

McKinsey on Africa

A continent on the move June 2010

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Odili Donald Odita
Rift, 2005
Acrylic on canvas
84 in x 109 in

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Seizing Africa's potential

The next decade will likely mark the first since the industrial revolution when emerging economies add more to global growth than all the developed countries combined. In our view, Africa will be a core part of this economic renaissance. After decades of stagnation, the continent's economies experienced a marked acceleration in growth during the past ten years, with real GDP increasing by 4.9 percent annually between 2000 and 2008, compared with 2.4 percent in the 1990s. The magnitude of this growth story, while broadly understood, is startling in its specifics and the opportunity it presents:

- The growth acceleration in Africa was widespread across countries and sectors, including 27 of its 30 largest economies.
- Growth was not wholly about resources, which accounted for just 32 percent of Africa's acceleration since 2000. In fact, nonresource exporters had similar growth rates to resource exporters.
- After declining for two decades, productivity has accelerated, reflecting growing economies of scale, increased competition, and the greater use of mobile phones and other modern technologies.

More specifically, underlying Africa's growth acceleration are two main factors: first, the emergence of a domestic economy based on rising incomes, consumption, employment, and productivity growth and, second, the boom in resource prices. The development of this domestic economy reflects several important changes in Africa, including improved macroeconomic and political stability, more effective government economic policies, and urbanization. These findings emerge from a new McKinsey Global Institute study whose conclusions we present in "What's driving Africa's growth," featured in this publication, *McKinsey on Africa: A continent on the move*, which was prepared specially for the participants of the 2010 Global Forum, hosted in Cape Town by Fortune, Time, and CNN.

In this document, McKinsey consultants and outside experts explore the theme of growth in Africa and what its future might hold. Ngozi Okonjo-Iweala, a managing director of the World Bank, shows why the continent may well be the world's next economic success, in "Fulfilling the promise of sub-Saharan Africa." Maria Ramos, CEO of the South Africa-based banking group Absa, talks about the opportunities and challenges of doing business on the continent.

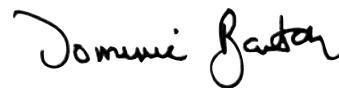
Any discussion of Africa's future must consider China's increasing role there. "Making the most of Chinese aid to Africa" examines how China's involvement can reap the greatest benefit for both Africans and Chinese. One African business already has a lot of experience working with the Chinese. In an interview, Jacko Maree, chief executive of the South Africa-based Standard Bank Group, Africa's biggest, reflects on his institution's two-and-a-half-year-old connection with the Industrial and Commercial Bank of China, the world's largest bank by market capitalization.

To be sure, the past decade's economic growth shouldn't obscure the vast problems that remain: high poverty, political instability, frequent blackouts, bad roads, low-quality education, government bureaucracy, and corruption. Nonetheless, in "Toward a well-governed Africa," Mo Ibrahim, the telecommunications entrepreneur who created a foundation and prize aimed at promoting excellence in African leadership, argues that a democratic, prosperous, and peaceful continent is now within sight.

McKinsey on Africa also suggests ways forward on two big social challenges: health care and resource sustainability. "Three practical steps to better health for Africans" examines approaches

to improving access to health care across the continent. Two other articles show how African countries can adapt to climate change and water scarcity, respectively. And in an interview, South Africa's deputy president, Kgalema Motlanthe, reflects on how the increasing stability of Africa's governments offers an opportunity to address the continent's problems.

Doing business in Africa requires a long-term commitment and a steady hand. There will be ups and downs, as the global economic crisis showed, but many multinationals have already established a big presence on the continent. We hope that *McKinsey on Africa* stimulates your thinking about the business prospects for this increasingly exciting part of the world.



Dominic Barton
Managing Director,
McKinsey & Company

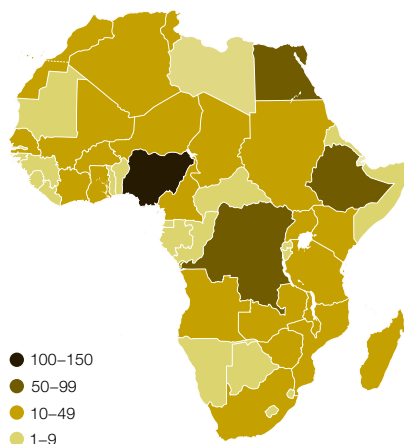
Checking Africa's vital signs

A graphic look at Africa's demographics and economics.

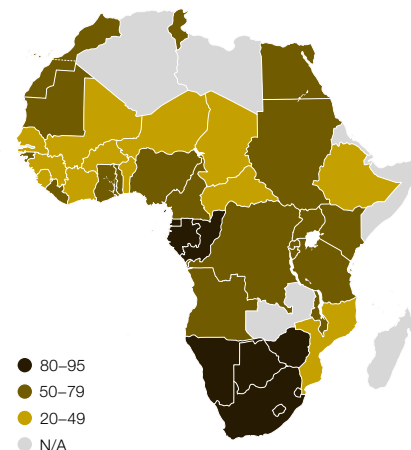
Africa's population in 2009 is estimated to be **1 billion**.

68% of all adults and children living with HIV/AIDS worldwide are in Africa.

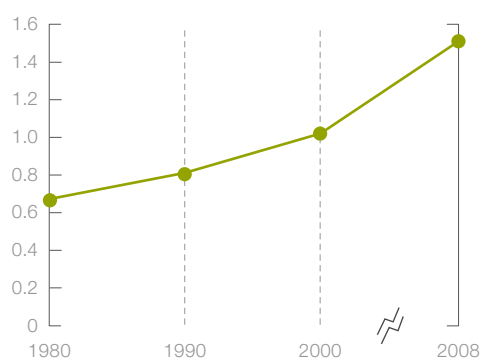
Population, 2007, millions



Literacy, 2007, % of population



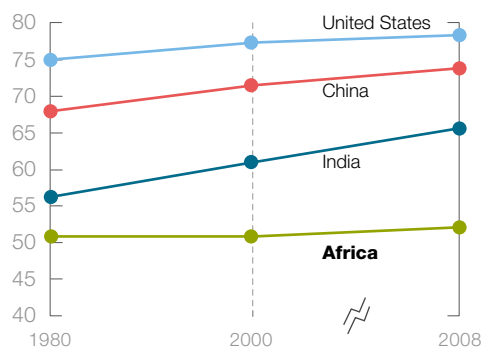
Africa's real GDP, \$ trillion



**African capital inflows
(change in net foreign liabilities), \$ billion**



Life expectancy at birth, years



Source: Population Reference Bureau; United Nations Joint Programme on HIV/AIDS (UNAIDS); United Nations Conference on Trade and Development (UNCTAD); World Bank; World Health Organization; McKinsey Global Institute analysis

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Africa's growth story



Painted by Katongo

Tinga Tinga art from Tanzania
Tingatingastudio.com

What's driving Africa's growth

The rate of return on foreign investment is higher in Africa than in any other developing region. Global executives and investors must pay heed.

**Acha Leke,
Susan Lund,
Charles Roxburgh,
and Arend
van Wamelen**

Africa's economic pulse has quickened, infusing the continent with a new commercial vibrancy. Real GDP rose by 4.9 percent a year from 2000 through 2008, more than twice its pace in the 1980s and '90s. Telecommunications, banking, and retailing are flourishing. Construction is booming. Private-investment inflows are surging.

To be sure, many of Africa's 50-plus individual economies face serious challenges, including poverty, disease, and high infant mortality. Yet Africa's collective GDP, at \$1.6 trillion in 2008, is now roughly equal to Brazil's or Russia's, and the continent is among the world's most rapidly growing economic regions. This acceleration is a sign of hard-earned progress and promise.

While Africa's increased economic momentum is widely recognized, its sources and likely staying power are less understood. Soaring prices for oil, minerals, and other commodities have helped lift GDP since 2000. Forthcoming research from the McKinsey Global Institute (MGI) shows that resources accounted for only about a third of the newfound growth.¹ The rest resulted from internal structural changes that have spurred the broader domestic economy. Wars, natural disasters, or poor government policies could halt or even reverse these gains in any individual country. But in the long term, internal and external trends indicate that Africa's economic prospects are strong.

Each African country will follow its own growth path. We have developed a framework for understanding how the opportunities and challenges differ by classifying countries according to levels of economic diversification and exports per capita.

This approach can help guide executives as they devise business strategies and may also provide new insights for policy makers.

More than a resource boom

To be sure, Africa has benefited from the surge in commodity prices over the past decade. Oil rose from less than \$20 a barrel in 1999 to more than \$145 in 2008. Prices for minerals, grain, and other raw materials also soared on rising global demand.

Yet the commodity boom explains only part of Africa's broader growth story. Natural resources, and the related government spending they financed, generated just 32 percent of Africa's GDP growth from 2000 through 2008.² The remaining two-thirds came from other sectors, including wholesale and retail, transportation, telecommunications, and manufacturing (Exhibit 1). Economic growth accelerated across the continent, in 27 of its 30 largest economies. Indeed, countries with and without significant resource exports had similar GDP growth rates.

The key reasons behind this growth surge included government action to end armed conflicts, improve macroeconomic conditions, and undertake microeconomic reforms to create a better business climate. To start, several African countries halted their deadly hostilities, creating the political stability necessary to restart economic growth. Next, Africa's economies grew healthier as governments reduced the average inflation rate from 22 percent in the 1990s to 8 percent after 2000. They trimmed their foreign debt by one-quarter and shrunk their budget deficits by two-thirds.

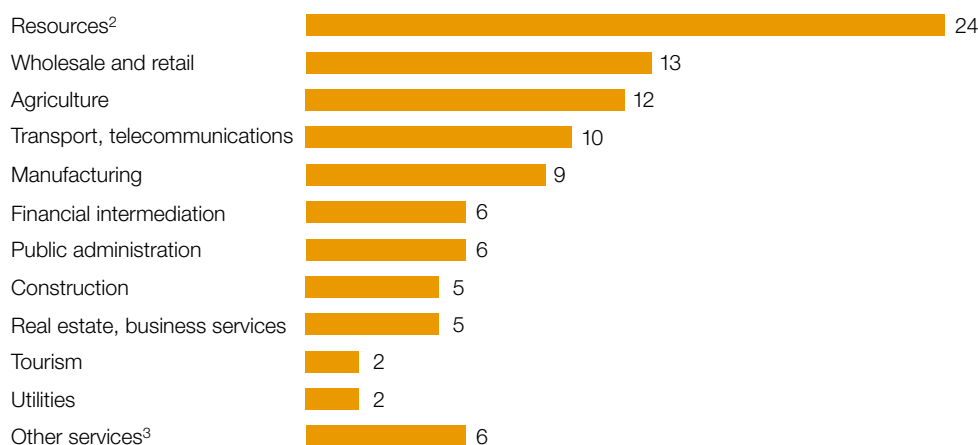
¹ McKinsey Global Institute, *Lions on the move: The progress and potential of African economies*, to be published in July 2010. The report will be available online at mckinsey.com/mgi.

² Resources contributed 24 percent of GDP growth. Government spending from resource-generated revenue contributed an additional eight percentage points.

Exhibit 1

Africa's growth was widespread across sectors.

Sector share of change in real GDP, 2002–07
100% = \$235 billion¹



¹In 2005 dollars.

²Government spending from resource-generated revenue contributed an additional eight percentage points.

³Education, health, household services, and social services.

Source: McKinsey Global Institute analysis

Finally, African governments increasingly adopted policies to energize markets. They privatized state-owned enterprises, increased the openness of trade, lowered corporate taxes, strengthened regulatory and legal systems, and provided critical physical and social infrastructure. Nigeria privatized more than 116 enterprises between 1999 and 2006, for example, and Morocco and Egypt struck free-trade agreements with major export partners. Although the policies of many governments have a long way to go, these important first steps enabled a private business sector to emerge.

Together, such structural changes helped fuel an African productivity revolution by helping companies to achieve greater economies of scale, increase investment, and become more competitive. After declining through the 1980s and 1990s,

the continent's productivity started growing again in 2000, averaging 2.7 percent since that year. These productivity gains occurred across countries and sectors.

This growth acceleration has started to improve conditions for Africa's people by reducing the poverty rate. But several measures of health and education have not improved as fast. To lift living standards more broadly, the continent must sustain or increase its recent pace of economic growth.

Promising long-term growth prospects

A critical question is whether Africa's surge represents a one-time event or an economic take-off. The continent's growth also picked up during the oil boom of the 1970s but slowed sharply

when oil and other commodity prices collapsed during the subsequent two decades. Today, individual African economies could suffer many disappointments and setbacks. While short-term risks remain, our analysis suggests that Africa has strong long-term growth prospects, propelled both by external trends in the global economy and internal changes in the continent's societies and economies.

Global economic ties

Although Africa is more than a story about resources, it will continue to profit from rising global demand for oil, natural gas, minerals, food, arable land, and the like. MGI research finds that over the next decade, the world's liquid-fuel consumption will increase by 25 percent—twice the pace of the 1990s. Projections of demand for many hard minerals show similar growth. Meanwhile, Africa boasts an abundance of riches: 10 percent of the world's reserves of oil, 40 percent of its gold, and 80 to 90 percent of the chromium and the platinum metal group. Those are just the known reserves; no doubt more lies undiscovered.

Demand for commodities is growing fastest in the world's emerging economies, particularly in Asia and the Middle East. Despite long-standing commercial ties with Europe, Africa now conducts half its trade with developing economic regions ("South–South" exchanges). From 1990 through 2008, Asia's share of African trade doubled, to 28 percent, while Western Europe's portion shrank, to 28 percent, from 51 percent.

This geographic shift has given rise to new forms of economic relationships, in which governments strike multiple long-term deals at once. China, for example, has bid for access to ten million tons of copper and two million tons of cobalt in the Democratic Republic of the Congo in exchange for a \$6 billion package of infrastructure investments,³

including mine improvements, roads, rail, hospitals, and schools. India, Brazil, and Middle East economies are also forging new broad-based investment partnerships in Africa.

The global race for commodities also gives African governments more bargaining power, so they are negotiating better deals that capture more value from their resources. Buyers are now willing to make up-front payments (in addition to resource extraction royalties) and to share management skills and technology.

At the same time, Africa is gaining increased access to international capital. The annual flow of foreign direct investment into Africa increased from \$9 billion in 2000 to \$62 billion in 2008—relative to GDP, almost as large as the flow into China. While Africa's resource sectors have drawn the most new foreign capital, it has also flowed into tourism, textiles, construction, banking, and telecommunications, as well as a broad range of countries.

The rise of the African urban consumer

Africa's long-term growth will increasingly reflect interrelated social and demographic changes creating new domestic engines of growth. Key among these will be urbanization, an expanding labor force, and the rise of the middle-class African consumer.

In 1980, just 28 percent of Africans lived in cities. Today, 40 percent of the continent's one billion people do—a proportion roughly comparable to China's and larger than India's (Exhibit 2). By 2030, that share is projected to rise to 50 percent, and Africa's top 18 cities will have a combined spending power of \$1.3 trillion.

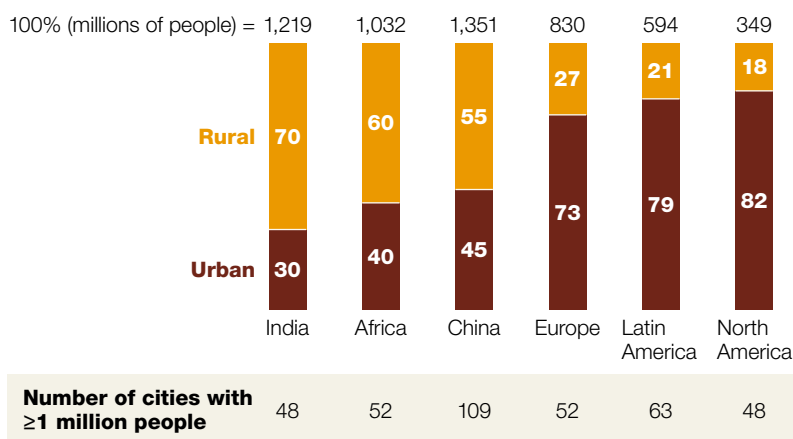
To be sure, urbanization can breed misery if it creates slums. But in many African countries, urbanization is boosting productivity (which rises as

³ Aspects of this agreement have been challenged in court because of disputes over the mining rights. The deal was originally valued at \$9 billion. As of this writing, \$6 billion has been finalized and \$3 billion in funding is under discussion.

Exhibit 2

Africa is nearly as urbanized as China is and has as many cities of one million people as Europe does.

Share of population by region, 2010, %



Source: United Nations; McKinsey Global Institute analysis

workers move from agricultural work into urban jobs), demand, and investment. Companies achieve greater economies of scale by spreading their fixed costs over a larger customer base. And urbanization is spurring the construction of more roads, buildings, water systems, and similar projects. Since 2000, Africa's annual private infrastructure investments have tripled, averaging \$19 billion from 2006 to 2008. Nevertheless, more investment is required if Africa's new megacities are to provide a reasonable quality of life for the continent's increasingly large urban classes.

Meanwhile, Africa's labor force is expanding, in contrast to what's happening in much of the rest of the world. The continent has more than 500 million people of working age. By 2040, their number is projected to exceed 1.1 billion—more than in China or India—lifting GDP growth. Over the last 20 years, three-quarters of the continent's

increase in GDP per capita came from an expanding workforce, the rest from higher labor productivity. If Africa can provide its young people with the education and skills they need, this large workforce could become a significant source of rising global consumption and production. Education is a major challenge, so educating Africa's young has to be one of the highest priorities for public policy across the continent.

Finally, many Africans are joining the ranks of the world's consumers. In 2000, roughly 59 million households on the continent had \$5,000 or more⁴ in income—above which they start spending roughly half of it on nonfood items. By 2014, the number of such households could reach 106 million. Africa already has more middle-class households (defined as those with incomes of \$20,000 or above) than India. Africa's rising consumption will create more demand for local

⁴ Measured in terms of purchasing-power parity (PPP), which takes into account the relative prices of nontradable goods in different countries.

products, sparking a cycle of increasing domestic growth.

Africa's diverse growth paths

While Africa's collective long-term prospects are strong, the growth trajectories of its individual countries will differ. Economists have traditionally grouped them by region, language, or income level. We take another approach, classifying 26 of the continent's largest countries⁵ according to their levels of economic diversification and exports per capita. This approach highlights progress toward two related objectives:

- Diversifying the economy. In the shift from agrarian to urban economies, multiple sectors

contribute to growth. The share of GDP contributed by agriculture and natural resources shrinks with the expansion of the manufacturing and service sectors, which create jobs and lift incomes, raising domestic demand. On average, each 15 percent increase in manufacturing and services as a portion of GDP is associated with a doubling of income per capita.

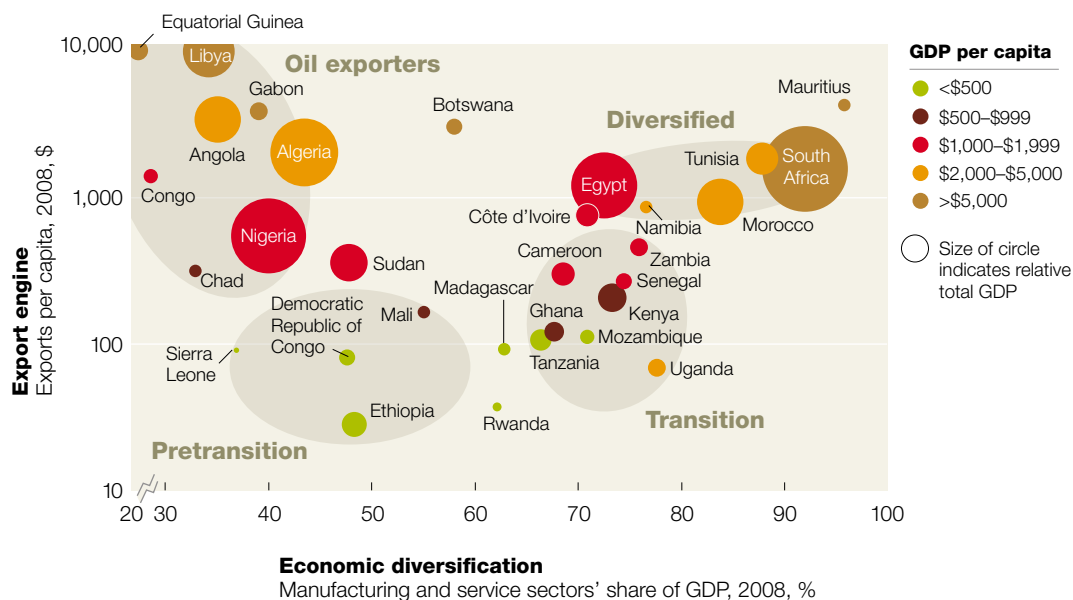
- Boosting exports to finance investment. Emerging markets require large investments to build a modern economy's infrastructure. Exports are the primary means to earn the hard currency for imported capital goods, which in Africa amount to roughly half of all investment. This is not to say that African countries must

⁵These countries had either a GDP of roughly \$10 billion or more in 2008 or a GDP growth rate greater than 7 percent a year from 2000 to 2008.

Exhibit 3

Segmenting African countries by exports per capita and by economic diversification reveals how growth opportunities and challenges vary across the continent.

Country segments in Africa¹



¹Includes countries with 2008 GDP ≥\$10 billion or real GDP growth rate of ≥7% from 2000–08; excludes 22 countries, which accounted for 3% of African GDP in 2008.

Source: Organisation for Economic Co-operation and Development (OECD); World Bank World Development Indicators; McKinsey Global Institute analysis

follow an Asian model of export-led growth and trade surpluses, but they do need exports to finance the investments required to diversify.

History shows that as countries develop, they move closer to achieving both of these objectives. Most African countries today fall into one of four broad clusters: diversified economies, oil exporters, transition economies, or pretransition economies (Exhibit 3). Although the countries within each segment differ in many ways, their economic structures share broad similarities. Our framework is useful for understanding how growth opportunities and challenges vary across a heterogeneous continent. Although imperfect, this framework can guide business leaders and investors as they develop strategies for Africa and can provide new perspectives for its policy makers.



Diversified economies: Africa's growth engines
The continent's four most advanced economies—**Egypt, Morocco, South Africa, and Tunisia**—are already broadly

diversified. Manufacturing and services together total 83 percent of their combined GDP. Domestic services, such as construction, banking, telecom, and retailing, have accounted for more than 70 percent of their growth since 2000. They are among the continent's richest economies and have the least volatile GDP growth. With all the necessary ingredients for further expansion, they stand to benefit greatly from increasing ties to the global economy.

Domestic consumption is the largest contributor to growth in these countries. Their cities added more than ten million people in the last decade, real

consumer spending has grown by 3 to 5 percent annually since 2000, and 90 percent of all households have some discretionary income. As a result, consumer-facing sectors such as retailing, banking, and telecom have grown rapidly. Urbanization has also prompted a construction boom that created 20 to 40 percent of all jobs over the past decade.

Looking ahead, these diversified economies face the challenge of continuing to expand exports while building a dynamic domestic economy. Apart from Egypt, their exports have grown much more slowly than those of other emerging markets, in part because they have unit labor costs (wages divided by output per worker) two to four times higher than those in China and India. Like other middle-income countries, such as Brazil, Malaysia, and Mexico, these African states must move toward producing higher-value goods. They have started to do so—witness South Africa's and Morocco's automotive exports—and should continue to build on their comparative advantages, which include proximity to Europe and facility with European languages.

Along with other countries seeking to make this jump, Africa's diversified economies need to improve their education systems. Broadly speaking, they already have the continent's highest rates of literacy and school enrollment; the next step will be to increase secondary and tertiary enrollments and improve the overall quality of their education systems.

Another priority for the diversified economies is to continue building their internal service sectors, which will be important sources of future employment. (MGI research finds that internal services account for virtually all net job creation in high-income countries and for 85 percent of net new jobs in middle-income ones.) The diversified economies can also expand manufacturing, particu-

larly in food processing and construction materials, for local and regional markets. This move could increase exports and reduce the need for imports, easing these countries' current-account deficits.



Oil exporters:
Enhancing
growth through
diversification

Africa's oil and gas exporters have the continent's highest GDP per capita but also the least diversified eco-

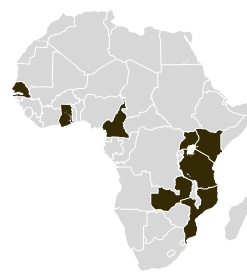
nomies. This group—**Algeria, Angola, Chad, Congo, Equatorial Guinea, Gabon, Libya, and Nigeria**—comprises both countries that have exported oil for many years and some relative newcomers. Rising oil prices have lifted their export revenues significantly; the three largest producers (Algeria, Angola, and Nigeria) earned \$1 trillion from petroleum exports from 2000 through 2008, compared with just \$300 billion in the 1990s. For the most part, Africa's oil and gas exporters used this revenue well, to reduce budget deficits, fund investments, and build foreign-exchange reserves.

Economic growth in these countries remains closely linked to oil and gas prices. Manufacturing and services account for just one-third of GDP—less than half their share in the diversified economies. The experience of emerging-market oil exporters outside Africa illustrates the potential for greater diversification. In Indonesia, manufacturing and services account for 70 percent of GDP, compared with less than 45 percent in Algeria and Nigeria—even though all three countries have produced similar quantities of oil since 1970.

Nigeria provides an example of an African oil exporter that has begun the transition to a more

diversified economy. Natural resources accounted for just 35 percent of Nigeria's growth since 2000, and manufacturing and services are growing rapidly. Banking and telecom, in particular, are expanding thanks to a series of economic reforms. Since 2000, the number of Nigeria's telecom subscribers increased from almost zero to 63 million, while banking assets grew fivefold.

The oil exporters generally have strong growth prospects if they can use petroleum wealth to finance the broader development of their economies. The experience of other developing countries shows it will be essential to make continued investments in infrastructure and education and to undertake further economic reforms that would spur a dynamic business sector. But like petroleum-rich countries in general, those in Africa face acute challenges in maintaining political momentum for reforms, resisting the temptation to overinvest (particularly in the resource sector), and maintaining political stability—in short, avoiding the “oil curse” that has afflicted other oil exporters around the world.



**Transition
economies: Building
on current gains**
Africa's transition
economies—
**Cameroon, Ghana,
Kenya, Mozambique,
Senegal, Tanzania,
Uganda, and**

Zambia—have lower GDP per capita than the countries in the first two groups but have begun the process of diversifying their sources of growth. These countries are diverse: some depend heavily on one commodity, such as copper in Zambia or aluminum in Mozambique. Others, like Kenya and Uganda, are already more diversified.

The agriculture and resource sectors together account for as much as 35 percent of GDP in the transition countries and for two-thirds of their exports. But they increasingly export manufactured goods, particularly to other African countries. Successful products include processed fuels, processed food, chemicals, apparel, and cosmetics. As these countries diversified, their annual real GDP growth accelerated from 3.6 percent a year in the 1990s to 5.5 percent after 2000.

Expanding intra-African trade will be one key to the future growth of the transition economies, because they are small individually, but their prospects improve as regional integration creates larger markets. If these countries improved their infrastructure and regulatory systems, they could also compete globally with other low-cost emerging economies. One study found that factories in the transition countries are as productive as those in China and India but that the Africans' overall costs are higher because of poor infrastructure and regulation—problems that the right policy reforms could fix.⁶ The local service sectors (such as telecommunications, banking, and retailing) in the transition economies also have potential. While they are expanding rapidly, their penetration rates remain far lower than those in the diversified countries, creating an opportunity for businesses to satisfy the unmet demand.

the diversified countries. Some, such as Ethiopia and Mali, have meager commodity endowments and large rural populations. Others, devastated by wars in the 1990s, started growing again after the conflicts ended. But many pretransition economies are now growing very fast. The three largest (the Democratic Republic of the Congo, Ethiopia, and Mali) grew, on average, by 7 percent a year since 2000, after not expanding at all in the 1990s. Even so, their growth has been erratic at times and could falter again.

Although the individual circumstances of the pretransition economies differ greatly, their common problem is a lack of the basics, such as strong, stable governments and other public institutions, good macroeconomic conditions, and sustainable agricultural development. The key challenges for this group will include maintaining the peace, upholding the rule of law, getting the economic fundamentals right, and creating a more predictable business environment. These countries can also hasten their progress with support from international agencies and new private philanthropic organizations that are developing novel ways to tackle poverty and other social issues.

In a more stable political and economic environment, some of these countries could tap their natural resources to finance economic growth. The Democratic Republic of the Congo, for example, controls half of the world's cobalt reserves and a quarter of the world's diamond reserves. Sierra Leone has about 5 percent of the world's diamond reserves. Ethiopia and Mali have 22 million and 19 million hectares of arable land, respectively. If these countries could attract businesses to help develop their resources, they could push their economies upward on the path of steadier growth.



Pretransition economies: Strengthening the basics

The economies in the pretransition segment—the **Democratic Republic of the Congo, Ethiopia,**

Mali, and Sierra Leone—are still very poor.

The GDP per capita of just \$353 is one-tenth that of

⁶Alan Gelb, Vijaya Ramachandran, and Manju Kedia Shah, *Africa's Private Sector: What's Wrong with the Business Environment and What to Do About It*, Center for Global Development, Washington, DC, 2009.



If recent trends continue, Africa will play an increasingly important role in the global economy. By 2040, it will be home to one in five of the planet's young people, and the size of its labor force will top China's. Africa has almost 60 percent of the world's uncultivated arable land and a large share of the natural resources. Its consumer-facing sectors are growing two to three times faster than those in the OECD⁷ countries. And the rate of return on foreign investment is higher in Africa than in any other developing region. Global executives and investors cannot afford to ignore this. A strategy for Africa must be part of their long-term planning.

⁷Organisation for Economic Co-operation and Development.

The time for businesses to act on those plans is now. Companies already operating in Africa should consider expanding. For others still on the sidelines, early entry into emerging economies provides opportunities to create markets, establish brands, shape industry structures, influence customer preferences, and establish long-term relationships. Business can help build the Africa of the future. And working together, business, governments, and civil society can confront the continent's many challenges and lift the living standards of its people. ○

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Africa's path to growth: Sector by sector

Agriculture: Abundant opportunities

**Kartik Jayaram,
Jens Riese,
and Sunil Sanghvi**

Agriculture is Africa's largest economic sector, representing 15 percent of the continent's total GDP, or more than \$100 billion annually. It is highly concentrated, with Egypt and Nigeria alone accounting for one-third of total agricultural output and the top ten countries generating 75 percent.

Africa's agro-ecological potential is massively larger than its current output, however—and so are its food requirements. While more than one-quarter of the world's arable land lies in this continent, it generates only 10 percent of global agricultural output. So there is huge potential for growth in a sector now expanding only moderately, at a rate of 2 to 5 percent a year. Four main challenges inhibit the faster growth of agricultural output in Africa.

Fragmentation. With 85 percent of Africa's farms occupying less than two hectares, production is highly fragmented. In Brazil, Germany, and the United States, for example, only 11 percent or less of farms operate on this scale. Therefore, new industry models that allow small farms to gain some of the benefits of scale are required.

