

McKinsey Global Institute



July 2014

Nigeria's renewal: Delivering inclusive growth in Africa's largest economy



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McKinsey in Nigeria

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Reinaldo Fiorini
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David Wright

Preface

Global investors and business leaders are focusing on Africa as the next frontier of growth and opportunity, assuming the role that Asia has played in the past 30 years. As in Asia, rapidly developing economies have the potential to lift millions of people out of poverty, contribute to global labour pools, and create a new consuming class. Nowhere is this potential more apparent than in Nigeria, which is the largest African nation not only in population, but also in economic output.

This report was prepared through a collaboration between the McKinsey Global Institute (MGI) and McKinsey's Nigeria office to assess the opportunity that Nigeria's growth represents for global, local, and regional businesses and, most importantly, for its people. We find that the substantial progress that Nigeria has made in the past 15 years has not been fully appreciated in the outside world, where the nation's challenges—including security issues—have garnered more media attention. Nigeria has, in fact, established a record of steady growth and improved political stability. Despite persistent poverty, the country has a rapidly growing consuming class. In the following pages, we describe how Nigeria can build on its recent success and ensure that in the coming decade growth is more inclusive so that more Nigerians can escape poverty and enjoy a decent standard of living.

This research was led by Acha Leke, director of McKinsey in Africa and member of the MGI Council; Reinaldo Fiorini, managing director of the McKinsey Lagos office; and Richard Dobbs, an MGI director in London. Fraser Thompson, an MGI senior fellow based in Singapore, directed the research with Aliyu Suleiman, an associate principal based in London. The research team was led by David Wright and consisted of Tim McEvoy, Amuche Okeke-Agba, Roelof van Schalkwyk, and

Kathryn Zealand. Geoffrey Lewis provided editorial support, and we thank MGI's production and design team—Julie Philpot and Marisa Carder—as well as Rebeca Robboy and Marlynne Moodley in external relations.

We are grateful for the advice and input of many McKinsey colleagues, including Rolando Balsinde, Dominic Barton, Martin Bratt, Armando Cabral, Bruno Carrilho, Elsie Chang, Michael Chui, Dan Cole, Eoin Daly, Scott Desmarais, Diana Farrell, Lutz Goedde, Marte Guldemon, Indrek Heinloo, Adam Kendall, Alastair Levy, Susan Lund, Anu Madgavkar, Karl-Hendrik Magnus, James Manyika, Jan Mischke, Derek Neilson, Liane Ong, Sree Ramaswamy, Jaana Remes, Joao Viana Rodrigues, Occo Roelofsen, Bill Russo, Namit Sharma, Marc Stoneham, Ade Sun-Basorun, Amine Tazi-Riffi, Arend Van Wamelen, and Jonathan Woetzel.

This work was made possible by the insights that were shared by our academic advisers and experts from industry, the nonprofit sector, and the Nigerian government. We thank our academic advisers Paul Collier, professor of economics and public policy at the Blavatnik School of Government, Oxford University; Richard Cooper, Maurits C. Boas Professor of International Economics, Harvard University; Shelby Grossman of Harvard University; and Daniel Rogger of University College London. Industry leaders who contributed include Lazarus Angbazo, president and CEO, GE Nigeria; Hakeem Belo-Osagie, chairman, Etisalat Nigeria; Aliko Dangote, chairman and CEO, Dangote Group; Dharnesh Gordhon, managing director, Nestlé Nigeria; Phillip Ihenacho, CEO, Seven Energy; Kola B. Jamodu, chairman, Nigerian Breweries; Razia Khan, head of

regional research (Africa), Standard Chartered Bank; Timothy Okon, director of transformation, Nigerian National Petroleum Corporation; Oscar Onyema, CEO, Nigerian Stock Exchange; and Foluso Phillips, executive chairman, Phillips Consulting.

