (both literal and figurative). The first priority of the key regional economic organizations and their member states should be to *pragmatically identify and then aggressively remove the obstacles to people and goods crossing borders.*

- *Make trade and foreign direct investment (FDI)—not aid—the basis for global relations*—If Africa wants to catch up fast, it needs to leapfrog to opening trade and FDI in both goods and services. A focus on identifying and lifting barriers to export and on expanding market access and supply chain integration through FDI with both "old" and "new" partners will be key. Improved trade and partnerships would both facilitate economic growth and reposition Africa globally from a passive onlooker to global debates to a respected participant.

Better governance is fundamental to delivering results. The ten action areas highlighted above are important but they are not new. The challenge is not what to do, but implementation and how to sustain a "do whatever it takes" mentality to get results. Both pragmatic leadership focused on results and capable states with functioning institutions will be required. Hence the key to whether the 2050 vision is realized (or not) will be governance and how institutions work.

There is a *large consensus on what good governance looks like but little on how to get there*—need to focus on strengthening capacity and building credibility and accountability. Fifty years ago the issue was weak capacity linked to the colonial heritage. This is no longer the case. The big capacity issue today is using the skills of the large number of highly qualified Africans. Institutional arrangements are the key—increased professionalism and meritocracy are necessary to mobilize Africa's best. Credibility is built on results and accountability. It requires leaders with a single-minded focus on results, sufficient foresight to evolve to face tomorrow's challenges, and a willingness to be held accountable.

Africa's future is in its own hands. Today's critical juncture offers the opportunity to break with the past and realize the vision of a transformed continent by 2050. *The cost of failure would be staggering in human terms and lead to global marginalization.* Per capita income would be lower by more than US$10,000, some 40 percent of the population (900 million) would be unable to reach middle class status, and an additional 15 percent of the population (325 million) would remain mired in poverty. With most African countries approaching 100 years of independence, a continent with a quarter of the world's population but only 3 percent of its economic activity would not only be highly unattractive but would also find its social and political stability under serious threat.

In addition to the substantive issues highlighted above, ***four intangibles are likely to determine the difference*** between success and failure: the ability of leaders to maintain a long-term focus on results in the face of day-to-day pressures, the willingness of all Africans to pursue *pragmatic—rather than ideological or geopolitical—approaches* to policymaking, the success in creating greater *trust and confidence among countries* in the region, and the commitment and ability of African leaders to modernize governance and strengthen institutions through *enhanced transparency and accountability.*

Chapter 1

Introduction

Background

Africa is at a critical inflection point. After decades of disappointing performance, what it and its leaders do now will determine whether the rising aspirations of Africans are met, and consequently, whether the future promises a cohesive society, prosperous people, competitive economies, and strong regional-global interaction.

After a turnaround in the mid-1990s, Africa's economic and social performance over the last decade has been strong (see Figure 1). This achievement provides the foundation for a concerted and broad-based effort to capitalize on this initial success with a comprehensive program to meet the aspirations of the continent's peoples.

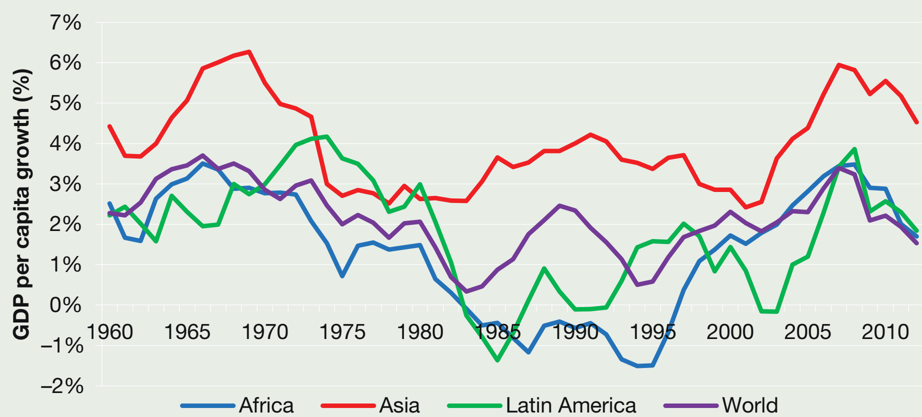
Africa has been the second fastest growing region in the world since the mid-1990s, behind only Asia, but ahead of Latin America, Europe, and North America. GDP grew by 4.5 percent and per capita incomes by 2.2 percent annually; the median poverty rate fell by a total of about 10 percentage points to around 43 percent. Simultaneously, median under-five mortality declined from 135 deaths per thousand to 93 and gross primary school enrollment increased by 35 percentage points to 110 percent.

Rising Aspirations

Since 1995 African economies have exhibited impressive economic growth. This success brings with it new challenges. Two in particular stand out. First, economic history teaches that very few countries have successfully sustained uninterrupted high economic growth over a generation or more. The continent will face daunting challenges to sustain over the next forty years the economic momentum gained since the turnaround started in 1995. Second, Africa's recent success has led to rising aspirations among its people (and expectations worldwide) to see even better performance in the future. However, as recent events in North Africa and the Middle East have demonstrated so vividly, people—especially the young—can become frustrated unless their aspirations are met.

The rising aspirations have rekindled both hope for a better life and the desire to make it happen. Aspirations are also fed by a communications revolution that has made it easy for people to

Figure 1 **African economies have turned around since 1995 (five-year GDP per capita growth rates 1960–2012)**



Source: Centennial Group International.

see what is happening elsewhere. For an increasing number of Africans, it is no longer adequate to be a bit better off than last year or than one's neighbor.

Such aspirations can be described in shorthand as calls for decent jobs and dignity. The continent's human and natural resource wealth combined with some 50 years of post-independence institution-building for most of its 54 countries can potentially provide the foundation for satisfying these aspirations.

Over the last decade, economic growth has been better but Africa has not been catching up with the rest of the world or with faster-growing emerging economies, such as China, India, Indonesia or Turkey. Africans are aware of these experiences and want their countries to become more like the successful emerging economies in East Asia and Latin America. They also frequently see growing inequality at home—sometimes driven by corruption, entrenched vested interests, and state capture—which leads to intensified frustration from unmet aspirations.

The biggest threats to meeting these aspirations are complacency and inadequate political resolve to tackle the big problems such as poor access to quality education, misuse of natural resource rents, entrenched vested interests, unattractive investment climate, and weak governance. Complacency spreads because, after a decade of strong performance, it is too easy to slip into the illusion that strong performance is a trend that will continue quasi-automatically. Inadequate resolve results from underestimating the challenge because even a continuation of the past decade's performance will neither meet people's aspirations nor make Africa catch up with the rest of the world. The challenges to be overcome are big and politically complex.

What needs to be done is in large measure known, but ***how*** to do it is less obvious, and the political resolve and leadership to do ***whatever it takes*** to get the job done will be seriously tested.

A Highly Diverse and Heterogeneous Region

Africa is arguably the most diverse and heterogeneous region of the world. Continental Africa, with its 54 countries, is the second largest continent in both area and population. Given its size and number of countries, it is also exceptionally diverse. Its history ranges from ancient kingdoms to tribal societies. Its geography includes everything from deserts to tropical forests. Its natural resource endowments vary by country, from those with extensive oil and mineral wealth to those with little more than poor soils. Its countries vary in size: six have populations under one million, while three (Egypt, Ethiopia, and Nigeria) have populations over 80 million. At the national level, this diversity is further complicated in much of the continent by borders drawn by colonial authorities that frequently divided rather than united ethnic, geographic, or historical identities.

The economic diversity is as striking as the geographic, historic, or cultural (see Figure 2). The continent has 27 middle-income countries[1], including upper middle-income countries such as Algeria, Botswana, South Africa, and Tunisia that have been solidly middle-income for decades. Of the 21 African countries that were middle-income countries 25 years ago, however, none are high-income today. Africa also has 27 low-income countries[2] with a total population of 490 million (47 percent of Africans), including eight with a population of 207 million where the average per capita income is below US$1.25 a day (current US dollars).

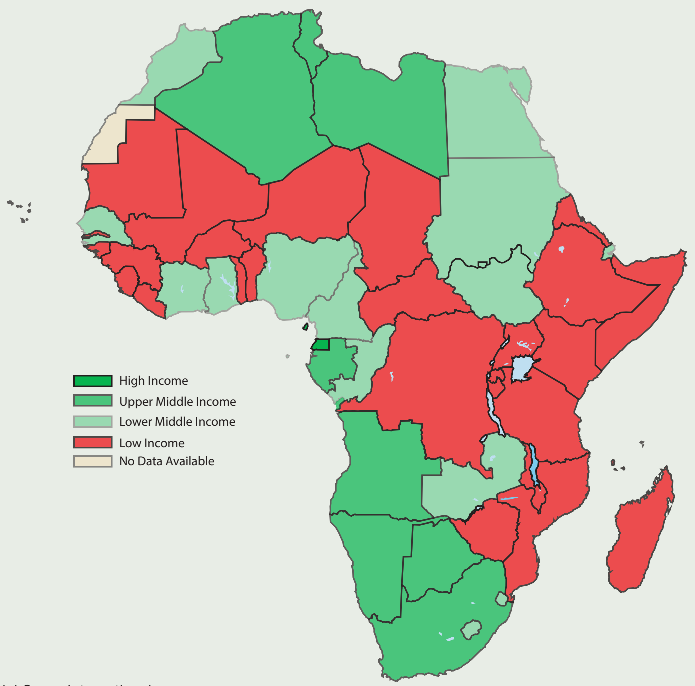
There is thus no "one Africa" but several that share a single land mass, borders, and a history of exchanges among rich kingdoms centuries ago and foreign control through much of the 19th and early 20th centuries. Today it has a number of shared pan-African institutions such as the African Union (AU), the UN Economic Commission for Africa (ECA), and the African Development Bank (AfDB). The region's political leaders now regularly meet to discuss issues of common interest and to forge common approaches and strategies to advance regional economic and social progress. The joint request of the AU and ECA to the Emerging Markets Forum to prepare this report is an illustration of such initiatives.

Such region-wide studies have both value and limitations. They are excellent vehicles for developing and debating a broad vision for the region as a whole, identifying common opportunities and challenges, and agreeing on a general framework for realizing the vision. But beyond

1 Algeria, Angola, Botswana, Cameroon, Cape Verde, Republic of Congo, Cote d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Gabon, Ghana, Lesotho, Libya, Mauritius, Morocco, Namibia, Nigeria, Sao Tome & Principe, Senegal, Seychelles, South Africa, South Sudan, Sudan, Swaziland, Tunisia, and Zambia.

2 Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Eritrea, Ethiopia, The Gambia, Guinea, Guinea Bissau, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Sierra Leone, Somalia, Tanzania, Togo, Uganda, and Zimbabwe.

Figure 2 | **Africa is largely made up of low and lower middle income countries**



Source: Centennial Group International.

this, the specific strategies as well as the action agenda and its timetable must be developed at the level of each economy depending on its unique circumstances, including its economic and political history, aspirations of its people, stage of development, resource endowment, and sophistication of institutions and governance.

What is Unique About This Study?

The point of departure of this report is a vision of where Africa can be 40 years—or two generations—from now. The vision is deliberately based on stretch goals in key social and economic areas. While clearly ambitious, the vision is certainly plausible. The study goes on to identify the key multi-generational and cross-cutting issues, challenges, and risks that must be tackled urgently in order to realize the vision. The intent is to inspire and lift the ambitions of all Africans and their leaders.

Other distinguishing features of the study are:

- It results from the efforts of a highly experienced international team that has no institutional or ideological agenda

- It combines analytical work on the lessons from other regions, particularly from Asia and Latin America, with the best work that already exists on Africa
- It puts forth a framework that transcends the traditional ideological debates and gives equal priority to three overarching prerequisites for realizing the vision: putting greater focus on people and social cohesion; continuously enhancing the competitiveness of African economies; and achieving greater cooperation, trade, and capital flows within the continent and with the rest of the world
- The report focuses on multi-generational issues that require long lead times and are critical for Africa to address to meet the rising aspirations of its people

Study Assumptions and Selectivity

The study is based on a number of assumptions about the global economy. First, it is assumed that overall the world will remain peaceful and there will be neither a widespread military conflict nor a natural or manmade calamity (e.g. nuclear war) affecting a wide swath of humanity. Second, that like the past fifty years, the ongoing historic shift in the balance of the global economy from North America and Europe to the so-called "south" will continue peacefully. Third, that the global financial and trading systems will remain stable and continue to drive further globalization, though with the usual ups and downs associated with business cycles. Fourth, that changes in the global climate will remain within the range currently anticipated by the scientific community. And finally that the pace of technological progress and improvements in the productivity frontier will be similar to that over the past century. If one or more of these assumptions fail to hold then the outcomes for the world economy as a whole, including Africa, could well be outside the scenarios portrayed in the study.

The study is not comprehensive. Instead it covers a limited number of topics that will have a decisive impact on African economies over the next forty years. Other criteria for selecting the topics included: intergenerational nature of the issues, horizontal interplay between the issues, and availability of data for all or the vast majority of countries. In addition, given the limited resources and time available, the study does not cover certain important topics covered by recently completed in-depth, high quality work elsewhere and discussed with African policymakers. These subjects (climate change, domestic and regional infrastructure requirements, regional integration)[3] are recognized in the study, but detailed analysis and the related action agendas are not developed here.

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3 For example, AU. AfDB and ECA, 2010, *Program for Infrastructure Development in Africa (PIDA: Interconnecting, integrating and transforming a continent* and World Bank, 2009, *Africa Infrastructure Country Diagnostic (AICD): Overhauling the engine of growth—Infrastructure in Africa*.

Chapter 2

A 2050 Vision to Meet African Aspirations

If action is taken to sustain and accelerate recent growth by Africa's best performers and to spread that performance to Africa's less successful economies, the rising aspirations of its people can be met, and the Africa of 2050 would be a transformed continent. Such growth implies much enriched human capital, higher investment rates but, even more so, accelerated growth in productivity from rapid adoption of modern technologies, economy-wide reallocation of resources, and fundamental improvements in institutions and governance. Jobs are key to achieving such transformation, the most powerful vehicle to improve people's lives, and perhaps the single most important instrument for meeting the aspirations of Africans.

The vision of Africa in 2050 described below is not a prediction. It is just one of many possible scenarios—the convergence scenario modeled in section 8 of this report—in which convergence in standards of living is driven by free trade that increases wages in labor-abundant countries, capital deepening in countries with lower capital/labor ratios, and most importantly accelerated productivity growth to catch up with productivity levels in advanced economies. It is the stretch vision of what ***could be:*** an Africa that meets the expectations of its people and is catching up (converging) with the rest of the world in productivity and incomes on a sustainable path.

The Big Picture

Under such a scenario, Africa in 2050 would be home to some 2 billion people[1], with a productive and skilled workforce of 1.1 billion. It would be the youngest region in the world, with a labor force larger than that of China or India. The majority of people would live in cities and towns rather than rural areas.

A rapid decline in total fertility rates would have allowed the continent to moderate population growth and allowed the economies to provide quality education and training to youth and create a more productive workforce employed in good jobs. Most notably the economies would generate more stable and better paid jobs in a rapidly growing private sector. The continent would thus reap the benefits of a demographic dividend as East Asia has done in the past 30–40 years.

1 UN low-fertility variant scenario.

The average African would enjoy a nearly six-fold increase in per capita income to US$17,500 from US$2,900 today (2010 US dollars PPP), bringing the average per capita income to half of the global average (up from one-fourth today). An additional 1.4 billion Africans would have joined the middle class and the number in poverty would have fallen by more than 300 million, an 85 percent decline. The vast majority of countries would have achieved a noticeable reduction in disparities and inequities by promoting inclusive growth.

In parallel to this higher sustained economic growth, countries would have achieved major improvements in the quality of life and social indicators. The continent would have universal access (99 percent) to reliable electric power, clean water and basic sanitation, basic and secondary education, and health care. The vast majority of Africans would live without fear of violence and crime.

By sustaining an average annual growth rate of 6.6 percent between 2012 and 2050 (compared to 4.5 percent in the past fifteen years), Africa's share of global GDP would more than triple and reach 9 percent compared to 2.7 percent in 2011.

People, Economies, and the Continent

The big picture outcome of Africa's economic success would be reflected in the quality of life of its people, the dynamism of its economies, and an enhanced role for a more integrated continent on the global stage.

People and society—inclusion and jobs to transform lives

The most telling transformation of the continent would be sharply ***reduced poverty and inequality—based on jobs.*** Able-bodied men and women interested in working not only would have jobs but also would have moved to higher productivity jobs permitting a significant rise in incomes and job security. The majority of Africans would be middle class. This combination would help meet African aspirations for much higher living standards and greater dignity.

The specifics would vary by country, but in the aggregate, the shares of employment in services and manufacturing would have increased, with the fastest growth in wage-paying jobs. Employment in household enterprises would still be large, but even here, productivity would have increased because of a more highly skilled workforce, higher investment, and the more demanding services sought by the large middle class. By 2050 African countries would have developed the ***human capital*** needed to foster rapid, inclusive and job-creating growth, cohesive societies and accountable governments.

An accelerated demographic transition to lower fertility and lower mortality would have permitted the necessary investment in human capital. A well-educated, skilled and healthy labor force would have reinforced economic transformation in multiple ways. It would have raised productivity, enhanced adaptive and innovative capacity, and provided the managerial and technical skills required to run increasingly complex socioeconomic systems. These developments would not only raise per capita income levels many-fold but also sharply narrow the inequities in income and participation in political processes.

Like the rest of the world, Africa would have become urbanized. Sixty percent of Africans would live in ***cities,*** large and small. The continent would have undergone a transformative shift from rural to urban societies, with almost 90 percent of economic activity (GDP) taking place in the burgeoning cities and towns.

The rapidly growing middle class would, in turn, drive much ***improved governance*** throughout the continent. By 2050, the continent would have capable governments accountable to their citizens for delivering security, the rule of law, and key social services. A variety of political systems would all embody sufficient accountability to give citizens the confidence to invest in their future and to prevent state capture by well-connected families or those close to power. As a result, people would see their own future in their country. Visas to emigrate and schemes to get money out of the country would no longer be what people strive for.

The continent's people would finally have rid themselves of the curse of conflicts and violence emanating from the initial ***fragility*** of many African states. The improvement in physical security would contribute to increased productivity and to a greater confidence in the future that would, in turn, mobilize investment.

Economies—private investment to create jobs

Jobs and a skilled workforce would have transformed the continent based on ***increased competitiveness and productivity*** of Africa's economies. The private sector would have become the leading engine for creating jobs on the scale required. Lower costs and increased productivity, combined with larger markets through trade would have led to a large increase in private investment that spurred diversification and job creation. Firms across Africa would serve larger subregional markets and would have both grown and become more competitive in response to the strong competition fostered by trade and to lower costs of inputs, transport, logistics, and other infrastructure services. As a result, productivity levels would have continued to catch up with global best practice.

A fundamental transformation and breakthrough in the ***productivity of African agriculture*** would have allowed the rural population to enjoy a many-fold increase in incomes while also making farms—both large and small—profitable. The share of agriculture in employment would have fallen but much higher productivity would lead to increased agricultural production in response to export demand for grains and specialized crops and strong urban demand for higher value products such as fruit, vegetables, dairy products, and meat. The continent would have become a major supplier of agricultural products to the rest of world.

Africa would continue to ***supply global markets with oil, gas, and minerals.*** It would, however, capture a larger share of the associated rents and have used these resources to invest in human capital and physical infrastructure, avoid the boom and bust cycles associated with commodity price fluctuations, and establish mechanisms to ensure benefits for future generations even as resources are depleted.

Most economies would boast a thriving enterprise sector with a mix of companies of different sizes. Between 20 to 30 African companies would rank among the top 500 global companies investing across Africa and the globe. Many smaller enterprises, with origins as informal enterprises, would be integrated into global supply chains. Businesses of all sizes would have access to needed technology, communication services, and know-how, as well as finance from a deeper financial sector including non-bank financial institutions. Most importantly, firms of all sizes would have access to reliable electricity, water, sanitation and transport infrastructure. Public-private partnerships would be common, particularly in building infrastructure and low-cost housing.