Interdependence and complexity. A successful agricultural system requires reliable access to financing, as well as high-quality seeds, fertilizer, and water. Other essentials include access to robust markets that could absorb the higher level of agricultural output, a solid postharvest value chain for the output of farmers, and programs to train them in

best practices so that they can raise productivity. Africa has diverse agro-ecological conditions, so countries need to adopt many different farming models to create an African green revolution.

Underinvestment. To make the agricultural system work better, experts estimate, sub-Saharan Africa alone requires additional annual investments of as much as \$50 billion. African agriculture therefore needs business models that can significantly increase the level of investment from the private and public sectors, as well as donors.

Enabling conditions. A successful agricultural transformation requires some basics to be in place—transportation and other kinds of infrastructure, stable business and economic conditions, and trained business and scientific talent. Many African countries are making great strides in laying the groundwork, but others are lagging behind.

Over the past five years, the world has reenergized its efforts to improve African agriculture. Africa's countries have committed themselves to increasing agriculture's share of their budgets to 10 percent, donors are making significantly increased commitments, and private-sector players and investment funds are pouring serious money into the area.

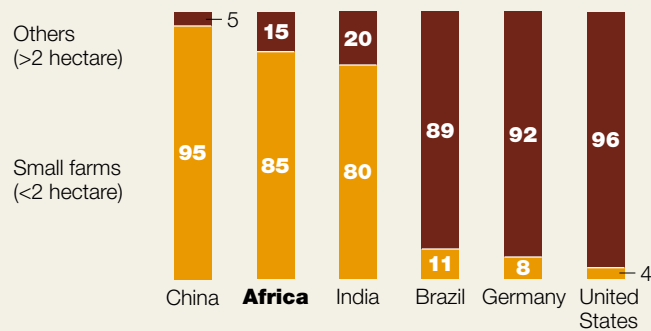
These increased investments flow toward three general opportunities. The first is developing technological breakthroughs, such as drought-tolerant maize, that



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Africa has a large share of very small farms.

Distribution of farms by size, % of land holdings



Source: *World Census of Agriculture*, various years, Food and Agricultural Organization of the United Nations

would have high returns on investment and could sustainably raise small farmers from poverty. Second, new value chain approaches aim to improve access to markets and help groups of farmers raise their productivity. The third opportunity is the development of selected large tracts of high-potential agricultural land.

New models for large-scale change led by the public or private sectors also have a lot of potential. They include plans rolled out under the Comprehensive Africa Agriculture Development Program, an initiative to help African countries increase their economic growth through agriculture-led expansion. In our work in Africa, several approaches have seemed promising. One is a new kind of industry structure—nucleus farms—to accelerate the productivity of small-holders. These 50-hectare farms are operated by sophisticated farmers who also help small farmers in their areas to become more productive and to market through the nucleus farm. Other approaches

include warehouse aggregators (entrepreneurs who own warehouses used to distribute fertilizer and seed and to store crops) and more efficiently run farming cooperatives. Similarly, our work with food manufacturers and retailers shows that end-to-end supply chains that can effectively source produce from African farmers have great potential.

Fifty years after the start of the Asian green revolution, Africa too is poised for one. This will be a complex and difficult undertaking, but the continent seems to be on the right path. ◉



Africa's path to growth: Sector by sector

Banking: Building on success

**Hilary De Grandis
and Gary Pinshaw**

Africa's banking sector has grown rapidly in the last decade. Sub-Saharan Africa has become a substantial player in emerging-market banking, with total 2008 assets of \$669 billion, while North Africa's asset base has grown substantially, to \$497 billion. Africa's banking assets thus compare favorably with those in other emerging markets, such as Russia (with \$995 billion).

Almost 50 percent of the growth at Africa's largest banks came from portfolio momentum—the market's natural increase—compared with only about 17 percent from inorganic (or M&A-driven) sources. Underpinning this portfolio momentum is strong overall market expansion: the financial sector is outgrowing GDP in most of the continent's main markets. Between 2000 and 2008, for example, Kenya's GDP grew by 4.4 percent annually, its financial sector by 8.5 percent. The only significant exception is Egypt, where regulatory restrictions have limited the sector's growth to only 2.3 percent annually, compared with 4.8 percent for GDP.

Financial reforms have largely enabled this growth. Nigerian banking reform promoted a swift consolidation (from 89 to 25 banks between 2004 and 2006) that unlocked the sector's potential—bigger banks with better capabilities could drive down their costs, allowing them to penetrate a larger portion of the unbanked population and to ride on the back of rapid economic growth. As a result, total banking assets grew by more than 59 percent annually from 2004 to 2008. In August 2009, the newly

appointed central-bank governor initiated reforms to increase accountability and transparency.

M&A activity has also improved productivity, as smaller, less-efficient institutions are being acquired by larger ones. From 2004 to 2009, some 430 M&A deals involved financial institutions in Africa, and about 40 percent were cross-border, with the acquirer originating elsewhere in Africa or outside it. Banks in South Africa are especially active in gaining footholds outside their home market. Further market consolidation is taking place within countries.

New entrants are also gaining share in countries where governments are allowing private banks to enter. Algeria, for example, has been opening up to private players since 1990. From 1990 to 2006, 12 new private-sector banks entered this market.

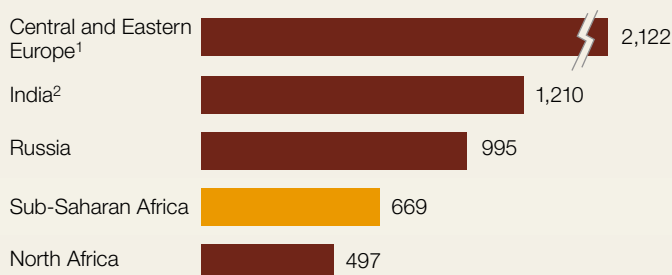
Although lower growth is expected in the African banking sector in the next few years, attractive opportunities remain—expanding current product offerings, increasing product penetration, bringing the unbanked into the financial system, and capitalizing on the rise of a new consumer class by developing innovative service and channel offerings. Banks have employed several strategies to capture this growth.

Geographic expansion. The pan-African Ecobank Transnational has more than 11,000 employees in more than 750 branches in 30 African countries. The key to the success of

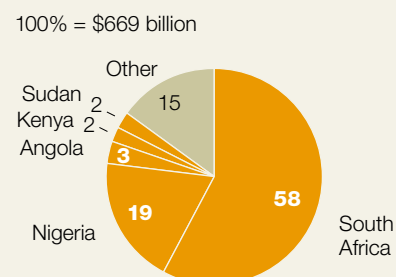
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Sub-Saharan Africa has become a substantial player in emerging-market banking.

2008 total banking assets, \$ billion



Share of assets for major countries in sub-Saharan Africa³



¹Bosnia, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Kazakhstan, Latvia, Lithuania, Poland, Romania, Serbia, Slovenia, Slovakia, Turkey, and Ukraine.

²As of Mar 31, 2009.

³Assumes that Angola, Kenya, Nigeria, South Africa, and Sudan account for 85% of total banking assets in sub-Saharan Africa; figures do not sum to 100%, because of rounding.

Source: Central banks; analyst reports; McKinsey analysis

this strategy is the interconnection between the independent subsidiaries, which can tailor offerings to the local market and still benefit from regional connections, such as shared financial and personnel resources.

Entering new segments. South Africa's Capitec Bank leverages a technology-driven, low-cost banking model attractive to formerly unbanked customers. Its business model has four pillars: affordability, accessibility, simplicity, and personal service.

Product innovation. African Bank, a niche South African institution, emerged in the early 2000s to fill the gap between traditional banks and micro-lenders. It offers innovative credit and savings products to salaried low- and middle-income customers. Loan applications are assessed in minutes thanks to sophisticated credit-scoring engines and a simplified application process that employs the latest technology, such as biometric scanners.

Improved penetration. As the financial sophistication of existing customers increases, African banks are selling additional products to meet their clients' evolving needs. In addition to basic transactional products, for example, many banks now offer a credit card or overdraft facility.

Channel innovation. New entrants without established branch networks can adopt a game-changing strategy: using only electronic channels. The mobile-payment service of Kenya's M-Pesa, for example, has helped formerly unbanked customers by filling a gap in the market.

Expanding along the value chain. Nigerian banks such as Guaranty Trust Bank (GTBank) are expanding, as well as building in-house capabilities in areas that were traditionally the preserve of foreign players—for instance, corporate and investment banks. In doing so, the Nigerian institutions have exploited synergies across their business units. ○

Hilary De Grandis is a consultant in McKinsey's Johannesburg office, where Gary Pinshaw is a principal.

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Africa's path to growth: Sector by sector

Consumer goods: Two hundred million new customers

**Reinaldo Fiorini and
Bill Russo**

Resources are not Africa's only driver of growth. Underlying it, the African consumer is on the rise. From 2005 to 2008, consumer spending across the continent increased at a compound annual rate of 16 percent, more than twice the GDP growth rate. GDP per capita rose in all but two countries. Many consumers have moved from the destitute level of income (less than \$1,000 a year) to the basic-needs (\$1,000 to \$5,000) or middle-income (up to \$25,000) levels.

In Nigeria, for example, the collective buying power of households earning \$1,000 to \$5,000 a year doubled from 2000 to 2007, reaching \$20 billion. Nearly seven million additional households have enough discretionary income to take their place as consumers.

This evolution is critically important to consumer-facing businesses, from fast-moving consumer goods manufacturers to banks to telecommunications companies: when people begin earning money at the basic-needs level, they start buying and consuming goods and services. Additionally, we have observed that most consumer categories exhibit an S-curve growth pattern: in other words, when a country achieves a basic level of income, growth rates accelerate three- to fourfold. While the exact inflection point differs among categories, many of them are just entering this phase of accelerated growth. The enormous expansion of mobile telephony in Africa provides clear evidence of this phenomenon.

Despite the recent slowdown in economic expansion, GDP per capita should continue on its positive trajectory of a 4.5 percent compound annual growth rate (CAGR) until 2015. That would mean a more than 35 percent increase in spending power. Combined with strong population growth (2 percent) and continued urbanization (3 percent), this increase leads us to estimate that 221 million basic-needs consumers will enter the market by 2015. As a result, the number of attractive or highly attractive national markets—with more than ten million consumers and gross national income exceeding \$10 billion a year—will increase to 26 in 2014, from 19 in 2008.

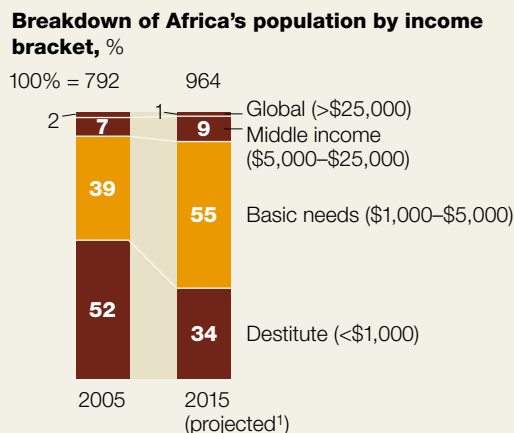
Many local and multinational consumer companies are already thriving in Africa and delivering handsome returns to their shareholders. To succeed, consumer companies must address five major challenges, some familiar to businesses operating in other emerging markets.

Heterogeneous market structure. Africa has more than 50 countries, with large differences in spending power and consumer behavior, so a one-size-fits-all approach will not work. One consumer goods company approached this problem by segmenting African markets into four tiers, according to market potential and competitive dynamics. In tier-three markets, for example, consumers have low spending power and the infrastructure is poor, so this company simplified



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By 2015, 221 million additional basic-needs consumers will enter the market in Africa.



¹Figures do not sum to 100%, because of rounding.

Source: Global Insight; McKinsey analysis

production by minimizing the number of SKUs, built strong distribution partnerships, concentrated marketing expenditures at the point of sale, and used smaller pack sizes to increase trial purchases and volumes. In tier-one markets, the company takes a totally different approach: in these relatively wealthy areas, consumers are easier to reach, so it uses direct distribution and sales, offers a full suite of SKUs, and focuses marketing on building the brand through a broad range of advertising approaches.

Low affordability levels. Ninety-five percent of the population and 71 percent of the income remain at the base of the pyramid. Companies thus will not be able to build sizable businesses through premium goods alone; they will have to reinvent their business models to deliver the right products at the right price point. To meet these consumers' needs effectively, companies must tailor the way they design products and create product portfolios. Additionally, they must learn to compete against local players that have fundamentally different cost structures.

Underdeveloped distribution and route to market.

Modern trade is still nascent in most of Africa. The traditional mom-and-pop shops, open markets, umbrella vendors, and the like dominate the retail scene, making up more than 85 percent of the trade volumes. Poor roads and infrastructure can make delivering products to consumers a daunting task, so companies must build strong sales and distribution networks by leveraging a mix of third-party, wholesale, and direct-distribution models.

Nascent categories. In Africa, many categories still are not fully developed; for example, usage per capita of toothpaste is lower there than it is in comparable Asian countries. Data about consumers' needs and behavior are scarce, making it harder to develop specific consumer insights. In addition, the state of the communications media and education levels make it challenging to reach consumers with specific product messages. Competing in Africa therefore is not a share game. Rather, companies need to bring a market-development mind-set, investing in consumer education and nontraditional marketing techniques.

Talent shortages. Despite the abundant work opportunities, talent remains scarce across Africa. Truly competing and winning in the long term, however, will require local know-how and talent. At first, companies will need to bridge the gap by using a mix of local and international employees. In parallel, investments in developing and retaining local talent are required. Local capability-building programs, attractive career paths, and apprenticeship opportunities will be critical to achieving long-term success. ◉



For more on Africa's rapidly expanding consumer class, read "A seismic shift in South Africa's consumer landscape" and "Picking products for Africa's growing consumer markets," both available on mckinseyquarterly.com.



Africa's path to growth: Sector by sector

Infrastructure: A long road ahead

**Rod Cloete,
Felix Faulhaber, and
Markus Zils**

Between 1998 and 2007, spending on African infrastructure rose at a compound annual rate of 17 percent—up from \$3 billion in 1998 to \$12 billion in 2008, significantly outstripping the growth of global infrastructure investment.¹ Africa accounted for 11 percent of total global private-sector and foreign-funded investment from 1999 to 2001 and for 17 percent from 2005 to 2007. This growth has been driven largely by increased funding from non-OECD² governments—particularly China's, which provided 77 percent of it in 2007. The private sector is still the largest single source of funds (45 percent in 2007). Rapid growth has attracted many multinational companies within and outside Africa.

announced significant additional spending. South Africa, for example, will invest \$44 billion in transport, fuel, water, and energy infrastructure from 2009 to 2011—a 73 percent increase in annual spending from the levels of 2007 to 2008. Since infrastructure investments also offer a high stimulus multiple in times of economic slowdown, Angola, Kenya, Mozambique, Nigeria, and Senegal have announced essentially similar programs, though on a much smaller scale.

Examined at a more granular level, this remarkable growth has clearly occurred in a limited set of countries and sectors. Algeria, Kenya, Morocco, Nigeria, South Africa, and Tunisia were responsible for 75 percent of the investment from 1997 to 2007. Infrastructure spending, fueled by an oil boom, is also growing rapidly in Angola.

Lying behind this unevenness are big variations in the size of African economies, economic volatility, political stability, and the quality of logistics, health care, and skills. Almost three-quarters of these countries do not have GDPs large enough to sustain projects of more than \$100 million (a comparatively small budget for, say, a port, an airport, a major road, or a power project).³ Similarly, the quality of roads and the density of populations vary considerably. Fifteen African countries are landlocked, and African transport costs are up to four times higher than those in the developed world, complicating the importation of equipment and materials.

While this growth has been substantial, the size of the investment gap that must be closed if the continent is to realize the United Nations' Millennium Development Goals is more than \$180 billion for sub-Saharan Africa alone (2007–14). Governments and the private sector must therefore substantially increase their infrastructure spending. For Nigeria, which aims to be among the world's top 20 economies by 2020, reaching the same infrastructure levels that Brazil has today would require investments in excess of \$190 billion—60 percent of today's GDP—or an additional 3 percent of GDP for the next 20 years.

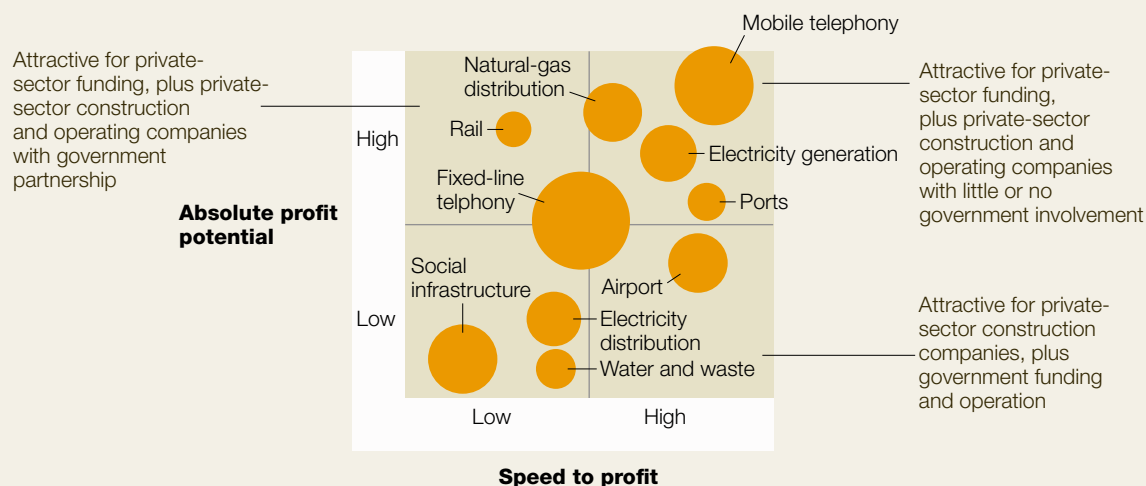
So the growth trend in African infrastructure is far from over, and several countries have already

¹According to Global Insight. In this article, we define *infrastructure investments* as telecoms (mobile, fixed, and broadband); energy (power generation, transmission, and distribution, as well as the transmission and distribution of natural gas); transportation (airports, ports, road, rail); water and waste (water distribution, desalination, and waste treatment); and social (hospitals, housing, schools, and prisons).

²Organisation for Economic Co-operation and Development.

³Such countries were defined as those where \$100 million (roughly equivalent to the cost of one 300-megawatt coal power plant or 100 kilometers of highway) would be more than 1 percent of GDP.

The private sector, though well placed to lead or support most types of infrastructure development and operation, often needs some government participation.



Infrastructure investment has been similarly concentrated in specific sectors. Mobile telephony accounted for more than 30 percent of it from 1997 to 2007 because this market was very attractive and the required infrastructure had a relatively short payback period. Electricity generation, distribution, and transmission accounted for 23 percent of investment as countries across the continent developed large-scale projects (for example, the Bujagali hydroelectric power plant, in Uganda). Infrastructure for natural-gas transmission made up a further 10 percent. Investments in rail, largely in South Africa, took 11 percent of the total. Those in other transportation assets, such as roads, ports, and airports, were limited by poor business cases and long payback periods. Likewise, investments in water and waste made up only 1 percent of the total, given the poor business case for private players.

Yet investment in African infrastructure can be very profitable, with returns “up to twice as high as we get elsewhere,” according to one expert. We have identified five keys to success.

Arrive early and take a long-term view.

If a company is to offset short-term currency risks and create the sustained relationships critical to success in Africa, a long-term view is essential. The construction company Julius Berger Nigeria, for example, has more than 100 years’ experience in Nigeria, and the industrial conglomerate Mota-Engil first entered Angola in 1946. Both are now benefiting from the infrastructure booms in these two countries.

Build relationships. The reality of Africa is relationships in quasi-monopolistic markets, as its most important asset classes require special and hence scarce skills, and the operators and project sponsors are typically state-owned monopoly players (for instance, railroads, airport companies, or road agencies). Finding the right local company to partner with gives multinational companies immediate access to excellent political and business relationships, as well as expertise in managing local labor and regulations. Both APM Terminals and DP World, for example, operate most of their African ports with local partners. In many countries,



partnering with local companies is required (and where not required, usually favored) in the tender process.

Be vigilant. While risk management is important in all infrastructure projects, it is especially so in Africa, where the range of potential issues is wide and often unpredictable. Equipment problems at Mombasa port, in Kenya, for example, have caused significant, unexpected delays in the delivery of equipment for infrastructure projects in Burundi, Rwanda, southern Sudan, and Uganda.

Manage actively. Because Africa's business environment is so volatile, active management through the entire project life cycle is essential. One company developing a power plant in the Congo, for instance, discovered through active risk management that significant absenteeism in the workforce could be traced to the local traditional leader's dislike of the company's agreement with him. It had to resolve the dispute quickly to prevent a shutdown.

Diversify your project portfolio. No company can avoid all the risks associated with infrastructure in Africa. Successful companies therefore maintain a wide portfolio of projects. One approach is to diversify by geography: for example, APM Terminals operates ports in seven African countries. The other is diversification by sector: GE provides equipment for both power plants and railways; Julius Berger, construction services for transportation, commercial and residential property, ports, and the oil and gas industries in Nigeria.

Fast-growing companies have used different strategies to combine these sources of success. Some go deep into one country and then proliferate across its business environment, especially if relationships and local understanding are critical. This approach is most important for construction companies and funders, since asset-specific expertise is not the most essential value driver for them. The engineering, construction, and petrochemical company Odebrecht, for example, entered Angola to develop the Capanda hydroelectric dam and has since expanded into residential and commercial construction, mining projects, and a partnership in a diamond exploration venture.

Other companies do business in a broad range of geographies, but in a specific class of assets (for example, ports and airports). This approach makes sense, especially for operators. If there are network effects beyond an individual country's borders, it is best to operate assets in a highly standardized way at a global level. DP World, for example, entered Africa through the Doraleh Container Terminal, located at the port of Djibouti, Somalia, in 2000 and has since expanded to six terminals across Africa. ○

Africa's path to growth: Sector by sector

Mining: Unearthing Africa's potential

**Pepukaye
Bardouille, Alasdair
Hamblin, and
Heinz Pley**

Africa's mining sector presents a paradox: although the continent is strongly endowed with mineral resources, mining has not been the consistent engine of economic development that people in many countries have hoped for. Nor, to date, has Africa attracted a share of global mining investment commensurate with its share of global resources. Unlike the output of most economic sectors (though like oil and gas), most minerals are globally traded. Global demand is therefore driven primarily by the needs of developed nations and the pace of growth in a few large developing countries. What's more, mining areas in Africa compete with those elsewhere for development funding. From a growth perspective, the question facing the sector is thus whether and how Africa can make its full potential contribution to satisfying the world's ever-growing need for mineral resources and capture wider socioeconomic benefits from their development.

Many parts of Africa have long been known to be rich in mineral resources. Eleven of its countries, especially in southern and western Africa, rank among the top ten sources for at least one major mineral. The continent has a majority of the world's known resources of platinum, chromium, and diamonds, as well as a large share of the world's bauxite, cobalt, gold, phosphate, and uranium deposits. The development of these resources has faced more significant challenges, however, when compared with the experience of more developed mineral-rich countries, such as Australia or Chile. Even outside

well-publicized conflict zones, many African countries have been thought to pose high political and economic risks for investors. Furthermore, infrastructure problems often hinder development: many bulk mineral deposits require multibillion-dollar investments in rail and port facilities to allow ore or semiprocessed minerals to reach their markets. Such investment decisions are not taken lightly, especially for less stable countries where the rule of law and security of tenure are not necessarily guaranteed.

Largely as a result, Africa's pattern of mining investment differs from that in other regions of the world. Of the five largest global diversified mining companies, only one has a major share of its production in Africa. With the diversified majors relatively quiet, junior mining companies and major ones focused on diamonds and precious metals have played a significant role in developing the continent's resources. In recent years, newer players, such as Chinese and Indian companies, have entered the scene, but few projects have been developed to the point of production.

The recent financial and economic crisis has hit the global mining industry hard—and Africa at least as severely as other regions. Commodity prices slumped by 60 to 70 percent in late 2008, although they have since recovered considerably. There is now less appetite for the relatively high risk that usually comes with mining in many African countries.





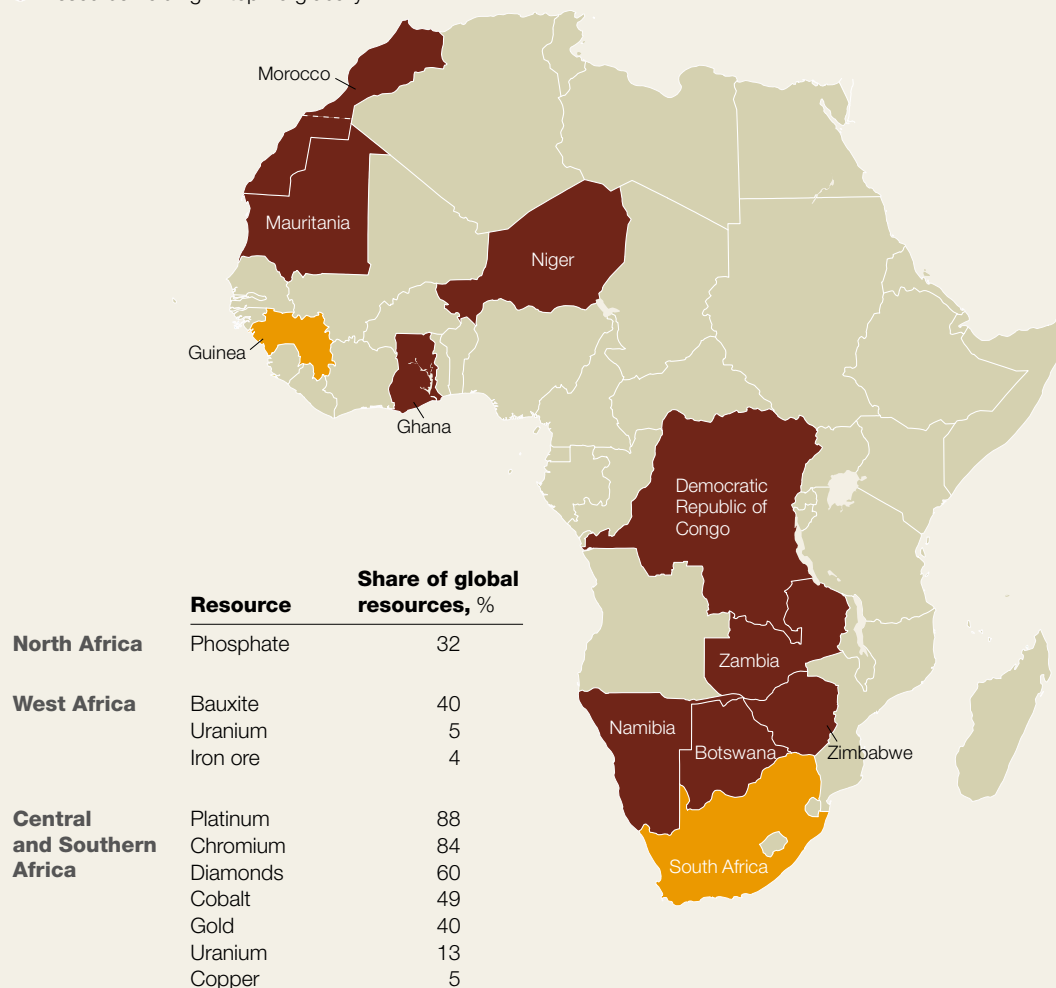
Despite the recent market turbulence, most observers expect demand for major mined commodities to grow strongly in the next 10 to 20 years, to support increased urbanization and infrastructure build-out in China and the emergence of India's middle class. Africa, given its share of global

resources, will surely play a significant part in meeting that demand.

For mining companies and investors, the economic crisis has taken the froth out of the market. But it hasn't fundamentally changed many of the factors

Eleven African countries are among the top ten global resource countries in at least one major mineral.

- >1 resource holding in top 10 globally
- 1 resource holding in top 10 globally





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that will shape long-term investment decisions, including political and economic stability, taxation regimes, and the availability of infrastructure. Nor, of course, has it changed the underlying geology. Lower commodity prices and stock market valuations have shifted the “build or buy” balance between in-house exploration and development, on the one hand, and mergers and acquisitions, on the other. If valuations continue to recover, this window of opportunity may be short-lived.

Over the longer term, international companies considering investments in Africa will need to spend time and energy to gain a deeper understanding of the unique challenges of every African country. They should learn from the success stories of other players, assess risk comprehensively, and determine the role each country will play in their portfolios. Mining projects will need to include the broader socioeconomic-development programs that have been commonplace in petroleum for many years. In many cases, these programs will be achieved through partnerships between mining companies and other parties, which will provide financing and infrastructure development.

Africa's governments will play a major role in shaping the future environment. In recent years, governments have expressed frustration about the way the continent's resource endowment hasn't translated into economic development. The African Union and the UN Economic Commission for Africa (UNECA) have developed the African Mining Vision 2050, which sets out a number of ideas for increasing the resource wealth flowing to the nations that host mining operations. Some of these ideas would transfer wealth from mining companies to governments—for example, by making the auctioning of exploration rights more effective and linking taxation to commodity prices more closely. Others, such as the better management of resource income and the active development of the supply and infrastructure sectors, aim to create a more favorable environment for economic development. ○



Africa's path to growth: Sector by sector

Oil and gas: New sources of growth

**Occo Roelofsen and
Paul Sheng**

African oil and gas have become important components of the world's hydrocarbon supply–demand balance. By 2015, 13 percent of global oil production will take place in Africa, compared with 9 percent in 1998—a 5 percent compound annual growth rate (CAGR). African oil projects have attracted substantial investment thanks to their cost competitiveness versus those in other regions.

What's more, the oil and gas sector is a foundational element of economic growth for the continent, as 19 African countries are significant producers. It accounts for a significant part of the state's revenues there and represents a prime mover for employment, domestic power development, and, in many cases, infrastructure development (for instance, schools, hospitals, and roads).

The sources of growth in oil and gas are evolving. In the past decade, production increases came primarily from deepwater oil in Angola and Nigeria, along with new sources in countries such as Chad and Sudan, as well as offshore gas in Egypt. Production of deepwater oil will continue to grow (in the Gulf of Guinea, for example), while onshore gas and new-resource development in emerging East African hydrocarbon producers (such as Uganda) are expected to become the other main engines for growth.

International oil companies as a group have fared well in Africa, as the licensing of acreage and M&A gave them access to valuable properties. These

companies have also moved expeditiously into the new, technically complex frontiers of liquid natural gas, deepwater oil, and underdeveloped countries (Chad, for example). Superior operating capabilities and financial muscle continue to give the internationals a competitive advantage in Africa; however, sustained growth has eluded those that acquired little and mainly operated more mature fields or had operations in countries with geopolitical and security risks.

Indigenous national oil companies have set ambitious goals to become stand-alone, commercially viable domestic (and in some cases international) operating organizations. The inefficiencies of working in bureaucratic environments where these companies must strive to meet economic and sociopolitical missions have stifled their development, however. National oil companies have been further constrained by the challenge of developing local technical, commercial, and managerial capabilities. These companies must transform them fundamentally and create systems, a performance culture, and governance models along the lines of those found in commercially driven enterprises.