We also benefited from the insights of Donald Kaberuka, president of the African Development Bank; Elsie Kanza, head of Africa at the World Economic Forum; John Litwack, lead economist for Nigeria, the World Bank; Marie Françoise Marie-Nelly, World Bank country director for Nigeria; Frank Nweke Jr., director-general, Nigerian Economic Summit Group; and Ada Osakwe, Elumelu fellow at the Tony Elumelu Foundation and senior investment adviser to the Nigerian Ministry of Agriculture and Rural Development. We are also indebted to Joe Abah, director-general, Bureau of Public Service Reforms; Yemi Kale, CEO of the Nigerian National Bureau of Statistics; Bambo Kunle-Salami, special adviser to the minister of industry, trade and investment; Kingsley Obiora, special adviser to the chief economic adviser to the president; Kelechi Ohiri, senior technical adviser to the minister of health and lead, Saving One Million Lives; Ngozi Okonjo-Iweala, Nigeria's coordinating minister for the economy and minister of finance; Philip Osafo-Kwaako, special assistant to the co-ordinating minister for the economy; Dapo Oyewole, technical adviser to the minister of national planning; Muhammad Ali Pate, former minister of state for health; and Christopher Shyers, team leader for Growth and Employment in States, an employment project supported by Nigeria's Federal Ministry of Trade and Investment and funded by the World Bank and the UK Department for International Development. We are grateful for all of their input, but the final report is ours and any errors are our own.

This report contributes to MGI's mission to help business and policy leaders understand the forces transforming the global economy, identify strategic locations, and prepare for the next wave of growth. As with all MGI research, this work is independent and has not been commissioned or sponsored in any way by any business, government, or other institution. We welcome your comments on the research at MGI@mckinsey.com.

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July 2014

Nigeria today ...

The largest economy in Africa and the 26th largest in the world, with GDP of

\$510 billion

Only **14%** of GDP is from resources,
with retail and wholesale trade the biggest
drivers of GDP growth

Almost **40 million** Nigerians
in consuming-class households¹

... but almost **130 million**
live below the Empowerment Line²

Road density is **$\frac{1}{7}$** that of India,
and power generation capacity is just
 $\frac{1}{5}$ that of India

¹ Households with income of more than \$7,500 per year (in purchasing power parity terms).

² The MGI Empowerment Line is defined as the income required to fulfil eight basic household needs at a level sufficient to achieve a decent, if modest, standard of living.

... and in the future

Potential to achieve **7.1%** annual GDP growth could make Nigeria a top-20 economy in 2030, with

GDP of more than **\$1.6 trillion**

... supported by rapid infrastructure expansion through investment of up to

\$1.5 trillion

160 million people in consuming-class households, more consumers than the current populations of France and Germany combined

Potential for **120 million** Nigerians to move above the Empowerment Line and for

70 million to move out of poverty



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Executive summary

Global investors and business leaders are paying increasing attention to Africa, which is widely regarded as the next frontier for the type of transformative growth that has been seen in Asia in the past two decades. In this report, we assess the immense potential of Nigeria. While global media have focused on violent unrest in parts of the country, less has been written about the significant economic progress that has been made in recent years.

With about 170 million inhabitants, Nigeria has long been the largest nation in Africa, but it is only now also acknowledged as the continent's largest economy. In April 2014, the government began to release "rebased" data that show GDP of \$454 billion in 2012 and \$510 billion in 2013 (compared with the \$259 billion and \$270 billion that were reported previously), confirming Nigeria's lead over South Africa as the continent's largest economy (Exhibit E1).¹ This rebased data, using updated prices and improved methodology, also reveals an economy that is far more diverse than was previously understood.

Exhibit E1

"Rebasing" confirms that Nigeria is the largest economy in Africa



¹ Economic data for some countries in 2013 estimated by the International Monetary Fund (IMF).

² Data for Nigeria rebased GDP are based on basic prices, the headline figure used by the National Bureau of Statistics.

SOURCE: IMF; National Bureau of Statistics; McKinsey Global Institute analysis

¹ The government continues to provide further updates on the rebasing exercise. In July 2014, it released another set of updated economic figures for the 2010–2013 period. The 2013 GDP number was basically unchanged (\$509 billion vs. the \$510 billion previously reported), but the reported growth rate from 2010 to 2013 was reduced somewhat (5.0% vs. 6.4%) due to an upward revision of 2010 GDP.

Our report examines how Nigeria can live up to its economic potential and make growth more inclusive, which can bring more Nigerians out of poverty and up to the McKinsey Global Institute (MGI) “Empowerment Line”—a level of income and access to vital services that provides a decent standard of living.² The Empowerment Line, we believe, provides a more realistic picture of well-being and development progress than common poverty measures, which tend to be based on pure income metrics, usually \$1.25 per day in purchasing power parity terms in 2005 prices.