Well-managed ***cities*** (large and small), operating through transparent and accountable governance structures at the local level, would be driving economic growth, delivering key services to international standards and attracting investment through private sector-friendly environments. Cities would serve as incubators for innovation and small- and medium-sized business development. They would be the primary loci for job creation and for sustaining gains in living standards and the absorption of the emerging, educated labor force.

African continent—bigger markets to foster investment and higher productivity jobs

A pragmatic and ***results-focused approach to regional economic integration*** would have produced seamless sub-regional markets where goods, capital, and people move easily across borders. This would have significantly increased the size of the markets for firms based in Africa and thus allowed them to achieve economies of scale necessary to compete in world markets. Intraregional trade would have increased from 11 percent of total trade to some 25 percent.

Africa's ***relations with the rest of the world*** would be on a more equal footing based primarily on trade, investment, and the exchange of technology and knowledge. Africa would have seized the opportunities offered by the convergence of OECD and emerging markets and the shift of global economic weight towards the latter. It would be self-reliant and a respected and active participant in global councils, with a voice in setting the global agenda. Trade and investment would have replaced bilateral and conditional foreign aid based on agreements negotiated on a regional as well as continental level. Africa would be an attractive consumer market and become a magnet and preferred destination for global FDI.

Chapter 3

Historical Perspective and Lessons from Asia and Latin America

AFRICA 2050

Past Performance

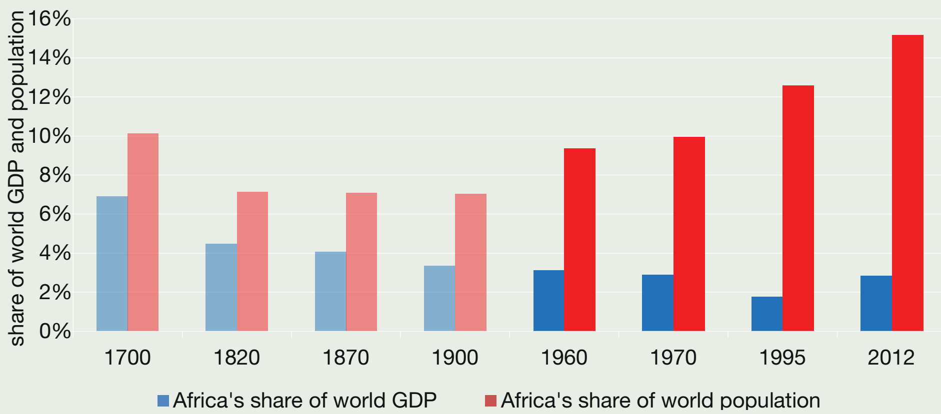
Knowing both where one has been and where one currently stands is essential for getting where one wants to go. Understanding the past is in itself a challenge for Africa since it is so diverse. With a more open but inter-linked continent, the very diversity of experience and endowments would present an opportunity. Africa has much to learn from the experience of other emerging economies, but need not always look outside its borders for solutions. If the "best African practice"—whether in maternal/child care, teacher accountability to parents, fiscal management, natural resource revenue management, or rule of law—were generalized throughout the continent, Africa would be transformed.

Long-term divergence

Economically Africa has diverged from the rest of the world for three centuries. Whatever the reasons—foreign conquest, societal disruption of the slave trade, extractive economic institutions of colonial rule—Africa did not benefit from the surge in productivity and hence in per capita incomes of the 18th, 19th, and early 20th centuries. As a result, its share of world GDP in 2012 was less than half of what it was in 1700 (see Figure 3). Its share of world population declined in the 18th and 19th centuries but grew rapidly in the 20th century. Consequently, despite some growth in the last century, Africa's per capita income as a share of world per capita income is lower today than in 1700 (see Figure 4).

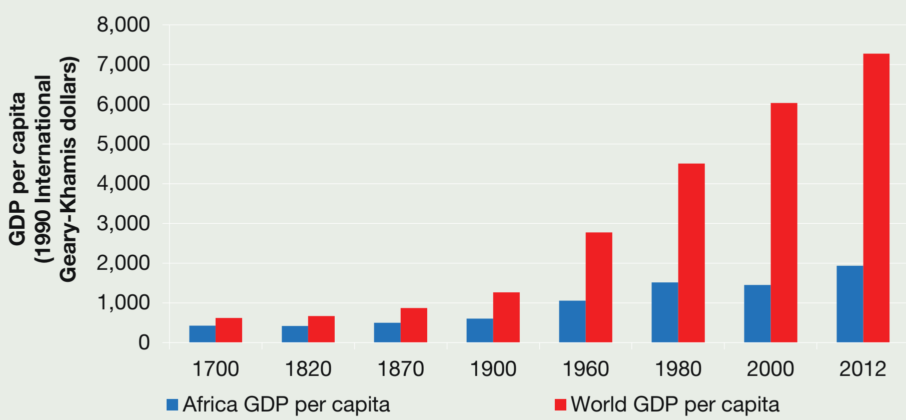
The gap in economic performance between Africa and the rest of the world can be turned into an enormous opportunity, if tackled aggressively. Asia provides a clear example; its share of world GDP also plummeted in the 19th century and much of the first half of the 20th century but has rebounded dramatically in the last 50 years. Much of the rest of the world has already benefitted from the big productivity boosters since the industrial revolution in the 18th century, such as clean water and sanitation, better healthcare, dramatically lower transport costs, widespread access to electricity, and, most recently, the revolution in information technology. Much of Africa has not. Catching up will not be easy but it is surely possible and is likely to lead to large one-off gains in productivity, particularly when leap-frogging to newer technology as is already occurring in several countries of the region.

Figure 3 **Africa's share of world population has risen since 1900, but its share of GDP continued to decline until 1995**



Source: Maddison, Angus: Contours of the World Economy (data presented for 1700–1900); Centennial Group International (data presented for 1960–2012). GDP data for 1700–1900 is in PPP US$ and data for 1960–2012 is in market prices.

Figure 4 **Africa's GDP per capita growth lagged the world's until 2000**



Source: Maddison, Angus: Contours of the World Economy; 2012 data are Centennial Group International estimates.

The last 50 years since independence

Africa's economic performance since the 1960s, when most African countries gained independence, is, of course, not uniform across countries and can be assessed according to many subperiods. But in the broadest terms, three distinct periods emerge at the region-wide level. The first decade after independence showed a strong but short-lived rebound in growth rates. From the early 1970s to the mid-1990s, a combination of unsustainable economic policies, external shocks, failure to adjust to changing economic conditions, and increasingly exclusionary politics produced 25 years of decelerating growth; the result was stagnation of progress in most social indicators. Since about 1995 several factors have led to a steady acceleration of per capita growth rates—painful economic adjustment, stronger macroeconomic management, and greater openness to trade and private sector activity, substantially aided by the dramatic improvement in commodity prices in the last decade, and a major reduction in the foreign debt burden (see Figure 1).

In addition to growing faster over the last decade, most African economies were also relatively resilient to the 2008 global financial crisis: some because of large external reserves generated by natural resource exports; others because of little integration with the global economy (which also makes them poor); and a leading few, because of strong macro management, banking reforms, and export diversification (see Annex 1).

Over the same 50 years, many other developing regions—especially Asia—showed uninterrupted, higher economic growth and slowing population growth. As a result, Asia's per capita GDP has soared relative to the world average while Africa's has stagnated. The Asian performance demonstrates that sustained high growth is possible and can be a driver of the aspirations (and hence social, political and economic expectations) of Africans in an increasingly interconnected world. The sustained high growth of Japan, followed by that of the newly industrialized "Asian tigers", and now of China and India, shows that growth is possible even in countries that are strikingly different in size, resource endowment, initial human capital, culture, and political regimes.

Lessons from Asia and Latin America

Africa and Latin America share many of the same characteristics: rich endowments of natural resources, heavy dependence of the economies on commodity exports, vast influence of global commodity markets on economic activity, sparsely populated large land masses, strong reliance on developed market economies in North America and Europe until recently, large internal inequities, large "informal" sectors, and relatively underdeveloped manufacturing. There are, however, also many important differences between the two regions, not least of which is the big difference in per capita incomes. Africa can draw lessons from the development performance of Latin America and, importantly, from an analysis of the factors that explain the very different performance of East Asia and in particular the so-called newly industrialized countries (NICs) (see Box 1).

3

Box 1 The different lessons from East Asia and Latin America

Between 1965 and 2009, the per capita income of the NICs grew at an average annual rate of 5.8 percent, while Latin America recorded a growth rate of only 1.8 percent. As a result, in terms of per capita income, the NICs—that lagged well behind Latin America in 1965 (US$1,794 vs. US$3,918, constant 2011 US dollars)—leapfrogged above Latin America (US$23,554 vs. US$8,776). This illustrates how the most dynamic economies in Asia, now joined by China and India, have continued to converge with global best practice, while most Latin American economies have become stuck in the middle-income trap. The striking differences between East Asia and Latin America include:

- Political leaders in East Asia were intensely focused on economic issues and not pre-occupied with geo-political issues or ideological debates, in sharp contrast to Latin America
- All successful East Asian countries, as well as China and India, have achieved major gains in total factor productivity (TFP), while Latin American countries have remained stagnant
- East Asian countries have much higher savings rates and investment rates than those in Latin America (51 percent vs. 23 percent of GDP)
- Asia has placed much greater emphasis on human development and a high premium on meritocracy in its education system; it has much higher educational standards and graduates a significantly higher number of engineers, scientists, and doctors
- Asia's investment, both public and private, in infrastructure has been much higher and it has deeper financial markets, particularly non-bank financial institutions
- NICs have much more open economies than does Latin America, with total trade to GDP ratios of 196 percent vs. 45 percent for Latin America
- East Asia has dramatically restructured production in the past forty years to become the manufacturing hub of the world, while Latin American economies remain highly dependent on commodities and agricultural products
- Regional trade (over 55 percent) and investments (FDI) flows in East Asia are much higher and approach European Union levels; these flows are market-driven thanks to extensive production networks—scarcely visible in Latin America—developed by private businesses
- Even as East Asian economies moved from low-income to middle-income and finally to upper middle-income status, their income distribution and other social indicators have remained much more equitable, while Latin America continues to suffer from the highest disparities of any region in the world
- East Asia's more equitable distribution of incomes and assets allowed it to develop more rapidly a larger middle class which gradually became an engine of innovation, entrepreneurship, and domestic consumption that fuelled further economic growth

The main policy lessons for Africa from the comparisons between East Asia and Latin America presented in Box 1 are:

Be pragmatic not dogmatic. Asian countries (and successful economies worldwide) got the fundamentals right. They maintained macroeconomic stability, fully exploited opportunities offered by the world economy, mustered high rates of savings and investment (including in human capital), allowed markets to allocate resources, and had committed, credible, and capable governments with strong leadership. These fundamentals are necessary but not sufficient. Asian countries supplemented them with many other policy initiatives to promote faster growth. One key to success was making decisions on these supplemental policies based on extreme pragmatism and with a focus on results rather than adherence to a particular ideology. Policies and actions that worked were expanded and, most importantly, those that did not deliver results were stopped quickly.

Educate everyone. Already at independence, human capital was one of the key differences between much of Africa and other regions. Since the end of the colonial era, however, the difference has further widened in the case of most African countries. Africa cannot duplicate the performance of Asian or even Latin American emerging markets without a much greater effort to educate its entire population (with a premium on meritocracy in higher education) and build the skills demanded by a transformed continent.

Compete in export markets to drive increases in productive investment and raise productivity. East Asian economies are much more open than African economies with total trade to GDP ratios of 70 percent in emerging East Asia compared to 36 percent in Africa. Trade openness and, in particular, an explicit export orientation provide (i) competition and thus the market discipline needed to weed out crony capitalism, maintain pressure for competitive infrastructure services, and avoid the protection of inefficient (public or private) companies, (ii) the bigger markets needed for private investment and job creation, and (iii) a channel through which to learn about and adopt new technology and management know-how.

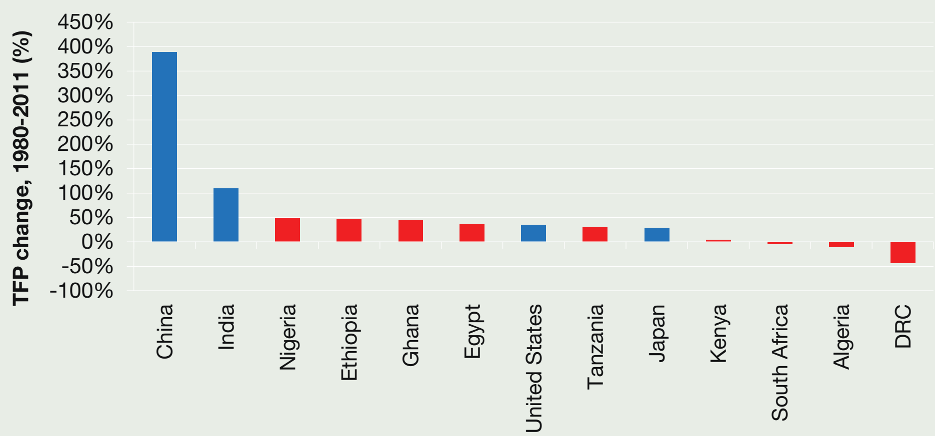
Africa's competitiveness has been constrained by low investment rates and slow growth in productivity. Both savings and investment rates in Asia are nearly double those in Africa. In some instances the higher savings in Asia are forced from compressed consumption and most African countries neither could nor would want to replicate this. Still, the difference in rates is very large and compounded further by capital flight, which is rampant in Africa. The Asian experience points to the value of establishing sufficient confidence in the rule of law and security of property. This confidence, in turn, is also the best calling card for increased foreign direct investment in Africa, so necessary for future growth of the region.

The performance of all successful Asian economies, including China and India, illustrates the importance of major gains in total factor productivity (TFP). In contrast, most African countries have seen their TFP stagnate or even decline (see Figure 5) until recently. Productivity changes in Asia were based on improving the skills of the work force, creating jobs to allow people to move out of lower productivity activities (such as from traditional agriculture to higher productivity manufacturing and services), technological adoption, and institutions that encourage and reward innovation.

Manage natural resource rents to diversify and to avoid boom and bust cycles. One of the central challenges faced by all African countries rich in natural resources is managing the resulting rents. The main lesson from resource-rich Latin American (and Persian Gulf) countries is that it is very hard to break the past strong links between the vagaries of global commodity markets and the countries' economic performance. When a large proportion of exports and GDP is generated by extractive industries, other segments of the economy find it very difficult to improve productivity and compete in global markets, partly due to appreciation of their currencies.

The task before African countries to diversify the economy and develop new competitive activities will not be easy. One example of success in this context is Chile, which has successfully diversified and become globally competitive in a number of areas (see Box 2).

Figure 5 **TFP in African countries has grown at a low rate compared to China and India**



Source: Centennial Group International.

Box 2 **Managing natural resources: the example of Chile**

Chile has marshaled its natural resource wealth to successfully diversify its economy and become globally competitive in a number of areas. Four key actions stand out from its experience and explain its success.

- First, in order to open its internal markets to international competition and diversify its export markets, Chile has focused on Asian markets for many years and more recently, on Korea and China. As a result, these fast growing Asian economies have become major trade partners. This approach required a long-term vision and strategy by the government and aggressive follow-up by Chilean companies.
- Second, the country opened up the mineral sector to the private sector and managed public companies on a strictly commercial basis. As a result, all Chilean companies engaged in the sector have become more efficient and competitive. In addition, they have spawned services companies that now serve not only domestic but also international mining companies.
- Third, the country's central bank has discouraged excessive inflows of "hot" money, which has prevented excessive currency appreciation and permitted other sectors to remain globally competitive.
- Finally, the country has skillfully managed revenues from commodity exports during price booms, stabilizing public expenditure across cycles, saving part for future generations and using part to increase infrastructure investments to boost its long-term competitiveness.

Chapter 4

Drivers of Change: Global and Africa-specific

The aspirational vision portrays an Africa that ***could be.*** It is a plausible scenario but by no means guaranteed. Formulating a strategy to realize this vision requires, first of all, a clear assessment of the drivers of change—the trends and opportunities facing the continent. Some of these are global; Africa can affect them very little but must leverage them for its benefit. Others are regional and can be altered by the actions of governments, businesses, and people.

Global Drivers—Need to be Leveraged

The world is changing and all countries will be affected by a number of global phenomena—an increasingly multipolar global economy, tightening competition for resources, aging societies, technological development, and climate change. Africa can do very little on its own to change these drivers, but it can and must leverage them for its benefit and be part of global solutions.

Multipolar global economy[1]

Major shifts are taking place in the global economy that affect Africa's future. The global economy no longer depends on the North American or European consumer but increasingly on the Asian investor. Structural growth in developing countries has partly decoupled from high-income countries, but global financial markets and trading systems bind major economies tighter than before. Business cycles have become more synchronized. As a result, developing countries' contribution to global investment growth is now higher than that of high-income countries. At the same time, cyclical upswings and downswings in growth in developing and high-income countries remain highly synchronized.

Developing countries already drive global growth. Historically they have accounted for around 20 percent of the growth in global GDP; in 2011 they accounted for more than half. This trend will be accompanied by major sectoral shifts, such as a rising share of services in GDP within developing countries. Shifts in the labor supply will be particularly striking. Over the next 40 years, labor supply will decline everywhere except in Africa and South Asia.

1 cf. Multipolarity: The New Global Economy, World Bank, 2011.

The trade, investment, and consumption shifts associated with growth in a multipolar world will create opportunities, such as growing global trade, new sources of investment, and fast-growing consumption in emerging markets. African economies must seize these opportunities. At the same time, they must avoid the risk that the fast-growing emerging economies converge with today's advanced economies while developing countries with low productivity growth stagnate and remain marginal to the global economy.

Competition for finite natural resources

Intense competition for scarce natural resources (energy, minerals, water, and fertile land) would be unleashed with growth and the increasing affluence of Asians, Latin Americans, and Africans, especially if they emulate current western lifestyles. Global supply may not readily accommodate changes in demand of this magnitude, especially for non-renewable raw materials, thus constraining growth. Concerns about the sustainability of economic growth date back to Malthus and re-emerge whenever growth is rapid. Today there is a backdrop of rising prices for food, fuel, and other raw materials. The new equilibrium will surely be found in a combination of adjustments: price increases to reduce demand and increase supply; new technologies to reduce unit consumption and/or substitute with more plentiful, renewable resources; and recycling to minimize waste.

Commodity prices have also become more synchronized and have been on a steep upward trend, though they remain volatile. The post-2005 boom is one of the largest on record, and the movement of energy, metal, and agriculture prices is much more tightly linked than in the past. Given increased synchronization of business cycles, commodity price fluctuation will continue. Commodity demand is high but technological progress continues to increase the efficiency of resource use, and energy use per unit of global GDP continues to decline. Metals, important for many African countries, are the exception, where use per unit of GDP has increased over the last decade. Real commodity prices may stay high but they are unlikely to continue to increase at current rates over the long run and periodic downswings are possible.

For Africa, these trends present two important opportunities. First, as a continent rich in oil and minerals, Africa will remain a major supplier of energy and other minerals to the rest of the world for an extended period, generating financial resources to invest in the future. Second, based on its endowment of other natural resources (including underutilized arable land and water), it could become a major exporter of agricultural products to the world.

Aging world

Over the last two decades, the world has benefitted from a demographic dividend. The number of people aged 20–64, traditionally taken as the potential labor force, has been growing. About 560 million people were added to the global labor force in the 1990s, and almost 640 million more between 2000 and 2010. Globally, that dividend is now slowing, and will lose steam by 2035.

Over the following decades, an even smaller absolute number of workers will enter the global labor force, largely due to lower population growth rates in advanced and (some) emerging economies. By 2050, the global labor force will be essentially flat, growing perhaps by 0.4 percent. Three offsetting trends are in play beyond the overall aging of the population. In some countries, especially emerging markets, a far higher proportion of youth will go on to complete secondary school and get some tertiary education, thus entering the labor market later. In countries such as India and Indonesia, the current large gap in the labor participation rates of males and females would narrow, increasing the total number of workers. And, in advanced countries, more of the elderly could remain in the labor force. Despite some uncertainty driven by these trends, it seems clear that the rate of increase of workers that has helped power the global economy forward is set to decline.