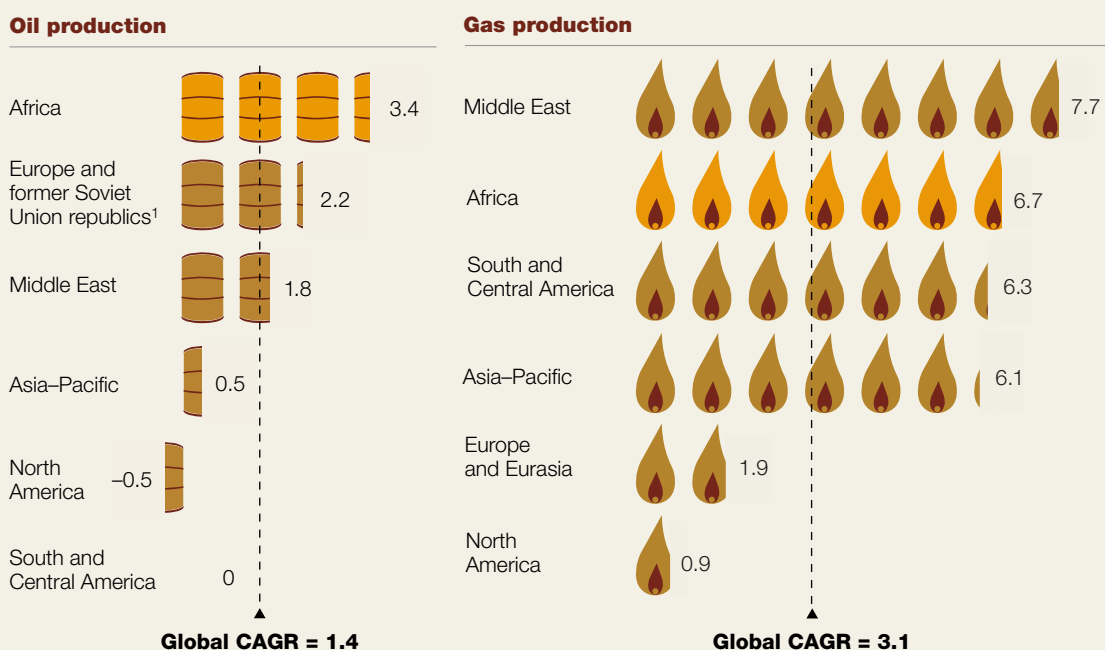
In recent years, new kinds of competitors have entered and grown in Africa, once the domain of the large international oil companies. Smaller independent oil companies (such as Addax, Heritage Oil, and Tullow Oil) have made successful finds in emerging basins. National oil companies from outside Africa, including China (CNPC, CNOOC, Sinopec),



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In recent years, oil production has grown more rapidly in Africa than in any other region, while the production of gas has increased more rapidly in Africa than anywhere but the Middle East.

Compound annual growth rate (CAGR), 1999–2008, %



¹ Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

Source: BP Statistical Review of World Energy, June 2009; McKinsey analysis

Malaysia (Petronas), and Russia (Gazprom) have also aggressively invested in the continent, linking broader infrastructure investments and government-to-government relationships with access to resources. The challenge for these competitors in the years ahead will be to build sustainable enterprises and local capabilities beyond the scope of an individual project or investment.

As for the countries that host oil and gas operations, they should continue to offer international and

national oil companies alike an attractive investment environment, which ought to foster competition for natural resources, greater efficiency in the oil and gas sector, and the building of sustainable capabilities. Governments must also focus on new ways to leverage their resource sectors to capture the economic multiplier of broader GDP growth—for example, by using oil and gas as the catalyst for downstream energy (such as power stations, refineries, and retail outlets) and related industrial development (petrochemicals and basic materials). ◯



Africa's path to growth: Sector by sector

Telecommunications: From voice to data

**Zakir Gaibi,
Andrew Maske, and
Suraj Moraje**

Telecommunications has been an important driver of Africa's economic growth in the last five years. The market is increasingly competitive, and world-class local enterprises are emerging in voice and data services. Telecom revenues have increased at a compound annual growth rate (CAGR) of 40 percent, and the number of subscribers rapidly exceeded 400 million. To meet the increased demand, investment in telecom infrastructure—about \$15 billion a year—has also grown massively, with a 33 percent CAGR from 2003 to 2008.

But annual growth will slow down to the low double digits—still quite enviable by Western standards—as the traditional urban markets become saturated; penetration in major cities such as Abidjan (Côte d'Ivoire), Lusaka (Zambia), and Libreville (Gabon) is 70 percent or more. Still up for grabs are two key pockets of growth, data and rural voice, with an additional revenue pool of \$12 billion to \$15 billion by 2012.

About 50 percent of the growth in voice will come from rural areas. To capture this opportunity, however, operators and regulators must forge new industry practices. The industry structure should be rationalized, for example, because many markets, even smaller ones, have four or more players. Also needed are new operating models, which might be created by slashing the cost of deploying base stations by 50 percent or more, innovating in distribution and recharging practices,

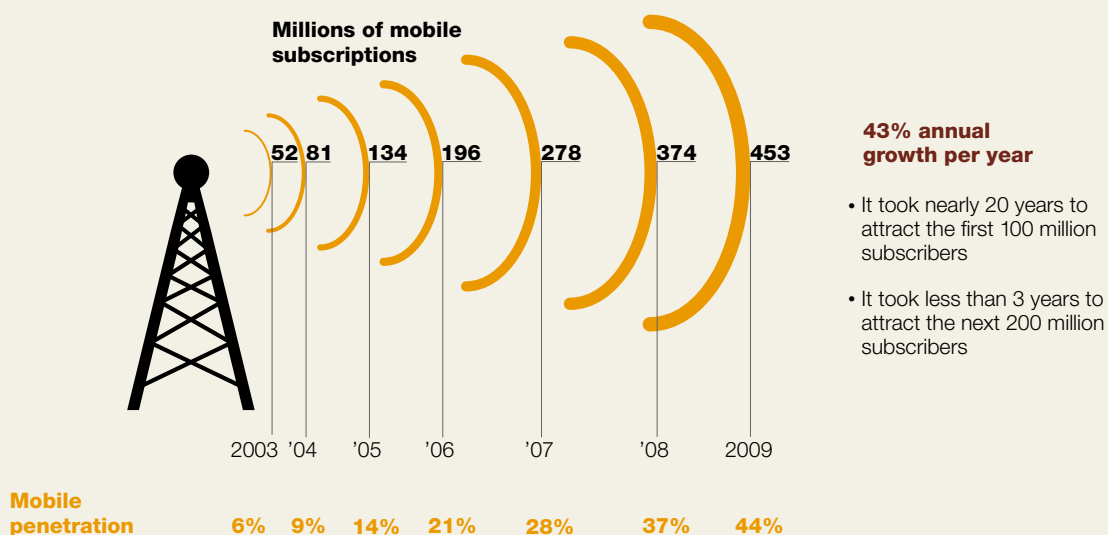
and seeking more individualized pricing models, ideally delivered directly to customers rather than through advertising.

Data services are the other large growth pocket, of about \$5 billion, and that's not all. Experience in other countries suggests that a 10 percent increase in broadband penetration translates into additional GDP growth of some 0.5 to 1.5 percent. Social welfare improves as well; many small-boat fishermen in Senegal, for example, now use mobile-data services to select the best ports for unloading their catch each morning, increasing sales by 30 percent. Applications such as mobile health care will also provide significant benefits, helping governments to stretch thin resources further. McKinsey's experience in developing markets indicates that 80 percent of health care issues can be resolved by mobile phone, at a cost per capita that is 90 percent lower than that of traditional health care models.

Policy makers can help drive the data market in several ways, including making lower-spectrum bands available, promoting infrastructure sharing, providing rollout incentives, and, potentially, reducing rural license fees. To capture this opportunity fully, operators must adapt their operating models—for instance, by developing low-cost off-peak packages, scaling up compelling applications, and making data-enabled handsets available more cheaply. 

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AFP/Getty Images

The African mobile-phone market has surpassed the 400-million-subscription mark.



Source: 2010 Informa Telecoms & Media

Zakir Gaibi is a principal in McKinsey's Dubai office; **Andrew Maske** is a consultant in the Johannesburg office, where **Suraj Moraje** is a principal. Copyright © 2010 McKinsey & Company. All rights reserved.



El Anatsui
1004 Flats, 2002
Tropical hardwoods and tempera
62 cm x 150 cm

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Fulfilling the promise of
sub-Saharan Africa

The region has already made big strides below the radar. It now stands to become the developing world's next great success story.

Ngozi Okonjo-Iweala

The global financial crisis has shown that the developing world no longer holds a monopoly on investment risk. A new risk reality has emerged—one that is ubiquitous and less associated with the developing regions of the world. Thanks to this new reality, combined with macro trends affecting the global economic landscape, businesses are now looking for new markets in which to invest. In the aftermath of the crisis, the “South–South” expansion of trade and investment is likely to accelerate thanks to the global appetite for natural resources; the effects of climate change will continue to complicate growth and open up new investment opportunities; and changing demographics will have important implications for productivity and demand. Against this backdrop, sub-Saharan Africa offers a better platform for profitable new investments than ever.

Future global economic growth will increasingly come from emerging markets. Following more than 20 years of hard-won political and economic reform, sub-Saharan Africa will be an important part of this story. Africa is often associated with poor governance, weak institutions, civil unrest, a lack of infrastructure, and other difficulties. The extent of these problems cannot be minimized, and African governments and civil society must continue to work against them. But there is an emerging side of the African story that speaks of successes often achieved below the radar screen. The region aspires to move past the image of extreme poverty and conflict with which it has long been associated and to show that it is not only open for business but also actually in business. Before the crisis, sub-Saharan Africa had been growing fast, with an average annual growth rate of

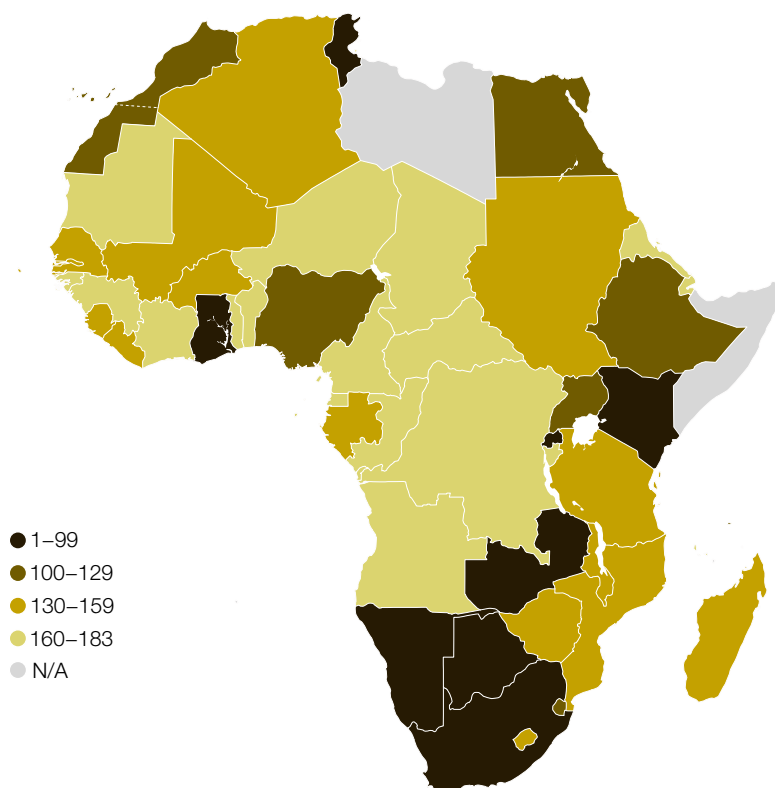
6 percent between 2002 and 2008. The region, which is weathering the global downturn better than most other parts of the world, is projected to grow by 3.8 and 4.5 percent in 2010 and 2011, respectively—faster than Latin America, Europe, and Central Asia.

Sub-Saharan Africa's recent sustained growth has been made possible largely by improved political and macroeconomic stability, a strengthened political commitment to private-sector growth, and increased investment in infrastructure and education. Many sub-Saharan African countries have liberalized trade since the early 1980s, and throughout the continent fiscal soundness and monetary discipline are increasing. Debt as a share of exports has declined dramatically, to levels comparable to those of other regions, and sovereign credit ratings in parts of the continent enjoy a positive outlook. More of the region's countries are now regarded as frontier emerging economies with relatively developed financial markets, including Botswana, Cape Verde, Ghana, Kenya, Mauritius, Mozambique, Namibia, Nigeria, Seychelles, South Africa, Tanzania, Uganda, and Zambia.

Most encouraging of all is the fact that the region is continuing to reform through difficult times. There is a broadly shared conviction among sub-Saharan Africa's leaders that sustained growth will come only from the private sector and increased integration with the global economy. Last year, two-thirds of the economies of sub-Saharan Africa implemented reforms to ease the path of investors doing business there. In 2008–09 alone, Rwanda completed seven reforms, Mauritius six, and Burkina Faso and Sierra Leone five each. Indeed,

World Bank Index: Ease of doing business

Ranked from 1 to 183; the closer to 1, the more conducive the regulatory environment



Source: World Bank

Rwanda's and Liberia's measures were so significant that they both received "top reformer" status: Rwanda was the number-one reformer worldwide in *Doing Business 2010*, and Liberia was number ten.¹

These reform efforts have been complemented by increased investments in infrastructure and human development. The figures for average years of schooling are catching up fast with those of the rest of the world, after having increased more than fivefold since 1960. Infrastructure spending amounts to \$45 billion a year and absorbs more than 5 percent of total GDP.² A recent \$600 mil-

lion private investment in high-capacity fiber-optic cable connects southern and eastern Africa to the global Internet backbone, widening the continent's horizons of connectivity.

Resource rush

As developing countries continue to increase their exports and imports, South-South trade and investment will make up a mounting share of global economic activity. Since 1990, sub-Saharan Africa has almost tripled its level of exports and diversified its trade and investment partners. The combined share of its exports to the European Union and the United States fell to 49 percent, from 73 percent. During this time, Chinese imports alone from sub-Saharan Africa increased to over \$13 billion, from \$64 million.

Natural resources will continue to be a key source of export revenue for sub-Saharan Africa as global demand, albeit decelerating when the economic contraction began, continues to grow. With pre-crisis growth rates and booming prices, investments in nonferrous metals around the world rose to \$9 billion in 2007, from \$2 billion in 2002. During this time, foreign direct investment in sub-Saharan Africa grew for eight consecutive years. Most of this investment took the form of greenfield and expansion projects prospecting for reserves of base metals and oil. In one decade, the region's mineral fuel exports rose to \$96 billion, from \$11 billion. Today sub-Saharan Africa is not only a major supplier of natural resources but also the region with the greatest potential for new discoveries. As global growth resumes, the region should benefit from higher prices, in addition to higher volumes. The World Bank predicts that both energy and food prices, driven predominantly by the emerging economies' resource needs, will remain high over the next 20 years.

The resource rush will also increasingly target renewable sources of energy. Sub-Saharan Africa is

¹ *Doing Business 2010: Reforming through Difficult Times*, Palgrave MacMillan, the International Finance Corporation, and the World Bank, 2009.

² Vivien Foster and Cecilia Briceño-Garmendia, eds., *Africa's Infrastructure: A Time for Transformation*, Agence Française de Développement and the World Bank, 2010. The \$45 billion "is based on annualized averages for 2001–2006, and averages are weighted by country GDP. Figures are extrapolations based on the 24-country sample covered in the Africa Infrastructure Country Diagnostic Phase 1."

particularly well positioned for developing solar and hydro energy, as well as the production of biofuels. But the 2008 food crisis highlighted what could go wrong if food production is substituted for biofuels production. Africa can and must feed itself first while engaging in the development of a biofuels market that does not compete with food production. Between 2003 and 2007, two-thirds of the global increase in corn output went to biofuels, mostly to meet demand in the United States. While biofuels have contributed to higher food crop prices, they also represent an opportunity for profitable production in the developing world. Sub-Saharan African countries, including Angola, Mozambique, and Tanzania, have the potential to produce ethanol profitably from sugarcane on land that is not used for food crops. The International Energy Agency suggests that demand for grain to produce biofuels could increase by 7.8 percent a year over the next 20 years.

Rising commodity revenues will ultimately allow sub-Saharan Africa to increase its investment in infrastructure and education, especially as it continues to improve its business governance. Some 28 sub-Saharan African governments have adopted the Extractive Industries Transparency Initiative (EITI),³ with the aim of improving governance through the verification and full publication of company payments for and government revenues from oil, gas, and mining. In addition, 37 oil, gas, and mining companies, with assets amounting to more than \$14 trillion before the financial crisis, have agreed to support the initiative.

Sub-Saharan Africa's natural resources also provide it with a strong comparative advantage in agricultural development. The region has the resources both to feed its growing population and to meet the world's burgeoning demand for food and other agricultural products. In sub-Saharan Africa, demand for food is expected to reach \$100 billion by 2015, double the levels in 2000. Moving forward,

appropriate investments in agricultural skills and infrastructure—for example, irrigation—could prompt a green revolution in sub-Saharan Africa. Both nontraditional and traditional exports are important, as are regional export markets for food staples and livestock. Global markets for nontraditional exports such as horticulture are expanding rapidly. Sub-Saharan Africa has many success stories, such as the production of cassava chips in Ghana, organic coffee in Tanzania, and cut flowers in Kenya, as well as aquaculture in Malawi. All of these products are exported to European and other Western countries. Expanding markets such as dairy production in east sub-Saharan Africa could also be scaled up for faster growth.

On the IT front, Africa has made great strides. It has, for example, become the fastest-growing region in the global cellular market, going from fewer than 2 million mobile phones in 1998 to more than 400 million today. More than 65 percent of the population now lives within reach of a wireless voice network, up from less than 1 percent ten years ago. Mobile phones have become the single-largest platform that can be used to deliver government services to the poor. Yet while great progress has been made in improving access to the information and communications infrastructure in many countries, much less effort has been made to exploit its potential to transform other sectors.

Climate change

Access to resources and agricultural development will increasingly require new methods of engagement with nature, such as the use of innovative technologies in energy consumption. Climate change makes the challenge of sustainable growth more complex. Developing countries, whose average per capita emissions are a third those of high-income countries, need major expansions in energy, transport, urban systems, and agricultural production. If pursued using traditional tech-

³The EITI is a global standard that promotes revenue transparency by monitoring and reconciling company payments and government revenues at the national level.

nology with carbon emissions, these developments will produce more greenhouse gases and, hence, contribute to climate change. With rain-fed agriculture helping to generate 30 percent of sub-Saharan Africa's GDP and 70 percent of its employment, the region is particularly vulnerable. Climate change will continue to pose significant dangers to the region's economic growth, with more droughts, floods, storms, and heat waves. Yet many adaptation and mitigation activities have significant benefits not only for environmental sustainability but also for public health, energy security, and financial savings.

Africa has great potential for sustainable, intensive farming through investments in new technologies and the conservation of vegetation, soil, and water. These approaches provide a "triple dividend": supporting adaptation to climate variability and change, mitigating carbon emissions, and pro-

moting food security. The financial resources generated through mitigation could be very substantial. In sub-Saharan Africa, the economic potential from agricultural soil carbon sequestration is estimated to be 150 million tons of greenhouse gases a year. If agreement is reached at the 2010 UN climate change conference, in Cancún, Mexico,⁴ on the price per ton of carbon dioxide, Africa stands to benefit substantially from this new revenue stream. There is also great potential for reducing emissions from deforestation and forest degradation.

In short, the continent's future potential for environmentally sustainable private-sector growth and opportunities in carbon abatement are immense. Sub-Saharan Africa has enormous potential for generating clean energy, such as solar, wind, and biomass. Preliminary results from two pilot projects in Kenya also show that smallholder agriculture can be integrated into the financial arrangements for carbon abatement.

Demographics

In the coming decades, one of sub-Saharan Africa's most powerful offerings may be its growing population of young people, who serve as a source of competitive labor and a growing consumer market. It is estimated that by 2050, almost 20 percent of the world's population will live in sub-Saharan Africa, up from 7 percent in 1950. Developing countries will be home not just to a larger share of the world's population but also to a younger population. By 2050, young people 15 to 25 years of age will account for one person in five in sub-Saharan Africa.

By the same token, the region is rapidly urbanizing. Between 2000 and 2008, the rate of urbanization in sub-Saharan Africa was more than twice the world average. The region leads even the rest of the developing world. The United Nations projects that the proportion of sub-Saharan Africa's people

⁴ November 29 to December 10, 2010.

In the coming decades, one of sub-Saharan Africa's most powerful offerings may be its growing population of young people, who serve as source of competitive labor and a growing consumer market.

living in urban areas will nearly double between 2005 and 2050, from 35 percent (300 million) to more than 67 percent (1 billion).

Urbanization and the growing young population will have significant implications for productivity, growth, and demand. Sub-Saharan Africa has the potential to become an increasingly important resource for labor-intensive industries if it continues to invest in skills and infrastructure and to reform its business environment—especially as wages are expected to rise in Asia. Even if real wages in China rise by only some 7 percent a year, which is modest given the country's GDP growth, they are likely to double over the next decade. The rising cost of manufacturing there will translate into an opportunity for sub-Saharan Africa. East Asia broke into large-scale global manufacturing only around 1980. By that time, the gap in per capita incomes, and hence wages, between China and the OECD⁵ countries had widened exponentially. To a large extent, this huge advantage in labor costs allowed China to become competitive in manufacturing. As labor costs rise, the advantage is likely to shift toward sub-Saharan Africa.

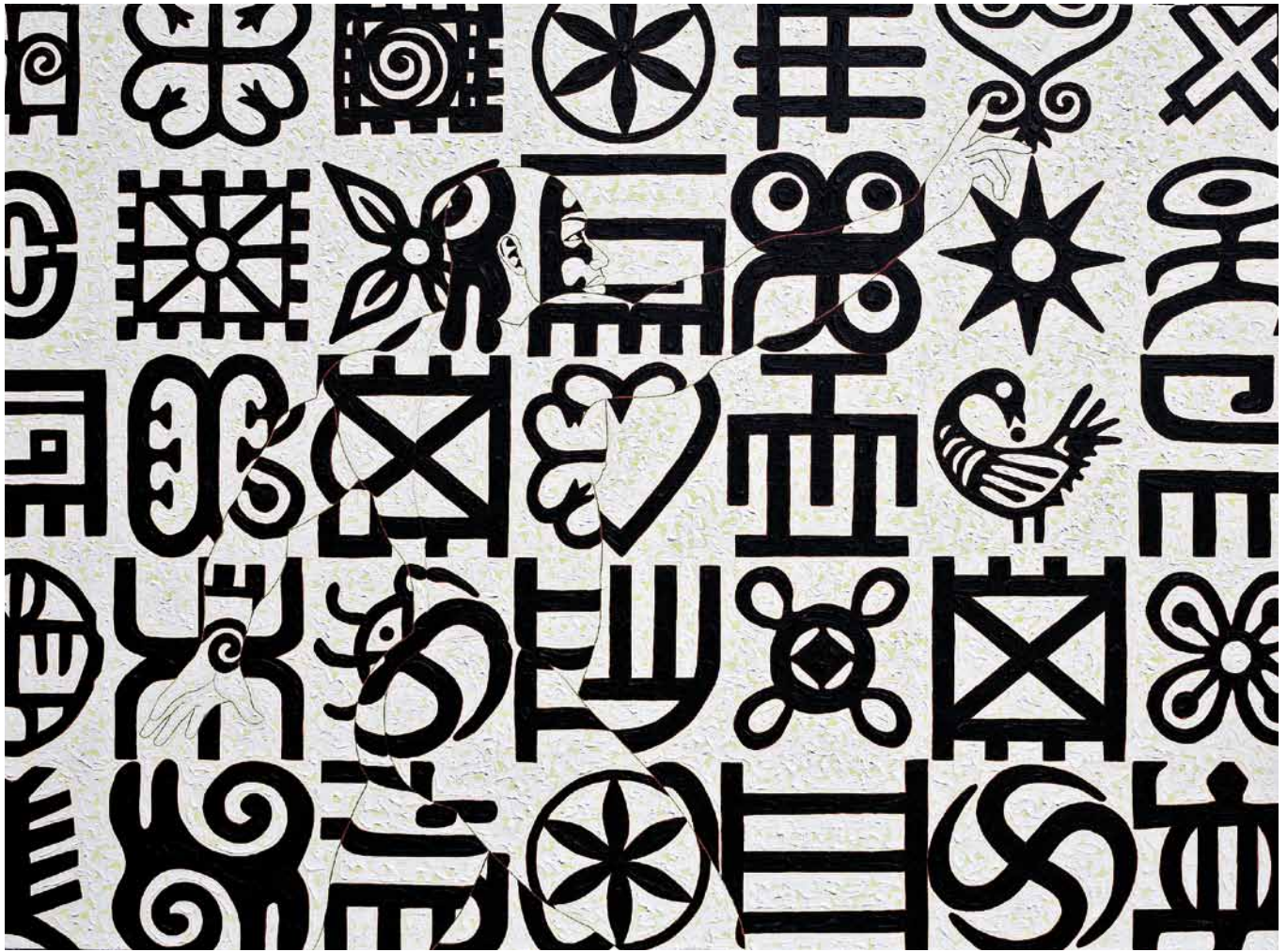
A new risk reality is emerging in the aftermath of the financial crisis, with continued demand for commodities, climate change, and evolving demographics driving the way people do business around the world. Sub-Saharan Africa stands to play an important role in each of these major trends. Many industries, while nascent, are already emerging as success stories across the region. From footwear in Ethiopia to emerging tourism in Cape Verde and Rwanda, the menu of options for profitable investments is growing.

There are, of course, many challenges to realizing this great potential. As the world turns its attention to new markets for the next spring of growth, sub-Saharan Africa must address the constraints to its competitiveness. More opportunities will come up as much-needed improvements in business governance, infrastructure, logistics, and education are implemented; critical policy areas (including competition and access to finance and land) are reformed and modernized; and reforms and strategic investments in the underlying foundations that nourish businesses continue. Sub-Saharan Africa stands to be the new frontier for profitable investments.⁶ ○

⁵Organisation for Economic Co-operation and Development.

⁶The discussion on global trends and African competitiveness is based on a forthcoming working paper, *African Competitiveness in the New Global Economy*, by Uri Dadush, Tugba Gurcanlar, and Vincent Palmade, as part of the World Bank research program *Competitive Africa: Strategies to Leverage the New Global Economy*, World Bank, 2010.





Owusu-Ankomah
Future, 2006
Acrylic on canvas
150 cm x 200 cm

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Octobergallery.co.uk

Assessing Africa's business future: An interview with the CEO of Absa

The CEO of one of South Africa's largest financial-services companies discusses the state of business in Africa.

David Fine

Maria Ramos could not have chosen a more difficult moment to become chief executive officer of Absa, a Barclays subsidiary that is one of South Africa's largest financial-services companies. Taking over the job in March 2009 in the midst of the global financial crisis, Ramos, an economist by training, has had to call upon the broad range of skills she honed in a career split between the private sector and public service. Before joining Absa, Ramos was CEO of Transnet, where she gained an international reputation for her leadership in helping to turn around that giant state-owned transport and logistics company.

In an interview with McKinsey's David Fine, Ramos discusses Africa's economic prospects, the status of the continent's financial sector and the way the crisis has affected it, and the importance of financial inclusiveness to economic development.

McKinsey: *How would you describe the state of the African economy?*

Maria Ramos: Africa did not go through the recession unscathed. That's not possible; we're part of the global economy. But we did relatively OK, given the depth of the global recession. If you look across the African economies, the biggest ones do reflect the downturn. But we're starting to see African economies come back—whether you look at Botswana, Ghana, Nigeria, South Africa, Tanzania, Zambia—and show some decent growth. Going into the global crisis and recession, African economies were already growing pretty strongly.

It's also important to realize that it's a vast continent, with a lot of very different economies. But this is

a continent with solid growth opportunities in many of those economies.

McKinsey: *What are the drivers and enablers of growth in Africa?*

Maria Ramos: In many countries, there is absolutely no doubt that the focus continues to be, and will remain for some time, on commodities. But we also need to understand that it's not just the commodity endowment that is driving the potential of those economies. It's also what's happened in the last decade and a half around the investment in people, systems, and social and physical infrastructure, as well as increasing government stability and sounder fiscal policies. Those moves are beginning to pay dividends.

McKinsey: *Some people see Africa as the last frontier, the last of the world's really big growth opportunities. Yet it's the continent most in need of aid. What is your view on the seemingly contradictory nature of Africa's situation?*

Maria Ramos: We live on a continent where there is still significant poverty and where we still need to have the likes of nongovernmental agencies come in and offer support. I think we should see that not as a negative but rather as an enabler. Africa is much more than a recipient of aid flows. We have countries with large economies and the makings of an economic base that will be increasingly attractive to foreign direct investment and domestic investment.

The notion of the "last frontier" creates an image in my mind that anything goes. It isn't like that. It's

Maria Ramos



Vital statistics

Born February 22, 1959,
in Lisbon, Portugal

Married

Education

Graduated with a bachelor
of commerce in economics
in 1987 from the University
of the Witwatersrand

Earned an MS in
economics in 1992 from
the University of London

Career highlights

Absa

- CEO (2009–present)

Transnet

- CEO (2004–09)

South African National Treasury, Pretoria

- Director general (1996–
2003)

South African Department of Finance and Financial Planning

- Deputy director general
(1995–96)

Fast facts

Served as an economist on the transitional executive
council for the African National Congress's Department of
Economic Planning from 1989 to 1995

Lectured on economics at the University of the Witwa-
tersrand, the London School of Economics, and the
University of South Africa

Ranked by *Fortune* magazine as one of the “50 Most
Powerful Women in Business” from 2004 to 2007

Has served as a director on the boards of Sanlam and
Remgro

not an anything-goes kind of place. But it is a place where there are many, many opportunities and a heck of a lot of talent. I have always felt that the biggest resource on our continent isn't natural resources—irrespective of how important those are. It's actually the talent, the people. And if we just continue to invest in talent, that's what's going to give Africa its comparative advantage.

McKinsey: *What advice do you have for multi-nationals seeking to invest in Africa?*

Maria Ramos: The first piece of advice I give our teams—and remind myself of—is that we need to do very thorough due diligence. We need to understand that if we are going to invest in another country, we must understand that environment well, irrespective of whether you're investing in Africa or investing in any other geography.

You are going to find some challenges in Africa that you probably wouldn't be finding if you were investing, for example, in parts of Europe. There

certainly will be challenges in some aspects of infrastructure and in telecommunications—the World Bank says that African countries lag behind their peers in other parts of the developing world by just about every measure of infrastructure coverage. If you do encounter challenges, what's required is a thorough engagement and commitment to the investment you're making. Sometimes investments have longer return horizons than they do at other times, and that requires you to put some of your best people, technology, and systems on the job. There are no shortcuts. This is not one of those places where you're going to come in and make a quick buck and leave. That said, we believe that countries offering the strongest growth potential in the coming years are Angola, Ghana, Nigeria, Uganda, and Zambia, which are likely to be the biggest gainers from development in the mining, energy, and other infrastructure sectors.

The big issue is financing—for example, how to cross the divide and provide funding solutions to African countries and businesses. In some cases,

there will be a need for governments to support the financing solutions. This will reduce the risk and naturally reduce the cost of funding. Public–private partnerships, which are already being seen, may become more prevalent on the continent.