Among the major findings of this research:

- Since 2010, Nigeria’s GDP growth has been driven primarily by improving productivity, which has contributed 55 percent of total growth, more than labour-force expansion.³ Most GDP growth is coming from beyond the resources sector, which is now just 14 percent of GDP. However, historical weaknesses in the agricultural sector and a poorly functioning urbanisation process have prevented most Nigerians from benefiting from this growth. Poverty has barely declined, and approximately 130 million Nigerians, or about 74 percent of the country’s population, live below the Empowerment Line.
- Nigeria has the potential to expand its economy by roughly 7.1 percent per year through 2030, raising GDP to more than \$1.6 trillion in 2030 (Exhibit E2). This could move Nigeria from being the 26th-largest economy today to a top-20 economy by 2030 and would potentially make it bigger than the Netherlands, Thailand, or Malaysia. Trade and infrastructure represent the majority of the growth potential, likely contributing about a third of GDP expansion through 2030.⁴ In addition, we estimate that nearly 120 million Nigerians could move above the Empowerment Line and 70 million could be lifted out of poverty if growth can be made more inclusive than it has been.⁵
- Strengthening government capabilities will be essential to capturing the growth opportunity and making growth more inclusive. On health and literacy metrics, Nigeria lags behind other developing economies that spend a similar proportion of GDP in these areas. By employing well-established global practices to improve delivery of programmes and projects, Nigeria can achieve better results.
- Nigeria is developing a large consuming class. By 2030, some 160 million Nigerians (out of a projected population of 273 million) could live in households with sufficient incomes for discretionary spending. That would be more Nigerian consumers than the current populations of France and Germany

2 The MGI Empowerment Line was created to define a meaningful, economically empowered standard of living. The Empowerment Line is the income required to fulfil eight basic household needs (food, energy, housing, drinking water, sanitation, health care, education, and social security). For further details on the methodology, see *From poverty to empowerment: India’s imperative for jobs, growth, and effective basic services*, McKinsey Global Institute, February 2014.

3 By productivity, we mean GDP generated per worker.

4 Retail and wholesale trade, as defined in the national accounts, which consist of the sale (but not the manufacture) of consumer goods and other products.

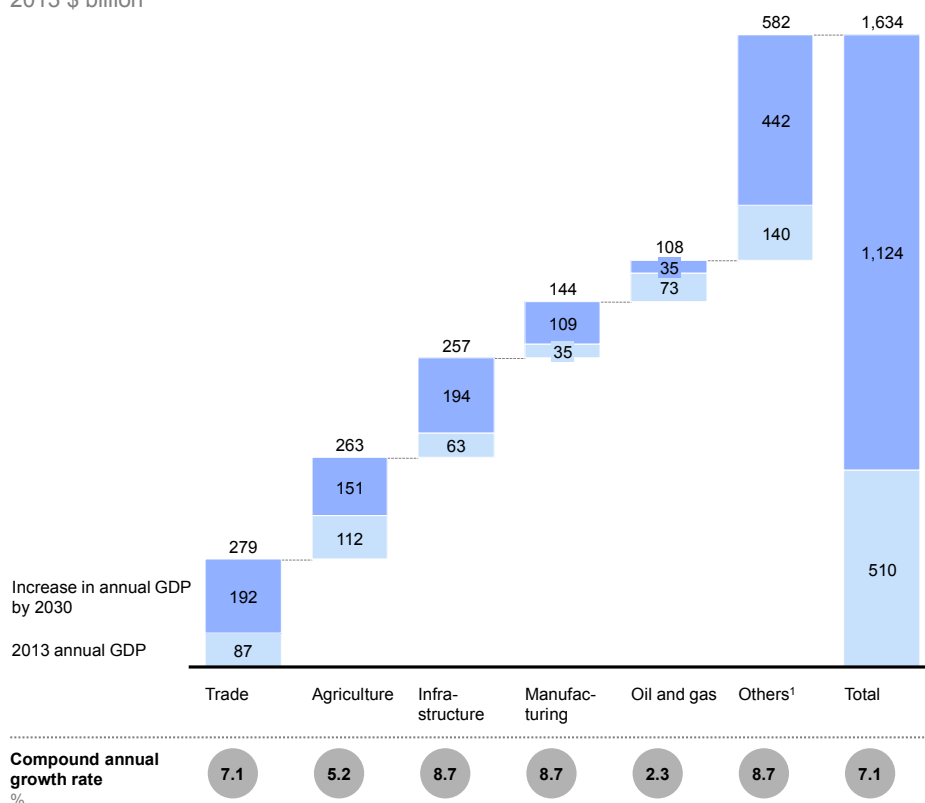
5 This is the estimate of the maximum potential for poverty reduction and empowerment, based on the maximum 7.1 percent GDP growth rate and assuming improvements in government delivery of services, rising farm incomes, and more formal hiring in cities.

combined.⁶ Therefore, we estimate that sales of consumer goods could more than triple by 2030, to almost \$1 trillion. To succeed in Nigeria's evolving consumer markets, companies will need to deal with a fragmented wholesale and retail environment that favours local players. New players will need to manage distributors effectively and take a city-level view of markets.