Asia provides a powerful illustration of an aging world. Its labor force has been growing at 2 percent a year over the past two decades (1991–2010). In the next twenty years (2011–2030), Asia's labor force growth will have been halved to 0.9 percent a year. And in the following two decades (2031–2050), its labor force will not grow at all. Similar developments are expected in Latin America. Total population in Japan and Europe is expected to decline, and the Chinese population will have peaked around 2030. In this global context, Africa stands out as the region with a still growing population and an even faster growing labor force. Indeed, between 2031 and 2050, Africa could account for as much as 75 percent of total growth in the global labor force. Africa's growing labor force both moderates the global trend and offers the continent an opportunity to converge with the rest of the world.

Innovation and technological advances

Innovation is widely recognized as a key source of growth for all economies irrespective of their income level. While there is considerable debate on the pace of future change, it is clear that the technological frontier will continue to expand. Knowledge and innovation will drive the performance of some countries, and a lack of it will lead to disappointing results in others. The big opportunity for Africa is to catch up. At the country level, progress may often mean leapfrogging to existing technologies that are new to Africa. Africa does have high-productivity firms as well, and a second source of productivity growth will be bringing its lowest-productivity firms to the level of its highest. Knowledge will also affect performance beyond pure technological advances. Innovation that meets the needs of the poorer segments of the population—so-called inclusive innovation—can be important for inclusive growth and social development.

Information and communication technology will make communication easier and cheaper. This advance has clear economic dimensions but also political ones. Mobile phones in Kenya, for example, have not only opened banking to millions who were previously excluded but also accelerated communication that can crystallize political aspirations or flame ethnic rivalry. As a result of advances in communications technology, Africans' aspirations are shaped by what is going on in the world not just in their country, and they are increasingly able to force accountability—as exemplified by the Arab Spring.

Climate change

Global warming is leading to climate changes that are difficult to quantify but certain to have a major impact on all countries. The implications of increased water scarcity, more frequent severe weather events, and increased coastal flooding are probably manageable over the next 10 to 20 years. Beyond 2030, however, there is much greater uncertainty and clear risks of catastrophic developments. This report recognizes, but does not attempt to assess, such risks. Beyond the immediate needs for investment in climate-resilient infrastructure and adaptive agricultural research, the development of strong, flexible institutions emphasized in this report will be key to dealing with the challenges of climate change.

African Drivers—Need to be Steered to Positive Outcomes

Trends in demographics, natural resource development, and urbanization will inevitably lead to change in Africa. The actions of its political, business, and civil society leaders will, however, determine the outcome of that change.

Demographics—dividend or social time bomb?

Over the next 40 years, Africa's population is likely to at least double, reaching 1.9 to 2.5 billion,[2] and the number of youth will increase from 205 million today to anywhere from 330 to 450 million.[3] These demographic shifts can lead to higher productivity and per capita incomes or to unmanageable social tensions, violence, and conflict.

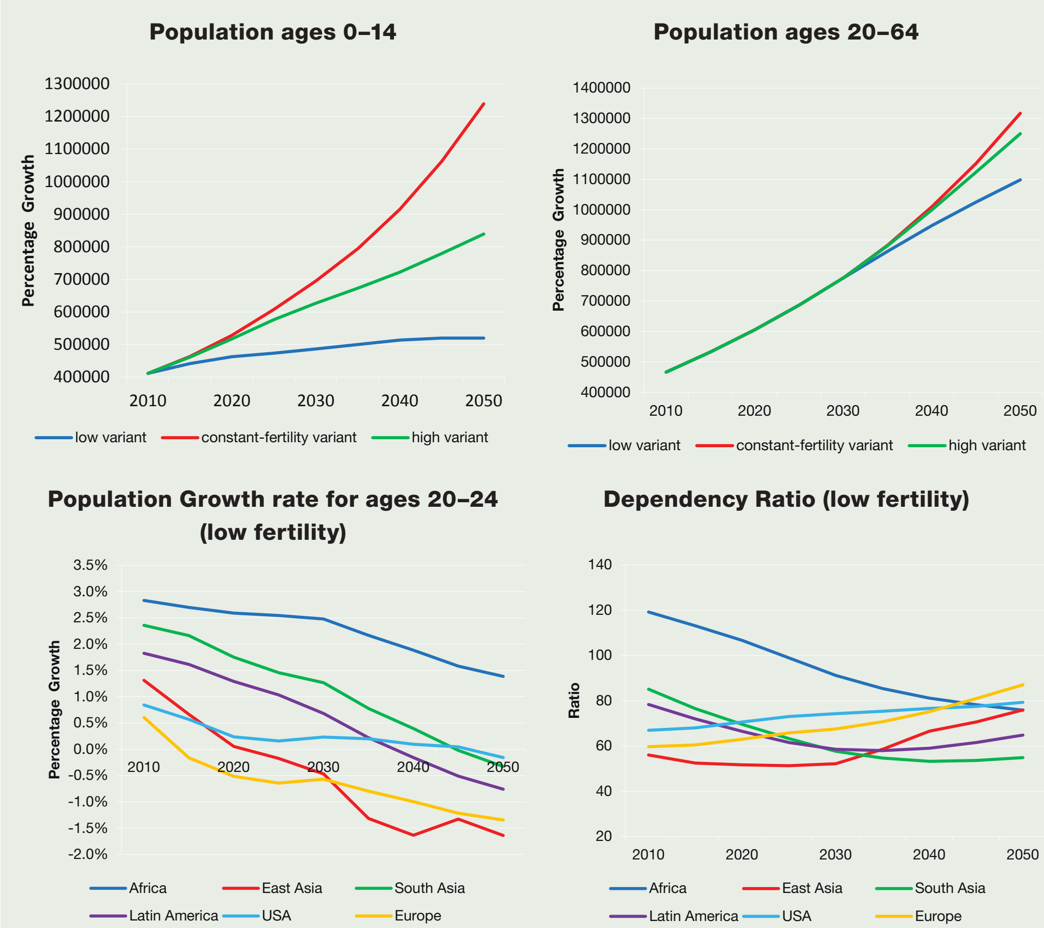
The potential for a demographic dividend is clear. Africa's share of the world labor force will steadily grow. By 2050 Africa will be the only region in the world where the number of working-age adults will be rising and the dependency ratio falling (see Figure 6). This population shift creates the potential for a rapid rise in per capita incomes—a demographic dividend—provided that more jobs are created and worker productivity improved. In the simplest terms, *realizing the potential depends on people finding higher productivity jobs.*

How many people will need such jobs? Under the UN's low-fertility variant, Africa's working age population[4] would increase by 630 million—from 470 million today to 1.1 billion by 2050—and its dependency ratio[5] would fall from 119 today to 76 in 2050 (see Figure 6). Even with no change in productivity, the greater number of workers for every child or elderly person would yield nearly a 25

2 1.9 billion under the UN low-fertility variant and 2.5 billion under its high-fertility variant.
3 Population aged 15–24.
4 Population aged 20–64, recognizing that an increasing share of 15–19 year olds need to be in school.
5 Population aged 0–19 plus 65+ per 100 of working age population (20–64).

percent increase in per capita incomes, and make possible a virtuous circle of increased income to increased savings to increased investment to even higher income.

Figure 6 | **The number of children and of working age adults depends critically on fertility**



Source: UN Population Division.

In sharp contrast, under the UN's high-fertility variant, the working age population would increase by 780 million by 2050 and the dependency ratio would fall from 119 today only to 98. With no other changes, the result would be only around a 10 percent increase in per capita incomes. Under the high-fertility variant, which already assumes a decline in fertility from today's levels, it is highly unlikely that Africa would be able to increase jobs and productivity enough to raise per capita incomes substantially.

The population will continue to increase but the pace of fertility decline is a key determinant of the number of children to be educated, the number of jobs needed, and the number of very young and old supported by each working adult. As Figure 6 illustrates, the differences in these numbers between fertility scenarios is very large. If fertility were to stay at today's level or even decrease to the UN's high-fertility variant, it is very unlikely that Africa could produce either the required access to quality education or jobs.

How many jobs, and what kind of jobs? Job creation is both more uncertain and more amenable to big changes than population growth. Even the low-fertility scenario implies a need for 12–15 million new jobs every year just to absorb the increase in the working age population. Big increases in jobs will have to come from the private sector. Given rudimentary social protection systems, unemployment is not an option for most, and household enterprises are likely to stay the residual source of employment. It is very likely that people will be employed; the question is whether they will be employed in low-productivity traditional agriculture and household enterprises (survival jobs) or in higher-productivity agriculture, manufacturing, and services jobs that are transformational. The answer depends on whether workers have the needed skills and private investors have the confidence to invest.

Oil and minerals—blessing or curse?

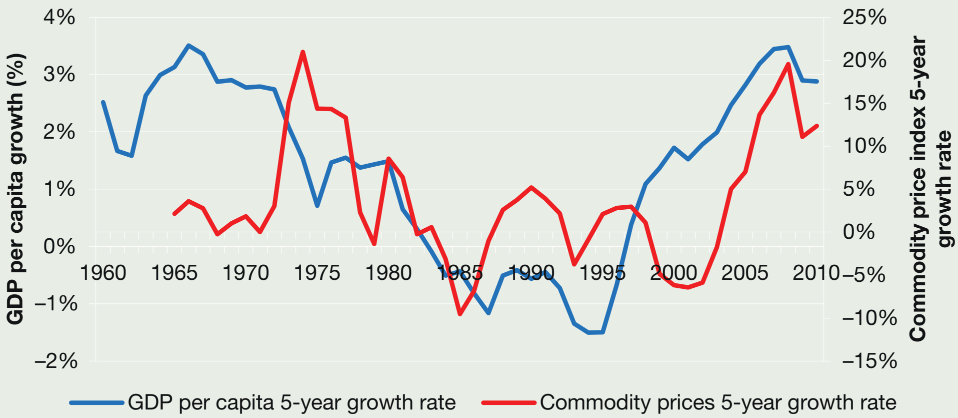
Africa is well-endowed with mineral resources. The continent accounts for more than 5 percent of both production and reserves of oil, gas, bauxite, titanium, copper, and gold. In addition, many of its reserves are of particularly high quality. Also, the region has had less exploration than elsewhere and has good prospects for additional discoveries, as seen recently in East Africa.

As a result, natural resources play a big part in the regional economy. Hydrocarbon and metals exports account for more than 50 percent of exports in 14 African countries that are home to 39 percent of the continent's total population. Similarly, resource extraction rents represent more than 2 percent of GDP in 27 countries with 72 percent of the population. Commodity prices have historically played a big role in growth, as illustrated in Figure 7. One-quarter of African GDP growth over the last decade is estimated to be attributable to commodity price increases (see Box 3).

Hydrocarbon and mineral wealth is intrinsically a blessing but one that can easily become a curse. Africa has examples of such resources being managed efficiently and thus contributing to dramatic improvements in well-being, as in Botswana. But there are also examples where these resources have fueled wars, as in Sierra Leone or the Democratic Republic of the Congo (DRC), or led to widespread corruption and poverty, as in Nigeria.

Extracting non-renewable resources is, by definition, not a sustainable source of growth over the long run, and it creates few jobs. The source of either the blessing or the curse is that natural

Figure 7 **Africa's GDP per capita growth rate has generally followed the growth rate of commodity prices**



Source: Centennial Group International, IMF Indices of Primary Commodity Prices.

Box 3 **Africa's commodity terms of trade—a fragile blessing**

Africa has developed its commercial links with the rest of the world on the basis of commodity exports. Despite export diversification in a few countries, the share of commodities in African exports has risen to about 82 percent in 2011 from 71 percent in 1995, as commodity prices and output have gone up sharply. The increase in commodity prices, well in excess of the increase in prices of Africa's imports, has resulted in a marked improvement in terms of trade, which have increased by more than 70 percent since 2000.

African countries are estimated to have *gained purchasing power equivalent to 25 percent of GDP* as a result of the cumulative effect of terms of trade improvements since 2000. Gains from improvement in the terms of trade are not fully captured in changes in GDP since the latter reflects only changes in output quantities. As a result, gross domestic income (GDI) has risen faster than GDP. Estimates of GDI, actual GDP, and GDP net of the impact of terms of trade changes (see Box 3 Figure 1) reveal that one-quarter of the increase in GDP since 2000 is attributable to the multiplier effect of improved terms of trade on GDP. The combined direct and multiplier effect of terms of trade changes on GDI in the period 2000–12 is estimated at about 3.6 percent per year. In summary, the impact of terms of trade explains nearly half of the total increase in disposable income.

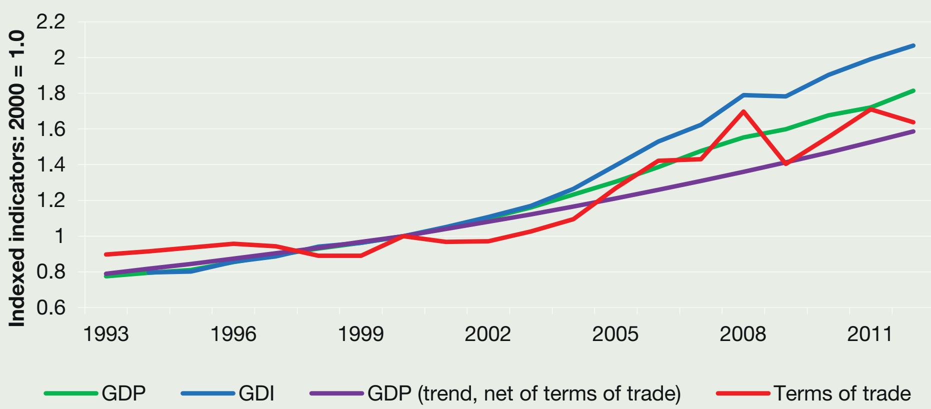
On the basis of these estimates, if terms of trade in the future were to stabilize at the current high levels, GDP growth rates would tend to fall to the trend growth rate of 3.4 percent, as the multiplier effect would disappear and the purchasing power of exports would stabilize (see

Box 3 **Africa's commodity terms of trade—a fragile blessing**

Annex 2). A decline in the terms of trade of 10 percent would entail a decline in GDP of 2 percent and of 4.4 percent in disposable income, yielding a total decline in GDI of about 6.4 percent. A decline of this nature, while steep, is not unusual. A 10 percent fall in commodity prices is possible, as prices would still be almost 50 percent higher than in 2003 and certainly within the range of the long-term cycle of commodity prices.

The decade-long improvement in Africa's terms of trade has led to a degree of complacency among policymakers and economic agents that is not warranted. The impact of lower terms of trade would be staggering. Since commodity prices will fluctuate and could even show a secular downward trend, it is essential for African countries to prepare for the contingency of lower-prices. Structural fiscal rules and a financial protection network are of the essence. Without such action there is a high risk that volatility will increase, hindering growth and hurting the most vulnerable groups in African society.

Figure 1: African GDP, GDI, and terms of trade (2000 = 100)



Source: IMF World Economic Outlook, October 2012; Centennial Group International estimates.

resource extraction generates revenues that are much greater than the cost of extraction, what economists would refer to as "rents". Everything depends on who gets the rents and how they are used. They can be stolen (and frequently sent abroad), consumed, or invested.

Countries can get more (or less) of the rents depending on the risks and costs of doing business in their country, the extent of transparency to reduce corruption, and the expertise they mobilize in contract and taxation matters. The risk is that even then such rents can lead to boom and bust cycles in the economy linked to fluctuations in commodity prices, to an overvalued exchange rate that makes diversification and the associated job creation difficult, or to unsustainable consumption that ends when the resources are depleted. The opportunity is to use these rents effectively to convert mineral assets into human, physical, and financial capital that could in turn transform not only individual economies and their people but also the continent as a whole.

Urbanization—agglomeration benefits or explosive slums?

Africa's cities will triple in size from a population of 400 million today to at least 1.1 billion in 2050[6] and will be the loci of much job creation. The size of urban markets, rising income of urban residents, and concentration of economic activity could make cities dynamic centers for higher productivity jobs—offering the prospects of a better life to more than one billion people.

This positive outcome would be realized if people have skills, cities function well, and economies are open to competition. On the other hand, if people are illiterate and unskilled, cities dysfunctional, and economies trapped in extractive activities and crony capitalism, urban areas will be poor and violent—offering only the desperation of hopelessness to residents.

All the prospective health gains, all the potential for a dramatically expanded and enhanced skills base, and the possibilities for generating jobs and attracting investment in Africa, will depend on how effectively cities function since it is the urban areas where most of the future population will live and where the jobs will have to be created.

African cities are already the fastest growing in the world. Today there are only three cities in Africa (Cairo, Kinshasa, and Lagos) with population greater than 5 million but by 2050 there could be 35 such cities in 21 countries. Moreover, by 2050 the continent could be home to as many as 15 mega-cities of more than 10 million inhabitants; Cairo, Kinshasa, Lagos, and Luanda could all be mega-cities already by 2030.

The extent to which the cities fulfill their prospective role as drivers of economic growth will depend on a variety of attributes. First is the level, quality and competitiveness of their services;, as well as the efficiency and sustainability with which these services are delivered. Second is the predictability of their governance and accountability functions and the reliability of their regulatory implementation and business environment. Third is the effectiveness of the operation of their land, housing and transport markets and their ability to strategically plan and implement initiatives that address environmental challenges. Fourth is enhanced livability derived from high-standard infrastructure linkages to attractive hinterlands. These attributes are necessary to make African cities globally competitive, attracting international investment, opening up local capital markets and local investment, encouraging businesses to locate there, and fostering dynamic new business initiatives and a thriving start-up/innovation culture as well as a nurturing environment for micro and small enterprise development.

Larger urban populations mean that cities will occupy more land to accommodate businesses, housing, public spaces, and circulation. Physical expansion will require increased capacities of

6 UN low-fertility variant and projected 58 percent urban population.

the associated water and sewerage systems, sanitation and solid waste management, roads and drainage, parks and recreation, electricity supply, and urban transport—all of which are to be provided on a massive scale by cities which, for the most part, have failed to meet much less pressing service demands to date. Recent studies have shown that despite the economic gains made by Africa over the past decade, there has been a significant increase in urban slums and a worsening of urban poverty levels, and to a much greater extent than in Asia. Innovation and managerial capacity will be key to providing services in these conditions

Chapter 5

Major Risks—Needing Active Management

In addition to leveraging global drivers of change and steering regional ones to positive outcomes, realization of a vision that meets the aspirations of Africans will require managing three specific risks—the threats of conflict, growing disparities, and the middle-income trap.

Fragility—Growing Security or Contagious Conflict?

Many countries have an element of *intrinsic fragility* given their often ethnically heterogeneous populations, relatively recent process of modern state formation, and the weakness of many sovereign state institutions which are sometimes controlled by a small political or ethnic group or family. Other elements of fragility are religious divides, fast-growing populations, lack of job opportunity for the young, and the challenge of controlling large territories with low population densities and difficult topography that are vulnerable to criminal and external threats. Finally, a critical element of fragility in some countries is non-inclusive political systems that fuel frustration and resentment. Some elements of intrinsic fragility, such as ethnic and religious divides, will persist for a long time. But they need not lead to conflict if other elements, particularly the institutional weakness and political inclusiveness, are addressed. Inaction, on the other hand, is likely to lead to conflict that spills over borders and creates sub-regional insecurity that is highly detrimental to investment and growth.

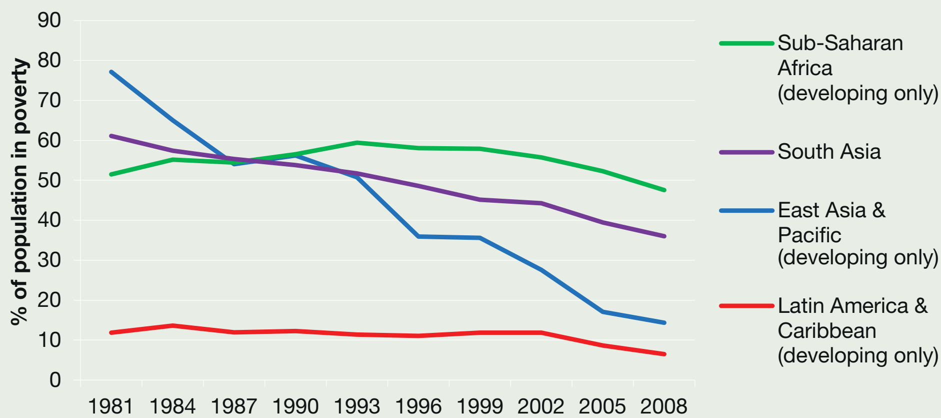
Disparities—Inclusive Growth or Growing Inequality?