McKinsey: *How would you describe political risk in Africa to corporate board members?*

Maria Ramos: Most boards are pretty sophisticated—they can distinguish between the different countries and their political risks. But I also want to make the point that most countries in Africa have actually made great progress in the last 15 or 20 years in dealing with political risk. Of course, there are still some countries where we are currently experiencing political risk and uncertainty and even war. But those are a minority.

McKinsey: *How did the South African and African financial systems fare in the crisis?*

Maria Ramos: South Africa has come through this crisis with a banking sector that has actually done very well, thanks to regulators who acted ahead of the curve. The fact that we've been disciplined about the implementation of Basel II,¹ for example, has been a good thing. South Africa as a country committed itself to some of the IMF² disciplines around reviewing its own banking system and financial system. As a consequence, South Africa has undergone several reviews through the IMF's and World Bank's Financial Sector Assessment Program and published the results. Interestingly enough, many of the African countries have not had their banking systems decimated, in part because these systems were not as sophisticated and as integrated into the global financial system as banks in the developed part of the world.

As we consider the proposed changes to the regulatory framework currently under discussion in the

aftermath of the global financial crisis and the recession that has accompanied it, we need to remind ourselves that we need a sounder, safer, global financial system.

The regulation that we take on board has to be suitable for the countries that we are operating in. But you need to test that principle against the need to be a global player and to keep up with and be connected to the global financial system. The measures that you adopt have to suit your domestic economy but also have to keep you on the same trajectory as what's going on globally.

McKinsey: *How do you assess the evolution of the financial sector in Africa?*

Maria Ramos: One of the barriers to doing business for many years has been the fact that we haven't really had, in many countries, very well-developed and very deep financial markets. In some countries, we're beginning to see some development in that regard. In fact, we're starting to see more African countries get credit ratings, allowing them to access capital markets and to raise money. That's a great development. We are starting to see stock markets emerge and become better traded, with more liquidity. I happen to believe that we need more regionalization. You'll get more liquidity if we were to have, for example, a regional stock market as opposed to just individual country stock markets. But I'm also very conscious of the fact that we've been talking about that for a long time. I think this is probably one of the things that we don't do as well as we should—we often talk about things but we don't really get down to the actual implementation fast enough, before people in other parts of the world move ahead and take the space from a market point of view.

McKinsey: *What about the issue of financial inclusiveness—moving people from the rolls of the unbanked?*

¹ An international agreement on minimum capital requirements.

² International Monetary Fund.

Maria Ramos: If you want economic development, you need to broaden financial access and inclusion. We are beginning to see some of that, but not to the extent and at the pace we ought to see in many countries. Some reports suggest that only around one-quarter of Africans have bank accounts. As banks in South Africa, we have had to think long and hard and were pushed to extend services to the many South Africans who, often for political reasons, had not been included in financial services. The more we move down the road of inclusiveness—across many African countries—the better we are going to get at finding the connection between economic development and economic opportunity. That would also create great opportunities for financial institutions. And there are lessons to be learned from India about how to do entry-level banking.

McKinsey: *What is your view on China's increasing role in Africa, and how do you see that playing out over time?*

Maria Ramos: It's an interesting thing that China attracts so much attention in relation to Africa. China has become a more and more dominant player in the global economy. You're going to be hard-pressed to find a big global company that looks at the world and doesn't think of having a presence in China. Yet when we think about China in relation to Africa, we think there's something unnatural about the Chinese investing in African countries.

The first point I want to make is that China's relationship with Africa is not a new relationship. It is an old relationship. What we have seen is China looking at Africa and saying, what are the opportunities? We need resources and commodities—

where are they available? Where do we look for them? Are there business and investment opportunities? So, of course, China is investing. Perhaps they just see different opportunities. Maybe they are able to respond to those opportunities faster. I think they certainly respond to them without the same conditions other investors look for.

We should not underestimate the Chinese—they are smart investors. And in some cases they are aggressive investors too, in the sense that when they see an opportunity, they are going to pursue it, and pursue it really hard.

McKinsey: *How should foreigners, and particularly potential investors, view the current social and political situation in South Africa?*

Maria Ramos: The important thing to remember is that South Africa has a strong constitution. We're a democracy. Our country has a solid legal framework, and since this country became a democracy, that actually has never failed us. Crime is however still a concern. It's incumbent on us, as South Africans, to keep in perspective that we need to put our trust in our legal system to ensure that the perpetrators of crime will be judged in an appropriate court and that the process will be followed. Crime is one of the challenges we face, and the government is trying to deal with it and has put an enormous amount of resources behind the effort. But as businesspeople, it's one of the things that we need to constantly remind the government of. South Africa isn't going to fall apart because we have experienced these events. They are tragic. They grab the global headlines and that's not good. But this is not the way to judge our country's performance. ○

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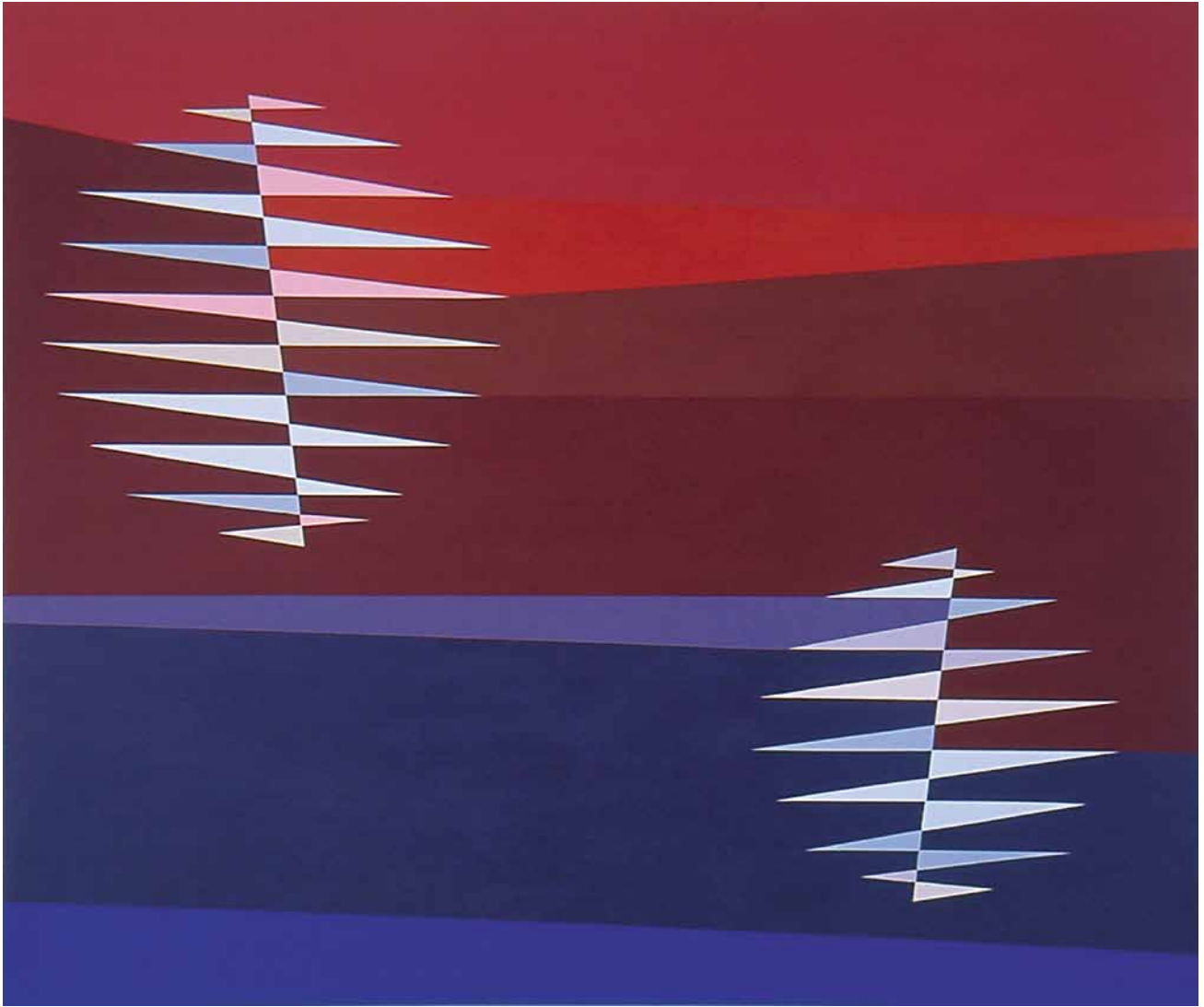
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well-governed
Africa**

Doing business in Africa





Odili Donald Odita
Two Worlds, 2003
Acrylic on canvas
50 in x 60 in

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New York

Jackshainman.com

Making the most of Chinese aid to Africa

It's time to move beyond sterile arguments and accept China's role in Africa. But it's also time for China to enhance that role.

**Steve Davis and
Jonathan Woetzel**

The debate over China's role in Africa continues to rage. One side contends that China is a rapacious neocolonial oppressor, while the other sees it as a miraculous alternative to decades of failed Western aid. To a large extent, however, facts on the ground have rendered this debate academic: China already has become an indisputably significant force in Africa's development, with substantially increased commitments and engagements just in the past few years. Pragmatism argues for moving the discussion ahead, to how China's involvement can reap the greatest benefit for both Africans and Chinese.

African and Chinese leaders—along with interested outside parties, such as multilaterals, foundations, and nongovernmental organizations (NGOs)—should focus on three opportunities. The first is strengthening Africa's economic-development strategies and capabilities at the national and regional levels. Second, China's willingness to undertake additional strategic-development projects in Africa, including the recent emphasis on sustainable and results-driven models, should be supported. Finally, collaboration between Chinese institutions working in Africa and other donors or partners ought to be developed and encouraged.

China's role in Africa is dynamic, with deep historical roots and a wide range of ever-changing engagements and models that don't lend themselves to black-and-white categorization. By pursuing these three opportunities, Africa and China can uncover new ways to promote economic development and the reduction of poverty on the continent.

China's historical role

The People's Republic of China started engaging with African countries not long after it was founded. Since the Bandung Conference, in 1955, its activities in Africa have been rooted in their common experience as developing regions. From then onward, China has committed aid and support to various African leaders and countries, despite its own economic and political challenges and upheavals. With inventive packages of aid, loans, and investments, the People's Republic, in return, secured votes to take China's seat at the United Nations (held by Taiwan's government until 1971), opened up channels for much-needed oil and mineral resources, mitigated its food-security concerns, and gained a strategic foothold on the continent.

Even in 1978, when China was just emerging from the devastating effects of its Cultural Revolution and was itself one of the world's poorest countries, it provided foreign aid to 74 countries—and to more in Africa than the United States did. By 1984, China was the eighth-largest bilateral donor to sub-Saharan Africa, ranking higher than many members of the Organisation for Economic Co-operation and Development (OECD). From 2002 to 2007, China offered over \$33 billion worth of government-sponsored aid and investment, over half for infrastructure projects, to African countries. Today the continent is dotted with Chinese-sponsored projects, from railways to agricultural centers to clinics to stadiums.

Several attributes of China's engagement in Africa merit particular attention.

Many Africans welcome the involvement of China not only because of the scale of its resources and commitments but also because it has credibility.

Credibility as a fellow developing country

It's no secret that some Chinese activities in Africa have prompted concern and even hostility, particularly the long-standing support of leaders in countries like Sudan and Zimbabwe, as well as questions about worker safety, community engagement, and environmental degradation. Overall, however, the evidence suggests that many Africans welcome the involvement of China not only because of the scale of its resources and commitments but also because it has credibility. The Chinese see themselves as a developing country, a view shared by many Africans; indeed, China still ranks 97th in the world for GDP per capita, according to the International Monetary Fund (IMF).

Yet China's recent development trajectory—lifting hundreds of millions of its people from poverty in the past 30 years—offers Africans lessons and hope. Other factors adding to China's credibility are its pragmatic, business-like approach to development and focus on much-needed infrastructure projects. Also, Chinese workers are generally well-respected because they are prepared to work in Africa's fields or factories, often at the locals' salaries, in contrast to the wages, housing,

and approaches of Western aid organizations or commercial enterprises. For this reason, China still explicitly rejects the label of donor.

Project-based aid and investment models

Chinese aid generally focuses on specific projects rather than the large programmatic models familiar to Western donors, such as the President's Emergency Plan for AIDS Relief, a US-sponsored program for HIV/AIDS prevention and treatment. This US effort has a broad strategy, operating across several countries, with a multiyear approach and standardized practices. By contrast, China's health assistance generally involves commitments to build a clinic or hospital in a country or region or to send Chinese medical personnel or medicines to specific countries. These efforts are sometimes associated with a particular investment or a Chinese official's political commitment to a local African leader. Such projects are not part of a broader program to build networks of hospitals, for example, or to develop a replicable and scalable approach. Instead, the Chinese focus on an immediate need—though sometimes a very large one, such as dams or highways—which they generally execute in a timely, effective way.

Also, the line between aid and investment is unclear for many of these projects. Some of the ambiguity arises from China's aid model: with no central foreign-aid agency, Beijing often designates different ministries (or, in some instances, provinces) to tackle different projects in different countries. China's blended model of aid, investment, trade, and technology as levers for development, while less common in Western approaches, has an antecedent: China's own experience as a recipient of aid and investment in the 1970s and 1980s. At the time, China entered into deals with Japan and many Western partners, bartering its own natural resources and commodities for technologies, tools, and know-how.

Broad-based interests

While access to natural resources and consumers is an important goal for many of China's African projects, such a narrow view of its role risks missing the broader commitment. Today, China is involved in almost every African country that does not recognize Taiwan—even the resource-poor ones. While the majority of China's \$107 billion-a-year bilateral trade with African countries still involves extractive industries, China's reach extends to almost every sector. In 2009, the Chinese Ministry of Commerce reported that about 1,000 Chinese enterprises do business in Africa, spanning fields such as trade, transportation, agriculture, and the processing of agricultural products. Even official Chinese development aid does not appear to be disproportionately provided to countries with large endowments of natural resources.

New approaches and enhanced engagements

During the past few years, China has attracted considerable attention for its commitments to Africa. In November 2009, at the Forum on China–Africa Cooperation (FOCAC), Chinese premier Wen Jiabao announced a \$10 billion package of loans and aid, including programs in agriculture, education, and health. In addition, the China–Africa Development Fund has made more than \$5 billion of new money available for private-equity investments in Africa and has an ever-growing presence of workers on the ground to develop an investment pipeline.

In these and other announcements, we discern a shift in tone and emphasis on both the Chinese and African sides. China's engagement with the region appears to be growing not only in sectors and geographies but also in a broader strategic commitment. Premier Wen suggests as much in his recent focus on support for African development

in the fields of agriculture, debt relief, expanded market access, climate change, health, education, environmental protection, and investment. Similarly, African leaders increasingly seek more comprehensive and heavily negotiated packages of aid and investments from China—a preoccupation reflected in recent deals with Ghana and Malawi.

There have also been examples of better coordination and attention to measurable results and strategic goals. New dialogues between China and the aid and development programs of other countries, multilateral organizations, and NGOs are under way. Even collaborative opportunities with other foreign donors have opened up; most recently, the Chinese Academy of Agriculture has partnered with a number of Chinese and African institutions to support an international initiative by the Bill & Melinda Gates Foundation to create green super rice, a new variety that can survive in harsh environments.

Strengthening African development strategies and capacity

Chinese leaders frequently make state visits to Africa. On their return to Beijing, they often take a “checkbook” approach to aid, charging Chinese government ministries with fulfilling commitments to high-level African officials for construction, infrastructure, health, agricultural, or other projects. Although this approach has led to random acts of kindness, they are often not only unrelated to the recipient government's agricultural- or industrial-development strategies but also not sustainable. What's more, the Chinese often rely on their own labor and materials, so projects may have little connection or benefit to local workers or industries (see, “South Africa in the spotlight: An interview with Deputy President Kgalema Motlanthe,” in this issue).

China has, for example, launched over ten agricultural demonstration centers in Africa to expand R&D on African crops, irrigation, agricultural engineering, or other potential drivers of agricultural reform (as suggested by China's own experience). To date, however, these centers often operate in a vacuum, poorly connected to the recipient countries' national programs and with limited outreach to local farmers and slim chances of scaling up nationally.

The Chinese approach to aid and investment presupposes that an effective public sector in the recipient country exists, which is not always the case. That approach has to change. African countries must continue to take more responsibility for their development agendas instead of leaving them in the hands of others, even if well-meaning. It will therefore be necessary to create more explicit and comprehensive development strategies for agriculture and other areas. Planning is a skill, and African countries should develop it to make sure that the aid they get from China can be readily used and expanded. This view has gained currency and now has the support of groups such as the African Center for Economic Transformation, the Rockefeller Foundation, and the African Union. Even Chinese stakeholders, including China's state planning agency, recognize that many African countries lack robust strategic-development plans and therefore can't benefit fully from investments by China and others.

Support China's shift to programmatic engagements

At the FOCAC meetings in Egypt last November, Chinese leaders repeated their commitment to connecting more closely with host communities, measuring results, and making them sustainable. These comments may reflect an understanding, held by many who follow China's work in Africa, that projects often haven't realized their promise.

How to get more from these investments? They must be more programmatic—that is, linked to a development strategy for the relevant country—have clear objectives, and span more than a single project. China's government and corporate leaders must establish performance metrics from the outset of engagements, provide appropriate and transparent roadmaps for achieving goals, and develop a way to measure outcomes. Depending on the project, the performance metric might be its impact on production, employment, the alleviation of poverty, market development, health outcomes, or student achievement.

Consider the fact that China has sent agricultural experts to Africa since the 1950s, basing its approach on the impact that hundreds of thousands of local extension technicians had on Chinese agricultural reform. Yet the country's current agricultural-extension efforts in Africa are small (with fewer than 1,000 experts on the continent), uncoordinated, and unsystematic. Several Chinese agricultural experts believe that these programs have had a negligible impact. Teaching formats range from classroom lectures to field schools, often without clear curricula or objectives. Generally, each African country decides on the technology, expertise, and training China should provide.

Such programs could prove valuable, but they would be more effective if planned and executed with a better understanding of specific African conditions and local issues. Other desirable features include relevant best practices and evaluation systems to measure a program's short-term impact (such as increases in productivity or the skills of farmers) and long-term, sustainable gains (such as higher levels of rural income).

Encourage more collaboration

While some believe that China wishes to go it alone in Africa, there is increased evidence to the con-

trary. China's engagement with African national and regional organizations and leaders on a variety of projects has significantly increased. A formal dialogue among donors is taking place in the OECD's Development Assistance Committee (DAC). Many NGOs, foundations, and academic institutions in China, Africa, and elsewhere are beginning to work together. China invited academics, African health officials, and international representatives to Beijing last December, for example, to attend an international roundtable on China–Africa health collaboration. The discussions could promote greater cooperation between China and other partners—through temporary staff transfers, joint missions, and pilot projects—in delivering health assistance to Africa.

Enormous opportunities exist for shared learning and improved models for programs in agriculture, health, and financial services, to name just a few fields. Collaboration also holds great promise in scientific R&D as China dramatically increases its spending and capabilities. Moreover, the impact of aid and investment projects run by China could be enhanced if it worked with third parties that can make things happen because of their local staff and contacts and deep understanding of

the countries and sectors where they operate. Closer collaboration between the Chinese Ministry of Agriculture or the China–Africa Development Fund and the Alliance for a Green Revolution in Africa,¹ for example, could identify opportunities for investment, aid, and trade.



China could catalyze the efforts of African countries to develop economically and lift their people from poverty. Let's move the debate beyond “good versus bad” and “China versus the West” to capitalize on the opportunity at hand. 

¹ An NGO founded in 2006 to help smallholder farmers.

Leila Ezzat
Emanation, 2002
Acrylic on paper
37 in x 50 in

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Almasargallery.com



The China–Africa business connection: An interview with the CEO of Standard Bank

Jacko Maree describes his experiences working with a Chinese investor—the giant Industrial and Commercial Bank of China.

**Michael Kloss and
Vikas Sagar**

Before 2007, Standard Bank Group, Africa's largest financial institution by assets, had done its fair share of international deals. Over the years, it had not only expanded northward into the continent from its base in South Africa but had also established a presence in Hong Kong, Russia, and South America. Still, Standard Bank could hardly be considered a high-profile bank on the world financial stage. All that changed in October 2007, when Standard Bank announced that it had sold a 20 percent stake to the giant Industrial and Commercial Bank of China (ICBC) for \$5.5 billion, the largest Chinese foreign investment at the time.

The deal is enormously important to Standard Bank, says Jacko Maree, the bank's chief executive officer since 1999, and it also has great symbolic significance for Africa, demonstrating China's growing business commitment to the continent. In this interview with McKinsey's Michael Kloss and Vikas Sagar, Maree reflects on the results of the deal with ICBC—the world's biggest bank by market capitalization at the end of 2009—China's increasing role in Africa, the continent's economic prospects, and how multinationals might approach doing business there.

McKinsey: *Globally, there's increased optimism and focus on Africa. Is it justified?*

Jacko Maree: We have taken the view for a very long time that Africa, coming off a low base, should grow faster than many other parts of the world. Not as fast as the "BRIC countries,"¹ but certainly faster than South Africa, where our head office is located, and definitely faster than the developed economies.

As a collective, the African economy is relatively small. The question is, while Africa as a continent may have higher growth, will you be able to earn enough to move the needle? There has to be a dose of realism in this. You may do very well in a small country, but the impact on your total earnings may not be that significant. However, there are also the obvious big growth opportunities within developing economies in sectors like food, infrastructure, telecommunications, commodities, and energy. There are also a number of African countries with vibrant and substantial consumer markets, such as Nigeria.

In a number of these countries, there are certain operational challenges that need to be met, so certain costs will be higher. If you're happy with the size of the opportunity, we think that the potential is there.

McKinsey: *What advice would you have for multinationals looking to do business in Africa?*

Jacko Maree: The most important question is, are you going it alone or are you going to work with partners? Sometimes having a local partner is really the most obvious way to go. Clearly, you always need advice from someone who understands the local environment. In a number of the countries in which we operate, we have chosen to work in formal partnerships. In some geographies, we have tried to position ourselves firstly as a local player and secondly as a multinational.

For major multinationals looking to expand on the African continent, a key question is whether you have sufficient resources to tackle the challenge. What

¹Brazil, Russia, India, and China.

we have found in a number of these countries is that, initially, you've got to use quite a lot of your own resources rather than rely on local skills. Over time, of course, that changes.

McKinsey: *Africa has a reputation as a risky place to do business. How should a multinational think about risk there?*

Jacko Maree: Whenever you go into developing countries, you are exposed to different risks from those you might be used to if you're sitting in London or New York and thinking in a developed-country paradigm. There are risks to doing business in Africa, but no more so than some of the Latin American economies or even Russia and Asia. The question is how to manage those risks once you've understood them. We spend a huge amount of time getting to grips with the particular risks that may occur in some of these countries and then try to mitigate them.

In Nigeria, for example, we own 50.1 percent of Stanbic IBTC Bank. The remaining shares are owned by the general public and the founder of IBTC. We

feel that the structure helps mitigate the risks because we have positioned ourselves as a local institution with local shareholders. In Russia, where we merged our bank with a very successful investment-banking operation called Troika Dialog in 2009, we were prepared to reduce our economic interest to 36 percent. Our view was that it was better for us to be in a strategic minority position because we think that improves our risk profile, not to mention the commercial benefits we gain from having teamed up with an excellent partner.

Understanding risk is more than just a financial concern. One has to be mindful of ensuring that you're seen to be helpful and relevant to the local economies rather than just extracting profits by providing a service. When you're dealing with developing countries, the issue of the social relevance of your company is completely different from when you're dealing with a developed economy. For banks, more so than other enterprises, the question that often comes up when you are visiting government officials or major corporate customers is: what are you doing for our country?

Jacko Maree



Vital statistics

Born August 30, 1955

Married, with 4 children

Education

Graduated cum laude with a bachelor of commerce in 1976 from Stellenbosch University

Earned an MA in politics, philosophy, and economics in 1980 as a Rhodes Scholar at Oxford University

Career highlights

Standard Bank

(1980–present)

- CEO, Standard Bank Group (1999)
- Managing director, Standard Corporate and Merchant Bank (1995)
- Managing director, Standard Merchant Bank (1991)
- Various finance positions (1980–90)

Fast facts

Serves as a director of Liberty Life, is a former chairman of the Banking Association South Africa, and is a former director of the International Monetary Conference

Obtained golf Blue at Oxford, was president of Johannesburg's River Club for five years, and is a member of the Royal and Ancient Golf Club, St. Andrews, Scotland, and of the Augusta National Golf Club, Georgia

Received the 2004 Wits Business School Annual Management Excellence award, the 2005 *Sunday Times* Business Leader of the Year award, and Moneyweb's CEO of the Year award in 2005 and 2006; was Most Trusted CEO in South Africa in Ask Africa's Trust Barometer study from 2007 to 2009

A bank cannot typically turn around and say, “Well, we’re just here to help you with your transactions or your financing requirements.” You have to be involved and committed to the communities in which you operate.

McKinsey: *What is Standard’s aspiration for expansion in Africa?*

Jacko Maree: We are trying to position ourselves as the “go to” bank for the African continent. As a growing financial-services group, you can build domestic businesses, and you can also build cross-border businesses. We are trying to do both. We are trying to build scale businesses locally and then use that platform to link those countries to other emerging markets in a banking sense.

The question is, where do you start? For obvious reasons, we started in southern Africa and expanded northward. We haven’t yet really entered French-speaking Africa. I have no doubt that, if our strategy remains successful, it will only be a matter of time before we do find ourselves in more countries. North Africa will probably be the last move for us because many of those countries probably see themselves as closer culturally and economically to the surrounding Mediterranean countries and the Middle East.

Because we are present in 17 African countries, we’ve got a significant enough base to position ourselves as a bank that can assist multinationals with the full spectrum of financial solutions across the continent. We have the ability to link emerging markets in Africa to our network in Argentina, Brazil, China, Russia, and Turkey, to name a few. You can’t do that if you’ve only got a small number of countries in your portfolio.

McKinsey: *Perhaps that is one factor that attracted the attention of the Chinese bank ICBC, which took a 20 percent stake in Standard—*

the biggest deal you’ve done. How do you assess the early results of the tie-up?

Jacko Maree: The linking of our two institutions had a significance way beyond the actual monetary investment by ICBC. Symbolically for Africa, this was extremely important. It was a \$5.5 billion investment by ICBC and, at the time, the biggest foreign investment by a Chinese company. It signaled that Chinese companies had substantial ambitions in Africa, which at the time, in 2007, took a lot of commentators by surprise.

In so far as the benefits for Standard Bank are concerned, clearly there was the initial one of raising capital. The investment was fortuitous, just ahead of the global financial crisis and the subsequent turmoil in the global banking system. There was an unquantifiable but very substantial benefit to Standard Bank of entering that period of global turmoil very well capitalized, and with a partner of the stature and size of ICBC as a 20 percent shareholder. This was particularly important to Standard Bank as we are a banking group that is fairly dispersed around the world and therefore susceptible to cross-border risks and to counterparty issues that many of the other South African banks were not exposed to.

When it comes to tangible business benefits, many of these come from major Chinese companies embarking on projects on the continent. A good example was a highly publicized deal toward the end of last year where a major power station in Botswana was being built by a Chinese construction company. The funding is, to a large extent, coming from China, but of course much of the domestic advice and financing is coming from ourselves because we have a bank in Botswana and strong structuring skills in Johannesburg. These sorts of opportunities wouldn’t have arisen had it not been for the link that we had with ICBC.

We are currently working on numerous projects across the continent in areas of commodities, infrastructure, power, and telecoms. Oil is an obvious sector where Chinese companies are investing or interested in doing so, and where we are providing either advisory services or on-the-ground services for them to actually complete the transactions.

So it will be very beneficial for us, but Rome wasn't built in a day. We reported in our results for the last year that we had incremental revenues of some \$78 million coming out of the ICBC relationship. That's not to be sneezed at, but we think this is just the tip of the iceberg.

McKinsey: *What differences, if any, have emerged in business practices between the Chinese and yourselves? Any surprises?*

Jacko Maree: No, not really. One of our group's competitive advantages is that we have for many years operated in many different countries. When you do that, you become attuned to the fact that you have to be sensitive to local cultures, practices and ways of doing business. In building relationships with our Chinese partners and their customers, we've really not found it particularly difficult. Of course, one has a language issue but we have managed to overcome that to a large extent.

McKinsey: *Have you learned to speak Mandarin?*

Jacko Maree: No. I haven't had the time, and it's very difficult! However, we have many Mandarin speakers working for Standard Bank in South Africa, elsewhere in Africa, and in Beijing. Language is an obvious problem but it's not that big in our view. We have found ICBC to be completely straightforward and extremely good partners. We haven't found significant differences in our business practices. Of course we have had to adapt when dealing with much smaller entrepreneurial companies on the continent where you can't expect the same level of professionalism. But certainly we

have found the major Chinese companies to be professional and smart.

McKinsey: *Are you spending much time in China?*

Jacko Maree: I visit there a few times a year. We have many people traveling back and forth on a range of issues, but if you want to get deals done, you've got to have deal-doing professionals on the ground. My visiting there is not going to make the difference. If you want to do business in China, you've got to be represented there at a very senior level. We made a strategic decision to relocate the head of our African businesses outside of South Africa to Beijing. Craig Bond is a member of our executive committee, and when we did the deal we said to Craig, "Go and live in Beijing." Craig is now our chief executive in charge of the ICBC strategic partnership and he's built an office of 20 professionals, who are Standard Bank employees. Their main purpose is to interface with ICBC and ICBC's major corporate clients.

McKinsey: *Some people have expressed concern about China's growing involvement in Africa. What's your view?*

Jacko Maree: I think that the Chinese involvement is overwhelmingly positive. In dealing with Chinese companies, it's pretty clear from the word *go* what they want out of a particular transaction. It is up to the local governments and businesses concerned to decide whether that is what they want or need.

In the case of ICBC's investment in Standard Bank, the South African government and the South African Reserve Bank had very clear ideas of what was good for South Africa. I think that it is important to set ground rules. To the extent that problems have arisen, they can often be traced back to the fact that perhaps the ground rules weren't clearly laid out in advance. Countries do have to think carefully about what they want out of their

relationship with China and Chinese companies. They come in with technology, skills, capital, and so forth, and a lot of that is what this continent needs. It comes back to what deals are negotiated.

Some press commentary presumes that Chinese companies are not doing business according to, let's call it Western norms. I think if you look at the way in which China has tackled some of the “green” issues coming out of Copenhagen,² you could argue that China is really on the front foot. Of course, there are examples of smaller Chinese companies where the conduct of business hasn't been exemplary. We've had no pressure from ICBC to do anything that we wouldn't have done ourselves. We are signatories to the Equator Principles,³ and ICBC supports that.

McKinsey: *Have your dealings with ICBC affected your view about emerging markets more broadly?*

Jacko Maree: We have always believed in emerging markets. We have had a presence in Russia and Brazil since the mid-'90s. So it's not as if emerging markets outside of Africa are new to us. Standard Bank has always had expertise in commodity financing, particularly in mining-related transactions. Many of those sorts of transactions occur in developing countries or emerging markets. Has the ICBC deal changed our perceptions of emerging markets? I think it's probably just heightened our belief that the skill set that we have is relevant to other developing countries.

We hold no competitive advantages in the developed markets of the world. We are a smallish bank on the global scene—ranked by market cap somewhere around number 60 in the world. But our skill set is relevant because South Africa has a world-class

financial sector and capital markets that can be benchmarked against any developed market.

A number of South African companies found themselves in the same position: quite large companies in a small domestic economy. Your alternatives are to pay dividends or to grow. If you're going to grow, you've got to look outside the borders of your country. If you ask who our role model is, I'd say it is the brewer, SABMiller. SAB grew in Africa, grew into Eastern Europe and then into a number of other emerging markets, and eventually earned the right to do a major deal. We've long admired SABMiller—they have the same sort of challenges that we do.

McKinsey: *The FIFA⁴ World Cup is being played in South Africa in June and July. What are visitors, particularly potential foreign investors, to make of the recent political turmoil in South Africa?*

Jacko Maree: What you've got in South Africa is a very robust democracy born out of extremely difficult times. Within this context we do have many extremely divergent views that are discussed and debated openly in a free press.

What we've really got to look at is the actual policies rather than some of the rhetoric from politicians or interest groups that one might be reading about in the newspapers.

You'll generally find that South Africa's policies have been pretty conservative and very sound. But as in many other developing countries, there are things that are unpalatable, such as high crime levels. Some of South Africa's other issues that need addressing include education challenges and the high incidence of HIV/AIDS. These are the major issues that the country is working on. [O](#)

²The December 2009 Copenhagen conference on climate change.

³Voluntary standards for the social and environmental aspects of project finance.

⁴Fédération Internationale de Football Association.



Odili Donald Odita
Fusion, 2006
Acrylic on canvas
96 in x 120 in

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Jack Shainman Gallery,
New York

Jackshainman.com

The case for investing in Africa

The continent is now growing much more rapidly than the OECD nations. It may well be on the cusp of a reversal of fortunes.

Paul Collier

Most international businesses are still not very aware of Africa's investment opportunities. Information costs are high: Africa is fragmented into many different countries, and even in aggregate the continent is a fairly small economy. For several decades, investor ignorance did not matter: with few exceptions Africa's economies were too badly run for there to be many opportunities for firms of integrity. But there has been a sea change—Africa is on the move. There will be ups and downs, but investors from the countries of the Organisation for Economic Co-operation and Development (OECD) who remain set in their ways may be missing a giant business opportunity if they fail to pay attention to the changes afoot.

The situation in Africa quietly began to change during the period 1995–2005. Profound macroeconomic reforms tamed inflation and opened economies to international trade. More patchily, the regulatory environment facing international business also improved. Public ratings, such as the World Bank's *Doing Business* surveys, enabled African governments to benchmark their performance and began to put pressure on those that were recalcitrant. As the global commodity boom built to its 2008 crescendo, many African countries were well positioned to harness the spike in their export revenues for growth beyond the resource extraction sector itself.

That upturn in national growth rates was mirrored in the increased profitability of companies operating in Africa. Indeed, three distinct sources of data indicate that returns on investment are higher there than in other regions. One was a comprehensive study of the publicly traded companies oper-

ating in Africa for the period 2002–07, mostly in the manufacturing and services sectors. It found that these companies' average return on capital was around two-thirds higher than that of comparable companies in China, India, Indonesia, and Vietnam. Another source, on the foreign direct investment of US companies, showed that they were getting a higher return on their African investments than on those in other regions. Finally, analysis of a series of surveys of several thousand manufacturing firms around the developing world found that, at the margin, capital investment had a higher return in Africa.¹

This was the scene in the years leading up to the global crisis. Although its origins had nothing to do with the continent, the crisis did not bypass Africa. Its effect was to collapse commodity prices—for example, the price of oil initially tumbled by more than \$100 a barrel. More subtly, the international appetite for risk collapsed, and since Africa is still generally viewed as the riskiest region, investors got scared; for example, international banks curtailed letters of credit to African exporters far more drastically than to those in other regions.

These effects were severe. However, with a few exceptions—inevitable in a region with so many countries—Africa weathered the economic storms well. Led by its two largest economies, South Africa and Nigeria, most countries had built prudent fiscal positions: in a remarkable break with its past, Nigeria had freed itself from debt and built up over \$70 billion of foreign-exchange reserves. Further, the adverse impact of the crisis through commodity prices lasted less than a year for Africa. Globally, commodity prices rapidly bounced back

¹ Paul Collier and Jean-Louis Warnholz, "Now's the time to invest in Africa," in "20 breakthrough ideas for 2009," *Harvard Business Review*, January 2009.

and seem to have stabilized around levels markedly higher than those in the decades before the boom, underwritten by growing Asian economies and their corresponding need for commodities.

Revenues from commodity exports have been augmented not just by high prices but also by the resource discoveries that high prices have triggered. Yet the recent discoveries are merely the beginning: the scale of what is likely to happen is not widely appreciated. As I show in *The Plundered Planet*, Africa is the last major region on Earth that remains largely unexplored. In the long-explored countries of the OECD, the average square kilometer of territory still has beneath it around \$114,000 of known subsoil assets, despite two centuries of intense extraction. In contrast, the average square kilometer of sub-Saharan Africa has a mere \$23,000 of known sub-soil assets. It is highly unlikely that this massive difference is due to a corresponding difference in what is actually there. Rather, the difference in known assets is likely to indicate an offsetting difference in what is awaiting discovery.

It is reasonable to suppose that what is actually under the soil in the average square kilometer of Africa is at least as valuable as what is known still to be available in the OECD. An implication is that once these untapped resources have been discovered, Africa's commodity exports will be around five times their present level. In turn, this has three profound implications. One is that many of the countries in which resources are discovered will be those that currently are not significant resource exporters: the economic map of Africa will change quite drastically as new opportunities open. A second is that such a radically higher level of commodity exports across the region will support correspondingly larger economies. The final implication is that in the process of getting to this much higher level, Africa will have a prolonged phase of rapid growth.

Now for the reality check. During the commodity booms of the 1970s, Africa also had a wave of resource discoveries. With a few exceptions, most notably Botswana, these opportunities were not harnessed for transformative growth. Indeed, the more common experience was an ugly and costly political contest for control of the revenues. If history repeats itself, the forthcoming much larger wave of resource discoveries in Africa will leave a legacy of scarred landscapes and scarred lives.

Yet the contrast between Nigeria's dysfunctional management of its first oil boom of 1973–83 and its brilliant management of the second boom of 2003–08 cautions against the gloomy cynicism that until recently bedeviled investor thinking about Africa. The road to economic transformation is undoubtedly likely to be a bumpy one, but many African societies have learned both from their own histories and from the prosperity of other once-poor countries. Unlike the externally dictated structural-adjustment programs of the 1980s, the key struggles over economic policy will be internal to African societies. They will not all be won, but nor will they all be lost: some societies will decisively adopt progrowth economic strategies.

To date, Africa has lacked the spectacular regional role models of economic success that so benefited Asia. But it is now starting to get them. Even in Rwanda, a landlocked, crowded country lacking in natural resources, a leadership committed to economic transformation has been able to sustain a growth rate of 10 percent. In some of the countries with more favorable fundamentals, even faster growth rates will be sustained. Such successes will have a profound influence on the neighbors, just as occurred in Asia.

As in Asia, I doubt that there will be a close correspondence between the struggles for democracy and the struggles for economic transformation. The struggles for democracy do indeed have an impor-

To date, Africa has lacked the spectacular regional role models of economic success that so benefited Asia. But it is now starting to get them.

tant economic dimension: many African rulers have accumulated excessive personal power and abused it to sacrifice the common good of national prosperity for narrow sectional self-interest. But more recently, some African leaders, such as President Museveni of Uganda, President Kagame of Rwanda, and Prime Minister Meles of Ethiopia, have built strong credentials for a commitment to the economic transformation of their societies while being somewhat hesitant democrats. Some of Africa's coming economic successes will be in societies that have won the struggle for accountable democratic government. But others will be in societies in which autocratic leaders have become ambitious for national goals rather than merely for power and privilege; expect some African repetitions of Malaysia's experience.

Africa's economic potential extends well beyond commodity exporting. Per capita GDP in China is already above the global average, so its days as the low-wage factory of the world are limited. Africa will soon be the last remaining major low-wage region. It has an enormous coastline, more proximate to both European and North American markets than Asia is. Over the past three decades, offshoring

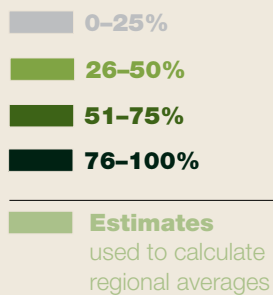
shifted labor-intensive manufacturing from the OECD countries to Asia. In the next decade, expect the same process to begin shifting these activities from Asia to Africa. Contrary to fears that the "Dutch disease"² must inevitably make nonresource exports uncompetitive, the Asian examples of Malaysia and Indonesia have demonstrated that successful exporting of natural resources can be entirely compatible with successful exporting of light manufactures.

From African independence, beginning in the early 1960s, until around the turn of the millennium, the OECD prospered while Africa stagnated. A legacy of this divergent experience is that OECD investors are skeptical of Africa's future. Their skepticism is not shared by the new entrants to international investment, who missed this sorry phase of African economic performance. It may be that Africans will use their history to learn from it, while OECD investors end up being trapped by it. Africa may be on the cusp of a reversal of fortunes. Indeed, Africa is now growing markedly more rapidly than the OECD. A future of continued rapidly rising prosperity for the OECD looks less assured than it did before the global crisis, whereas several decades of high growth look to be quite a likely scenario for Africa. At present, the typical investment portfolio has massive exposure to the OECD countries and negligible exposure to Africa. This looks unlikely to be appropriate for the coming decades. ○

² During the 1960s, the export of large quantities of newly discovered natural gas from the Netherlands led to an increase in the value of its currency and therefore made other Dutch exports less competitive in international markets.

Counting Africa's unbanked

Percentage of total adult population who do not use formal or semiformal financial services



Total
2,455 million adults

53%

**Alberto Chaia,
Tony Goland,
and Robert Schiff**

Fully 80 percent of sub-Saharan Africa's adult population doesn't use formal banks or semiformal microfinance institutions to save or borrow money—the highest such proportion anywhere in the world. Moreover, our research finds that almost 90 percent of the world's 2.5 billion unserved adults live in Africa, Asia, Latin America, and the Middle East.

Unserved, however, does not mean unservable. The microfinance movement, for example, has long helped expand credit use among the world's poor—

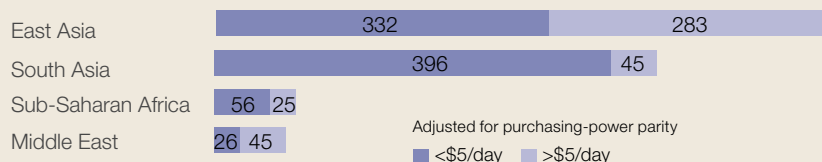
reaching more than 150 million clients in 2008 alone. Similarly, we find that of the approximately 1.2 billion adults in Africa, Asia, and the Middle East who use formal or semiformal credit or savings products, about 800 million live on less than \$5 a day.

Large unserved populations represent opportunities for institutions that are able to offer an innovative range of high-quality, affordable financial products and services. Moreover, with the right financial education and support to make good choices, lower-

The unbanked are not unservable

Yet serving adults who live on less than \$5 a day is not only possible at scale—to a large degree, it is already happening.

Adults who use formal or semiformal financial services, millions of adults



Central Asia & Eastern Europe
193 million adults

49%

East Asia,
Southeast Asia
876 million adults

59%

South Asia
612 million adults

58%

Sub-Saharan Africa
326 million adults

80%

Middle East
136 million adults

67%

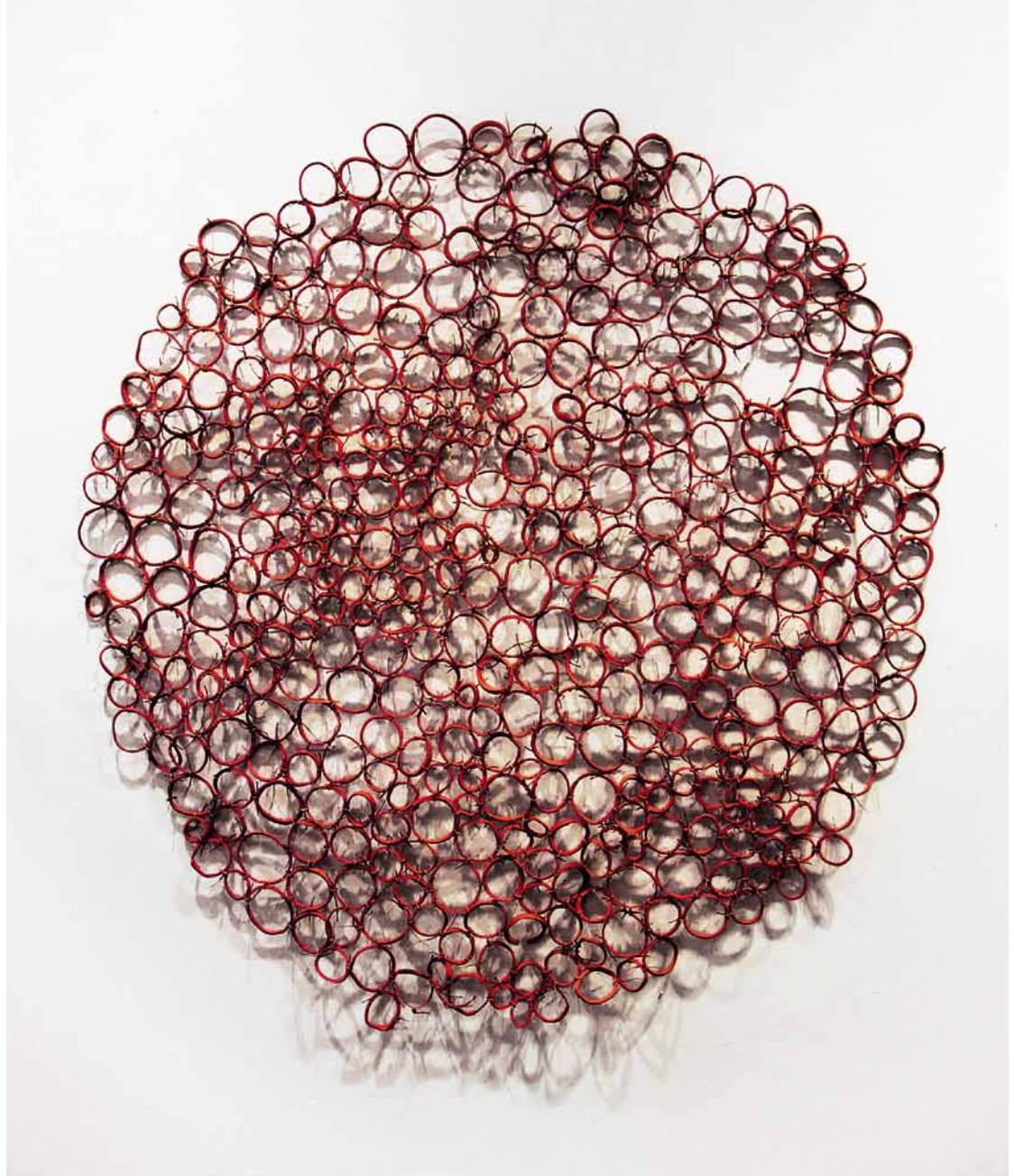
income consumers in Africa and elsewhere will benefit from credit, savings, insurance, and payments products that help them invest in economic opportunities, better manage their money, reduce risks, and plan for the future. 

Source: McKinsey research conducted in partnership with the Financial Access Initiative (a consortium of researchers at New York University, Harvard, Yale, and Innovations for Poverty Action); we relied on financial usage data from Patrick Honohan, "Cross-country variation in household access to financial services," *Journal of Banking & Finance*, 2008, Volume 32, Number 11, pp. 2493–500.



To read the full report, *Half the World is Unbanked*, visit sso.mckinsey.com/unbanked.

Alberto Chaia is a principal in McKinsey's Mexico City office, **Tony Goland** is a director in the Washington, DC, office, and **Robert Schiff** is a consultant in the New York office. Copyright © 2010 McKinsey & Company. All rights reserved.



Nnenna Okore
Anyanwu Abani, 2008
Clay and rope
137 cm x 137 cm

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Gallery, London

Octobergallery.co.uk

Capturing Africa's business opportunity

In the aftermath of the global crisis, Africa no longer seems uniquely risky. The opportunities are huge.

Donald Kaberuka

Africa was among the fastest-growing parts of the world between 2001 and 2008, with average growth of 5.6 percent a year. While the commodity boom played a role, stable macroeconomic conditions coupled with structural reforms—including the privatization of state-owned enterprises and lowered barriers to competition—underpinned the impressive growth. It was accompanied by large amounts of foreign direct investment (which more than tripled during these years), including inflows from the Gulf countries and from emerging Asia (China and India).

Resource-rich countries such as Nigeria and South Africa received most of the foreign direct investment during the decade, but new patterns have emerged in the last three to four years. In eastern and northern Africa, for example, new investment has arrived in nonresource sectors such as tourism, manufacturing, financial services, telecommunications, and construction. Also, a second tier of smaller but high-performing countries, including Ghana, Namibia, and Zambia, has caught investors' attention.

In sum, foreign investment has diversified in recent years as a number of African governments undertook structural reforms to make their economies more attractive. But to sustain foreign investment inflows, governments must pursue measures for strengthening governance and legal frameworks, building financial markets, investing in human capital, developing infrastructure, and deepening regional integration.

Overcoming the global recession

Even though Africa was hit by the global financial and economic crisis, and growth slowed sharply

in 2009, to 2.5 percent, the continent avoided the recession. The impact of the crisis varied across regions and countries, though on the whole the decline in growth was less severe than expected, allowing for a faster recovery. In sharp contrast to other parts of the continent, southern Africa has been directly affected by the global crisis because its resource-rich countries are dependent on exports and subject to the “neighborhood effect” emanating from South Africa. But many of these countries should recover quickly as commodity and financial markets rebound. The group of middle-income countries in North Africa, despite their close integration with the European Union, fared much better, partly because of their less open capital accounts and more diversified economies.

Countries with built-up reserves implemented stimulus packages and measures aimed mostly at easing supply-side bottlenecks. African policy makers have resisted the protectionist tendencies that often accompany a crisis of this magnitude. Instead, most countries maintained a prudent macroeconomic stance during the crisis, steered clear of protectionist measures, and in several cases accelerated reforms to create a favorable investment climate. Some countries, such as Botswana, Ghana, and Seychelles, took advantage of financial-aid packages that helped them adjust their economies significantly.

Having weathered the downturn, the continent faces the challenge of returning quickly to high and sustainable growth. In March 2010, the African Development Bank forecast 4.5 percent real GDP growth for Africa in 2010 and 5.2 percent in 2011, in line with the global recovery. While these growth rates are below pre-crisis levels, the

recovery is broad-based, with more than 15 countries projected to grow by upward of 5 percent in 2010.

It remains to be seen if the recovery in the advanced economies, a key factor in Africa's own recovery, will be robust and if adequate financial aid to low-income countries follows in a timely manner. So it is even more important that African countries create an economic and business climate to attract stable private capital flows.

Challenges and opportunities ahead

While Africa's growth from 2001 to 2008 marked a turnaround relative to the previous three decades, it was more subdued when measured in terms of per capita GDP growth. In this respect, Africa still lagged behind most parts of the world, and the income gap between Africa and developing countries in other areas closed only slightly. The key question is when Africa's low-income countries will reach a high, sustainable growth path that would allow them to narrow the income and productivity gaps with the more advanced economies.

Poor infrastructure is a major impediment to growth. A recent study¹ of 24 countries, conducted by the African Development Bank and its Africa Infrastructure Country Diagnostic (AICD) partners, estimated that the total cost of bridging Africa's infrastructure gap over the next decade will be about \$93 billion a year, with about 40 percent in the power sector. Furthermore, it found that the continent has the weakest infrastructure on the planet, with Africans in some countries paying twice as much for basic services as people do elsewhere. The study argues that a well-functioning infrastructure is essential to Africa's economic performance and that reducing inefficiencies and waste could result in major improvements in African lives.

Despite the significant progress in creating an environment for private-sector development, more

can be done to achieve high and broad-based growth in Africa. Differences across African countries notwithstanding, the African Development Bank's experience suggests that critical reforms would enhance Africa's competitiveness:

- Governance and legal frameworks should be strengthened, including property rights, which facilitate transparency and accountability in the management of public resources.
- Encouragement should be given to the development of financial markets and the creation of access to credit for private-sector projects, which require funding from sound banking sectors, well-regulated stock exchanges, and venture capital.
- The quality of human capital should be enhanced—in particular, by improving the quality of tertiary education and stemming the loss of talented citizens to emigration. The gender gap in education could be closed further.
- The infrastructure gap should be narrowed through the development of energy and transportation, which are the main obstacles to competitiveness in Africa and put African entrepreneurs at a disadvantage to the major competitors in Asia. Challenges in the energy sector are particularly complex, requiring the harmonization of the activities of donors and countries, as well as the creation of proper institutional and legal frameworks.
- Regional integration to create economies of scale and to leverage the strengths of individual countries should increase. Power pools, transport corridors, and cross-border climate change problems are among the areas to be addressed.

In addition, Africa's fragile states face unique challenges. Given these countries' weaknesses and market failures, the development of a vibrant

¹ Vivien Foster and Cecilia Briceño-Garmendia, eds., *Africa's Infrastructure: A Time for Transformation*, Agence Française de Développement and the World Bank, 2010.

private sector cannot be left to free markets alone. Experience in many countries shows that an improving business environment is just one condition for private-sector growth. The problem is that in countries with small productive bases, private-sector development often involves entering into completely new activities and hence incurring large fixed costs and risks, which private actors may not want to shoulder alone. Industrial policy aimed at encouraging the most profitable activities and easing the constraints to productive entrepreneurship can facilitate the private sector's takeoff.

The African Development Bank and other multilateral institutions have done their share by working with investors and recipient governments to improve Africa's business climate. To demonstrate that successful projects can be undertaken in African countries, the bank has raised its capacity to finance private enterprises and public-private partnerships. During the past three years, it has approved nonsovereign financing (including about 15 percent in equity) totaling \$4.7 billion for 80 projects, primarily in infrastructure and financial services. This financing, with its typical multiplier of about five, has helped mobilize \$23.5 billion from private and multilateral investors. Examples of such flagship infrastructure operations financed by the bank include a power generation, transmission, and distribution project in southern Africa, two submarine cables along the east and west coasts of the continent, and two communications satellite projects.

Africa continues to offer numerous opportunities to investors in the post-crisis world, with the options as varied as the countries. On the one hand, some, such as Botswana, Mauritius, Morocco, and South

Africa, have investment-grade ratings on the sovereign and corporate levels. On the other, certain countries perform below their potential but offer some highly attractive projects in mining, pharmaceuticals, and telecommunications. While minerals, particularly hydrocarbons, will most likely attract the bulk of the investment in the medium term, other sectors with growth potential include renewable energy, financial services, and food production. These sectors have registered rapid growth in the last five years, largely because of Africa's rising urban population. Growing global demand for food and the potential of Africa's land make the agricultural sector attractive for investment. The telecommunications sector has continued to draw investment despite the crisis, given Africa's large potential market and the limited impact of the crisis on demand.

Over the last ten years, macroeconomic and governance reforms on the continent have changed the institutional context of social and infrastructure development markedly, including the roles of various actors. Projects and sectors that in the past would have been entirely funded, owned, and operated by the public sector now involve partnerships with the private sector. The private sector invests in development and helps secure financing, diversify risk, and bring in management know-how for such projects. The reassessment of African risk in the aftermath of the global financial and economic crisis is creating a unique window of opportunity for making the continent an attractive place for profitable investment. ○



Bayo Iribhogbe
Gathering 310, 2009
Oil on canvas
76 cm x 46 cm

© Courtesy of the artist

Bayostudio.com

Toward a
well-governed Africa

A democratic, prosperous, and peaceful Africa is now within sight.

Mo Ibrahim

Africa is blessed with an abundance of resources, both natural and human. The governance challenge is to harness these resources to transform the living standards of people across the continent. It is for this reason that I launched the Mo Ibrahim Foundation in 2006. We aim to stimulate debate about governance in Africa and to foster excellence in African leadership. Our core initiatives include the Ibrahim Index of African Governance, a comprehensive ranking of African countries according to governance quality. The index was designed as a tool to help civil society and government monitor national progress.

The premise behind our work is an acute awareness of Africa's potential: a youthful population, 30 percent of the world's mineral reserves, and a wealth of renewable-energy sources. Yet we continue to underperform and fail to realize our potential. The lack of development progress during the past 50 years can be attributed only to a failure of governance and leadership on our continent.

What Africa requires is excellent leadership that can entrench good governance at an institutional level. This goal requires a broader conception of good governance, which moves beyond the traditional emphasis on elections and legitimacy to an understanding of the components of a well-governed society. The index currently aggregates more than 80 outcome-oriented indicators; the foundation looks at the on-the-ground reality for citizens rather than at governments' claims, intentions, or spending. Moreover, citizens' experiences are assessed across the fullest range of public goods and services—from human development (poverty, health, education) to the rule

of law and from economic opportunity to physical security. It is worth noting that in measuring outcomes for citizens, we make no distinction whether services are delivered by governments, the private sector, or nongovernmental organizations (NGOs).

This, then, is our definition of good governance: the successful delivery, by government or nonstate actors, of those public goods and services that citizens have a right to expect. By producing a robust, data-driven analysis to measure progress against this definition, we help citizens enter into a more constructive dialogue with the leadership and governments to assess their own performance more accurately. Encouragingly, our index has shown a broad upward trend in governance performance since its inception, so we can confidently assert that governance in Africa is improving.

Producing this annual index is a challenge, given the weakness of most national statistical offices in Africa. For example, we were forced to drop poverty indicators from our index because the available data did not meet our reliability criteria. This problem raises some interesting questions. How do you manage a developing country without reliable poverty data? How do you track progress toward the United Nations' Millennium Development Goals, the first of which is a pledge to halve extreme poverty? We are working with other stakeholders to begin solving this data problem, but any solution will be slow and costly.

In addition to tracking the progress of governments, we recognize excellence in African leadership by offering an annual prize for exceptional performance in office. The Ibrahim Prize for Achieve-

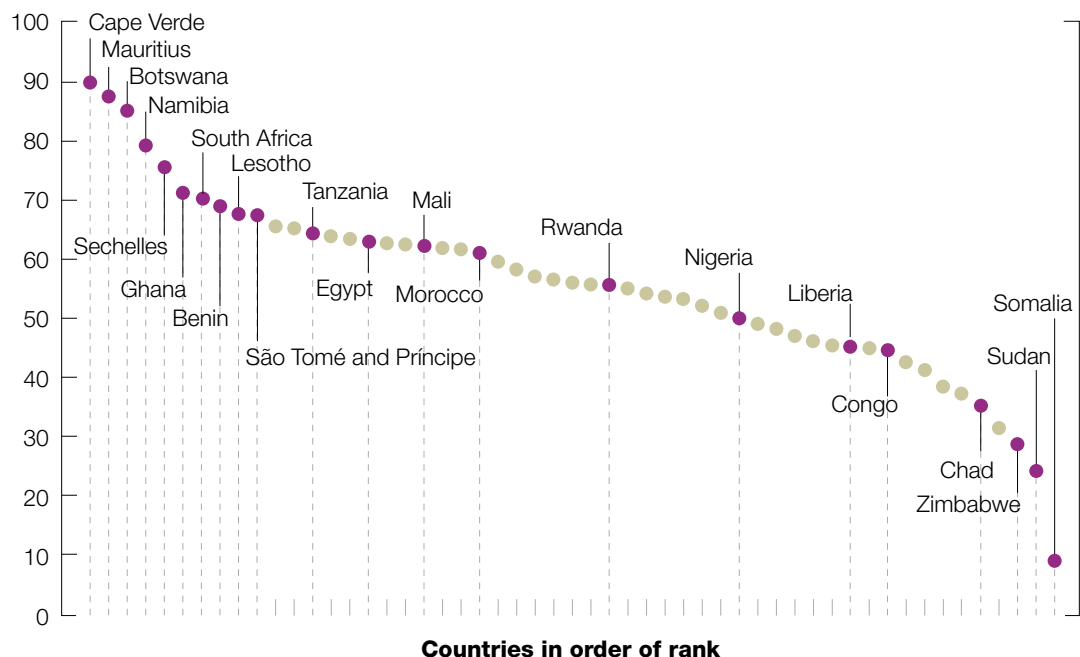
ment in African Leadership is awarded to an African executive head of state or government who has been elected democratically and leaves office within the constitutionally mandated term.

Our first three laureates—Joaquim Chissano (Mozambique, 2007), Festus Mogae (Botswana, 2008), and Nelson Mandela (South Africa, honorary)—exemplify the kind of leadership that Africa is capable of producing. President Chissano spent his term in office negotiating a peaceful settlement to Mozambique's long-running conflict and then initiating the process of reconciliation and reconstruction. His time since leaving office has been dedicated to mediating conflicts, including those in northern Uganda and Madagascar. President Mogae, building

on the solid foundations of his predecessors' work when Botswana's HIV prevalence rate was among the world's highest, demonstrated how natural resources can be a blessing to Africa instead of a curse. His work since leaving office has continued to focus on HIV/AIDS and on the governance of natural resources, and he is one of the UN secretary-general's special envoys on climate change. The career of President Mandela is well known to all.

The achievements of these men, in the most challenging of circumstances, are too often overshadowed by the continent's leadership failures, which meant that African presidents became synonymous in the media with despotism. It is important, however, to understand the political context. Most African countries gained independence at

Ibrahim Index of African Governance: Safety and rule of law, country's rank on a scale of 1 to 100, where 100 is the best possible score (selected countries named)



the peak of the Cold War—a devastating concurrence. While African political institutions were still weak, the colonial norms of autocratic leadership still prevailed, and the values of citizenship had not yet been established. Furthermore, leaders were courted by superpowers engaged in a quest for both resources and strategic allies. This exacerbated Africa’s “big man” culture and allowed corruption to flourish. The inevitable cost of that ideologically oriented external support was a failure to develop institutions, infrastructure, and the economy, as well as the tragic loss of millions of African lives.

It is no coincidence that from 1989 onward, Africa has experienced its most significant period of political liberalization since the independence movements of the 1960s. Between 1989 and 1991, more than 20 countries encouraged greater political participation by changing their constitutions or political practices. In the absence of the corrosive influence of the superpowers, the continent has been given another chance to build its institutions and develop.

The first decade of the present century saw the creation of the African Union (in 2002) out of the former Organization of African Unity. Regional Economic Communities are also gaining in capacity and clout, and the principle of noninterference in the affairs of neighboring states has been replaced by adherence to international norms. The recent coup in Guinea¹ and the recent unconstitutional conduct of Niger’s president² have led to the expulsion of both countries from ECOWAS (the Economic Community of West African States). Among other things, ECOWAS provides substantial numbers of peacekeepers in conflict zones throughout the continent. Governance at the continental level is improving and reinforcing the positive trend at the national level.