Huge disparities between the rich and poor; inequality in access to education, health and other social services; and a large proportion of the population still living in poverty constitute a time bomb under much of Africa. Unless these disparities are overcome, and overcome soon, Africa's ability to realize the aspirational vision outlined above will be severely compromised.

As mentioned above, poverty rates have declined somewhat over the last decade in much of Africa; still, the absolute number of poor (defined here as those with income less than $1.25/day) has almost doubled in the past thirty years, from about 205 million in 1981 to 386 million in 2008. Almost half of all sub-Saharan Africans still live below the poverty line.

More fundamental is the issue of huge inequities and disparities between the rich and the poor. Unfortunately, despite the recent improvement in economic growth, the disparities are still growing nationally, regionally, and with respect to the rest of the world (see Figure 8). At the national level, inequality, as measured by Gini coefficients, increased over the last decade in two-thirds of the African countries for which data are available. As a result, income inequality in Africa is now higher than in any other region of the world except Latin America (where income inequality is declining) (see Figures 9 and 10). The earnings of the richest 20 percent of the population are 11 times those of the poorest 20 percent in Africa compared to only 7 times greater in Asia.

Figure 8 **Poverty has declined more quickly in Asia than in Africa**



Source: World Bank WDI.

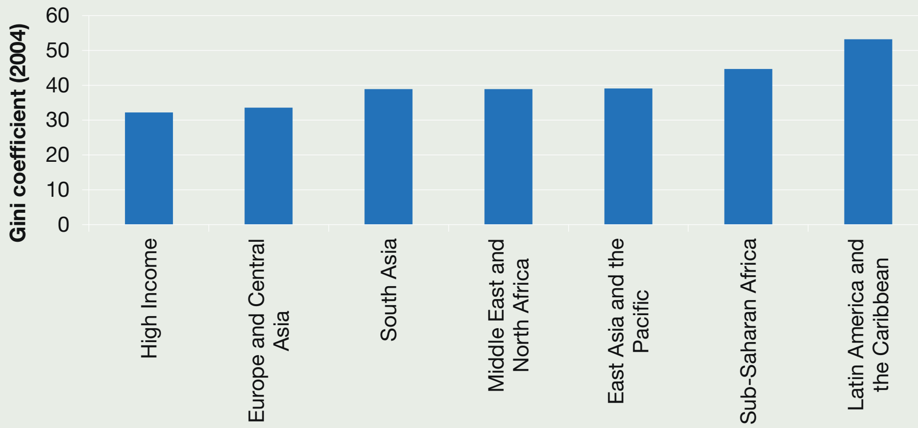
At the regional level, per capita incomes in the five richest African countries are 30 times those of the poorest five countries today, compared to 16 times greater twenty years ago. African per capita incomes are a smaller share of the world average than they were at independence and this share has remained stagnant over the last decade (see Figure 11).

Thus, even as the percentage of people living in absolute poverty declines over time, inequities and disparities must remain a major concern of economic policymakers and political leaders alike throughout Africa.

Access to basic services, such as education, health and water supply, has also improved considerably over the last decade. Like reductions in poverty, however, the overall improvement in access masks large and sometimes growing disparities based on gender, rural or urban location, and family income level. They deserve much greater attention.

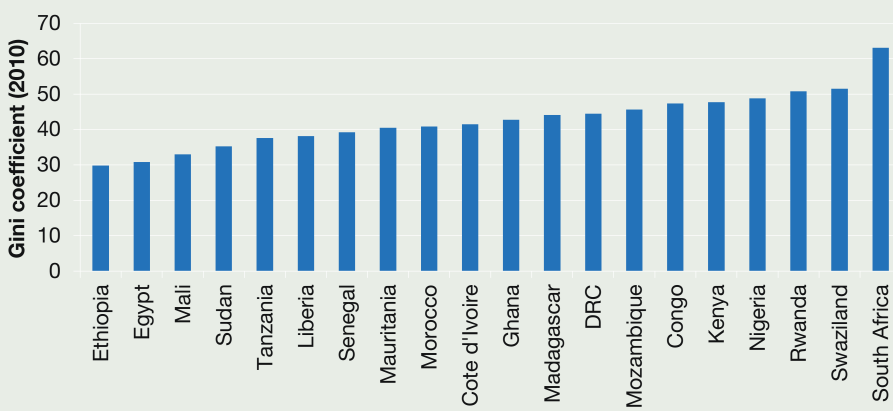
The Africa Progress Panel has clearly stated the implications of inequities and disparities: *"Not all inequalities are unjust, but the levels of inequality across much of Africa are unjustified and*

Figure 9 **Sub-Saharan Africa has highest disparities after Latin America**



Source: Calculations based on Ferreira and Ravallion (2008).

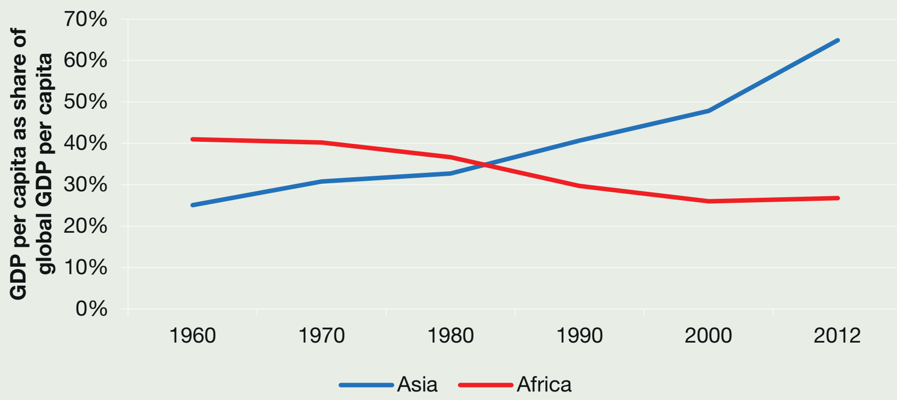
Figure 10 **South Africa has the highest inequality in Africa**



Source: World Bank WDI.

profoundly unfair. Extreme disparities in income are slowing the pace of poverty reduction and hampering the development of broad-based economic growth. Disparities in basic life-chances—for health, education and participation in society—are preventing millions of Africans from realizing their potential, holding back social and economic development in the process." (Africa Progress

Figure 11 | **African GDP per capita relative to global GDP per capita is lower today than at independence (1960)**



Source: Centennial Group International.

Report, 2012). Any further growth in inequities would likely spur social unrest, ranging from possible collapse in fragile countries to increased social tension in more stable countries to large population movements across borders.

There are also strong positive reasons for reducing disparities. As the recent experience in Brazil has demonstrated, programs to reduce disparities and facilitate the access of all citizens to the opportunities offered by economic growth are also pro-growth. Earlier longer-term experience in countries like Korea has demonstrated that lower inequities create a larger middle class at the same level of per capita income, and the size of the middle class multiplies as national incomes rise. This in turn expands domestic savings and consumption, and opens new possibilities for growth and job creation. Socially, the middle class strives for better education of the next generation, creates a new work ethic and drives entrepreeurship. Over time it also becomes a strong advocate for improvements in governance. All these attributes are essential for Africa's longer-term prosperity and social cohesion.

Given the dimensions of the problem, increasing the opportunities for the most vulnerable is the only way to both sustain overall growth and reduce disparities. Recognizing this imperative, the framework developed by the study team for realizing the aspirational Vision for 2050, emphasizes people's well-being, inclusive growth and job creation.

Middle-income Stage—Road to Prosperity or Trap?

African countries were for many years thought of as poor. This has changed rapidly. Africa is increasingly a middle-income continent, but with many poor people. Half of the continent's countries are now middle-income and the majority of its population lives in middle-income countries. The inability of most middle-income African countries to further close the productivity and income gaps with advanced economies suggests that many countries in the region find themselves in the middle-income trap (see Box 4). Of the 21 African countries that had per capita GDP above US$1,000 (constant 2011 US dollars) in 1985, none are high-income today. Three of these countries (Botswana, Cape Verde, and Mauritius) did achieve per capita growth rates above 4 percent over the following 25 years and show that convergence with the rest of the world is possible. Most, however, remain middle-income, including two of Africa's largest middle-income countries (Algeria and South Africa), which averaged per capita growth below 1 percent over the last 25 years. More frightening yet, no less than six of these countries regressed and had negative per capita growth over the following 25 years.

Few countries sustain high growth for more than a generation, and even fewer continue high growth rates once they reach middle-income status. Yet, this is what African economies must do if they are to avoid the middle-income trap. The Commission on Growth and Development identified five common characteristics amongst the countries (mainly East Asia) that have done so successfully (Commission on Growth and Development, 2008):

- Openness to the global economy in knowledge and trade
- Macroeconomic stability
- A "future orientation", exemplified by high rates of saving and investment
- A reliance on markets and market-based prices to allocate resources
- Leadership committed to growth and inclusion with a reasonable capacity for administration

Box 4 | Are some African economies mired in the middle-income trap?

The middle-income trap refers to countries stagnating in middle-income status and not growing to advanced country levels. This is illustrated in Box 4 Figure 1, which plots the income per capita of six middle-income countries between 1975 and 2011. In a steadily growing economy, the line would rise steadily over time towards higher income levels, as is the experience of South Korea. But many middle-income countries, including Brazil, Mexico, and Africa's biggest middle-income countries, do not follow this pattern. Instead they have short periods of growth largely offset by periods of decline. Rather than steadily moving up over time, their GDP per capita moves up and down but rises only very slowly over time. That stalled trajectory defines the middle-income trap—unable to compete with low-income, low-wage economies in manufacturing exports and unable to compete with advanced economies in high-skill innovations.

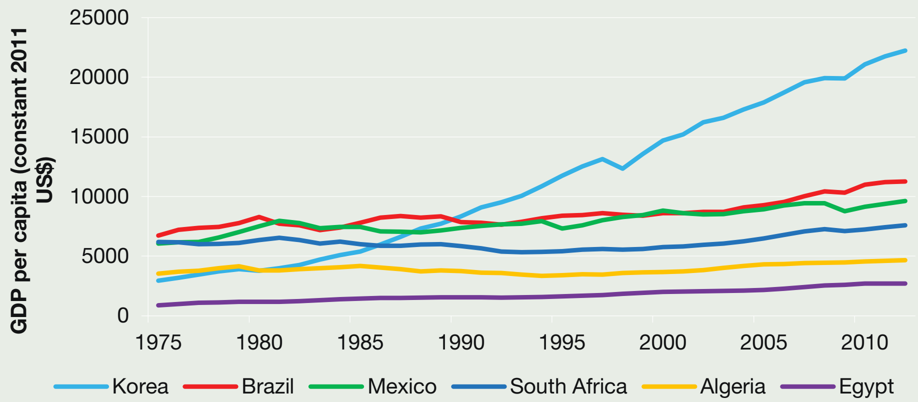
5

Box 4 Are some African economies mired in the middle-income trap?

Productivity growth in low-income economies can be characterized as moving people out of low productivity activities such as traditional agriculture to higher productivity activities such as labor-intensive manufacturing and modern services. Productivity growth in affluent societies is driven by innovation. Some middle-income countries lose their low-cost advantage but do not have the institutions—property rights, capital markets, successful venture capital—or critical mass of highly skilled people to grow through innovations. Caught between these two groups, middle-income countries may be undable to find a viable high-growth strategy. This seems to be what has happened to middle-income African economies such as South Africa, Egypt, and Algeria.

Income distribution can also play an important role in sustaining growth. In many countries, domestic consumption typically becomes an important source of demand growth when incomes per capita reach around US$6,000 in purchasing power parity (PPP) terms. For the most part, this has not happened in Africa, perhaps because of the highly unequal distribution of income. Compare South Africa with South Korea, for example. South Africa's growth started to slow after 1975, when it had reached a per capita income level of about US$9,000 (PPP). At that time, its middle class (defined as households with incomes of between US$10 and US$100 per capita per day) was just 38 percent of the population, which was inadequate to drive further growth. In contrast, by the time South Korea's income per capita reached US$9,500 (PPP) in 1987, the country's evenly distributed growth had produced a sizeable middle class, which accounted for 69 percent of the population. The demand from this large middle class fueled growth of the country's service industries and created the building blocks for a knowledge economy.

Figure 1: GDP per capita (constant 2011 US$)



Source: IMF World Economic Outlook, October 2012.

Chapter 6

Strategic Framework to Realize the Vision: People, Economies, and the Continent

Africa must grow both more rapidly and more inclusively than it has in the past if it is to meet the aspirations of its people and realize the 2050 vision traced above. Given Africa's broad diversity, strategies to achieve this vision will necessarily be country-specific. Even for individual countries, the strategies will evolve over time—as immediate challenges are met new ones will arise, ranging from restoring basic institutions following conflict to avoiding the middle-income trap. The framework set out here attempts to identify the big issues which all countries in the region must address, even if the specifics vary between countries and over time.

Higher sustained growth requires more investment, particularly in Africa's lower-income countries. Most importantly, it requires increases in productivity, since today's low productivity robs the continent of the full benefit of even its existing human and physical resources, and convergence of incomes with the rest of the world depends on a rapid convergence in productivity levels.

The 2050 vision will be realized (or not) through jobs—jobs that move people from lower to higher productivity activities. Jobs are in large measure the vehicle to build an Africa of prosperous people, competitive economies, and global integration. These three dimensions—people, economies, and the continent—are interrelated and directly affect each other. They also serve to identify key areas for action if the global and regional drivers of change are to be leveraged and steered effectively. The three dimensions and the key action areas are illustrated in Figure 12.

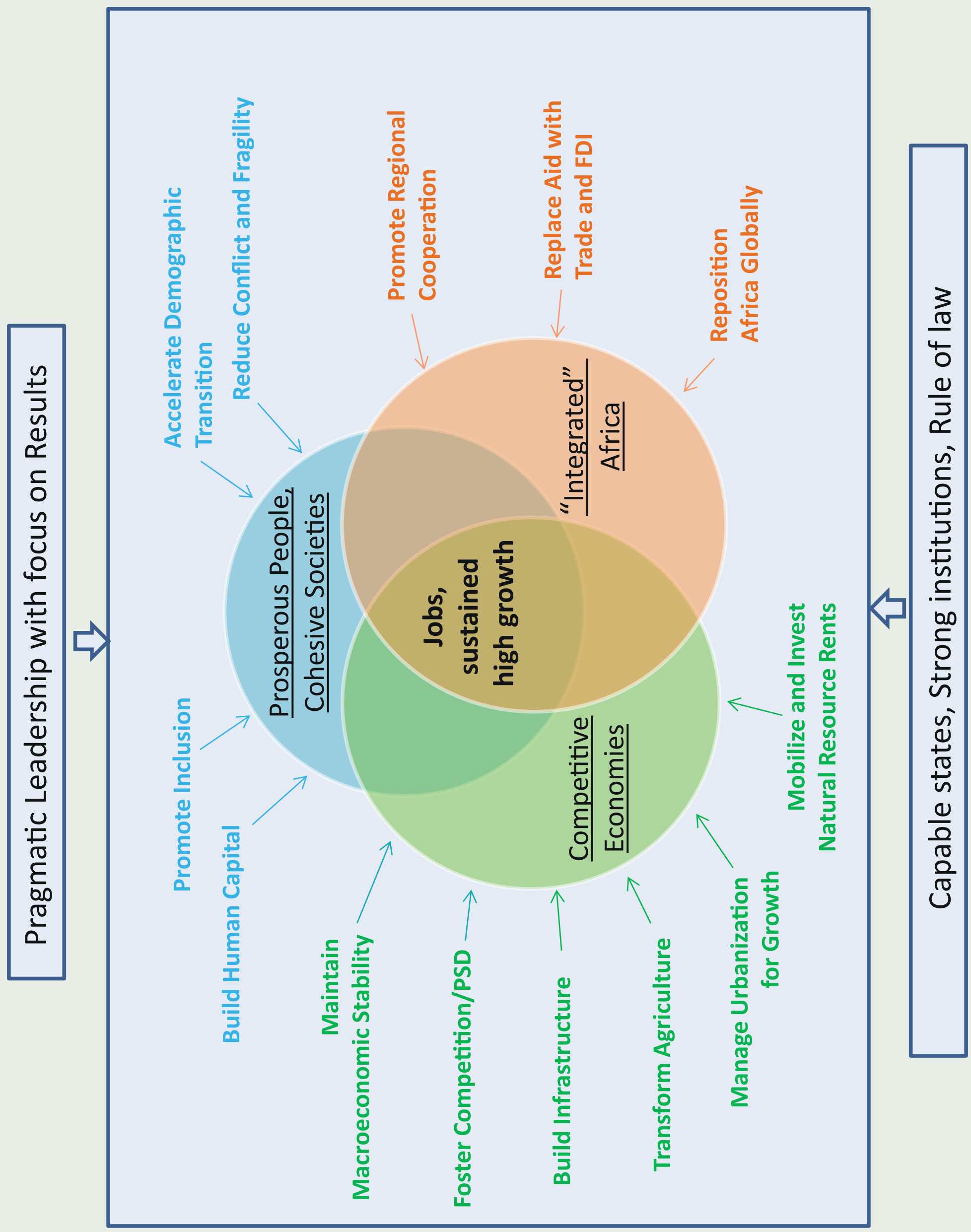
Prosperous People and Cohesive Societies—Jobs to Transform Lives

At its most basic level, the vision is about the prosperity of people and the cohesiveness of their societies. The dimensions of the vision imply different things for different countries. Cutting across all countries, however, are four areas of strategic importance on which action is required now: inclusion, demographic transition, human capital, and conflict.

Promote inclusion

Prosperity for people implies greater inclusion, and in Africa this largely means equalizing opportunity, particularly the opportunity for the social mobility offered by higher productivity jobs. Beyond moral considerations, equalizing opportunity is key to mobilizing all of a society's human

Figure 12 **Framework for achieving the 2050 vision**



Source: Centennial Group International.

resources and giving everyone the stake in the future on which investment, innovation, and risk-taking are based. Without equalizing opportunity, growth will be both slower—because human potential is squandered—and more unequal, which may undermine its future. Inclusion, in turn, has many aspects. In some countries it will mean assuring that university degrees are earned not bought, and in others, providing better access to quality education in rural areas. In some countries it will mean removing legal restrictions on women's activities, in others making sure it is safe for girls to attend school. In most it will mean merit-based education and job selection, in others greater political openness and inclusion of groups traditionally marginalized for ethnic, religious, or other reasons. In all, it means assuring that those at the bottom of the income distribution have access to quality basic services. These include provison of infrastructure services such as electricity in rural areas, as well as social services, particularly early childhood interventions and quality basic education, comparable to those on the top.

Inclusive growth is more than an outcome—it is also a process. The ability of citizens to express and exercise their views is an important part of inclusive growth, as is the participation of citizens in decisions that influence their well-being. Empowering citizens can thus be key to effective inclusion. Governments need to include citizens directly in monitoring and assessing programs, re-target general subsidies to demand-side subsidies (such as conditional cash transfers) to increase access for the poor and, where possible, make provision of resources dependent on beneficiary choice (such as education financing that follows students).

Accelerate demographic transition

Educating and creating jobs for 600 million more working age adults by 2050 in a context of fewer dependents per working age adult is a challenge. Doing so for 800–900 million more with a growing number of dependents per working age adult could be a nightmare. The pace of total fertility decline is the key difference between these two fundamentally different outcomes. It is not a question of whether the population should continue to grow. The current age structure means that even if fertility fell immediately to replacement levels (around 2.1 births per woman), the population of Africa would still double. It is rather a question of how fast the population grows and the countries' ability to educate people and give them productive livelihoods. Educating girls and giving couples access to modern contraceptives is essential for a future with prosperous people and cohesive societies.