We are also witnessing the dramatic rise of African civil society—from media to parliaments to

community-based organizations. At independence, all African governments held a monopoly over broadcast media. Today the situation has completely changed. Almost every nation in Africa has private media organizations, and laws governing freedom of the press and freedom of expression have been written into the majority of African constitutions. The Democratic Republic of the Congo has over 150 private commercial radio stations.

The unprecedented growth of community organizations has educated citizens about their rights and responsibilities and mobilized civil society to demand more accountable government. Afrobarometer, an African-led opinion-polling initiative, recently found that in the 19 countries where it conducts surveys, 65 percent of the respondents reported attending community meetings and 55 percent were active in joining with others to raise issues. Afrobarometer also found that 70 percent of Africans support democracy and that 62 percent believe they should question leaders’ actions.

What’s more, the past decade has seen mobile telephony revolutionize Africa. By 2009, there were 400 million mobile-phone subscribers where there had previously been very few functioning landlines. The ability to communicate freely, easily, and cheaply has undermined the last vestiges of state control of information. Moreover, the availability of mobile telephones is intersecting with the rise of African civil society in unforeseen ways.

In Zimbabwe, for example, citizen election monitors visited polling stations across the country during the presidential election of 2008 and took photographs of the preliminary results there. Zimbabwean electoral law dictates that these preliminary results must be posted outside every polling station. They were then sent, by citizen groups via mobile phones, to a centralized database that produced a total. This information was instrumental in ensuring that the government was

¹ In December 2008, Captain Moussa Dadis Camara led a violent military coup after the death of Guinea’s dictator Lansana Conté.

² Niger’s president Mamadou Tandja attempted to extend his term of office in 2009— attempts that were rejected by both the parliament and the judiciary. Early this year, he was overthrown by a coup d’état.

not able to completely falsify the election result. During the violence after the 2007 election in Kenya, a brand-new tool for crisis mapping was created: ordinary citizens could send text messages about violent incidents that were then cross-checked, verified, and posted on an online map.

Crucially, the communications revolution and many of the major civil society developments were accompanied—and driven—by a large increase in the number of people able to take advantage of these changes. Africa's much-anticipated middle class is finally becoming a reality as more and more Africans escape the poverty trap and enjoy a greater degree of physical and financial security. These are the people who will further Africa's development; educated and hard-working, they are in a position to demand change and to know what changes they should be demanding.

We now find ourselves in a time when democracy is the accepted governance norm. Even governments that came to power by undemocratic means want to demonstrate their democratic credentials. While elections are by no means a proxy for a well-governed country, they are an important milestone in the transformation of Africa. It is clear that we are making sustained progress toward better governance on the continent and are now closer than ever to our shared goal of a well-governed, prosperous, and peaceful Africa. ○

We are witnessing the dramatic rise of African civil society—from media to parliaments to community-based organizations.

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Helping Africans to jump-start their industries



Painted by A. Jonas

Tinga Tinga art from Tanzania
Tingatingastudio.com

Three practical steps to better health for Africans

A new model to make care more accessible to Africa's people is not only possible but affordable.

**Tim Knapp,
Ben Richardson,
and
Shrey Viranna**

Despite improvements in recent years, the health of the vast majority of sub-Saharan Africans remains in jeopardy. The figures are sobering. One in six children born in the region today will die before age five. African women face more than 100 times the risk of maternal mortality than do women in the developed world. And the average life expectancy in sub-Saharan Africa is a mere 51 years. Sadly, most countries in the region appear unlikely to meet the United Nations' Millennium Development Goals for health,¹ let alone to address significant chronic issues beyond their scope.

The fundamental problem is a pervasive lack of access to primary health care. Conservative estimates suggest that four in ten people in sub-Saharan Africa have no access to medical facilities or personnel. Our experience in the region suggests that the actual figures are often much higher. Moreover, because of Africa's vast distances and large rural populations, solving its access problem using only traditional clinics staffed with doctors and nurses would be prohibitively expensive and require decades to accomplish.² Meanwhile, millions of Africans would continue to suffer from diseases that are relatively simple to prevent, treat, and cure.

This need not happen. Our work in recent years suggests that a combination of three delivery approaches could catalyze Africa's health systems and boost access across the continent, thus dramatically improving the lives of its people. The keys are to employ community-based health officers who would provide essential primary care

at the village level, to adopt mobile phone-based "telemedicine" approaches that connect health officers and rural patients with specialized care, and to create networks of mobile health clinics that transport diagnostics and other technologies to remote places. Together, these approaches could quickly save many lives at relatively low cost—about \$2 to \$3 per person a year, compared with about \$8 for traditional clinics.

No access

Access to primary care drives health outcomes. Here's how: quality access brings treatment and prevention; with treatment and prevention comes education; and with education comes demand. Greater demand for health care, in turn, creates more opportunities for successful and timely treatments that boost demand still further. All of this leads to healthier populations and saves lives.

This cycle is broken across much of sub-Saharan Africa, however, since access to health care is limited or nonexistent. Only 60 percent of the region's population has even nominal access to health facilities, and the effective figure is often much lower after you factor in the number of doctors, actual access to drugs and equipment, and the productivity of health workers. In Tanzania, for instance, fully 80 percent of the people will never see a doctor in their lifetimes.

To see what might be done, we studied the experience of eight countries³ that have improved on more than one of the United Nations' Millennium

¹ Among other social, educational, and health targets, the United Nations seeks to reduce child- and maternal-mortality rates and drastically reverse the spread of HIV/AIDS and malaria by 2015. For details, see un.org/millenniumgoals.

² A 2007 analysis by our McKinsey colleagues found that meeting sub-Saharan Africa's need for health workers solely using traditional doctors and nurses would require about 600 additional medical and nursing schools and take more than two decades to train the requisite numbers of personnel. See Michael D. Conway, Srishti Gupta, and Kamiar Khajavi, "Addressing Africa's health workforce crisis," mckinsey-quarterly.com, November 2007.

³ Bolivia, Brazil, Ethiopia, Iran, Peru, Rwanda, Uganda, and Vietnam.

Development Goals for health. Along the way, we interviewed upward of 100 health experts, including African health ministers, academics, specialists from health organizations, and representatives of donor agencies. Notably, we found that each of the eight countries (regardless of income level, geography, or political system) had succeeded by delivering a thorough yet pragmatic range of primary-care services⁴ to the “last mile” in rural areas.

Encouraged by what we learned, we next looked for novel ideas that might extend these successes. The effort led us to examine 100 or so delivery methods being explored by private, public, and nonprofit groups around the world. From these, we identified the three most promising approaches for Africa.

A new model

While there is no “silver bullet” solution, our work suggests that a model combining local health officers, telemedicine, and, where possible, mobile clinics could help African countries leverage their existing health systems to scale up access to primary health care quickly, effectively, and cheaply. While the model’s individual components aren’t new, together they could help revolutionize health care in African and other low-income countries.

Local health officers

Africa suffers about one-quarter of the world’s burden of disease yet has barely three percent of its health workers. By complementing standard medical doctors with less intensively—though *professionally*—trained local health officers who serve their home communities, African countries could dramatically improve access to health care. Several practical lessons emerged from our research.

- Successful programs hire local women as health officers whenever possible. Rural women are perceived as more trusted (and trustworthy) than men by other rural women, and women are already the focal point of many health initiatives, including reproductive ones. While an ideal candidate would be well educated, health officers need only be literate, with a primary education. Countries that have tried to relocate more skilled urbanites to rural areas have struggled both to hire and retain them.
- Training will vary according to the specifics of a country’s program but should include about 9 to 12 months of formal instruction (classroom and field work) paired with practical apprenticeships to build comprehension, confidence, and independent work habits. Supplemental training is essential. In Bangladesh, for instance, BRAC⁵ complements its basic training with monthly refresher courses to keep health workers current on best practices in treatment and prevention, as well as to teach new skills.
- Health workers should have manageable territories—roughly one health officer for every 1,000 to 1,500 people. This ratio ensures that workers can visit patients regularly to monitor them, check compliance, and follow up over time. Bigger territories jeopardize a worker’s ability to serve and build trust with patients.
- Local health officers must be paid, with compensation ranging from perhaps one-sixth of an average nurse’s salary to 125 percent of the country’s average salary. Volunteer models suffer retention problems and are unlikely to be sustainable. Indeed, Ethiopia’s decision to pay its health extension workers (after initially treating them as volunteers) helped it add 30,000 of them in just five years.

⁴The activities of the eight countries were consistent with the Declaration of Alma-Ata, adopted at the International Conference on Primary Health Care in Kazakhstan in 1978, which called for effective action to implement a universal standard of primary care. The principles—broad-based care covering the essential preventive and curative needs of local populations—are relevant today and were reendorsed in the 2008 World Health Organization report *Primary Health Care: Now More than Ever*.

⁵BRAC (Building Resources Across Communities), a nongovernmental organization based in Bangladesh.

- Health services should be focused enough to be manageable and affordable yet broad enough to cover a range of essential needs. These will include first aid, basic preventive and diagnostic services, the distribution of materials (say, nutritional supplements or condoms), and essential curative care—as well as the monitoring and, occasionally, treatment of chronic conditions. If the services provided are too narrow, patients will ultimately disregard them. Furthermore, services must be offered at low cost. Small out-of-pocket costs for drugs appear to be bearable, but charging higher sums for services, drugs, and other supplies appears to be impossible on a large scale, at least today.
- Programs should aspire to an eight-to-one ratio of health workers to supervisors. At these levels, a supervisor can accommodate often lengthy travel times yet still meet with workers at least two to four times a month. In our experience, this level of contact gives health workers enough time to sharpen their skills and even to start viewing their positions as promising careers. (Our work in Tanzania suggests that career development can be more important than financial considerations to health officers.) Best-practice programs will focus on supervision and performance management—using checklists and other simple tools to keep guidance fair and thorough—while striving to create opportunities for professional growth.

By applying these best practices and employing groups of local health officers, African countries could address the bulk of the most important clinical conditions they face. Furthermore, meeting this goal would require just a single local health officer per every 1,000 to 1,500 people, at a cost of about \$1 a year per capita. This staffing level would give patients more than three meaningful

interactions a year with trained medical personnel—a dramatic improvement over the status quo.

Telemedicine

Once African countries establish a critical mass of local health officers to serve as first responders, they could harness the power of mobile telephony to dramatically increase the scope of more extensively trained health workers, such as doctors and nurses. The technology is readily available. In fact, most people in sub-Saharan Africa already have access to mobile phones through friends, family, or group sharing agreements. Moreover, typical African countries have 2G and 3G data service and coverage rivaling that of the United States, often with better reception.

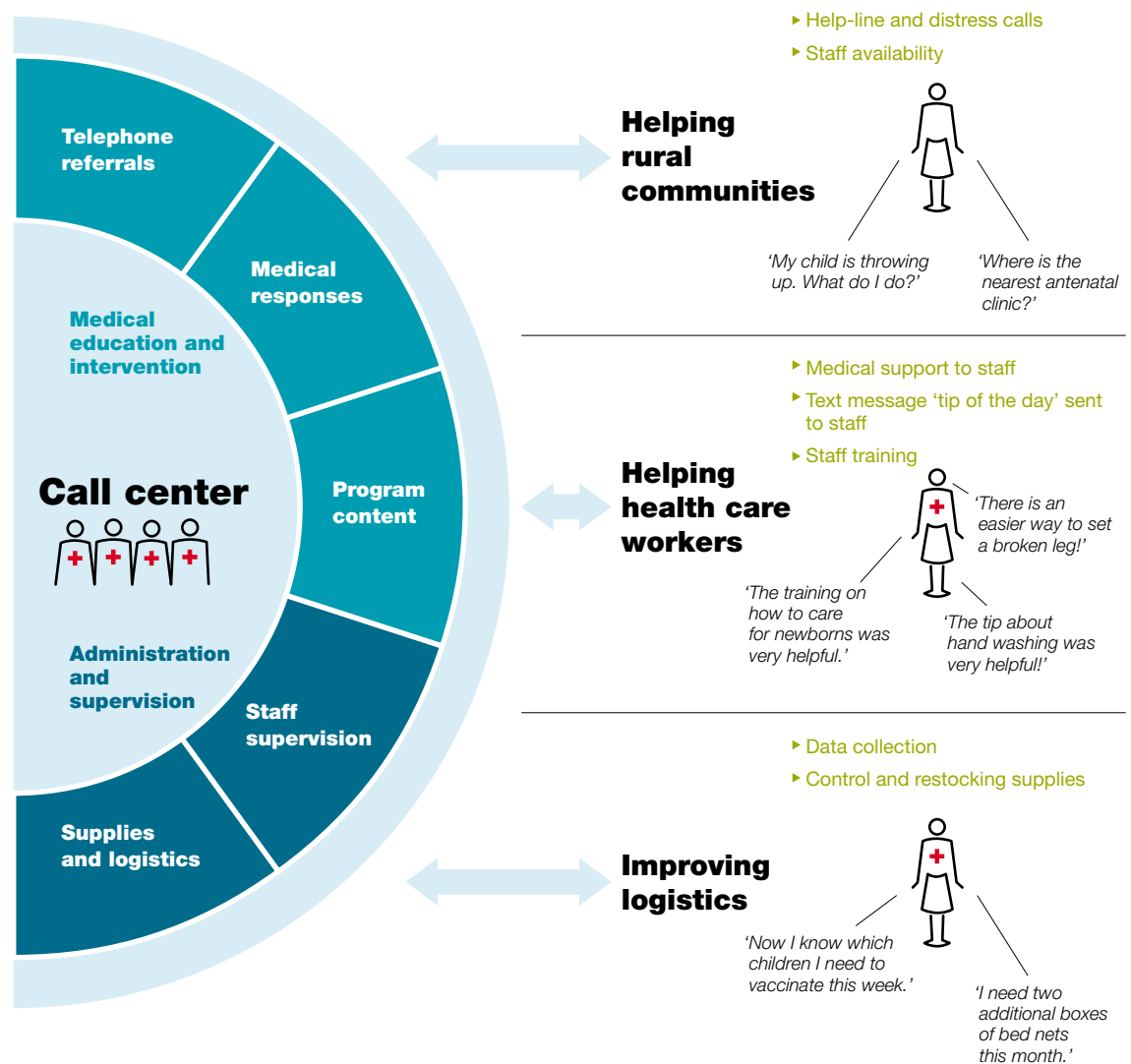
A successful model, we believe, would employ urban call centers staffed by clinical officers,⁶ nurses, and doctors. Instead of serving patients directly, these centers would act as hubs that increase the impact of local health officers by providing them with advanced clinical support (exhibit)—for example, in making diagnoses in the field. (Mozambique has successfully used mobile phone-based diagnostic tools for this purpose.)

Just as important, call centers could also support the personalized training and supervision of health workers by giving them access to more skilled advisers than they could get locally. Local health officers could submit medical data and updates to a call center on an ongoing basis (for example, by voice or text message), and supervisors could follow up with 30-minute calls every one or two weeks. The combination of better data and better interactions with supervisors could help health workers improve the quality and timing of their interventions (say, by creating improved vaccination schedules for a community). Supervi-

⁶Clinical officers are health care providers with three years of vocational training in clinical medicine and community health. While the training of clinical officers is similar throughout Africa, the scope of responsibilities varies by country.

Exhibit

A district-level call center staffed with doctors and nurses functions as a support hub that makes local health officers more effective.



sors could manage the performance of local health workers more effectively—a common challenge in systems using them in hard-to-reach rural areas. All this comes at quite a low cost. Assuming one check-in a week, a supervisor could support 50 or 60 health officers; biweekly check-ins would double the span of control. Such call centers, which would cost about \$0.75 a year per person, are affordable.

Private models serving patients directly will be increasingly viable, as well. While no business model has won the race to deliver telemedicine at scale in Africa, some promising experiments suggest what's possible. In Mexico, for instance, MedicallHome (partly owned by the telecom provider Telmex) successfully provides over-the-phone medical advice and triage services to about one million households (five million people) for a flat \$5 a month each. The company, which fields about 90,000 calls a month, uses triage protocols developed by the Cleveland Clinic, a leading US medical institution, to help its doctors serve patients quickly and effectively. Many cases are resolved by doctors over the phone and don't require further consultation or emergency care.

Mobile health clinics

The third piece of the puzzle is the use of mobile clinics to bring diagnostic tools, medicines, and supplies to local communities where possible. Mobile clinics have long served this function. In recent years, however, various organizations have begun employing them at scale. This suggests that they could play an important role in maximizing the reach of local health officers, while further lowering the transport barriers that keep many Africans from receiving care.

In India, for example, the nonprofit Health Management and Research Institute deployed 475 mobile clinics across Andhra Pradesh in just one year and

is using them to improve medical coverage for the state's massive rural population. Turkey's government has used mobile clinics to give large portions of the country's rural population greater access to about 80 medical services. Egypt's government uses truck convoys to transport temporary hospitals around the country. Comparable experiments are under way elsewhere in India, as well as in Namibia, Nigeria, and other African countries.

While no single best-practice template will work across Africa—budgets, infrastructure constraints, and terrain vary too dramatically—our research suggests that successful models will embody several characteristics.

- Smaller is generally better: vans can cover more of Africa's diverse terrain and poor roads than larger vehicles can. The vans should be equipped with coolers to transport refrigerated vaccines, medicines, and lab samples to and from faraway health clinics. They should also have a bed to treat patients and to accommodate a doctor or nurse-practitioner on multiday journeys.
- The vans can focus on providing care for chronic conditions and more complex follow-up interventions (say, antenatal care). They should play a primary role in providing direct support for health officers' activities, as well. A van's supplies will therefore include test kits, basic medicines, and some equipment (higher-end gear like ultrasounds would be ideal). Services could include education and awareness, screening, diagnosis, treatment, the delivery of supplies, and supplemental training for local health officers.
- Routes must be chosen carefully so that each community can receive a visit at least every four weeks. The key is to minimize travel time and maximize treatment time. Health clinics can serve as a natural base of operations and resupply



For more on improving health care in Africa, read “Strengthening sub-Saharan Africa’s health systems: A practical approach” and “Closing the R&D gap in African health care,” both available on mckinseyquarterly.com.

for mobile journeys, which might take two or three days and cover a number of villages. Whenever possible, trained schedulers in call centers should coordinate scheduling, with input from local health officers.

- Routes must be well advertised and timetables kept so that patients are properly screened and paperwork doesn't eat into treatment time.
- Finally, maintenance and running costs must not be overlooked. When mobile clinics fail to show up in villages because of breakdowns, patients quickly become disillusioned and a program's potential declines.

Despite the versatility of mobile clinics, their operating costs are quite reasonable when programs are designed to supplement the work of local health officers (through monthly visits, for example). In

fact, we estimate that a mobile clinic staffed by two nurses would cost less than \$0.75 per person a year in most African countries.

The way ahead

The model we propose would deploy a significant—but feasible—level of resources in areas that are now poorly served. A rural region of one million people, for instance, would require 700 to 1,000 village health officers, a call center with 40 to 50 clinicians (a mix of clinical officers, paramedics, nurses, and doctors to support inbound calls from village health officers and the general public), 10 to 15 supervisors responsible for outbound planning and follow-up calls to village health officers, and 20 to 25 mobile clinics, each staffed by one or two nurses. This model would require one-fifth to one-tenth as many nurses and doctors as traditional clinics do. And since nurses and doctors in call centers can be located in major urban areas, where many of them live, the approach is practical given the current distribution of resources.

It's important that the model we propose would not—and must not—replace Africa's existing national health systems and infrastructure but should instead help extend their reach by making better use of their doctors, nurses, and other health care workers. Moreover, this is not a “lesser” model for the developing world. In fact, some governments and private entrepreneurs in developed countries are not only introducing telemedicine call centers and mobile clinics but also experimenting with the idea of shifting many tasks to nurse-practitioners.

To make the model work, African governments should start by determining the package of services they can afford and then explore practical ways to deliver them. The private sector will have a significant role, as it is a “natural owner” of some

We estimate that a mobile clinic staffed by two nurses would cost less than \$0.75 per person a year in most African countries.

elements (notably call centers) and already plays an important role in delivering health care in Africa. With the right investments, the private sector could do even more.

Finally, assistance and investments from donors will be vital in taking the model to scale, since donors are well positioned to support promising (but subscale) ventures by providing start-up capital and funds to support implementation.

By embracing a model combining local health officers, telemedicine, and mobile clinics, Africa can radically improve access to basic health care and provide essential, life-saving services to its people at low cost. Making the model scalable and sustainable will require significant and concerted efforts from both the public and private sectors. Nonetheless, the goal of radically improving health outcomes in Africa is now firmly within reach. ○



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Saving mothers' lives in Namibia



Sam Ovrati
Untitled, 2004
Watercolor
56 cm x 26 cm

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ModernAfricanart.com

Namibia's ongoing efforts offer lessons for other countries seeking to improve maternal health, as well as for health programs tackling HIV/AIDS, malaria, tuberculosis, or other conditions.

Kathleen McLaughlin, Marc van Olst, and Ronald Whelan

Up to a half a million women die each year around the world because of complications arising from pregnancy or childbirth. The majority of these deaths occur in sub-Saharan Africa.¹ Since they are largely preventable, they represent a tragedy playing out every day across the continent. Progress on maternal health there is hampered by health systems that are understaffed, underfunded, and overwhelmed—and thus too fragile and fragmented to deliver the required level or quality of care. Consequently, many countries in sub-Saharan Africa will struggle to meet the United Nations' Millennium Development Goals for reducing child and maternal mortality by 2015.²

Nonetheless, some countries are making headway. Our recent work in Namibia, for example, suggests that coordinated, targeted interventions led by local stakeholders can accelerate improvements in maternal-health outcomes. The key is to work with local health leaders to develop solutions that improve the quality of health care, increase access to it, and promote its early uptake.

The resulting interventions being pursued in Namibia are straightforward and practical—improvements in the training of midwives, cheaper antenatal clinics inspired by the design of shipping containers, operational fixes to reduce ambulance response times and wait times at clinics, a radio talk show to educate patients and stimulate demand—yet are collectively powerful. A closer look at Namibia's ongoing efforts offers lessons for other countries seeking to improve maternal health, as well as for health programs tackling HIV/AIDS, malaria, tuberculosis, or other conditions.

Preventable tragedies

The global health community has long understood that improving the health of women during pregnancy, childbirth, and the postpartum period represents a massive opportunity not only to save women's lives but also to improve neonatal, infant, and child health outcomes directly. Further, most maternal deaths in low-income countries are preventable—arising largely from pregnancy-induced hypertension, hemorrhage, or sepsis. Still, up to a quarter of a million women die in sub-Saharan Africa each year because of problems associated with pregnancy or childbirth.

In Namibia, the incidence of maternal and neonatal mortality has doubled in recent years (Exhibit 1). A woman in Namibia today is almost 100 times more likely to die during pregnancy than a woman in Europe. This difference partly reflects Namibia's high rate of HIV/AIDS infection (more than 20 percent of the women at the country's antenatal clinics are HIV-positive) and partly reflects limited access to health facilities (Namibia has the world's second-lowest population density, with barely two people per square kilometer).

In a bid to stem Namibia's rising maternal-mortality rate, the country's Ministry of Health and Social Services (MOHSS), in partnership with McKinsey, the Synergos Institute, and the Presencing Institute from the Massachusetts Institute of Technology (MIT), established the Maternal Health Initiative, or MHI (see sidebar, "About the initiative"). It focuses on a microcosm of Namibia's health system to develop a replicable approach for improving maternal health care across the country.

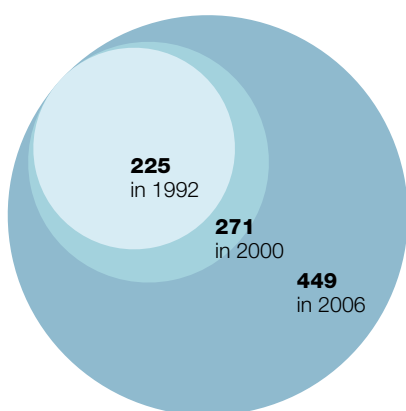
¹ World Health Organization (WHO), United Nations Children's Fund (UNICEF), United Nations Population Fund, and the World Bank, *Maternal Mortality in 2005*, World Health Organization, 2007.

² In addition to meeting other social, educational, and health targets, the United Nations seeks to reduce child and maternal mortality rates and drastically reverse the spread of HIV/AIDS and malaria by 2015. For details, see un.org/millenniumgoals.

Exhibit 1

The incidence of maternal mortality, a largely preventable tragedy, has doubled in recent years in Namibia.

Namibia's maternal-mortality ratio,
deaths per 100,000 live births



Source: Health and Social System Services Review, 2008, Namibia's Ministry of Health and Social Services; *Monitoring Emergency Obstetric Care*, 2006; McKinsey analysis

The MHI chose to set up its pilot project in the Khomas region, the most populous of Namibia's 13 regions and the one with the worst uptake of antenatal services.³ (Less than 7 percent of pregnant women there receive antenatal checkups during the first trimester.) Within Khomas, the team focused on four of the largest suburbs of Namibia's capital, Windhoek: Hakahana, Katutura, Okuryangava, and Samora Machel, which have a collective population of about 80,000. It focused in particular on these areas' busiest hospital and primary-health care clinic, Katutura Hospital and Okuryangava Clinic, respectively (Exhibit 2).

Next, three subteams were formed to design and develop prototype maternal-health solutions for problems associated with community mobilization, the capabilities of health workers, and

health system operations, respectively. Each subteam included a variety of local frontline health leaders and other stakeholders—for instance, nurses, social workers, ambulance drivers, and middle managers.

Finally, to ensure local ownership and accountability (as well as to expand future initiatives across Khomas) a regional delivery unit was established under the guidance of the chief medical officer in Khomas. It provides managerial oversight, monitors the performance of the region's improvement in maternal health service delivery, and integrates the activities of the subteams with those of the health ministry's regional team.

The subteams quickly identified and implemented several interventions to improve the supply of maternal care in Khomas and to raise demand for care among local women. While it's too soon to claim victory over Namibia's maternal-health problems, the results thus far are encouraging.

Supply-side interventions

Improving the access of patients to quality care is a vital step in improving health outcomes. In Khomas, the MHI and its local partners helped to bolster the quality of maternal care and to pilot novel ways of adding capacity to the system. They also introduced efforts to squeeze greater capacity out of the region's existing health assets.

Raising the bar on quality

In Namibia, the quality of maternal care has deteriorated in recent years—a fact reflected in a 2006 survey from the MOHSS, which found that less than 20 percent of the country's midwives could reliably diagnose and manage postpartum hemorrhage. Further, the ministry found that less than 40 percent of Namibia's midwives correctly monitored women in labor. What's more, the MHI team observed that, not uncommonly, more than five different midwives attended to a woman

³Common antenatal services include measuring blood pressure, conducting blood and urine tests, monitoring weight, taking fundal height measurements, and answering general questions about diet and fetal movements.

Exhibit 2

Where we worked: Inside the Maternal Health Initiative.

Note: Figures are for 2006 unless indicated.
Source: World Health Statistics 2008

About the initiative

The Maternal Health Initiative (MHI) is part of a larger project designed and supported by a partnership among Synergos Institute (an international NGO and the in-country partner in Namibia), the Presencing Institute from the Massachusetts Institute of Technology (MIT), and McKinsey. The project, funded by the Bill & Melinda Gates Foundation, is testing ways to improve health service delivery in developing countries rapidly by combining leadership development with coordinated operational and organizational changes. The goal is to create a replicable model that can be applied within or across disease programs in national health systems.

MHI was created in partnership with Namibia's Ministry of Health and Social Services (MOHSS). The aim was to promote locally developed maternal-health-improvement initiatives, build local leadership capacity, and improve alignment among the MOHSS, the country's civil society organizations, the private sector, and other development partners. The 20 participants of the pilot MHI team, from a range of backgrounds and levels within the health system, include nurses, doctors, private health care providers, NGOs, and academic institutions.

in labor during her delivery (global best practice promotes individualized care).

The quality of care during pregnancy was found to be significantly constrained by the lack of continuing education as well as by apathy and poor motivation among nursing staff. Mentoring and coaching practices have gradually fallen away as a result of staff shortages and turnover in critical positions. Katutura Hospital, for example, has only one full-time gynecologist, and doctors there typically don't stay in the department for more than two or three years.

In response, the MHI subteams worked with the hospital's superintendent and with nurses and doctors in the obstetrics department to develop and institute a skill-building program for clinical personnel. One important component was the creation of a mentoring role so that senior nurses could identify, coordinate, and offer in-service training for nurses and nursing students. Next, health workers at the hospital engaged with

nearby private hospitals and local training institutions to learn best-practice training and clinical techniques. The team also visited training institutions in Cape Town, South Africa, where its members met with colleagues who had developed a best-practice curriculum and training manuals for midwives. These moves led to efforts to standardize midwifery training in the region and to the development of a skills-accreditation system.

Within six weeks, Katutura Hospital had developed its own in-service training curriculum and concluded its first training program. Subsequently, the nurses we interviewed reported feeling more confident in their ability to coach and mentor one another and to provide better care to patients. In-service training sessions are now held weekly, and program coordinators continue to look for best practices and innovative training methods. Further, to keep quality high, the MHI is introducing a formal process to investigate maternal deaths so that their causes can be determined and similar deaths prevented.



Expectant mothers wait for their first antenatal checkups at Katutura Hospital (June 2009).



A health ministry official discusses the new performance-measurement system with employees at the Katutura ambulance station (September 2009).

Finally, the hospital set its sights on shortening the antenatal unit's waiting times—over six hours, in most cases. The unit reduced them by 30 percent in less than a month by making a series of simple process changes: for instance, introducing a numbered ticket system for people arriving at the hospital and allowing patients to keep their records instead of handing them back to the charge nurse upon completing each of the nine stages of consultation. To encourage staff to focus on customer service, the unit created a patient satisfaction survey, whose results are posted daily, along with average waiting times, to encourage further improvement.

Expand access by adding capacity

More than 60 percent of Namibia's rural population lives five kilometers or further from a health facility, and many people can't afford transport to faraway clinics or hospitals. This reality was driven home for us when we encountered a group of pregnant women living under a tree outside a hospital in largely rural northern Namibia. Some of

the women had been living there five months because they were afraid that they wouldn't be able to reach the hospital in time once they went into labor.

The situation is nominally better in urban Katutura, where only the two hospitals provided antenatal care before the MHI. To get proper treatment, most women in the Khomas region had to walk more than five kilometers to reach a medical facility—and repeat the journey at least five or six times during their pregnancies.

A team of MHI participants therefore worked with a local NGO to help design a “container clinic” prototype that could be set up in outlying areas to increase access to care for rural women. The clinic—dubbed “CWIClinic” as a play on the word “quick” and an acronym for child, women, and infant clinic—is a modular, prefabricated, 15-square-meter structure the size and shape of a shipping container. It can be assembled in just 48 hours, includes a fully equipped examining room and a



Opening time at Okuryangava Clinic (October 2009).