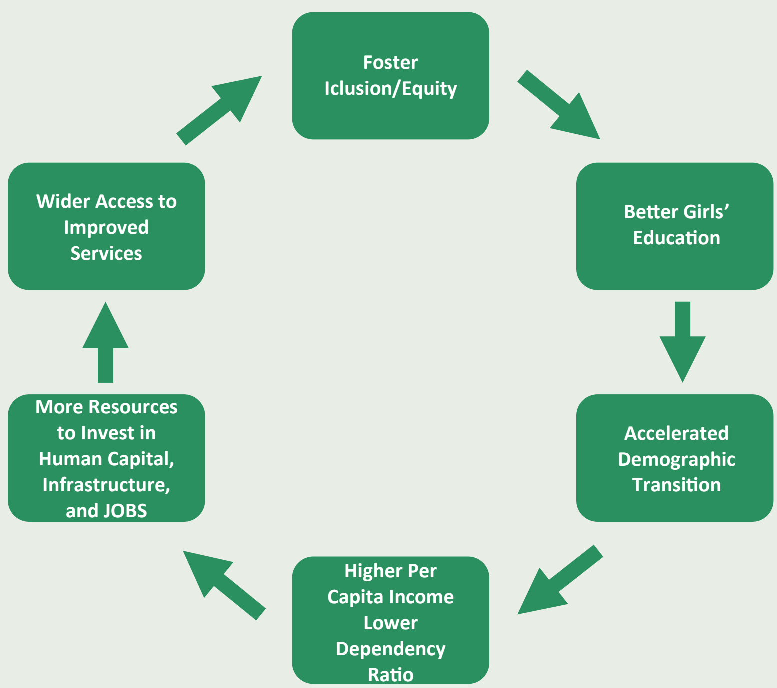
Under the UN's low-fertility projections, Africa would have 520 million children aged 0–14 in 2050 up from 412 million in 2010. Under the high-fertility scenario it would have 839 million in 2050. Providing quality health and education services for 110 million more children than today appears eminently feasible, but providing it for 420 million more probably is not. Reducing both child mortality and fertility in order to increase life expectancy but slow population growth constitutes a crucial strategic choice. In the 40 counties in Africa that are still far from completing their demographic transition (more than four children per woman), it is urgent to set programmatic objectives to accelerate the fertility transition. Contraceptive prevalence rates must increase rapidly from 10 to 20 percent today to around 60 percent by 2050. This is feasible—Egypt is already at this level of contraceptive use and Ethiopia, starting from a very low level, would achieve it in 15 years if the current rate of increase continues.

Promoting inclusion and the demographic transition offers the prospect of a virtuous circle involving both better education outcomes and higher incomes (see Figure 13). Fostering inclusive service provision—including girls' education and access to modern contraceptives—could help accelerate a demographic transition that, in turn, would lead to a lower dependency ratio and higher per capita incomes, more resources per capita for investment, wider access to improved services, and even broader inclusion.

Build human capital

Beyond equalizing opportunities, building human capital is the cornerstone of Africa's future economic growth. Education, in particular, is the most powerful tool to accelerate growth, improve

Figure 13 **A virtuous circle of inclusion, demographic transition, and human capital**



Source: Centennial Group International.

competitiveness, and foster inclusion. Recent efforts to measure the wealth of countries (UNU-IHDP and UNEP, 2012) show that the world's richest countries hold most of their wealth as human capital, rather than physical capital or natural resources. In a 40-year perspective, Africa must transform its depletable natural resource wealth into the human capital wealth required to grow and remain competitive in a dynamic world.

This transformation requires Africa-specific action on five fronts, even though the emphasis will be different across countries and time. First, early childhood interventions have been shown to be one of the highest return investments a country can make. Yet they are rare in Africa, and too many children will be handicapped for life because of inadequate early childhood nutrition, health care, or school preparedness. Second, adult literacy programs and "second-chance" options for school-leavers are urgently needed. Third, even while school access has improved, unless quality is addressed aggressively now, countries will continue to waste education resources and undermine their futures. Fourth, both vocational and tertiary educational institutions must be much more attuned to the needs of the labor market to produce graduates with the skills for higher productivity jobs—rather than unemployable graduates increasingly frustrated with their lack of future prospects. Finally, despite recent advances, malaria and HIV/AIDS remain big killers that must be tamed.

For many countries this is a question of ***urgent catch-up over the next decade*** to correct the fact that their young children and youth fare much worse in terms of basic health and education than those of other regions. This stage cannot be leapfrogged: good quality basic education and health care are the foundation for development in all other areas. Children that are born today will be leading and managing the economy in 2050. Investing heavily in their human capital today will pay large dividends by 2050.

The main constraint on catch-up is implementation. Most of what must be done to provide basic education and health care is known; the main constraint is poor capacity to translate this knowledge into interventions and, especially, effective implementation. Countries' ability to build institutions for leadership, accountability, and innovation will be crucial to universalizing good quality service delivery, and pressure from citizens for increased accountability is likely to become an increasingly important driver of progress in this domain.

Regional cooperation will also be necessary to provide a common set of educational standards across the continent to favor trade in services and labor mobility. Increasingly, national decisions in these areas have implications beyond national borders, including the decision to promote needed cross-border *movements of education and health workers and the trade of education and health services.*

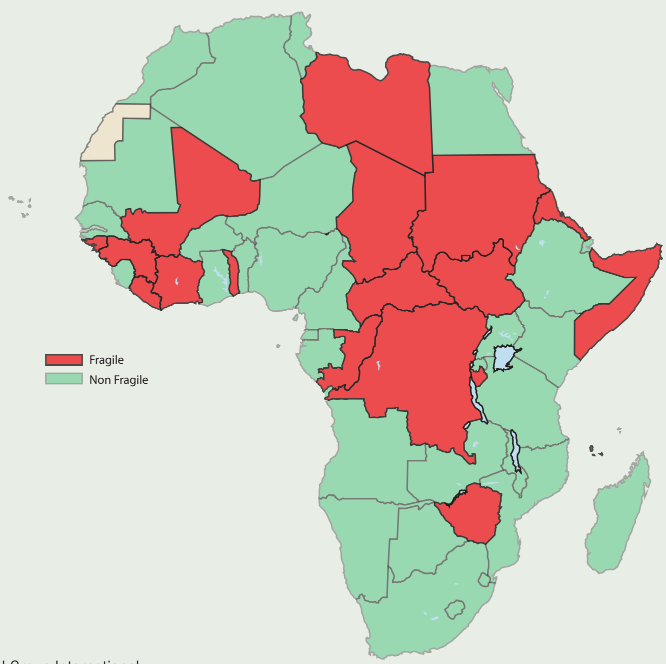
Box 5 **Education**

- ***Build critical foundation capacities for all children:***
  - Broaden access to early childhood interventions to reduce child mortality, improve nutrition, and expand coverage of pre-primary education
  - Erase the legacy of slow progress to universal primary education through "second-chance" programs, including adult literacy training
  - Extend the duration of basic education to nine years
  - Raise the education attainment and achievement levels of girls in order to harness the intergenerational virtuous cycle of educating girls and women
  - Enhance the quality of learning by improving the support for and the deployment, management, and accountability of teachers
- ***Revitalize technical and vocational skills development (TVSD) particularly for the youth:***
  - Improve the governance of TVSD by strengthening the regulatory role of government and the coordination of public-private training programs
  - Raise the quality of TVSD through a skills-based approach to training, upgrading the skills of master craftsmen and modernizing traditional apprenticeship systems
  - Establish national certification frameworks for validating the qualifications acquired through TVSD programs
  - Develop national skills inventory and labor market information systems that analyze the supply and demand of labor and track the growth sectors of the economy
  - Foster the development of partnerships between schools, training providers and employers to increase the relevance of training and lifelong learning
- ***Build knowledge and innovation driven economies:***
  - Broaden access to quality upper secondary education as the critical link between basic and higher education and the bridge between the school system and the labor market
  - Increase tertiary enrolments from the current 6 percent to 30 percent and channel expansion towards the development of innovative capacity and scientific and technical knowledge
  - Invest at least 2 percent of GDP in R&D and provide incentives for tertiary institutions and industry to collaborate in applied research in strategic areas
- ***Reinforce training and skill development through regional cooperation and pooling of resources:***
  - Increase support for regional networks and centers of excellence to strengthen joint research, deepen national capacity, leverage economies of scale, and reduce the time needed to develop the skilled workforce needed in select priority areas
  - Establish common educational standards and certification systems to increase the flexibility and mobility of labor across the continent
  - Strengthen inter-country and inter-university exchanges of staff, students, research, and partnerships with the private sector

Reduce conflict and fragility

Conflict affects people's lives very directly. It is not just their economic prospects that are affected. Armed conflict, people fleeing their homes, and overall insecurity destroy people's lives. Today 25 percent of Africans live in countries classified as "fragile situations" by the African Development Bank (AfDB) and World Bank and that are either in active conflicts or trying to manage post-conflict challenges (see Figure 14). In addition, many of their neighbors are worried about spillover effects. Reducing conflict and managing its aftermath are imperative for more than one quarter of Africans. Most of these countries must move out of conflict and fragility if the 2050 vision for Africa as a whole is to become a reality.

Figure 14 **A significant portion of Africa is considered fragile**



Source: Centennial Group International.

While the origins of conflicts are country-specific, moving forward depends on three things. First, the pre-conflict mediation role of regional organizations needs to be strengthened. Second, regional intervention capacity to halt conflict must be strengthened for cases where mediation fails. Finally, strengthening state institutions needs to proceed step by step, should focus on key sovereign and economic institutions, and must combine sound technical approaches with smart politics (see Box 6).

Box 6 Conflict and fragility

While the origins of internal conflicts are extremely diverse, the risks of conflict are always heightened by two key factors: non-inclusive politics and state fragility. In societies fragmented along ethnic or religious lines, inclusive political systems represent the first available "insurance" against spiraling violence that can easily get out of control. However conflicts are also often the consequence of deep fragilities in a state apparatus which proves unable to provide basic services, including security and justice, to all of its population. Finally, if state fragility heightens conflict risks, conflicts also tend to additionally weaken state apparatuses up to a point where they may finally collapse. On the basis of this diagnosis, a three-point agenda is proposed:

- ***Strengthen the pre-conflict mediation role of regional organizations.*** Conflicts are a regional public bad due to their spillover effects. Regional organizations should no longer hesitate to exercise pressure and even sanctions to push reluctant neighbors for greater political inclusion whenever social and political tensions are seriously building up and putting peace at risk. Such pressures may of course be viewed by some as infringing on a country's sovereignty, but they may also represent a necessary step to avoid a regionally damaging conflict or prevent its resumption after a ceasefire.
- ***Strengthen the intervention capacity of regional coalitions to halt conflicts.*** If regional mediation pressures have failed and conflict has erupted, regional organizations or ad hoc regional coalitions need to be able to intervene with adequate military means to halt it, whenever the political and military context offers serious chances for the success of such interventions. This will require the buildup of adequate military forces and establishment of regional arrangements to authorize military intervention under a UN or eventually a regional mandate. Specific rules of engagement should go beyond the standard and often ineffective UN peace building mandates. An example is provided by the multi-country force which will soon be deployed in eastern DRC.
- ***Strengthen state institutions, particularly sovereign and economic institutions.*** Fragile states have very fragile state agencies and institutions. Hence reinforcing institutions should become a key priority. Particular focus should be put in this respect on sovereign institutions (local government, justice, and security services) and key economic ministries (finance, economy, agriculture, and infrastructure). Development of long-term institutional capacity should take precedence over the usual short-term project-based approaches which tend to further weaken the state apparatus. Implementation of this agenda requires ***combining sound technical approaches with clever politics to build modern, efficient state apparatuses.*** Across-the-board public administration reforms frequently fail to deliver the expected benefits and can get

Box 6 **Conflict and fragility**

bogged down in bureaucratic quagmires. Creating a critical mass of managerial and technical capacity in key state agencies in a reasonable timeframe requires mobilizing special expertise to take over core functions in a dilapidated public administration. One option is merit-based recruitment of experienced teams of managers and professionals from the private sector or the diaspora, followed by progressive introduction of modern human resource management techniques. Since such approaches usually meet with considerable resistance from entrenched vested interests, a step-by-step, institution-by-institution approach may be needed to progressively build on successful experience.

Diverse, Competitive Economies—Private Investment to Create Jobs

Jobs will transform people's lives, or alternatively, leave them stuck with little income and less hope. Some 90 percent of jobs in Africa are already in the private sector, and jobs on the scale needed can only come from increased private sector investment, both domestic and foreign. Investors, whether neighborhood seamstresses or multinationals, invest to make money. Investors need ***macroeconomic stability, a pro-competition environment that promotes development and growth of the private sector, adequate infrastructure and access to needed inputs and services,*** as well as the skilled workforce discussed above. African economies must also pay specific attention to ***transforming the agricultural sector and to better managing the rents accruing from their natural resource wealth.***

Maintain macroeconomic stability

Africa's macroeconomic management has strengthened dramatically over the last 15 years. The fiscal and monetary policies of the past that generated rampant inflation, collapsing currencies, and unsustainable debt are for the most part vanquished. The new threat, particularly if Africa is to take advantage of greater global integration, is that of volatility. Fortunately, better policies over the last decade have been accompanied by a boom in the prices of Africa's commodity exports. The resulting improvement in the terms of trade accounts for a quarter of the continent's GDP growth in the last decade (see Box 3). Whether one thinks that commodity prices will trend higher because of relative scarcity or eventually decline as technology both increases supply and introduces alternatives, it is clear that prices will remain volatile. Having enjoyed a decade of continuously improving terms of trade, very few countries have prepared themselves to dampen future volatility in their own economies. All commodity exporters need to look to strong fiscal rules and savings mechanisms to protect themselves from such volatility in coming decades.

Foster competition and private sector development

Fostering competition, including through entry and growth of enterprises (see Box 7), a key challenge for most African economies, entails actions to put in place pro-competition policies and, on the other hand, curb anti-competitive behavior demonstrated by state or private monopolies, strong vested interests, and instances of state capture. The burden of regulatory requirements (the number of procedures, the time required to comply with them, and the costs of complying with them) need to be reduced to allow domestic firms to become competitive in a global setting. Reduction of unnecessary regulations relating to the entry and exit of firms, which directly affect the process of resource allocation from firms with low productivity to firms with high productivity is especially necessary.

Dealing with the bureaucracy is a significant cost in most African countries. Cross a land border, start a business, get something through customs, or even pay taxes and the cost imposed on individuals and firms in everyday economic activity is immediately visible. It is easy to improve some of the commonly measured indicators by adopting new laws or regulations but this frequently changes nothing. Bureaucratic habits die hard and rent collection opportunities are valuable to those who administer rules. Thus, such costs will not be eliminated overnight; but unless there is sustained political leadership to see that they are dramatically reduced, African enterprises, big and small, cannot be competitive, grow, and create jobs.

Governments need to introduce competition in shipping and port services and break collusion between public and private actors that benefits both but precludes new entrants, dismantle transport cartels, and implement the Yamoussoukro (open skies) Decision. The small size of markets in most African economies also makes it hard to generate competition among firms, putting a premium on access to export markets and the domestic competition from imports.

Box 7 | **Competition, private sector development, and productivity**

- Adopt unrelenting pragmatic approach to improving the investment climate to increase private investment, both domestic and foreign
- Implement pro-competition policies and measures to curb anti-competitive practices
- Reduce transport costs through competitive trucking and efficient ports
- Implement the Yamoussoukro (open skies) Decision
- Expand markets by lowering non-tariff barriers and behind-the-border costs
- Open trade in services
- Facilitate intra-Africa trade
- Promote technology adoption and foster “catch-up”, inclusive innovation
- Improve the business environment and streamline regulation to promote entrepreneurship, entry, and growth of enterprises.

African economies need to promote entrepreneurship—supported by education and management training, access to finance, and needed professional services. Ending state capture by families or insider groups is an essential prerequisite. India and China offer good examples for African economies to follow in encouraging innovation, with a focus on "catch-up" (vs. pioneering) inclusive innovation. Research and development (R&D) expenditures, directed largely at adapting technology, need to be raised from a negligible < 0.5 percent to some 2–3 percent—mostly by the private sector, supported by building world class universities with productive links between universities/research centers and industry.

The fundamentals required for competition and private sector development, and thus for investment and growth, are also the primary enablers of job creation. Additionally, African economies must to ensure that the broad agenda of promoting labor-intensive diversification is successfully implemented. The second element of the job agenda would be that of addressing the most visible problems of job creation that arise in a variety of country situations in Africa: rural-urban migration; worker productivity, particularly in the informal sector; women's entry into higher productivity activities; and education and vocational training (see Box 8).

Box 8 | **Agenda for jobs**

Elements of the Job agenda that are specific to country situations in Africa include:

- Extend adequate health and education services in both rural and urban areas to better prepare rural migrants for entry into the urban job market and facilitate rural-urban migration, and promote rural sector opportunities for absorbing labor in productive off-farm activities
- Take measures to improve worker productivity and prospects of better paying jobs in both the formal and informal sectors, including efforts to improve the informal sector's access to inputs, finance, markets, and opportunities to link up with formal sector firms
- Facilitate women's entry into high productivity market activities by removing obstacles to their access to productive assets such as education, capital, and land to support entrepreneurship, and eliminate regulations that prevent women from having equal employment opportunities
- Improve the education system—including vocational training—to provide the youth with the education and skills that respond better to the needs of the private sector; on-the-job training and apprenticeships can help the youth adapt better to the work environment of the private sector
- Ensure that public sector hiring and wage policies also take into account the realities of the macroeconomic situation and the need to avoid maintaining wages and non-wage benefits more generous than in the private sector

Build infrastructure and reduce costs

Economic agents require competitive costs in order to sell anything. As for other issues, the strategies for reducing costs and becoming competitive will be largely country-specific. In particular, infrastructure services performing below par have created challenges that must be addressed at the country level to enhance their competitiveness and ability to trade as well as for supporting domestic, agricultural, education, and health needs in rural and urban space. Two areas of infrastructure services stand out, however, for continent-wide action: energy and transport logistics. For costs to be competitive enough to make doing business attractive, logistics need to be smooth, regulations need to be limited but enforced, and barriers to efficiency in all infrastructure areas need to be removed.

Trade—whether within countries, with neighbors, or global—means moving goods, people, and data. The *cost of transport and logistics* is thus a key element in being competitive. Africa is, unfortunately, notorious for high transport costs, related in part to inadequate infrastructure but mostly attributable to polices and how infrastructure is managed. Logistics performance—where Africa has three countries in the global top 50 (South Africa, Tunisia, and Morocco) but 27 in the bottom 50—is one indicator of such performance (World Bank, 2012). Port performance (the number of days to get a container out) is one clear area for action. International norms are 3–4 days from arrival. Durban, Casablanca, and Tunis are close to such performance, but the average for Africa's other large ports is 16 days. Land transport costs are another area where transport cartels in much of the continent result in high costs. Finally, air transport services and costs are particularly important for tourism, high-value products, global supply chains, and many services. Africa has only three countries (Algeria, Morocco, and Tunisia) in the top 50 worldwide for air connectivity but 31 countries in the bottom 50 (Arvis and Shepherd, 2011). Opening access and eliminating ownership restrictions would increase the number of flights, reduce fares, and improve service, as Morocco's open sky policy has demonstrated.

Enterprises, whether single-person household enterprises or large firms, that do not have *access to reliable electric power,* cannot possibly be competitive and will not create the jobs for 2050. Widespread access to reliable electricity is often cited as one of the technological developments that drove productivity growth a century ago in the currently developed countries. With the exception of those in North Africa, most African firms still do not have such access. Providing reliable and affordable power 7 days a week, 24 hours a day would be the single biggest productivity booster for African firms. Without it, the potential in agro-processing, light manufacturing, and most services will remain an illusion.

Africa needs to invest in the transmission grids for electricity distribution, in addition to a significant boost in power production Thermal production can be private sector financed but developing Africa's enormous and cost-effective hydropower potential will require new public-private partnerships in order to mobilize the massive financial sums needed. Most countries are too small to have even a single optimum-sized plant and thus regional investments will be required. Investment in regional transmission grids and in the continent's biggest under-exploited resource—hydropower—are urgent.

Africa has the advantage of a growing labor force in an aging world and many people stuck in low productivity jobs. The division of tasks across global supply chains and their geographic mobility gives Africa the possibility of joining such chains; it must do so if it is to create the jobs that are the vehicle for employing its labor and increasing its productivity. Countries have differing potential to do so and will require country-specific strategies but, as discussed above, two actions cut across most of the continent: reducing transport and logistics costs and providing reliable 24/7power.

Transform agriculture

Agriculture employs more people in Africa than any other sector, but many of these people are poor and food security remains an issue for many Africans. Even if growth in manufacturing and services is expected to outpace that in agriculture, productivity increases are essential to raise the incomes of farmers, enhance food security, and realize Africa's agricultural export potential. Given the diversity of the continent, raising agricultural productivity depends on evolution across six distinct agricultural paths[1]:

1. Extensive, mechanized, rainfed farming producing exportable grains and fibers across semi-arid and sub-humid areas with suitable soils
2. Intensive export-crop farming producing beverage crops, spices, and other tree crops in humid areas
3. Intensive peri-urban farming producing for urban populations
4. Irrigated production of high-value crops north of the Sahara
5. Rainfed farming north of the Sahara
6. Low productivity subsistence crop and livestock farming in low rainfall areas with poor market access

Realizing Africa's export potential, raising farm incomes, and increasing food security implies a declining share of the labor force working in agriculture and a shift of resources to and investment in the first four paths set out above. The extent of this shift will depend in part on governments' successes at addressing land rights, water availability, and the use of new technology.

Land issues are sensitive everywhere and even more so in Africa given its colonial history. Clarifying land rights, titling land, and creating land markets is the biggest agricultural challenge for African governments in the next 40 years. The private sector can play a major role in addressing other constraints but defining land rights is a role for the state. Land titling is particularly important

1 Large uncultivated areas used for tourism, hunting, game ranching, biodiversity protection, and carbon sequestration constitute a seventh path, but one which is not strictly agricultural and hence not discussed here.

in areas of high export potential both to secure land rights needed for investment and to protect against "land grabs" whether initiated by foreigners or nationals.

Box 9 | Agriculture

- Promote irrigation
    - Pursue riparian agreements on river basin management
    - Reduce the cost of irrigation equipment
    - Extend modern energy supplies, including off-grid electricity and renewables, so that the variable costs of lifting water decline
    - Promote competition in irrigation investment
    - Increase irrigation efficiency
- Improve land access
    - Accelerate land titling
    - Establish sound framework for land leasing, including by foreigners
- Promote fertilizer use
    - Remove distortions (overvalued exchange rates and suppressed producer prices) that reduce incentives to use fertilizer
    - Address access through private sector delivery
- Harness global science and technology
    - Use more genetically modified organisms (GMO) to raise yields, develop new products, and adapt to new stresses (such as global warming)
    - Rebuild regional agricultural research institutions
- Lower cost of market participation
    - Improve and reduce cost of communications, essential for market discovery
    - Reduce transport costs by both infrastructure improvements and more competition in the transport sector
- Ensure better access to regional and world markets
    - Facilitate trade
    - Improve logistics

Water availability will become an even more critical issue with climate change and global warming. In addition to many country-specific constraints, two big water issues cut across the continent. First, the major rivers in Africa invariably cover many countries, and riparian cooperation on river basin management for irrigation and hydropower development has been too slow. Second, irrigation development costs need to be lowered through greater private competition and private sector involvement.

African agriculture faces the technology challenge of catching up with the rest of the world in terms of fertilizer use and benefiting from genetically modified organisms (GMO). The primary constraints on fertilizer use have been economic. Governments need to reexamine agriculture pricing and tax policies that have historically distorted incentives against agriculture and reduced the incentives for using fertilizer or other modern inputs at the same time as monopolistic supply arrangements have kept prices high or fertilizers unavailable. Contract farming could facilitate huge technological leaps thanks to guaranteed markets and prices and well-organized credit and input delivery systems. The trend of global farm technology will be to use more GMOs to raise crop yields, develop new products, and adapt to stresses, notably those caused by global warming. Governments need to provide the framework for African agriculture to catch up in GMO use in two respects. The first is to take advantage of global research to produce higher productive potential, e.g., maize that tolerates higher temperatures, pest-resistant cotton, or disease-resistant coffee trees. The second is to apply these technologies in the field.

The challenge for Africa is to develop public and private institutions that contribute at both levels of productive potential and field application. Africa must foster scientific institutions—public, private, and public-private partnerships—that contribute to global technology generation through national and sub-regional scientific infrastructure; continental broadband connectivity that facilitates knowledge generation and sharing; and governments that let economic incentives reach producers, among other actions, by opening trade channels. Commercial farmers, whether small or large would thus be able to respond to profits by adopting new biological technology.

Mobilize and invest natural resource rents

Africa is rich in hydrocarbon and mineral resources. But extraction of these resources creates few jobs and requires even higher productivity gains for other industries to remain competitive. For this wealth to help drive the Africa 2050 vision, African countries must mobilize a larger share of the resource rents created by extracting these resources; transform them into human, physical, and financial wealth; and foster economic diversification, including the development of of world-class ancillary service industries.

Capturing a larger share of the rents requires both greater transparency through public disclosure of the terms of resource extraction contracts and mobilization of world-class expertise when negotiating new contracts. Investing the resources well requires clear priorities and performance-based public finance management in general, and the adoption of countercyclical fiscal rules and externally-domiciled stability and wealth funds in particular. Growing the ancillary industries requires a skilled workforce, initial joint ventures, and policies that support service exports.

Box 10 Extractive industries

All African countries with natural resource exports will need to implement the following measures to get onto the convergence path:

- Obtain a greater share of resource rents
  - Ensure greater transparency in their extractive industries by requiring public disclosure of the terms of resource extraction contracts.
  - Employ world-class expertise when negotiating new contracts
- Manage resource rents effectively
  - Lock in application of revenue management rules (Non-Resource Primary Fiscal Balance Target or Structural Primary Fiscal Target) to remove cyclicality of resource and non-resource revenues.
  - Consider the creation of stabilization and wealth management funds, managed independently and domiciled in an external bank of international standing.
- Transform natural resource wealth into human capital and infrastructure wealth

Manage urbanization for growth

The success of cities in meeting the service delivery challenge confronting them will determine countries' effectiveness in capitalizing on their natural resource endowments, gains in health and education, governance improvements, trade and regional development initiatives, as well as overall efficiency enhancements. It will be crucial for policymakers to avoid the trap of characterizing the urban challenge only as a massive capital investment program in service supply.

Cities may be the locus of most economic activity but it is private sector firms that will drive growth and job creation. Cites must not only provide traditional urban services to their residents but also be very focused on creating the environment required to attract and grow private businesses. Policymakers must give explicit attention to business-friendly policies, spatial planning, and facilitating the links between industry and universities. Physical security and low crime are special concerns for both people and businesses. Provision of this "security infrastructure" will be as important as the physical infrastructure.

Huge infrastructure and service-related capital investments will be required for cities to establish the platforms necessary for driving economic growth. However, the lessons of the past 50 years have shown that a "projectized" approach fails to produce sustainable infrastructure networks and services. On the contrary, much of the investment is lost to inadequate operation and maintenance practices. Consequently, urban development strategies need to ensure that cities have the capability to lead and sustain the investment initiatives in service provision.

Moreover, experience worldwide has shown that urban service demands cannot be sustainably delivered from the center but have to be driven and managed by city government. This is a significant challenge in Africa where most political environments do not provide the enabling policy, fiscal frameworks, and legal and regulatory regimes necessary for cities to function effectively. In addition, city governments only operate effectively if there are clear lines of accountability between them and their constituents.

The most critical area for action over the next ten years will be institutional—introducing and making operational key systems of local government that are essential to effective city management. These systems, taken together, represent an enabling environment for sound urban development. The pressure for investment has to be measured against the extent to which the systems have been solidly grounded, and the progress individual cities are making in implementing them. In this context, capital investment needs, however pressing, would be carefully calibrated against progress in the development of effective urban local governments in an iterative process, with investments expanding as cities demonstrate greater capabilities.

Establishing effective urban local governments requires action on three broad fronts. First, ***sound political and fiscal enabling frameworks*** need to be established. Legislation and regulation must unambiguously allocate functional assignments to cities for the delivery of services and create reliable fiscal systems that ensure adequate, predictable flows to city governments to meet their responsibilities within effective oversight structures. Second, ***effective social contracts between elected urban local government officials and their communities*** must be built. Gov-

Box 11 **Cities**

The essential ingredients of an urban action plan for the next decade are to:

- Review existing local governance legal structures in order to ensure that a minimum set of enabling laws/decrees/regulations are in place to permit cities to deliver selected local services without competing with parallel central government structures
- Introduce fiscal transfer systems that are predictable and allow for effective planning (e.g., five-year time horizons), and that have performance incentives built into them. Cities that perform well against predetermined indicators would be rewarded with significant increments in capital transfers (with independent annual assessments of performance being undertaken to ensure the legitimacy and credibility of the incentive system)
- Increase the size of annual transfers over time as cities demonstrate growing capacity, with expanded capability being aggressively supported by on-the-job training linked to more formal but tailored classroom-based skills development

Good practice and strengthened performance over the next decade would build confidence upwards to central governments and downwards to urban residents, paving the way for the large levels of requisite funding to be moved through city governments to create the dynamic cities of 2050.

ernance systems, as measured in tangible areas of management such as budgeting, investment decisions, and operational performance, need to follow transparent procedures, routinely meet satisfactory audit standards, and deliver services to standards that address citizen expectations. Finally, ***urban local government capacity*** needs to be strengthened through a process of "learning by doing" whereby cities, in implementing their mandates for service delivery, build capacity to manage these responsibilities and are assisted during this transitional period with targeted training support programs. Capital development resource transfers to local governments would be scaled up in relation to demonstrated capacity to perform.

Most countries in Africa now have some form of enabling urban legal structure and some form of elected representation at the local level that can serve as a legitimate framework for introducing more robust accountability practices. While some countries have well-advanced local governance structures (with South Africa representing African best practice in this regard), in most instances little has been done to implement programs building on these frameworks, and local fiscal capacity and national fiscal transfer structures are weak and unreliable at best. Consequently, little capacity has been developed at the local level, and accountability and confidence building between elected officials and their constituents has eroded badly. Inadequate and unpredictable flows of funds have contributed to these failures and created a self-fulfilling cycle of poor performance by the local governments and reluctance by central governments to transfer funds to institutions they consider incompetent. This cycle has to be broken if cities are to be able to meet the challenges they face.

Integrated Africa—Bigger Markets to Foster Investment and Higher Productivity Jobs

Most African countries are small. Africa must integrate both sub-regionally and globally if it is to have markets that are large enough for firms to grow and create jobs and if it is to have a voice in global forums where rules affecting its future will be set.

Promote regional cooperation and trade

There is little prospect for firms in small markets to grow, specialize, and increase productivity—and thus create jobs—without access to larger markets both sub-regionally and globally. Actions need to go beyond lowering tariffs to genuinely opening up, reducing non-tariff and "behind the border" barriers, and improving connectivity. Opening economies in order to both enlarge markets and introduce competition also offers opportunities for "policy leap-frogging". Much may be said about improving the links between countries, but certainly the simplest and highest return activity is to take down the "roadblocks" (both literal and figurative).

Inter-African trade is minimal (11 percent of exports) not because there are no opportunities but because it so costly to overcome the obstacles, whether they are physical or bureaucratic. That Morocco trades little with Mozambique or Kenya with Cameroon is not surprising, given its geography. That members of the African Community of West African States (ECOWAS) or the East African Community (EAC) do so little with each other is self-defeating. Africa's diversity is a plus in this regard since trade, and the investment flows which frequently follow, have particularly big payoffs for countries with differing endowments. Landlocked countries need access to coastal ones. A small Benin could one day be a "Hong Kong" provider of services to a giant Nigeria. And North African countries already integrated in European supply chains, like Morocco and Tunisia, could extend them southward as they move up the value chain.

The first priority of the key regional economic organizations and their member states should be to pragmatically identify and then aggressively remove the obstacles to people and goods crossing borders. These range from warlord bandits or freelance bureaucrats who collect tolls for passage, to agriculture export prohibitions and bureaucratic procedures that serve no purpose beyond confirming the power (and rent collection ability) of those who administer them, to the simple lack of harmonized standards. Whatever their manifestation, these obstacles exist across the continent—and will only be removed if there is an unconditional and pragmatic commitment by political leaders to do so.

If the roadblocks come down, as discussed above, then regional transport infrastructure investments will be key to open markets but most particularly to lower transport costs. A continent-wide strategy for regional infrastructure has been endorsed by African leaders but implementation is lagging. Major challenges are to ensure adequate financial resources and effective implementing capacity. Experience from other regions suggests that Africa will need to significantly increase spending on infrastructure from 2–3 percent of GDP currently to at least 5 percent. An important underpinning for promotion of regional cooperation and trade is infrastructure (energy and electricity; transport, including roads, ports, rail, water, air, urban mobility, information and communication technology; water resources; and related services and logistics connecting within and across regions of the continent. Regional infrastructure and services offer provision of economies of scale, such as with regional power pools; water storage for multipurpose use; access across the continent and to the outside world; and global connectivity to all corners of the continent through mobile telephony and broadband services.

Replace aid with trade and FDI

Many countries have opened their economies by removing barriers to trade in goods but only much later (or not at all) in services. It has become increasingly apparent that opening services to foreign direct investment and trade increases productivity and jobs in both the services and manufacturing sectors (Duggan, et al., 2013).

If Africa wants to catch up fast, it needs to leapfrog to opening trade and FDI in both goods and services. A pragmatic focus on identifying and aggressively lifting barriers to export will be key and will involve actions both with global partners and domestically to improve access in target markets and to remove barriers. The political economy of such opening must be explicitly recognized—opening trade will create opportunity but it will also destroy uncompetitive firms and mobilize their vested interests in opposition.

Fifty years after independence, aid is already diminishing as a resource for most African countries. By 2050, traditional and donor-driven development aid should have disappeared, replaced by cooperation between equals, in pursuit of joint interests. In the interim, one focus of aid should be fragile states, recognizing that conflict spills across borders and fragility can be a slippery slope leading to conflict.

The broader movement away from aid requires active management of relations with both today's "old" and "new" partners, and, in the short term a more strategic use by Africa of aid and export credits. Going forward, domestic and foreign investment, trade, and remittances will be the source of economic development, with Africa able to make informed choices in its own interests.

Most economic exchange will be determined by markets, by the private sector, and not directed by governments. As discussed above, Africa can only converge with the rest of the world if it has the bigger markets and market discipline offered by global trade, and it can only mobilize the needed technology, knowhow, and increased investment if it increases FDI. Market access and joining supply chains through FDI need to be the focus of future relations.

Asia and Latin America will represent 61 percent of global GDP by 2050 and should represent a corresponding share of Africa's trade. This implies attracting FDI outside of resource extraction industries (where shared rents make it attractive even in investment-unfriendly contexts) into manufacturing, agriculture, and services. Given their large share of world manufacturing and rising labor costs, integration into the supply chains of "emerging" partners is particularly important.

Reposition Africa globally

A shift from aid to trade and investment will position Africa well to reshape its ***relations with the rest of the world*** and place it on more equal footing than in the past. African countries should strive to move from relations with emerging countries that are usually centered on government-to-government dialogue to a broader, more inclusive relationship with the engagement of the private sector, local government authorities, and other relevant non-state actors on both sides of the partnership.

The evolution of Africa's partnership with the OECD countries must reflect a more considered and proactive African position based on a compelling longer-term vision rooted in what Africa itself will do. Africa has to try to speak, wherever possible, with one voice, and to ensure that the issues of interest to it are addressed. Africa has to move from being a passive onlooker to global debates and rule-making to becoming an active participant. To participate actively in setting the global agenda and be more influential, Africa needs to have additional full participants in the G20 and allied bodies dealing with banking and finance.

Better Governance to Deliver Results

Chapter 7

The issues highlighted in the above action agenda are selected from the many issues facing governments because they are particularly important given a 40-year time horizon and the aspirations of Africans. Most, however, are not new. As noted in the Introduction, the challenge is not so much what to do, but how to implement it, and how to sustain a "do whatever it takes" mentality to get results. The key to realizing the 2050 vision will be governance and how institutions work.

A thriving 2050 Africa will need to have institutions capable of delivering, on a sustained basis, the following:

- Individual and property rights security to all citizens
- A credible platform for private investment, which gives confidence that the rules of the game are stable and that successful entrepreneurs, whether domestic or foreign, will be able to reap the fruits of their efforts rather than have them appropriated by politically well-connected groups
- Ongoing investment in human capital, particularly to provide access to quality education and health services
- Physical infrastructure that provides the transport, communications, electric power, and water needs of a dynamic economy
- A business environment that fosters competition and supports innovation

There is also largely a consensus on the characteristics of a well-functioning state capable of delivering such public goods:

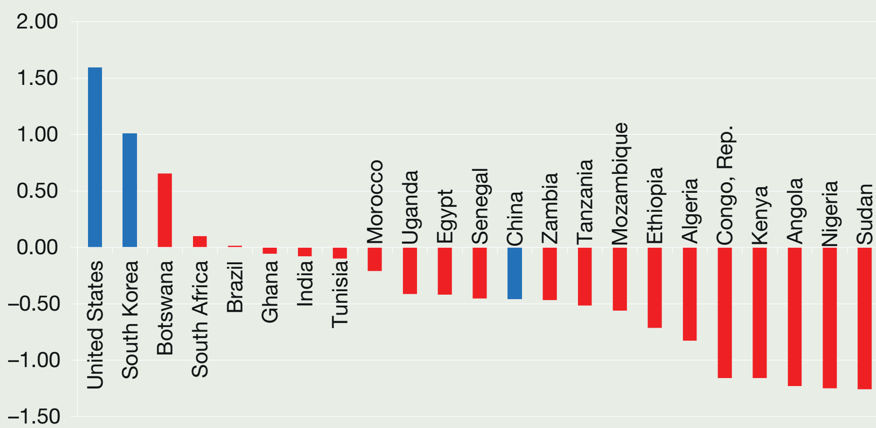
- Strong rule of law
- Capable merit-based bureaucracies
- Well-functioning public expenditure and financial management systems
- Limited corruption—and strong sanctions when it is discovered
- Accountability of public officials and governments to their people
- Broad acceptance of the legitimacy of governance arrangements

Most countries that approach such norms have long, country-specific histories of institutional and political development. Many analysts would, moreover, suggest that inclusive economic and political institutions are key to such an evolution (Acemoglu and Robinson, 2012).

Box 12 **Rule of law**

By international standards most African countries score poorly on the rule of law (see figure below). Most have reasonable legal frameworks but enforcement is weak. In some countries even the physical security of individuals is not assured. In others, successful investors, whether individuals, small companies, or large ones, risk losing their gains to the politically well-connected. In others, simple contract enforcement is a challenge and court decisions can easily be bought. In all cases, these deviations are fatal for investment, innovation, and private initiative—without which there will be no job creation. Quite perversely, these problems are frequently more acute for domestic investors than for foreign ones since the latter are often large enough to strike deals with vested interests or are less vulnerable because of their visibility. If the Africa 2050 vision is to be realized, African countries need guaranteed individual and property rights and a fair judiciary to enforce them.

Figure 1: Most African countries rank poorly in the rule of law



Source: World Governance Indicators, World Bank.

Defining the characteristics, however, offers little guidance about how to get there. The challenge for most African leaders is indeed to get from a starting point of relatively weak institutions to stronger institutions that deliver results. The long timeframe required to solidify institutional changes also creates urgency to start and concern about what steps to take first. The answers are of course country-specific but attention to two broad issues is necessary in all: strengthening capacity, and building credibility and accountability.

Strengthening Capacity

Capacity refers to the extent to which a country's public sector has the skills and organizational competencies needed for good policymaking and implementation. Fifty years ago when many African countries became independent, capacity was extraordinarily weak because many colonial administrations had no interest in building national human capital. Given limited attention to education, there were simply very few people with the necessary skills.

The problem today is different. There are large numbers of highly skilled Africans working in many capacities all around the world. With few exceptions, the big capacity constraint today is using the skills that exist both within and outside the countries. Taking advantage of existing professional capacity is a matter of insuring that institutional arrangements offer sufficient stability and adequate remuneration as well as sufficient professionalism, meritocracy, and influence in policy implementation to attract skilled individuals.

Lack of institutional capacity applies across the income spectrum of Africa. Sierra Leone, Liberia, and DRC have begun to attract their trained and experienced nationals to important positions in the public administration, something that was unthinkable when they were embroiled in wars. For more than a decade Morocco has succeeded in attracting highly trained Moroccans both to stay in the country and to work in the public sector. Tunisia, over the same period, did not. Most would say the most important difference was a political ethos that valued technical skills at the upper echelons in Morocco and one where state capture by the politically well-connected undermined the upper echelons of a once well-regarded civil service in Tunisia.