The Okuryangava Clinic's staffers see its first antenatal patient (October 2009).

small administrative office, and costs 25 percent less than a similarly sized permanent building (Exhibit 3). Nurses employed by the NGO (the Namibia Planned Parenthood Association) staff the clinic and receive special refresher training at Katutura Hospital to ensure high-quality care.

In anticipation of efforts to test the concept's feasibility in rural areas, different versions of the clinic are being equipped with solar panels, a septic tank, and a stand-alone tank to supply fresh water. The results have been promising. In fact, Namibia's health ministry, in partnership with the NGO, now aspires to roll out such clinics across the country and has submitted plans to Namibia's finance ministry to mobilize funding for 16 additional clinics. The health ministry has also identified a site for a second CWIClinic in Khomas.

Improve efficiency

Another powerful means of expanding access to health care in Africa would be to use existing

facilities and resources more efficiently, so that they can serve larger numbers of patients. During the project, the MHI team attempted to realize this goal in two ways.

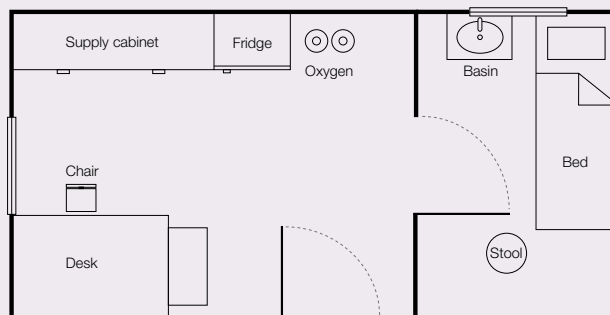
First, the team worked with Okuryangava Clinic to see if it could offer antenatal care. Namibia's health ministry had long wanted to provide it in urban clinics to make access easier and more affordable for patients but had been frustrated by shortages of staff and space.

While these shortages were a constraint, so was the mind-set of clinic staff. Many nurses felt that offering antenatal care at the clinic was simply impossible given existing staff levels. Therefore, a big task was to get the local nurses energized and involved. The team achieved this goal, in part, by working with nurses at clinics to show how simple operational changes could free up time. By using straightforward diagnostic tools common in lean-manufacturing environments (for instance,

Exhibit 3

The prototype container clinic—the first of a number of planned CWIClinics (child, women, and infant clinics)—brings antenatal-care services to outlying areas.

Sample layout for container-sized structure



Setting up a CWIClinic is truly quick

Within 48 hours of purchase: a modular, prefabricated 15-square-meter structure is transported to and assembled on site

Within 72 hours on site: the structure is connected to electricity and water



spaghetti diagrams to pinpoint wasted process steps visually) the nurses identified bottlenecks and addressed them. As the nurses saw the improvements take hold, they changed their minds about what was possible and began enthusiastically backing the antenatal-care pilots. Within four weeks, the nurses had found ways to free up space and staff schedules and had seen their first antenatal patient (after receiving refresher antenatal training at Katutura Hospital). In large part because of the nurses' enthusiasm as "change agents," other clinics in the region began investigating similar changes. Within five months, all of the region's 11 primary-care clinics were offering antenatal care.

The second way the MHI team used efficiency gains to expand access was to cut the excessively long response times of ambulances (90 minutes, on average). In fact, ambulances failed to answer about half of all emergency calls because they were otherwise occupied. When the team looked closer,

it found that up to 70 percent of the trips of the community's five ambulances involved non-emergency cases. Moreover, critical radio communication equipment was broken, dispatching procedures were largely ad hoc, and ambulance repairs took several weeks. The MHI team helped ambulance drivers work with the health ministry to prioritize the repair of radio equipment, streamline requests for vehicle repairs, train a specialized dispatcher, and develop a simple dispatch protocol. Moreover, the team helped to mobilize funding (through the health ministry) for a minibus specifically intended to provide non-essential medical transport, thus freeing up ambulance capacity.

Within a month, average response times had decreased by 60 percent and the proportion of emergencies handled within 30 minutes had more than doubled, to 55 percent, from 23 percent. To encourage improvement and keep drivers focused on results, the ambulance service began

using performance-management whiteboards to track drivers' response times and the availability of ambulances. Consequently, average response times have consistently remained below half an hour for more than six months.

Demand-side interventions

Improving the supply and quality of health care is the first priority for governments seeking better maternal-health outcomes. However, health systems must also educate patients so that they know about and seek the potential life-saving interventions and treatments available to them. Stimulating demand for services is therefore critical. In Khomas, the central challenge was to spur demand for antenatal services.

Raising awareness

Less than 7 percent of the pregnant women in Khomas receive antenatal check-ups during the first trimester of pregnancy. Almost 40 percent of the women who receive antenatal care present themselves for their first visit well into the third trimester—when it's often too late to manage problems.

On closer examination, the MHI team found that this behavior reflected not only poor access to antenatal care but also the prevailing lack of awareness among local women about its importance. Many women the team talked to didn't, for example, know the basic risks associated with pregnancy, including the potential transmission of HIV/AIDS to their babies.

To address these knowledge gaps, the team worked with Namibian education and health officials to create a weekly, 45-minute reproductive-health show for a local radio station. (Radio is well suited to spread information effectively among rural populations that may be widely dispersed or have low literacy rates.) The show, which first

aired in August 2009 and is hosted by influential radio personalities with strong ties to the local community, focuses on promoting good maternal-health practices. The messages include the benefits of early antenatal care and deliveries in hospitals, the danger signs during pregnancy, and family-planning options and postnatal care.

The show's format includes call-in segments when listeners anonymously share their stories, ask questions, and receive immediate expert medical input from a guest panel of health workers. Broadcast in six different local languages, the show appears to be quickly gaining popularity among local women and is a hot topic of conversation among women in Khomas's antenatal clinics. Encouragingly, the MHI team observed that a high proportion of callers are men, suggesting that the anonymity of the show's format encourages them to ask candid questions about reproductive health. This is good news, because one reason the region's women don't seek antenatal care is a fear that their partners won't approve.

To increase the show's impact, members of the MHI team are creating a spin-off radio serial drama in a "soap opera" format to reinforce the messages. Students at the Katutura media school will support this new show, which will feature fictitious Namibian characters displaying both good and bad health habits. The show has generated interest from four national radio stations, as well as from local newspapers that plan to introduce the fictional radio characters into their comic strips to promote the show and its messages.

User incentives

The use of simple incentives is the last way the team is attempting to stimulate demand for antenatal services in Khomas. The radio show, for instance, plans to introduce quizzes on family health-related topics. These quizzes can be

quite powerful: in Uganda, for example, the mobile provider Celtel recently supported an interactive, text message–based quiz about HIV/AIDS that used free airtime as an inducement for users to play. During the pilot, the number of people seeking HIV tests increased by 40 percent.

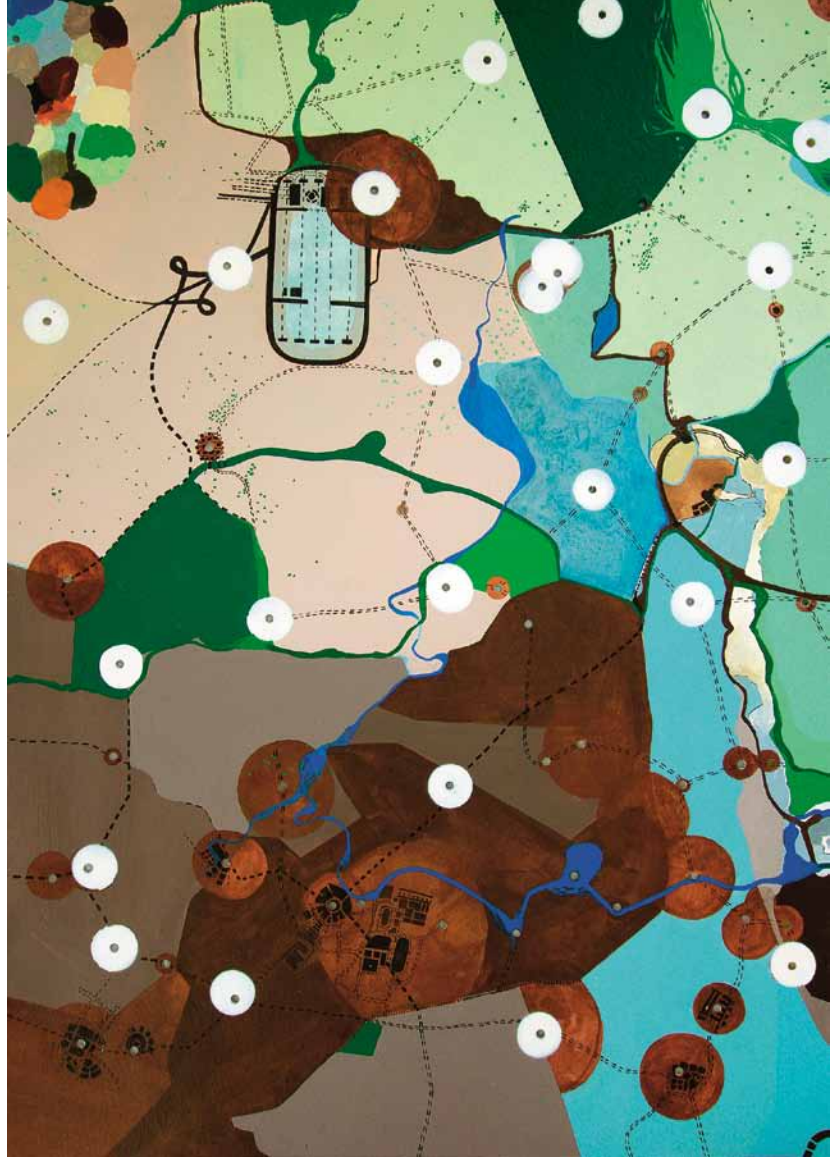
Other incentives are less obvious, though surprisingly powerful. The MHI team quickly discovered, for instance, that what women in Khomas particularly valued during their antenatal checkups was the ultrasound, as it allowed them to see their babies for the first time. Consequently, the team is arranging for the antenatal clinic at Katutura Hospital to offer women one free ultrasound picture during their pregnancies to encourage earlier and greater participation. The prospect of getting that first baby picture has thus far proved a potent incentive to seek antenatal care.



While much work remains to be done in Namibia, our experience there demonstrates that focused interventions harnessing the efforts of local leaders, together with simple changes in operating practices, can free up significant capacity in health systems and quickly improve health outcomes for mothers and their babies. ○

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Otobong Nkanga

Delta Stories: Blind folded history lesson, 2005–06
Acrylic on paper
32 cm x 24 cm

Delta Stories: Collapsed projects, 2005–06
Acrylic and ink on paper
32 cm x 24 cm

Delta Stories: Landscape I, 2005–06
Spray paint, ink, pen, and acrylic on paper
70 cm x 49.5 cm

© Courtesy of the artist and Lumen Travo Gallery, Amsterdam

Otobongnkanga.com
Lumentravo.nl

Extreme climate conditions: How Africa can adapt

Africa's climate already poses grave risks to the continent's people and economies, and global warming promises to intensify the problem. A factual risk-management solution can help.

**Adrien de
Chaisemartin,
Marcel Normann,
and
Julien Pestiaux**

Even before global warming became an issue, many African countries were unusually vulnerable to floods, droughts, and heat waves. Indeed, if there were to be no further change in Africa's climate, its current state already presents grave risks to the continent's people and economies. Global warming could trigger more frequent and severe weather disasters, shifts in rainfall patterns and climate zones, and rising sea levels.

For African nations, adapting to these possibilities is an urgent necessity. To do so, their leaders must answer some difficult questions. What climate-related losses could these economies sustain over the coming decades? How much can be averted and through what measures? Which investments will be required to finance them? Will the benefits outweigh the costs? We believe that such questions can be answered systematically through a factual risk-management approach that African leaders can use to assess climate's impact on their countries and to find ways of minimizing it at the lowest cost to society.

Knowledge about future climate trends—particularly their local impact—is incomplete, so policy and investment choices must be made under uncertainty. Yet enough is known to build plausible climate change scenarios as a basis for these decisions, even in developing countries. Such scenarios can help decision makers to identify adaptation measures useful against a range of climate change outcomes. Cost-effective responses can address much of the identified risk: depending on the country studied,¹ 40 to 70 percent of the losses expected by 2030 could be averted—even under severe climate change scenarios—through adaptation measures whose

economic benefits outweigh their costs. In almost all cases, however, at least some risk cannot be averted through known measures.

Many adaptation measures would strengthen economic growth in developing countries; in Mali, for instance, climate-resilient agricultural development could generate millions of dollars annually in additional revenues. Measures with demonstrated net economic benefits could also attract investments and trigger valuable new innovations and partnerships. Indeed, well-targeted, early investments to improve climate resilience—through infrastructure development, technological advances, capacity improvements, new systems and behavior, and risk transfer measures—will probably be cheaper and more effective for the world community than complex disaster relief efforts after the event.

A fact-based approach can provide valuable input into the overall decision-making process. Among other things, it recognizes the importance of cost-benefit considerations, makes it possible to put “price tags” on current and future climate risks, and lets decision makers develop plans to help businesses adapt to them.

Mali: Climate zone shift

In northwestern Africa, stretching deep into the Sahara, Mali is a mostly dry nation, subject to frequent droughts. Increasing temperatures and decreasing rainfall tell of a shift in climate zones as the desert moves south over productive land. In these regions, farmers dependent on agriculture and livestock already face trying periods of drought and have few options to overcome them. Many

¹ The full report, *Shaping climate-resilient development*, is available at mckinsey.com and includes case studies of areas in China, Guyana, India, Mali, Samoa, Tanzania, the United Kingdom, and the United States. The report was conducted on behalf of the Economics of Climate Change Working Group, a partnership among ClimateWorks Foundation, the European Commission, the Global Environment Facility, McKinsey, the Rockefeller Foundation, Standard Chartered Bank, and Swiss Re.

Exhibit 1

Mali has a wide variety of natural environments, from the arid north to the more tropical south.



are moving to the cities, others to the country's less arid south. Our study focused on Mopti, an important agricultural area in the central region.

Mali has a wide variety of natural environments, ranging from a Saharan climate in the north to the more tropical south. From year to year, its rainfall levels are among the world's most variable. Annual floods during the rainy season in the Niger River's interior delta benefit agriculture but may harm local populations (Exhibit 1). Mali also faces additional hazards from climate change: drought is expected to increase in frequency and severity, weakening the country's agriculture and GDP. The climate zone shift—the combined effect of rising average temperatures and declining average rainfall—has already pushed the country's agroecological zones to the south over the past 50 years, with average rainfall down by about 200 millimeters and average temperatures up by 0.5°C over the same period.

Desertification and climate zone shift have multiple causes, with complex interactions. The impact from climate change is aggravated by farming and domestic practices, such as slash-and-burn agriculture (which erodes the soil) and deforestation, mostly to meet 90 percent of Mali's cooking and heating requirements. (Forest cover has decreased by almost 50 percent since the 1980s.) Nonetheless, local adaptations could eliminate a significant share of the loss due to climate change, and it is important to recognize that farmers have already developed the kinds of techniques that will help them cope. Diversity in crop cycles—already widely practiced by Malian farmers—will be essential. Genetic variation in plants helps to make agriculture in areas with higher climate risks more resilient to them. Also advantageous will be the farmers' tendency to spread out geographically for access to different types of soils and water sources.

In 2006, the value of Mali's crops and livestock was estimated at \$840 million and \$620 million, respectively. Projections to 2030 take into account the most valuable agricultural crops (cotton, maize, millet, rice, and sorghum) and livestock (for eggs, meat, and milk). Following historical expectations, the five main crops' value would increase by 46 percent, to \$1,220 million (1.6 percent annual growth). In a more optimistic scenario, that level would more than double, to \$2,470 million (4.6 percent annual growth).

Scenarios and responses

The significant uncertainty about climate change has spawned a range of climate projections for rainfall, while temperatures are consistently projected to increase significantly. Local climate models allowed us to consider three scenarios for a climate zone shift by 2030. Under the moderate-change one, temperatures would rise by 1.2°C and annual rainfall would decrease by 2.2 percent. The high-change positive scenario projects an increase in

rainfall and temperatures of 8.1 percent and 0.9°C, respectively, while the high-change negative scenario anticipates a decrease in rainfall of 10.6 percent and an increase in temperatures of 1.4°C. Under all three, Mali would suffer economic losses by 2030. The pessimistic high-change scenario could involve losses of about \$300 million annually (some 15 percent of the value of agriculture and livestock); the optimistic scenario, losses of \$120 million annually (6 percent).

These losses will probably be offset, to some extent, even in the absence of specific adaptation measures. Agricultural production in Mali is likely to increase in value through the encouragement of farming in the regions best suited to it and the promotion of the right mix of crops. The human migrations required should happen naturally. Still, such measures would not cover the full expected climate-related economic decline.

Measures to increase productivity by encouraging the development of assets primarily in the most promising areas could compensate for losses elsewhere. Simulations show that by 2030, a migration of one million people could raise agricultural production by 6 percent more than population growth spread evenly across regions would. The migration of 1.5 million people by 2030 could raise production by an additional 8 percent—an overall 14 percent increase compared with the base case. But such controversial measures might promote conflict and increase competition for resources. Infrastructure and asset-based measures could make semi-arid areas substantially more resilient, however, so accelerated migration isn't essential.

Such measures depend on the specifics of each natural environment, so we assessed a few promising possibilities for the Mopti region (in the middle of the country), which well represents Mali's diverse agroecological zones. The southwest of

Mopti, near the Niger River's internal delta, is suitable for rice cultivation, horticulture, fishing, and livestock. The east and north, with a hotter and drier climate typical of the Sahel (the region on the fringe of the Sahara), is more appropriate for dry crops such as millet and sorghum—and threatened by the desert's advance and the struggle to find water.

Asset-based adaptation measures, such as soil techniques, irrigation systems, and the provision of additional water for cattle, would help to "climate proof" yields. Of the measures reversing the losses, about three-quarters would have benefits higher than their costs. Other measures would generate additional agricultural revenues—for instance, by extending the land area suited to horticulture, providing for two harvests a year rather than one, or encouraging additional products and practices (for instance, by mixing agriculture and forestry in crop fields). The generation of new revenue, essentially another adaptation alternative, has massive potential but requires careful consideration of its secondary effects on society. For the Mopti region alone, revenue-generating cash crops could cover much if not all of the expected loss for the entire country. In other words, these measures are essentially economic-development activities.

Enablers and barriers

Many measures we identified are labor-intensive, so the availability and use of local workers can constrain both the potential and the speed of deployment. Labor is an additional cost, but non-governmental organizations (NGOs) often finance measures in exchange for free work by farmers. Since machinery frequently produces better cost-benefit ratios, however, the desire to help the local workforce must be weighed against the advantages of using more efficient but expensive machines. Building local water holes for livestock close to villages during the dry season, for example, can take

two months for a team; a bulldozer can dig one in a day. The workforce is usually idle during the dry season, though, so the choices are quite complex.

The many cost-effective measures—which were analyzed, through local experiences and suggestions, and which make sense from a purely developmental perspective—should be led by the players typically involved. Government engagement will be required for larger-scale infrastructure measures, such as irrigation in the delta. NGOs are likely best suited for smaller-scale measures. International institutes can provide important expertise on issues such as crop engineering and meteorology. Given the complexity and magnitude of the challenges, support from the international community will be critical.

An effective portfolio of climate resilience measures can be assembled at limited cost. The key is to create the right enabling environment to provide for effective adaptation to climate change as well as economic development.

Tanzania: The impact of drought

During the past 30 years, Tanzania has experienced six major droughts. The most recent, in 2006, is estimated to have cut GDP growth by 1 percent. Two specific effects of drought are of special concern. The first is the threat to human health posed by malnutrition and the spread of cholera and other water-borne diseases resulting from fresh-water shortages. Second, power generation in Tanzania depends predominantly on hydroelectric plants; during the 2006 drought, for example, the country faced severe power rationing because of a shortfall of water in reservoirs.

Our study focused on the drought-prone central regions (Dodoma, Singida, and Tabora)—where various local climate models allowed us to build realistic scenarios for climate evolution. Under the moderate-change scenario, these regions are projected to experience a 10 percent decrease in annual rainfall and a 25 percent increase in the variability of

the amount of rainfall—changes that would lead to more severe and frequent droughts. Under the high-change negative scenario, rainfall would decline by 20 percent and variability increase by 50 percent.

The central regions are primarily rural, and a majority of their 4.4 million inhabitants are poor subsistence farmers. This population faces a range of serious drought-related health risks: for example, in 2003 a survey reported that 19 percent of children under five had suffered from diarrhea during the previous two weeks to the survey. Hydropower generation is also critically important in the central regions: the Kidatu and Mtera dams, located in or near them, contribute 50 percent of Tanzania's hydropower production capacity.

Health: Effects and adaptation measures

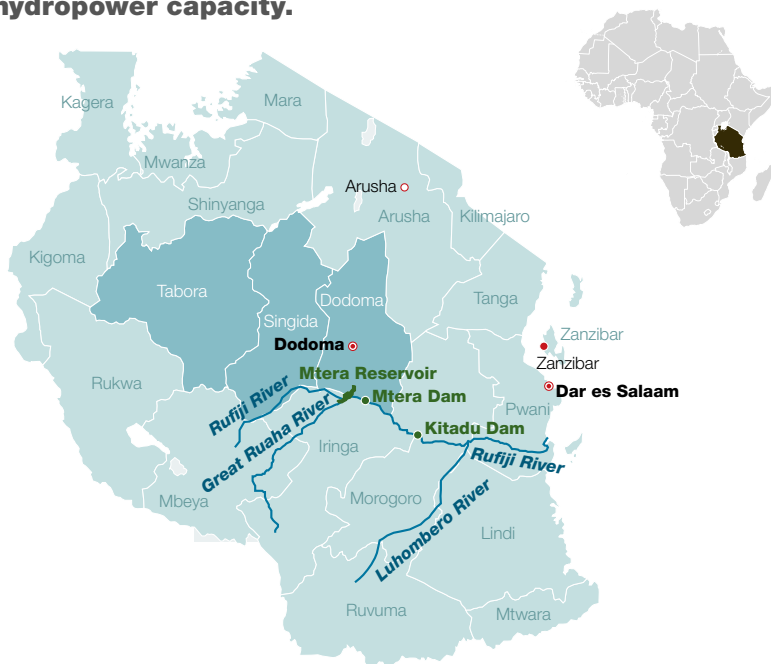
The most important drought-related diseases prevalent in the central regions are cholera, diarrhea, dysentery, malnutrition, and trachoma (which causes blindness). By 2030, even if the frequency or intensity of droughts doesn't change, 5 percent of the regions' population is projected to endure hunger from poor yields; the same percentage will suffer from trachoma. Cholera and dysentery will be common as well, and diarrhea will afflict almost 200,000 children under five.

In the moderate-climate-change scenario, by 2030 a 10 percent decrease in average rainfall levels could raise the proportion of the population under food stress by 60 percent, with a significant increase in the number of cases of cholera and dysentery. Trachoma cases could double. The high-climate-change scenario worsens the prognosis, particularly for trachoma.

Our study analyzed measures that could protect Tanzanians against drought-related health risks. Some are preventive: for instance educational programs for hygiene, sanitation, and breastfeeding; the building of covered wells with pipes and ventilated pit latrines; and the harvesting of

Exhibit 2

The Kidatu and Mtera dams, in or near Tanzania's drought-prone central regions, provide half the country's hydropower capacity.



rainwater. Others are treatments, such as oral rehydration therapy and the administration of antimicrobials and zinc supplements.

It will not always be easy to distinguish spending for adaptation to climate change from development spending on health. Water access measures, for instance, could prevent thousands of cases of cholera, diarrhea, dysentery, and trachoma but could be considered sound policy no matter how the region's climate evolves. Health spending should become more forward-looking rather than reactive.

Power generation: Impacts and adaptation

In 2030, Tanzania is predicted to rely on hydropower for more than half of its electricity. Ninety-five

percent of this hydropower will come from the central regions, but drought will decrease the water flow in rivers and thus cut the amount of electricity generated. The Tanzania Electricity Supply Company will have to make greater use of more expensive natural gas and coal—thus also increasing greenhouse gas emissions—or cut the supply of electricity. In the latter case, companies with diesel generators will bear the extra cost of using them, and the production of other 40 percent will fall.

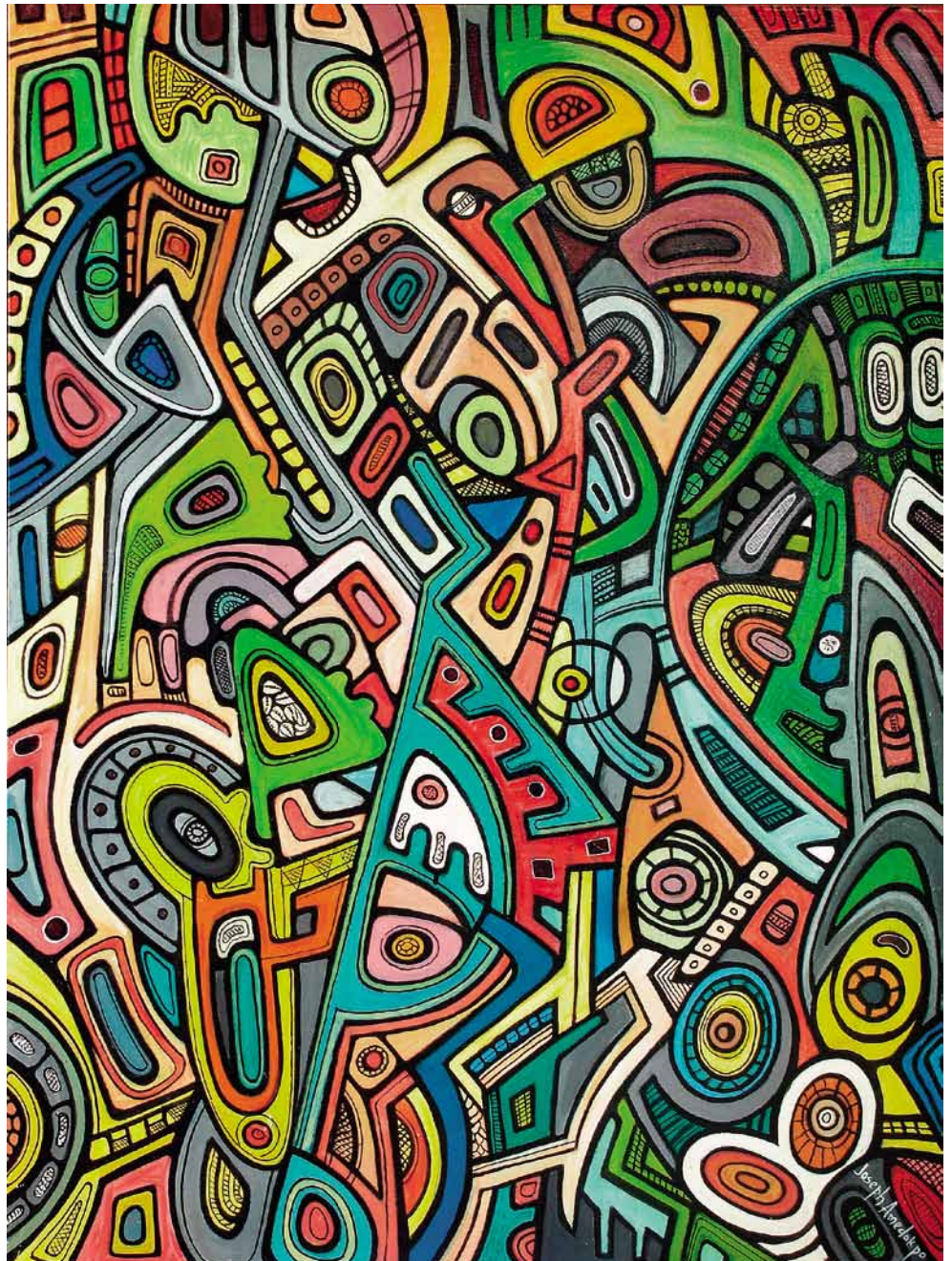
In the high-change negative scenario, the expected losses would cut the national GDP by 1.7 percent in 2030. Even in the moderate-climate-change scenario, GDP will fall by 0.7 percent, solely because of climate change–induced droughts. Tanzania could close most of the expected shortfall in power production if it were to implement energy efficiency measures, such as reducing demand by encouraging less (or more careful) usage in the residential and commercial sectors—moves that would save more money than they would cost. In addition, reducing spillage at hydro stations could significantly increase the power supply almost free of charge. No-regrets energy efficiency measures such as these could be implemented immediately.



We do not know how much or how soon the global climate will change because of rising greenhouse gas emissions, but we do know that a country's ability to cope with climate change will depend on its socio-economic position. The poorest developing economies face especially difficult challenges both in addressing their current climate risks and adapting to new ones. For them, linking climate responses with economic-development strategies will be vital. A fact-based approach that considers both costs and benefits can help. ○

The authors wish to thank Greg Hintz and Humayun Tai for their contributions to this article.

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Joseph Amedokpo
Water Spirits, 2008
Oil on canvas
106 cm x 79 cm

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Portugal

Africancontemporary.com

Confronting South Africa's water challenge

South Africa faces a growing gap between water supply and demand. The most effective solutions will cater to the specific agricultural, industrial, and domestic needs of the country's different basins.

**Guilio Boccaletti,
Martin Stuchtey,
and Marc van Olt**

Water resource management looms as one of the greatest global challenges of the 21st century. Around the world, businesses, governments, and policy makers alike must work together to move beyond business as usual not only to increase the supply and improve the productivity of current resources but also to reduce withdrawals by reshaping underlying economic activities. In South Africa, the challenge is complex: a semiarid country characterized by low rainfall, limited underground aquifers, and a reliance on significant water transfers from neighboring nations, South Africa will face difficult economic and social choices between the demands of agriculture, key industrial activities such as mining and power generation, and large and growing urban centers. However, a recent report by the 2030 Water Resources Group, for which McKinsey provided analytical support, finds that solutions are possible and need not be prohibitively expensive if they are addressed now.¹

Exploding growth in world populations and increased agricultural and industrial production are putting a strain on existing water supplies worldwide. According to estimates by the Water Resources Group, global water demand is on track to outpace supply by 40 percent within the next two decades. When compounded with the potential effects of climate change, the stakes are raised even higher. Further complicating this challenge is the reality that there is no singular water crisis: different countries, even in the same region, face very different problems. India, for instance, faces demand fueled largely by the agricultural sector as a growing population increasingly moves toward a middle-class diet that relies

more heavily on wheat and sugar. In China, by contrast, a large agricultural sector is coupled with a fast-growing economy that is driving rapid industrial growth and domestic urbanization.

The situation in South Africa is similarly complex. According to our base-case scenario, estimated demand for water in South Africa will reach 17.7 billion cubic meters in 2030. Current supply, by contrast, will equal only 15 billion cubic meters and is severely constrained by low levels of highly seasonal rainfall (about 50 percent of the world average), insufficient aquifers, and a dependency on water transfers between basins and from other countries (for example, South Africa purchases nearly 25 percent of its total water supply from nearby Lesotho). What's more, the effects of climate change could exacerbate the problem significantly: even a small decrease in rainfall (and a corresponding increase in irrigation requirements) could result in a gap as large as 3.8 billion cubic meters (Exhibit 1).

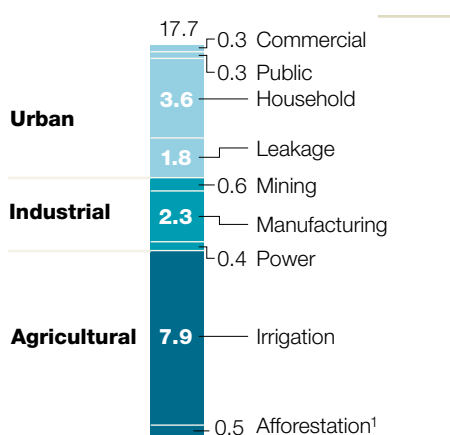
In order to understand the water resource problem currently facing business and governments around the world, a sector-level understanding of the supply and demand challenges is useful. In South Africa, the agricultural, industrial, and urban sectors account for a majority of overall demand: 8.4 billion cubic meters, 3.3 billion cubic meters, and 6.0 billion cubic meters, respectively. However, each region faces challenges that are unique to the set of economic activities prevalent in that area. The basins that supply the largest cities (Johannesburg, Cape Town, Durban, and Pretoria) are expected to face severe gaps brought about by

¹ This article is adapted from the full report, *Charting our water future*, available at mckinsey.com.

Exhibit 1

According to our base-case scenario, demand for water in South Africa will reach nearly 18 billion cubic meters by 2030.

Estimated 2030 water demand, billion cubic meters



A projected 2030 supply of 15 billion cubic meters leaves a net deficit of 2.7 billion cubic meters. That gap between supply and demand could grow to 3.8 billion cubic meters under a plausible climate change scenario.²

¹Afforestation is considered a demand, as it reduces the supply available for delivery to reservoirs and then to demand centers.

²Assumes yield of existing supply sources drops by 10%, effective rainfall drops by ~3%, and irrigation requirements increase by 10%, compared with today.

Source: *National Water Resource Strategy*, September 2004; McKinsey analysis

increased household and industrial demand. The Berg water management area—which includes Cape Town—must close an estimated gap of 28 percent to meet future demand.

Household demand is driven largely by rising income levels and population growth, as well as a national drive to improve basic living conditions (for example, broader use of showers, toilets, and landscaping in residential areas). Projections for 2030 indicate that household demand will account for 3.6 billion cubic meters, with the wealthiest quintile of the population accounting for half of total withdrawals. At the same time, demand from industries such as mining and power generation will be an increasingly significant factor: by 2030, demand could amount for as much as

3.3 billion cubic meters. Power generation will account for 12 percent of total demand, mining for 18 percent, and manufacturing for the remaining 70 percent. Meeting the demand for power generation poses yet another challenge: much of the additional power generation capacity planned for 2025 will come from coal-fired power plants, located where much of the coal beds are. As local water supplies are typically insufficient for both coal mining and power generation, a reliance on water transfers from other areas will likely develop.

By contrast, in regions such as the Lower Vaal water-management area (Exhibit 2) growing agricultural demand places additional strain on supplies, despite caps on irrigation levels.

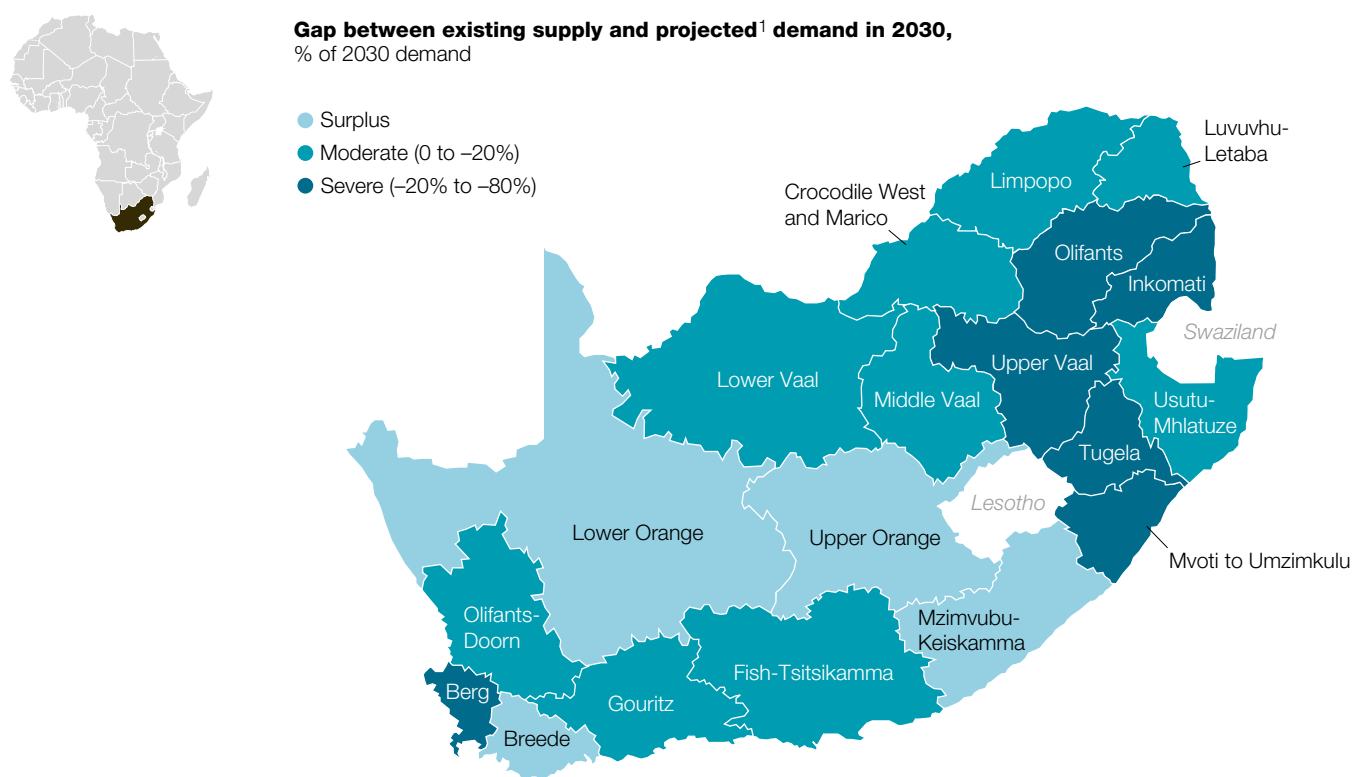
Agriculture makes up a key part of South Africa's economy, contributing 3.7 percent of the country's GDP and employing more than 1.6 million people, or 13.5 percent of the labor force. South Africa relies on rain-fed land for 80 percent of its agricultural needs and is 90 percent self-sufficient for food. Yields are high, and more than 50 percent of the irrigated area (10 percent of arable land) is served through relatively efficient sprinklers and drip irrigation. However, against fixed withdrawals set by the Department of Water Affairs, demand for food and feed is still expected to

increase significantly. This will create a strong need for greater efficiency and productivity of rain-fed production—or a shift in trade in order to avoid additional water being seized for agricultural use.

Despite the depth and breadth of the challenge at hand, economical solutions are within reach. Closing the gap across these sectors will involve a sustainable and cost-effective combination of three levers—two of which make use of technical improvements (increasing supply and improving water productivity), while the third is related to

Exhibit 2

South Africa faces various shortages across its water basins.



¹Frozen irrigation levels and limited ability to increase rainfed land will drive an increase in virtual water trade between water-management areas and internationally with trading partners.

Source: Water Research Commission; South African Department of Water Affairs and Forestry (DWAF); Statistics South Africa; 2030 Water Resources Group

the underlying economic choices a country faces and involves actively reducing withdrawals by changing the set of underlying economic activities. For South Africa, the cost-effective measures that are available across supply (50 percent), agricultural efficiency and productivity improvements (30 percent), and industrial and domestic levers (20 percent) form a balanced approach.

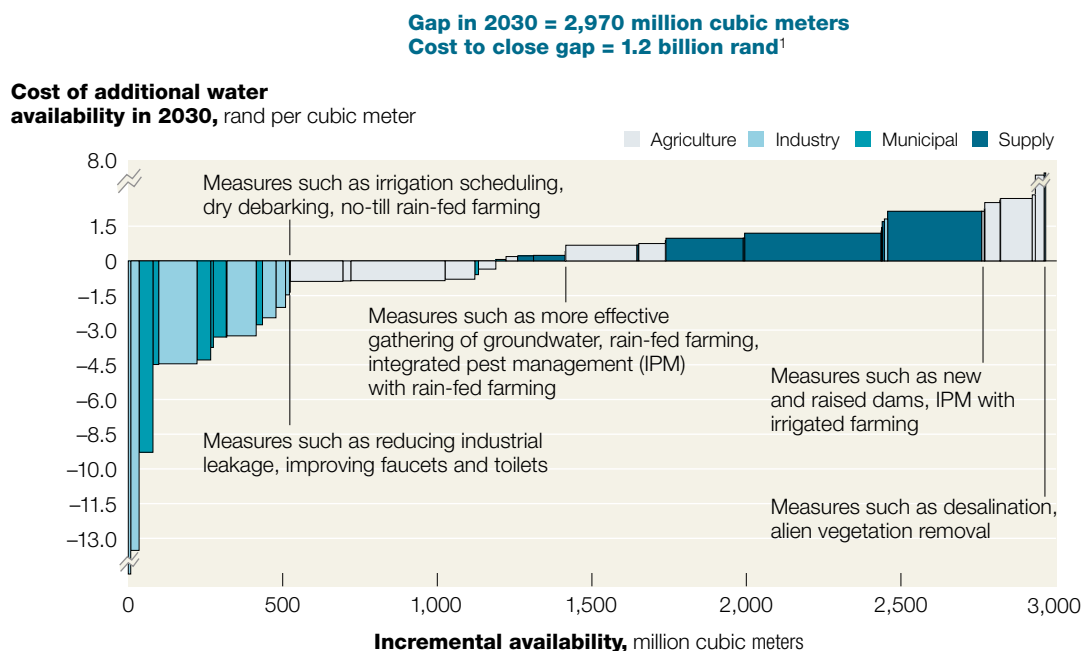
As a key tool to support decision making, we developed a basin-level optimization cost curve, which provides a microeconomic analysis of the cost and potential of a range of existing technical measures to maintain water-dependent activities while closing the projected gap between supply and demand. Our analysis consisted of 50 measures across

19 water-management areas and 12 different crops. Each of these technical measures is represented as a block on the curve. The width of the block represents the amount of additional water that becomes available from adoption of the measure. The height of the block represents its unit cost (Exhibit 3).

The cost curve shows that South Africa can implement a balanced solution for closing its demand–supply gap by seizing an array of cost-effective measures available across supply, agricultural efficiency and productivity improvements, and industrial and domestic levers. A significant source of savings will come from more productive water usage and increased energy efficiency across

Exhibit 3

A range of existing technical measures within each sector can be implemented to close the projected gap between water supply and demand.



¹ \$1 = 7.4 South African rand.

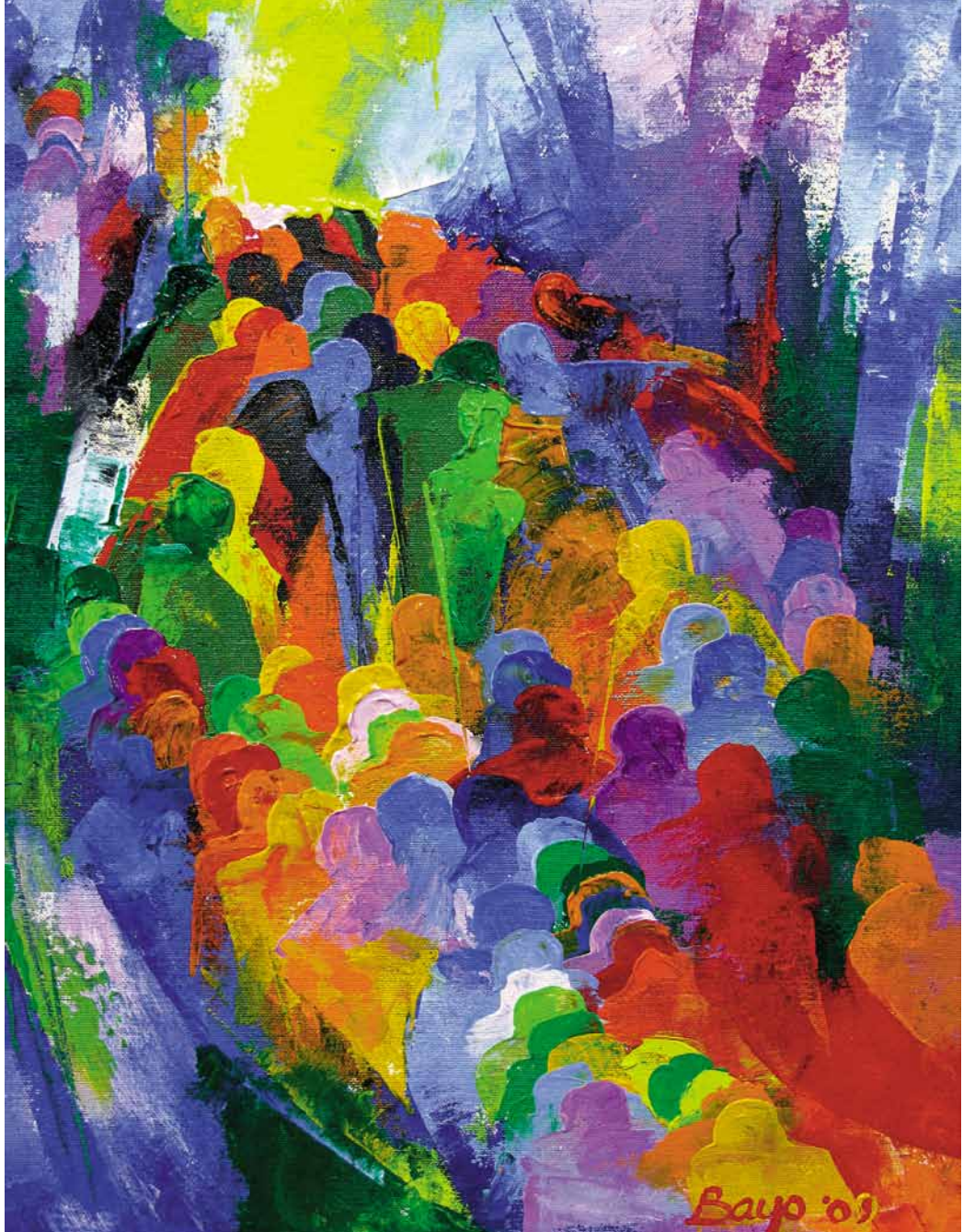
Source: 2030 Water Resources Group

the board. These solutions must be localized to cater to the specific economic and social needs of each particular region. For example, the focus of at least seven water-management areas in South Africa will be almost entirely on agricultural improvements, whereas economic centers such as Johannesburg and Cape Town will need to adopt industrial and domestic solutions. In the aggregate, however, South Africa's plan to double its power generation capacity by 2025 will constrain water resources, as will challenges brought about by demand centers that are often geographically removed from additional supply.

Africa, the challenge will involve tough trade-offs between the competing demands of agriculture, key industrial activities, and large and growing urban centers. Managing these trade-offs based on comparative cost data across all economic sectors will help South Africa achieve the required water savings with minimum downsides to the economy. The blend of solutions will include technical improvements to increase supply (as well as measures to enhance productivity and efficiency), to balance competing demands on a finite resource, and to ensure that the country is able to meet its water needs both today and in the future. ○



The issue of water scarcity is hugely important for businesses and nations the world over. Given the historic difficulty of providing enough water to meet society's needs, it is clear that governments and the private sector must partner to develop effective policies and sustainable solutions. In South



Bayo Iribhogbe
We #162, 2009
14 in x 18 in

© Courtesy of the artist

Bayostudio.com

South Africa in the spotlight: An interview with Deputy President Kgalema Motlanthe

The ANC veteran discusses the state of the South African economy, the country's progress in fighting HIV/AIDS, China's role on the continent, and the important part that values have to play in the business world.

Norbert Dörr and David Fine

With the 2010 World Cup set to begin June 11, it is a proud moment for the host country, South Africa. And, as its deputy president, Kgalema Motlanthe, suggests in this interview, it is also an important opportunity to bring the country together 20 years after Nelson Mandela's release from prison and the unraveling of the apartheid regime. Motlanthe, a former trade unionist, served ten years in prison (1977–87) on Robben Island for violations of South Africa's Terrorism Act. He was named president of South Africa in September 2008, after President Thabo Mbeki stepped down, and remained in office until the following May, when Jacob Zuma became president following a national election. Motlanthe was subsequently named deputy president. He is also deputy president of the African National Congress, South Africa's ruling party.

In an interview on April 30 with McKinsey's Norbert Dörr and David Fine, Motlanthe reflects on the state of South Africa's economy, the country's battle against HIV/AIDS, how the world perceives Africa, and China's role in Africa. He also offers some thoughts about values and business in the aftermath of the financial crisis: "We are struggling ourselves, as a new democracy in South Africa, to restore values," Motlanthe says. "I'm saying from our own experiences, what we can share with business leaders is that values are never a given."

McKinsey: *What does the World Cup mean to South Africa?*

Kgalema Motlanthe: The World Cup was really a bonus in the sense that we started investing in the construction of stadiums and expansion of the road

network ahead of the economic meltdown. So it served as a countercyclical measure. And of all the sectors of the economy, only the construction sector continued to show growth even during the recession. So it actually served a very useful purpose. But on a broader note, it also offers us an opportunity to consolidate the national cohesion, because we come from a past where we were divided along color lines. And sporting events such as the World Cup always serve to cement the sense of belonging, the sense of being one nation. So that is a very important benefit.

McKinsey: *How would you describe the state of South Africa's economy, and what are its main attractions to outside investors?*

Kgalema Motlanthe: The South African economy is just about coming out of the recession, which was a global phenomenon, and we are now seeing new jobs being created. The automotive sector of the economy, which was adversely affected by the recession, is now beginning to pick up, along with sales of new vehicles. So, we are technically out of the recession.

We have a well-regulated banking system—such that, even with all the toxic products, South African banks were not affected. And we have a stable democracy. There's predictability; investors can invest in South Africa and use it as a springboard to the rest of the sister countries on the continent.

McKinsey: *When people talk about China and India, you hear a lot about growth opportunities. On the contrary, when Africa is mentioned, you*

hear about all the problems: poverty, joblessness, poor health. Why is this the case?

Kgalema Motlanthe: The underlying reason for this negative perception about Africa isn't really the fact that many African countries have had unstable governments. We've had coups and so on. [The real reason is] there's genuine underdevelopment—not enough road networks and railways. It's very common to find that if you're in a country such as Cameroon and you want to go to Bangui, the capital of the Central African Republic, you've got to fly to Europe. It is those kinds of bottlenecks that give rise to this perception that Africa is just a continent of problems.

But we all know that there's a new generation of governments and leaders. The African Union has a policy of not recognizing any government that is not elected, so that has brought about stability

on the continent. There's therefore an opportunity to address those problems. All of these problems—infrastructure, education, health—are in fact opportunities to do business. If you look at countries such as India, they invested a lot in education, IT, and ICT¹ and reap the benefits of those investments. That's what Africa needs to do as well.

McKinsey: *Speaking of investment, some people have expressed concerns about the role of China in Africa. What is your view?*

Kgalema Motlanthe: China has been pursuing opportunities on the African continent, informed more by their own interests, because they have set themselves the goal of quadrupling the size of their own economy, which means they have the appetite and capacity to absorb whatever any of the African countries can produce for export purposes. But they also need lots of raw materials.

¹ Information and communications technologies.

Kgalema Motlanthe

Vital statistics

Born July 19, 1949, in Alexandria, Johannesburg, South Africa

3 children

Career highlights Republic of South Africa

- Deputy president (2009–present)
- Interim president (2008–09)

African National Congress (ANC)

- Deputy president (2007–present)
- Secretary general (1997–2007)
- Chair, Guateng region (1990–91)

National Union of Mineworkers

- General secretary (1991)
- Education officer (1987)

Fast facts

Was involved in the establishment of the Mineworkers Investment Company, the JB Marks Educational Trust, the Elijah Barayi Memorial Training Centre, and the Mineworkers Development Agency

Served on the Miners' International Federation



Because they take a long-term view, they secure supplies for up to 20 years, 30 years, and the people who are signing those kinds of supply agreements only take a short-term view. Of course, on the positive side, China has been very helpful to a number of African countries in the sense that they bring the capital and, in the majority of cases, they bring the personnel as well.

I know that in Angola, they went to see the Angolan government and the Angolan government said they have three rail lines to rehabilitate that were damaged during the civil war. So the Chinese agreed to rehabilitate the railway lines and gave them a loan of \$2 billion for that purpose. And within 18 months, all three railway lines had been rehabilitated.

So if you look at the manner in which the Chinese are able to address a challenge like that, it's a positive development. But on the negative side, they, of course, then remain. They don't go back to China. They had a contract with the Angolans that they would provide for every project. The Chinese will provide 70 percent of the workforce and the Angolans should provide 30 percent of the workforce—which, when you look at it from the point of view of job creation and employment, is a bit skewed.

Then, of course, the Chinese workers used the platoon system—this was told to me by the Angolan authorities. They said they signed off on the 70/30 percent and their own people, the Angolans, only worked one month. The workers would work one month and desert because they're not used to working on a platoon system—with no Sunday off, it's a seven-day week. The Chinese didn't come back to them to complain about the deserters; they simply replaced them. So, whereas on paper, they had 70/30, in reality they ended up with Chinese workers doing 100 percent of the work. It

addresses China's problem of employment at the disadvantage of the African countries.

So, as sister countries, we've got to compare notes and perhaps interact with China bilaterally but also collectively. That way I think we can ameliorate the chances of most of the African countries being completely outsmarted.

McKinsey: *To what extent do businesses in South Africa have responsibilities to society such as job creation, good health, and poverty alleviation?*

Kgalema Motlanthe: Most companies that operate in South Africa take their social responsibilities very seriously. They pay attention to some of them, even build schools in poor communities. If it were possible, I would rather they—the ones that are in the mining sector, for instance—empower local communities and also improve on general infrastructure in those communities. At the moment, you'll find that they create a compound—a small town with all the resources that you find in a modern city—next to villages that are characterized by the ravages of poverty and backwardness. I'd hope that they would more or less have the same impact as a university; if you build a university in any location, it has an impact that advances the rest of the community around it.

But with the mines, we've found that they construct the road, which is only useful to the interests of the mine, construct a rail line, which is only useful to the mining interests, to the exclusion of the local economy. And even with our black economic-empowerment policy, it's very rare that you find the local community collectively is taken on board as an empowerment partner in a broad-based fashion. These companies tend to look for sophisticated people who come from urban areas to take on board as partners, to the exclusion of the local communities. Even on simple matters like sporting

facilities for the youngsters and so on, they'll have sporting facilities for their own employees to the exclusion of the rest of the communities. Therefore the impact that they have is very limited.

McKinsey: *Where does South Africa stand with respect to private–public partnerships?*

Kgalema Motlanthe: We already have examples of private–public partnerships. One of the best managed public hospitals in South Africa is the Inkosi Albert Luthuli Central Hospital, in KwaZulu-Natal, which is a private–public partnership. And it works better than most private clinics.

We also have examples of that in the correctional services, the prisons, right from construction to completion of the project and the management thereof. We are looking at private power producers in the energy sector. We are creating a new body that would enable private power producers to come onto the grid. In these days of challenges of climate change and carbon dioxide emissions, there are private power producers that develop

technology to extract gas from coal without mining it. And we think it's a great prospect; in the future, that's the way to go because most research and development and manufacture of technology happen in the private sector. There are only certain areas where the public sector leads in that regard, and the partnership, I think, can benefit the economy going forward.

McKinsey: *South Africa has the highest number of people infected with HIV in the world. The new government undertook a broad-based campaign to address HIV and AIDS—quite a different stance from the previous government. How much progress has the country made?*

Kgalema Motlanthe: I chair a body called the South Africa National AIDS Council and it brings together all stakeholders: researchers, health professionals, entertainment and sports personalities, women, nongovernmental organizations, people living with AIDS, religious leaders, and so on. It brings together the broadest cross-section of the South African population. We use that structure to lead and coordinate the government's efforts toward addressing the scourge of AIDS. On World AIDS Day, on the first of December last year, [president Zuma] announced a wonderful program and only a week ago led the public launch of a counseling and testing campaign. We want people to know their status. We also have a men's sector in the South African National AIDS Council. The men have been in the forefront of championing circumcision because it is now proved that with just male circumcision, the risk of infection is reduced by about 60 percent.

So the campaign is going fairly well, I must say. The awareness levels are very high. What we also came to notice was that whereas [we had] this great awareness, knowledge was still very low about behavior. It's about how people conduct them-

‘It's important to always understand that business is about people. It's about good will, and that good will depends on integrity.’

selves. So it's not just a question of treatment. It's more in prevention, so our messaging has been focusing on prevention as well as ensuring that those who are already infected receive the antiretrovirals.

McKinsey: *The recent economic crisis has raised a lot of questions about the importance of values in business. What is your advice to business on how to think about values, as the representative of a nation that has gone through a great struggle in which values have played an important part?*

Kgalema Motlanthe: Values are never a given. They have got to be developed, worked upon, and consolidated on an ongoing basis. Because if at any given time we as a society or as sections of society become complacent about them, we run the risk of losing them.

It's important to always understand that business is about people. It's about good will, and that good will depends on integrity. It depends on ensuring that there is good in what we do, rather than doing business as though you are in a casino, as it were. It's important for businesspeople to understand that business stands to gain better if they take a long-term view, rather than to try and make quick profits, which would just be spikes, and tomorrow, once you lose the good will, the business is bound to flounder. And that is why values are very, very important.

We are struggling ourselves, as a new democracy in South Africa, to restore values. It's an ongoing struggle that we have to wage because we have just embarked on our transition from an order that was characterized by divisions—along racial lines, along ethnic lines. We are therefore duty bound to try at all times to bring to the fore the values that bring us together as fellow South Africans, as human beings, united in our diversity.

It's been a struggle for us to embrace our common history. We still find that even the history of this country is looked at in a divided fashion. And we say, it's our common history. Whatever we did, we must take ownership of this history. That's how we will be able to prevent ourselves and future generations from sliding back into any system that would once again divide our people. So, in a sense, I'm saying from our own experiences, what we can share with business leaders is that values are never a given. They have got to be worked on and consolidated on an ongoing basis. ○



Painted by John Kilaka

Tanzania
Kilaka.com

Helping Africans to jump-start
their industries

A nonprofit's work in Mozambique and other developing countries shows how businesses there can break the cycle of poverty.

Bruce McNamer

In 2004, 65 percent of the frozen broiler chickens for sale in Mozambique were imported from Brazil. To get to Mozambique, the chickens were frozen and shipped through the Middle East. By the time they arrived, they were often past their sell-by date, in violation of Mozambican import restrictions. Incredibly, the Brazilian product was cheaper than the Mozambican one. Why? Brazil's agribusiness productivity and efficiency are certainly the envy of the world. But if the Mozambican poultry sector were at all competitive, it would surely be able to sell home-raised chicken more cheaply into a growing domestic market than the Brazilians can.

Such situations are not limited to Mozambique. There are significant possibilities in Africa to unlock value in different industry sectors, and these possibilities will grow over time. Success, however, will require the government and business to adopt a strategy based on an analytical and market-oriented approach, customized for the sector and focused on helping enterprises and people make money. While ultimately reliant on commercial incentives and viability, this strategy will probably require up-front, subsidized investments to seed the market, as well as the coordination of stakeholders and interventions across the value chain.

In the case of Mozambique's poultry sector, our nonprofit organization, TechnoServe,¹ with a mandate and funding from the US government, undertook a comprehensive value chain analysis starting with demand and working through the supply of feed, to layer and egg production, the feeding and growing of chicks, processing, market-

ing, and, ultimately, retail consumption. Our team interviewed hundreds of participants in the poultry and feed sectors and eventually assembled a strategic plan that identified and quantified potential demand, the major constraints along the value chain, the high-leverage (and other) points of intervention, and a specific industry-development program.

As is so often the case, the constraints were multiple and interrelated—a lack of locally available feed, poor models for “outgrower schemes” to contract with small-scale local farmers to raise chicks, few successful entrepreneurs operating hatcheries or abattoirs, few standards to ensure high quality and sanitary compliance, no industry organization, no retail marketing, and ineffective enforcement of tariff and import regulations. Moreover, while the overall economic returns were very attractive if the hurdles could be overcome, gaining these returns required an up-front investment and cross-sector coordination that no single commercial actor could undertake. But TechnoServe was able to help the sector move forward with an approach that emphasized pilots, learning, and expanding at multiple points along the value chain, as well as coordinating the involvement and integration of multiple stakeholders.

That effort, involving thousands of soy and maize farmers, took place in the feed grains sector, which has grown into a \$60 million business, from \$15 million, in five years. Work was undertaken to provide business and technical training for small-holder poultry farmers so that they could improve their production practices and to help 11 commercial poultry businesses upgrade processing

¹ TechnoServe helps people in developing countries to build businesses that break the cycle of poverty by generating jobs and other income opportunities. Over the past four decades, the organization has worked in more than 30 countries. In 2008 alone, it assisted more than 1,300 businesses across Africa, India, and Latin America.

machinery, expand production capacity, improve the quality of broilers, and strengthen links to smallholders. A trade group, the Mozambican Aviculture Association (AMA), was organized to represent the industry's interests and to launch a multimedia campaign throughout the country promoting the consumption of locally produced poultry. Producers increasingly use the AMA seal on their products, as consumers associate it with a quality, standardized product. Mozambique's government played an extensive role in the enforcement of import regulations. Along with Cargill, Michigan State University, and the University of Minnesota, the government also helped introduce bio-security measures and contingency planning for food safety in response to the threat of avian influenza.

Between 2004 and 2009, the Mozambican poultry industry grew more than fourfold, with annual production reaching upward of 23,000 tons of chicken meat in 2009 and consumption of locally produced chicken rising to 76 percent of the total market. More than 1,200 poultry jobs have been created. More than 2,500 small-scale farmers were trained and began participating in outgrower production operations, leading to two- to tenfold increases in these farmers' household incomes. Poultry processors' annual revenues have increased to \$80 million, from \$20 million. And the industry continues to grow. TechnoServe's focus in

Mozambique is now upstream (on a host of opportunities for the broader commercialization of the soy sector) and downstream (on the potential for retail chicken franchise stores).

In the past ten years, TechnoServe has similarly engaged with the cashew, fruit, forestry, and tourism sectors. Each of those interventions was different—customized for the particular opportunities and constraints of the individual sector. Yet all looked to apply donor funding to a rigorous analysis of the sector and to targeted, time-limited, and integrated interventions across the value chain to catalyze longer-term industry growth. The overall impact for Mozambique was substantial: an estimated GDP boost of 5 percent, more than 8,000 new jobs, the integration of nearly 100,000 farmers into commercially viable value chains, and more than \$50 million in capital mobilized in support of new opportunities.

Mozambique is just one example. This is not easy work. But it is important and if done right can catalyze vibrant, substantial, and poverty-reducing economic growth. 

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