Whether it is restoring basic financial management in a post-conflict country or creating an agile administration to face the challenges of the middle-income trap in a highly globalized world, African governments need to mobilize high-quality, focused technical capacity in areas that can show results and harness stakeholders with a strong incentive to see reforms succeed.

Building a capable public sector is a long-term endeavor but there are some areas where results can be achieved rapidly even in settings where the initial platform is weak, as Box 13 details. A step-by-step approach initially focused on such areas will in most situations offer the best prospects for the rapid spread of technical and managerial capacity throughout the public sector. The initial opportunities will of course be country-specific but range from creating capable central banks and ministries of finance to mobilizing the best expertise for planning tomorrow's cities and devising smart public-private partnerships.

Enhancing Credibility and Accountability

Credibility refers to the extent to which citizens and firms (domestic and foreign) have confidence that government commitments will be honored. Credibility is built on results—articulating what is being sought and delivering it—and accountability. Prerequisites for credibility are a state strong enough to enforce its decisions within its territory and consistent enough to convey what it wants to achieve.

Credibility can be damaged by incompetence but its deadliest enemy is the use of state power by political leaders or well-connected groups to extract for themselves as much as they can in as short a time as possible. Development requires leadership that is committed to investing for the long-term. A minimum threshold for credibility is demonstrating enough control and reliability so that private investors, whether domestic or foreign, are willing to invest their money in activities other than resource extraction.[1]

Increasing accountability is key for moving beyond this minimum credibility. Accountability arrangements can both directly improve service provision (for example, when parents have a say in running schools and block pay to absent teachers) and create the confidence necessary for individuals to invest, take risks, and innovate.

Even more so than for other issues, what is required to maintain or restore credibility will vary between countries and over time. Some actions can make an early difference by sending clear, strong signals that government is committed to results and will respect the rules of the game (see Box 13). Restoring order and security may be sufficient following a chaotic civil conflict. Success at restoring order will, however, quickly evolve into expectations for minimum service delivery.

The biggest credibility/accountability challenge facing many African governments in a 40-year horizon will be meeting the expectations of a growing middle class. An expanding middle class can be an important driver of economic growth both in demand for goods and services and in a virtuous circle of increased income, increased saving, increased investment and further increased income. Most importantly, a growing middle class will also demand more accountability, and thus improved governance, from its leaders and governments.

Credibility and accountability are possible under diverse political arrangements provided there is a clear social contract that engages all of society. The nature of that contract must evolve as standards of living rise, communications improve, and expectations change or credibility will suffer.

To meet the aspirations of its people, Africa needs leaders and governments with a single-minded focus on results, sufficient foresight to evolve to face tomorrow's challenges, and willingness to be held accountable.

1 Some investment in resource extraction can be possible even with low government credibility because all that is required is an agreement on how to share the rents.

Box 13 Governance

The journey from weak to good governance is long. The key to realizing the Africa 2050 vision is to begin with actions which can support development results in the short-term and provide a platform for more far-reaching gains over time. High-potential actions along these lines include:

- Strengthen public sector capacity with a focus on actions which can be directly linked to specific development results:
    - ◊ Build high capacity units in central macro policy and budget agencies
    - ◊ Assure budget delivers resources predictably to managers
    - ◊ Pursue quick wins to binding development constraints
    - ◊ Initiate results-driven institutional reform in a few sectors
- Build credible commitment capability and clearly signal that government is committed to results and respects the rules of the game:
    - ◊ Legislate credible institutional framework for domestic and foreign investment
        - » Framework for local participation
        - » Transparent taxation
        - » Credible dispute resolution, including extraterritorial
    - ◊ Utilize global and regional commitment mechanisms to lock-in reforms
    - ◊ Initiate program to strengthen supreme audit institution

There is one additional challenge for the long-term which needs to be given top priority early on—namely nurturing a culture of citizenship, of civic expectations that government should deliver on its promises and that politicians should be held to account:

- Support for press freedom and media capacity building, and the introduction of service delivery scorecards and other demand-side monitoring mechanisms

Chapter 8

Alternative Scenarios: Enormous Cost of Failure

Africa ***can*** realize the vision sketched in section 2 but it will ***not be automatic.*** It will require aggressive and sustained action by African leaders on the agenda traced above.

Three scenarios—convergence, business-as-usual, and downside—are outlined here to illustrate the broad range of outcomes possible. These scenarios are based on a model of the global economy and methodology prepared by Centennial Group International, which projects long term evolution of GDP of 186 countries as a function of labor force, capital stock, and total factor productivity (see Annex 3).[1]

Convergence vs. Business-as-usual

Africa's recent improved performance (see Figure 15) forms the basis for the convergence scenario, in which convergence in standards of living is driven by trade that reduces factor price differences between rich and poor countries, capital deepening in countries with lower capital/labor ratios, and accelerated TFP growth to catch up with TFP levels in advanced economies. The scenario assumes that 19 African countries are "early convergers"[2] whose TFP growth begins to converge with that of advanced countries this decade, that 15 are "late convergers"[3] whose TFP growth begins to converge in the following decade, and that the remaining 20 countries currently considered "fragile"[4] transition out of fragility over the next 30 years.

Under the ***convergence scenario*** per capita incomes in Africa could grow by 4.6 percent annually over the next 40 years and exceed US$17,000 (2010 PPP US dollars) in 2050 (Figure 16). Africa-wide per capita income would be higher than that of Russia, Malaysia, Mexico, or Turkey today. Under such a scenario African per capita incomes would begin to converge with the rest of the world, moving from 27 percent of the world average today to 52 percent.

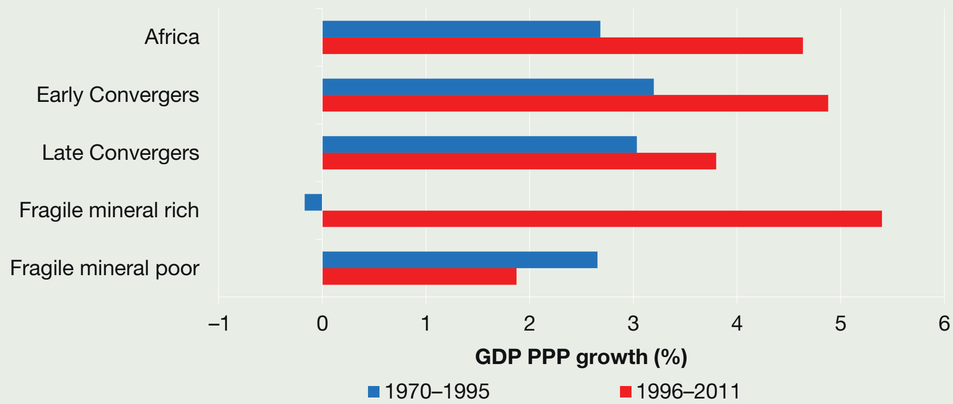
1 The Centennial growth model is explained in Kohli, Szyf, and Arnold (2012) and its results are reflected in numerous studies including *Mexico 2042—Achieving Prosperity for All, Asia 2050—Realizing the Asian Century, India 2039—An Affluent Society in One Generation, and Latin America 2040—Breaking Away from Complacency.*

2 Four countries (Botswana, Cape Verde, Mauritius, Mozambique) with 25 years of per capita GDP growth greater than 3.5 percent plus 15 countries with annual TFP growth over the last decade greater than one percent.

3 Fifteen non-fragile countries with annual TFP growth over the last decade of less than one percent.

4 The 20 countries classified by the African Development Bank and the World Bank as being in "fragile situations".

Figure 15 **African GDP growth has greatly increased since 1995 (real GDP growth)**



Source: Centennial Group International.

Such sustained growth would set in motion many changes that would transform the lives of Africans and Africa's role in the world. On the individual front, the size of the middle class[5] would increase more than 10-fold to 68 percent of the population from 12 percent today. The number of poor would decline to 53 million (or under 3 percent of the population) from 380 million (or 37 percent) today. Africa's share of world GDP would more than triple from less than 3 percent today to 9 percent in 2050 (see Figure 16).

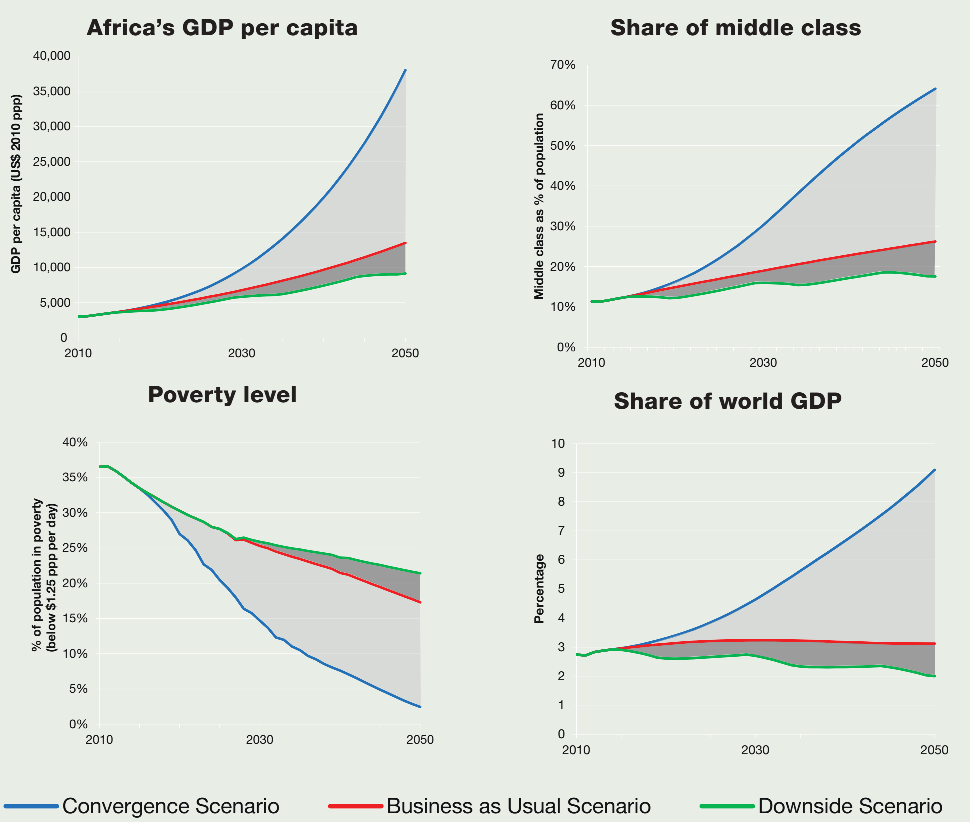
The charts on the following page compare these outcomes of the convergence scenario with those under the ***business-as-usual scenario.*** The latter assumes that Africa's higher investment rates of recent years continue, its labor force continues to grow, commodity prices remain high, and the generally improved policies of the last 10–15 years are maintained—but there is no sustained action on the policy agenda described above. As a result, unlike the convergence scenario, productivity growth does not accelerate. Four countries with consistently high growth for the last 25 years[6] continue to converge, but the other 30 non-fragile countries do not converge[7], and the fragile countries stay fragile.

Under the business-as-usual scenario per capita incomes continue to rise at 1.9 percent annually and reach more than US$6,000 (2010 US dollars PPP) by 2050 (see Figure 16). Given growth in the rest of the world, however, Africa's per capita incomes would actually diverge further from those in the rest of the world, falling to 20 percent of the world average by 2050. The size of

5 Middle class defined as per capita income greater than US$10.80 and less than $100 a day (2010 PPP US dollars).
6 Botswana, Cape Verde, Mauritius, and Mozambique.
7 Their TFP growth matches that of the long-run TFP growth of the advanced economies (1 percent).

the middle-class would increase but after 40 years would still be only 27 percent of the population. Nearly one in five Africans would, correspondingly, still be mired in poverty. Finally, given growth elsewhere in the world, Africa's share of global GDP would stagnate at around 3 percent.

Figure 16 | **There is a high opportunity cost for not achieving the convergence scenario**



Source: Centennial Group International.

The shaded area in the charts indicates the enormous opportunity cost to Africans if Africa follows the business-as-usual scenario and fails to realize the convergence scenario. Per capita income would be lower by more than US$10,000, some 40 percent of the population (900 million) would be unable to reach middle class status, an additional 15 percent of the population (325 million) would be left in poverty. With most African countries approaching 100 years of independence, a continent with a quarter of the world's population but only 3 percent of its economic activity is not only highly unattractive but poses serious threats to the social and political stability. The threat is acute because such an outcome diverges so far from the aspirations of Africans.

Downside Scenario

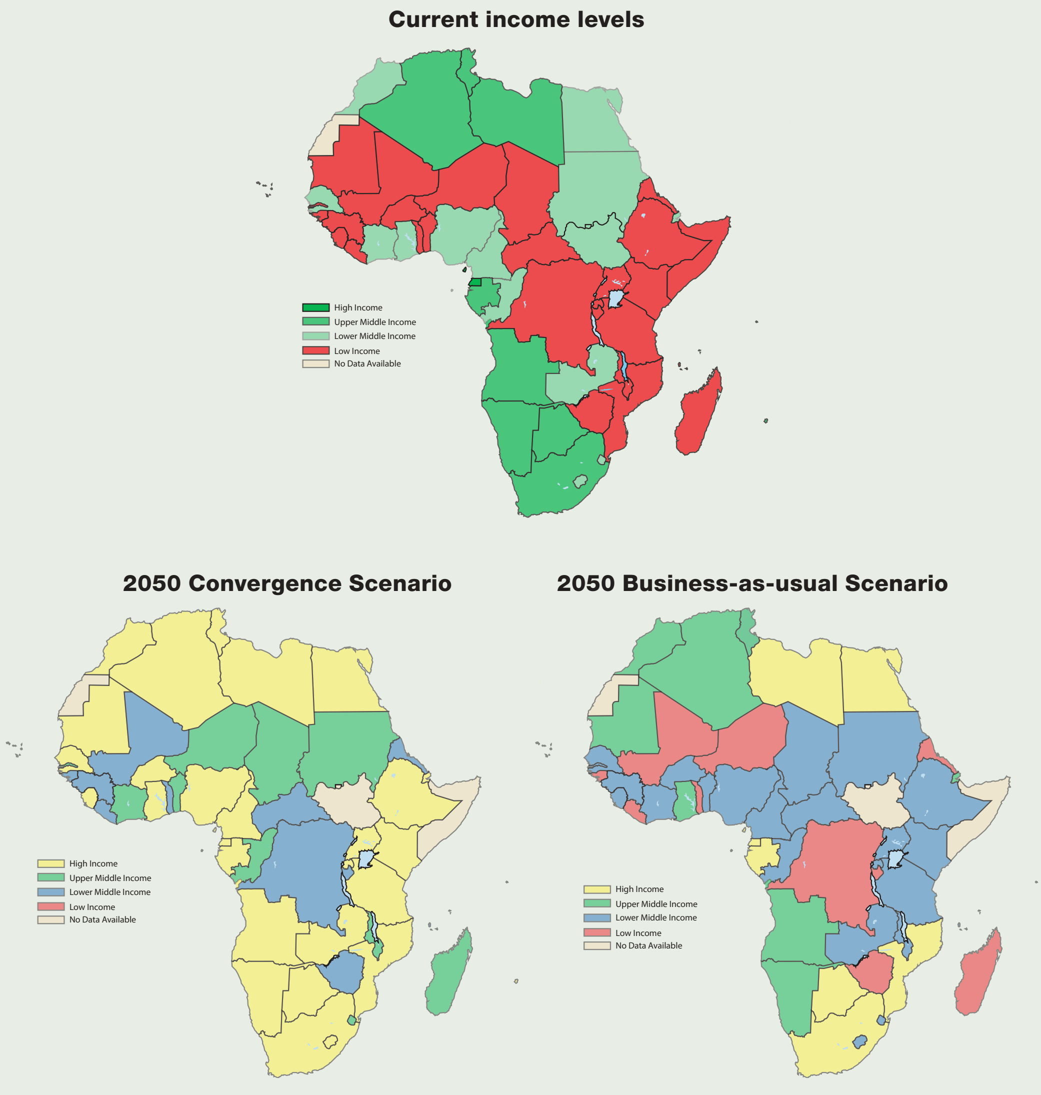
The business-as-usual scenario is, however, by no means the pessimistic scenario. A much more worrisome downside scenario could arise, for example, if Africa's terms-of-trade were to deteriorate because of commodity price changes and if fragility and conflict were to spread to more countries. It is difficult to model such a scenario but the downside scenario shown in Figure 16 assumes that, as a result of commodity price fluctuations, Africa's terms of trade cyclically fall by 15 percent over five years and then recover 15 percent over the following decade (hardly dramatic when seen in the perspective of the last 40 years), that an additional five countries slip into fragility and conflict, and that all the middle-income countries are stuck in the middle-income trap and do not converge with today's advanced economies.

In such a scenario per capita income would grow by less than one percent a year and would in 2050 be only around US$4,000 (2010 US dollars PPP). Given faster growth in the rest of the world, Africa's per capita income would have fallen to only 14 percent or one seventh of the world average, the worst ever. One in three Africans, some 690 million people, would still be in poverty and the middle class would have grown to only 18 percent of the population. On the global stage Africa would be marginalized with only 2 percent of world GDP. In 2050 Africa would still have many low-income countries and few high-income ones (see Figure 17). Under such a scenario the aspirations of Africans would be crushed.

The downside and the business-as-usual scenarios paint a very unattractive future. The convergence scenario is feasible but will be realized only if there is vigorous and sustained implementation of the action agenda outlined in this report. This scenario requires sustained, higher productivity growth for most countries over the next 40 years. Countries in other regions have achieved such sustained productivity growth, but not many. Success with a 40-year agenda depends most on institutional development and political resolve for sustained implementation.

Such a strategy would be a clear break with the past and requires a cultural change. African leaders need to focus on realizing the convergence scenario and be willing to be judged on their success in delivering results. To be able to do so, however, they need to have established a new social contract with their citizens—one that cuts across political, ethnic and religious lines and that promises the Africa in 2050 described above but recognizes that delivering it depends on an unrelenting focus on the action agenda set out in this report.

Figure 17 **The high opportunity cost for not achieving the convergence scenario, as shown in income levels**



Source: Centennial Group International.

Chapter 9

Concluding Note: A Unique Window of Opportunity for Africa to Stand on its Feet

Africa is at a critical juncture. It faces a window of opportunity to break away from the historical ups and downs in its economic performance linked to the vagaries of the commodities markets and to embrace an ambitious vision of a transformed continent by 2050. A laser-like focus on realizing this vision will allow Africa to meet the rising aspirations of both its people and the rest of the world, and stand on its own feet in the global community. This path will not be easy. But Africans deserve and require nothing less in order to avoid scenarios that could result in social turmoil, even a social explosion, and global marginalization.

In human terms, the stakes for the next two generations of Africans are staggering. Under the Vision outlined in this report, over two billion Africans living in 2050 will enjoy the fruits of affluent societies similar to countries such as Malaysia, Mexico, or Turkey today and be free of the violence and insecurity that currently afflict almost one in three Africans. Poverty, illiteracy and disease would have been practically eliminated. But under a business-as-usual scenario the continent's standard of living would in 2050 still be lower than that of Egypt or South Africa today and almost 20 percent of the population, some 380 million people, would still be poor. And the downside scenario would be, simply put, a nightmare and socially and politically even more unacceptable.

Africa's future is in its own hands

In an era of increasing globalization, the continent will clearly be affected by developments elsewhere, including in commodity markets, but the basic direction of its future economic and social trajectory will be determined by actions of African governments, public and private institutions, the business community, and civil society themselves. In this context, what African leaders choose and manage to do in the next few years to start implementing the agenda outlined in this report will make an enormous difference.

Almost all important changes—in policies, institutions, investments, relations with others within the region and its partners in the rest world—require a long-term perspective, strategy, and action agenda. Reforms in the most crucial areas are inter-generational issues that take decades to initiate, pilot, adapt on the basis of lessons learned on the ground, and ultimately scale up to the national or regional level. If they are not initiated early, the reforms will not be mature enough to yield results by the time the problems they address become binding constraints.

The Intangibles

As important as the inter-generational issues highlighted above are, four overriding non-tangibles will be critical to sustain Africa's newfound momentum for another forty years and ultimately shape Africa's long-term destiny:

- First, the ability of its leaders to persevere during the inevitable ups and downs, to maintain a sharp focus on the long-term, and to make continuous adjustments in strategy and policies to respond to changing circumstances within and outside the Continent —despite the relentless pressures of day-to-day concerns
- Second, the willingness and ability of all Africans to adopt and pursue pragmatic—rather than ideological or geopolitical—approaches to policymaking as well as maintain a laser-like focus on results as accomplished by East Asian economies in the past
- Third, building much greater mutual trust and confidence between the major economies of the region as the basis for effective regional cooperation and collaboration
- Fourth, the commitment and ability of Africa's leadership to modernize governance and institutions on a continuous basis, while enhancing transparency and accountability throughout.

Emerging Markets Forum
April 2013

Annex 1

Resiliency of African Economies

Many African countries were resilient to the 2008 global financial crisis. The reasons for such resilience are, however, very different across the continent. Table A1 shows the values of the Centennial Group Resilience Index and its constituent sub-indices for 31 African countries for which data are available (Boorman, et al., 2013).

Africa's most resilient economies, like Algeria and Botswana, are resilient because they have strong external positions and large reserves from their natural resource exports. A few countries, such as South Africa, Uganda, Ghana, and Mauritius have become more resilient because of varying combinations of strong macro management, banking sector reform, and export diversification. Others, however, are relatively resilient for the same reasons they are poor—little integration with the rest of the world.

A review of the resilience sub-indices tellingly reveals that, overall, Africa performs well (dark green) on "external robustness" and "private debt" but consistently poorly (dark red) on "government effectiveness" and "governance".

Table A1.1 **Resilience Index (world average = 100)**

Country/Region	Resilience	Fiscal policy	Government effectiveness	Governance	Monetary policy	Banking soundness	Export diversity	Export independence	External robustness	Private debt	Reserves
Algeria	115.6	113.6	86.3	80.7	96.6	108.1	86.2	91.1	136.1	113.6	136.8
Botswana	106.0	109.2	92.5	91.7	94.4	109.7	76.9	93.7	120.6	111.3	118.9
Namibia	102.8	109.1	89.4	90.8	95.1	109.0	98.2	92.3	110.9	109.9	104.0
South Africa	102.2	103.6	92.5	97.1	100.6	96.5	104.1	98.1	110.3	104.2	100.0
Uganda	100.3	106.1	83.2	78.8	86.9	115.3	102.2	103.0	113.4	112.1	99.9
Ghana	97.4	103.0	92.0	83.4	98.3	109.1	93.4	92.7	108.6	111.9	99.5
Mauritius	97.3	102.2	97.3	93.3	96.2	106.6	93.9	98.3	104.3	91.6	107.6
Togo	97.2	120.8	72.9	76.2	96.3	101.9	103.4	94.8	116.5	109.4	98.9
Cameroon	96.7	112.1	79.1	76.5	97.9	105.6	95.1	101.1	112.2	112.5	97.5
Morocco	96.7	101.7	89.4	88.0	97.6	101.6	98.4	99.2	110.4	103.5	99.8
Egypt	96.6	97.4	83.2	88.3	93.5	98.9	108.5	103.8	107.3	109.5	98.5
Kenya	96.5	103.6	83.2	82.5	87.8	113.3	104.9	101.8	109.2	107.9	94.8
Benin	96.1	107.6	82.0	81.4	97.4	101.7	90.9	97.7	114.9	112.9	101.1
Swaziland	95.2	112.2	84.2	80.8	95.0	110.3	90.6	85.9	107.9	112.2	105.5
Malawi	95.1	106.0	87.4	78.9	94.1	120.0	95.3	99.1	102.4	110.9	90.3
Tanzania	94.1	102.7	81.1	79.2	87.3	104.0	103.6	100.6	112.2	112.2	98.6
Mozambique	92.7	109.7	81.1	80.3	94.0	116.1	85.2	96.0	115.3	105.5	93.6
Madagascar	92.5	102.6	78.0	76.4	95.3	103.4	95.6	102.2	116.1	112.7	93.9
Burkina Faso	91.8	107.4	78.0	80.4	95.8	101.2	89.0	101.0	109.3	112.2	99.7
Senegal	91.2	102.0	79.6	78.2	96.6	96.5	97.5	101.7	111.8	109.6	98.9
Seychelles	91.2	137.1	93.8	81.7	95.2	103.1	85.0	87.7	95.1	92.3	101.2
Niger	90.1	110.8	80.6	79.2	97.7	101.3	79.6	99.6	107.0	114.1	98.7
Ethiopia	89.9	108.6	82.2	74.5	77.7	107.1	96.7	106.3	107.8	114.5	92.7
Tunisia	89.4	105.7	87.9	89.4	97.8	98.9	94.3	91.1	112.3	105.1	84.2
Nigeria	89.0	110.3	79.6	80.1	93.8	108.5	74.6	86.3	117.0	112.7	102.5
Mali	88.8	106.1	75.9	82.7	96.2	99.5	81.7	98.4	110.6	112.8	100.7
Zambia	84.3	109.0	81.1	82.7	95.5	97.4	76.2	87.5	111.9	112.8	96.3
Côte d'Ivoire	83.7	92.6	72.9	75.2	96.9	103.1	97.4	87.8	111.1	111.4	100.3
Gabon	83.5	111.2	80.6	78.0	98.0	104.6	71.0	75.8	114.0	114.9	99.8
Angola	82.7	108.6	80.6	77.5	93.3	105.2	64.8	80.2	115.1	110.9	109.2
Sudan	68.4	100.1	71.9	72.4	89.9	105.5	62.9	103.0	91.8	114.6	88.3

Source: Centennial Group International. Note: Dark green > 110 (more than one standard deviation above world average); Light green 100–10 (less than one standard deviation above world average; Light red 90–100 (less than one standard deviation below world average; Dark red < 90 (more than one standard deviation below world average).

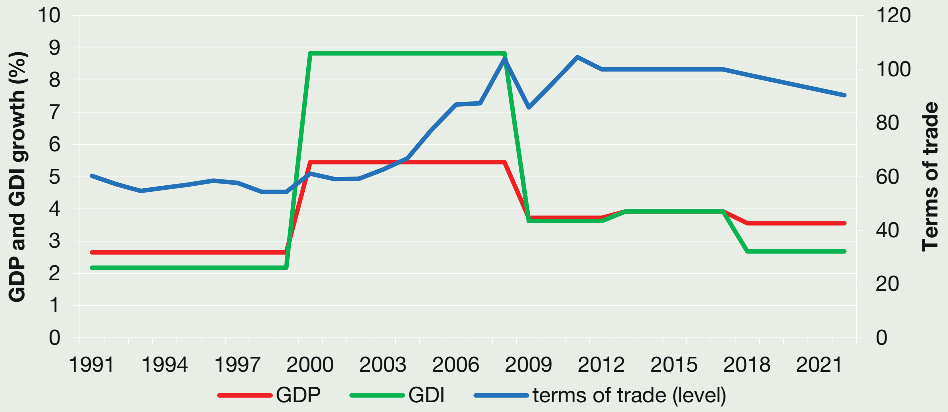
Annex 2

Impact of Terms of Trade Changes

The impact of the terms of trade on GDP, GDI, and their respective growth rates is illustrated below. The first figure shows the average growth rates for GDP, and GDI for the period 1991–2012 and a scenario for the period 2013–22. For the period through 2012, the graph presents the average rates of growth for 1991–99; 2000–08; and 2009–12, against the actual level of terms of trade. For the future, the scenario assumes constant terms of trade for five years, and a decline by 2 percent a year for the next five. It is clear from the graph, that GDP and GDI growth rates would fall substantially, even as terms of trade remain at the current record levels. GDP growth rates would fall to the underlying business-as-usual levels, unless reforms take place. Growth rates fall further during periods of terms of trade decline, because of the reduced purchasing power of exports.

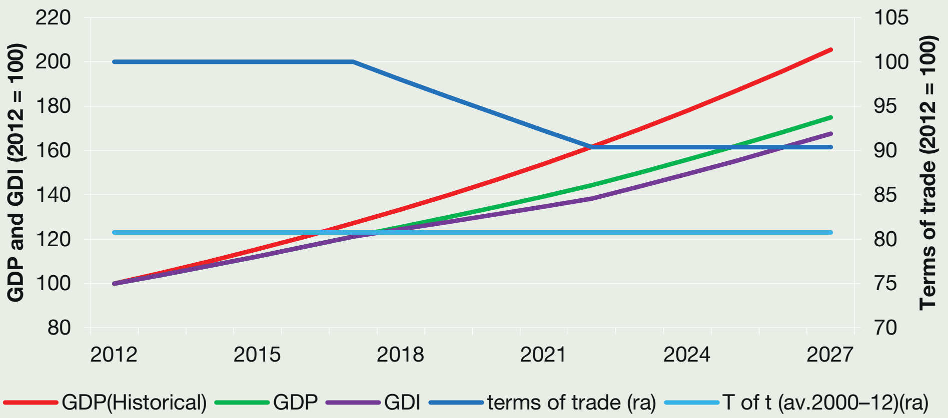
The second figure shows the path of GDP and GDI, based on the levels for 2012. For GDP to continue on the historical growth path, terms of trade would have to continue to increase indefinitely. Under the more realistic assumption of plateauing terms of trade, followed by a moderate decline to levels well above the averages of 2000–12, GDP would be 11 percent lower in ten years than what would have been expected if the (unrealistic) historical rate of growth of the period 2000–12 would have prevailed after 2012. Available income as measured by GDI will be lower by 15 percent.

Figure A2.1 **Historical and prospective terms of trade levels and rates of growth of GDP and GDI**



Source: Centennial Group International.

Figure A2.2 **Prospective terms of trade and levels of GDP and GDI (2012 = 100)**



Source: Centennial Group International.

Annex 3

Model for Developing Global Growth Scenarios

This study estimates GDP as a function of labor force, capital stock, and total factor productivity for 186 countries between 2013 and 2050 under three different growth scenarios, the "Convergence Scenario", "Business as Usual Scenario", and the "Downside Scenario". This section offers an abbreviated description of the model; a more detailed exposition, in Kohli, Szyf, and Arnold (2012), is available on request.[1]

As seen in equation (1), a Cobb-Douglas function with constant returns to scale is assumed, with α equal to two-thirds:

$$GDP = TFP \times L^{\alpha} \times K^{1-\alpha} \qquad (1)$$

GDP figures are generated for three different measures: real GDP (constant 2010 prices); GDP PPP (constant 2010 PPP prices); and GDP at expected market exchange rates, which incorporates expected exchange rate movements and serves as the best proxy for nominal GDP.

The model first estimates annual real GDP growth for each country between 2013 and 2050. These estimates are applied to the previous values of real GDP, GDP PPP, and a measure equal to nominal GDP deflated by US inflation (on which GDP at market exchange rates is based) to derive the full series. Finally, to derive GDP at market exchange rates, real exchange rate changes are estimated and multiplied by nominal GDP deflated by US inflation to obtain GDP at market exchange rates.

Labor force growth stems from population growth and from changes in labor force participation rates. Population growth is based on the 2010 Revision of the UN's World Population Prospects, while labor force participation rates are projected separately, by gender, for seven age cohorts (15–19, 20–24, 25–29, 30–49, 50–59, 60–64, and 65+) to better capture cohort-specific trends. Male rates are projected directly; female rates are derived by projecting the difference between male and female rates for each age group. Labor force participation rates from 1980 through 2012 are taken from the International Labor Organization.

1 This annex is based on Kohli, Szyf, & Arnold (2012).

The cross-country, cohort-specific equations to forecast male rates are simple autoregressions of the following form:

$$\ln(M_{age,t}) = m_{age} \times \ln(M_{age,t-1}) \qquad (2)$$

where M_{age} is the percent of males in age group *age* who are active in the labor force and m_{age} is a constant that varies for each age group.

The cross-country, cohort-specific equations to forecast the differentials between male and female participations rates are:

$$\ln(D_{age,t}) = d_{age} \times \ln(D_{age,t-1}) \qquad (3)$$

where D_{age} equals the difference between the percentage of males in age group *age* in the labor force and the percentage of females in age group *age* in the labor force, and d_{age} is a constant that varies by age group. In both male and female models, for certain cohorts, rough upper or lower bounds are incorporated to address outliers. Observations that begin in 2012 beyond these bounds are not governed by the regressions but instead gradually converge over time towards the bounds.

Capital stock growth, based on an initial capital stock and yearly investment rates and depreciation, is defined as:

$$(1 + K\ Growth_t) = \frac{K_t}{K_{t-1}} = \left(\frac{I_{t-1}}{K_{t-1}}\right) - 0.06 \qquad (4)$$

where K is the capital stock, 0.06 represents the yearly depreciation of 6%, and I_{t-1} is the capital investment from the previous year, which is defined as the previous year's GDP (measured in constant 2010 PPP dollars) multiplied by the investment rate as a share of GDP.

The initial capital stock is calculated using the Caselli method, with the following equation:

$$K_0 = \frac{I_0}{g + 0.06} \qquad (5)$$

where K_0 is the initial capital stock, g is the average GDP growth over the subsequent ten years, 0.06 is the depreciation rate, and I_0 is the initial year's investment. For I_0, for each country, the earliest year for which there exists capital investment data (year y) is identified. The average of the investment rate values for year *y* and the two subsequent years is computed and treated as the initial investment rate. This smoothing out of fluctuations in the initial investment rate yields better estimates for certain countries with high volatility in the earliest investment rate values. This rate is then multiplied by the GDP in year *y* to determine I_0. The earliest year possible is chosen for this estimate because the longer the timeframe before the projections commence the more the yearly depreciations will reduce the effects on the model of any initial imprecisions in capital estimates.

The model is calibrated by calculating total factor productivity (TFP) for an initial year (2012)[2] based on labor force, capital stock, and historical GDP, with GDP and capital stock measured in purchasing-power-parity dollars at constant 2010 PPP prices. For subsequent years, TFP is projected.

For the TFP projections, we differentiate four categories: rich or developed; converging; non-converging; and fragile. All countries begin with a default TFP growth rate of 1 percent, which with a strong level of statistical significance, equals the average US rate over the past 40-, 30-, 25-, and 20-years, and which, also with a strong level of statistical significance, equals the average rate of all non-converging countries over the same four periods. In our model, this is the fixed rate of productivity growth for non-converging, non-fragile countries.

Research shows that some growth differences between developing countries can be successfully modelled by separating them into two groups: converging and non-converging countries (Gill and Kharas, 2007).

A country is deemed to be converging if its per-capita income has rapidly converged over a 20-year period to that of best practice economies or if its 2001–2011 TFP growth is closer to what the model would predict for a converger (see below) than to what it would predict for a non-converger; the lower a country's productivity relative to the global best practice, the more quickly it converges. This convergence reflects technology transfers from richer innovating countries, technology leapfrogging, the diffusion of management and operational research from more developed countries, and other ways that a country can shortcut productivity-improvement processes by learning from economies that are already at the productivity frontier.

In the model, the lower a converging country's productivity relative to that of the US, the larger the boost, and the quicker the catch-up.[3] The productivity growth of 14 of the 36 rich countries is treated the same as that of converging countries. Non-converging countries and 22 of the 36 rich countries maintain the default 1 percent yearly productivity growth and hence experience no convergence boost. The rich countries are divided into these categories based on their past TFP performance. The general equation for TFP growth is:

2 IMF WEO GDP growth projections are used for 2012 and 2013.

3 TFP is used in the convergence term instead of the per-capita income used by others for three reasons: first, if the equation were to use GDP per capita, over time the TFP of a converging country would not converge to that of the US but instead to other values. Also, since the convergence equation represents convergence of TFP, we use TFP in order to make the equation consistent with its purpose. Third, using the convergence coefficient from past research in tandem with an income-based convergence term yields large discrepancies with the recent historical data for TFP growth for many countries; using TFP yields a better fit.

$$\text{TFPGrowth} = 1.0\% + \text{CB} - \text{FP} \qquad (6)$$

where *CB* is the convergence boost benefiting "converging" countries and *FP* is the productivity growth penalty suffered by fragile states.

The convergence boost is defined as follows:

$$CB = c \times 2.69\% \times \ln\left(\frac{TFP_{USA,t-1}}{TFP_{i,t-1}}\right) \qquad (7)$$

where *i* is the country, 2.69 percent is the convergence coefficient (derived from historical data), TFP is total factor productivity, and *c* takes a value between 0 and 1 and identifies whether a country is treated as a converger (*c* =1) or as a non-converger or fragile state (*c* =0), or in an intermediate state of transition between being a converger and non-converger (0 < *c* < 1).

The fragile penalty *FP* is defined as:

$$\text{FP} = \text{f x } 1.5\% \qquad (8)$$

where *f* plays a role analogous to that of *c* in equation (7) above. For each fragile country, *f* is set equal to 1, corresponding to a penalty in productivity growth of 1.5 percent, so that its productivity is assumed to fall by 0.5 percent a year. The coefficient of negative 1.5 percent is derived by identifying state failures and debilitating wars prior to the global financial crisis that lasted at least 2 consecutive years in 44 countries. The list of fragile states is the harmonized list prepared by the African Development Bank and the World Bank.

The projections of GDP growth are concluded by applying the labor growth, capital deepening, and productivity changes to each country over the period 2013–2050.

The measure of GDP at expected market exchange rates adjusts the GDP estimate by expected changes in the real exchange rate. First, an equation is derived to establish a theoretical relationship between a country's real exchange rate and its PPP income relative to that of the US. Then, the country's modelled exchange rate converges towards the value that corresponds to its income in this theoretical equation. These relationships are not linear, and the countries for which increases in GDP PPP per capita lead to the largest appreciation of their real exchange rates are the countries whose incomes are between a third and two-thirds that of the United States, and not the poorest or richest countries.

The model also projects the sizes of the low, middle, and high-income populations, again following Kharas, by measuring the number of people in each country with living standards—in PPP terms—within a certain absolute range. An income distribution for each country is derived from the World Bank's International Comparison Program.

The model calculates what share of the nation's income is available for consumption, and it distributes this consumption income over the population according to the income distribution. As the country's overall consumption income increases, the purchasing power of those at the bottom of the distribution increases, raising more to middle-income status.

For purposes of computing consumption income classes, the model projects changes in the share of the country's income available for consumption using the following equation:

$$\ln\left(C_{i,t}\right) = \alpha_1 \times \ln\left(C_{i,t-1}\right) + \alpha_2 \times \ln\left(GDPPCCap_{i,t}\right) + \alpha_0 \qquad (9)$$

where *t* is the year, *i* is the country, *C* is the ratio of consumption to GDP, GDPPCCap is the minimum of each country's GDP PPP PC and $50,000 PPP (in 2010 PPP international dollars), and α_0, α_1 , and α_2 are constants.

The study makes separate projections for the "Convergence Scenario", the "Business as Usual Scenario", and the "Downside Scenario". The difference between the scenarios is how countries are classified, either as converging, non-converging, or fragile, and how countries gradually transition between classifications.

For 145 countries the initial classification is based on the Kharas classification and for an additional 41 countries on a similar analysis of recent data. Under this classification, four African countries (Botswana, Cape Verde, Mauritius, and Mozambique) are classified as "convergers".

For the Convergence Scenario, a group of 15 additional African countries join the "early convergers" and begins converging this decade. An additional group of 15 "late convergers" begins converging in the following decade. The remaining 20 countries currently considered "fragile" transition out of fragility over the next 30 years.

Under the "Business as Usual Scenario" the four African countries that are currently converging are assumed to continue converging through 2050. All current non-convergers continue to not converge, and all fragile countries remain fragile.

In the "Downside Scenario" an additional five countries become fragile, non-convergers do not converge, and the four convergers stop converging. This scenario also includes cyclical fluctuations in Africa's terms of trade. Specifically starting in 2015 the terms of trade deteriorate by 15 percent over 5 years and then recover by 15 percent over the subsequent 10 years, after which this cycle repeats.

In all three scenarios, the transition of individual countries between converging and non-converging, or from fragile to non-converging, is gradual. That is, countries are made to adopt an intermediate state between fragile and not-fragile or between converging and non-converging, by varying the values of f and c in equations (7) and (8).

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