Exhibit E2

Should Nigeria reach its full potential, annual GDP could exceed \$1.6 trillion by 2030

GDP contribution
2013 \$ billion



1 Assumes growth rate from 2010 to 2013 will be maintained for these sectors; includes financial and insurance services, real estate, motion pictures, education, health, and other service industries.

NOTE: Numbers may not sum due to rounding.

SOURCE: National Bureau of Statistics; IHS Global Insight; UN FAOSTAT; World Bank; Canback Global Income Distribution Database (C-GIDD); McKinsey Global Institute analysis

6 We define the "consuming class" as households with annual incomes of \$7,500 per year and up. In Nigeria, we use an estimate of average household size of 4.7 people, based on the Canback Global Income Distribution Database (C-GIDD).



1. Nigeria today

At current growth rates, Nigeria is poised to become a major economic force in the coming decades. The government's rebasing exercise has shown that the country has clearly emerged as the largest economy in Africa. Nigeria has a huge endowment of resources, a growing consuming class, and rapidly growing trade and consumer sectors to propel growth.

Yet Nigeria also faces enormous challenges. As in other parts of Africa, conflict holds back development in a number of regions. Corruption and weak governance are also drags on the economy. Despite a decade of stable economic growth, the number of Nigerians living in poverty has not declined significantly.⁷ And while productivity is growing at a healthy clip and driving GDP growth, it is still relatively low and is not translating into rising incomes and improved living standards for most Nigerians.

In rural areas, 53 percent of the population lives below the poverty line due to low farm output, poor access to markets, and a rising population that is leading to cultivation of smaller plots.⁸ We estimate that 81 percent of rural Nigerians live below the Empowerment Line, which we define as \$758 per year per person in rural areas.⁹ Recent reforms in agriculture are promising, but the scale of challenges is vast, and it may take many years for farm incomes to rise substantially.

In Nigeria's cities, where the majority of the population now lives, very high rates of informal employment and underemployment contribute to a 34 percent poverty rate. We estimate that 68 percent of urban Nigerians live below the Empowerment Line, which we define as \$1,016 per year per person in urban areas.¹⁰ In both rural and urban Nigeria, high costs of living, particularly for food and housing, exacerbate poverty; it costs more than twice as much to achieve an economically empowered standard of living in Nigeria as in India.¹¹

In this chapter, we look at how Nigeria became the nation and economy that it is today, and how that history created enduring perceptions about the country that do not reflect what Nigeria has accomplished in the past decade. We also look at how Nigeria has diverged from the expected pattern of rising productivity and

7 Unless otherwise indicated, in this report we use the definition of poverty from Nigeria's National Bureau of Statistics, which is based on an estimate of what it takes to support daily adult consumption of 3,000 calories plus other necessary expenditures. On this basis, Nigerian poverty declined from 48 percent in 2004 to 46 percent in 2010. The World Bank defines poverty as living on less than \$1.25 a day in purchasing power parity terms. By this measure, the Nigerian poverty rate rose from 63 percent in 2004 to 68 percent in 2010.

8 As of 2010, calculated on the basis of Nigeria's official poverty line (National Bureau of Statistics).

9 As of 2013.

10 As of 2013.

11 As of 2010, calculated on the basis of Nigeria's official poverty line (National Bureau of Statistics).

per capita GDP that developing economies typically follow during industrialisation and urbanisation, and we examine the reasons that growth has not had a greater impact on poverty.

NIGERIA'S TROUBLED PAST—AND RECENT STABILITY

Nigeria has a troubled history. Following a century and a half of colonial rule, it gained independence from the United Kingdom in 1960. Seven years later, the country was embroiled in civil war. Military coups and rule by military juntas alternated with democratic regimes until democratic elections in 1999 and 2003 ushered in an era of relative stability and strong economic growth. But poverty rates have remained stubbornly high.

Independence and instability, 1960–1999

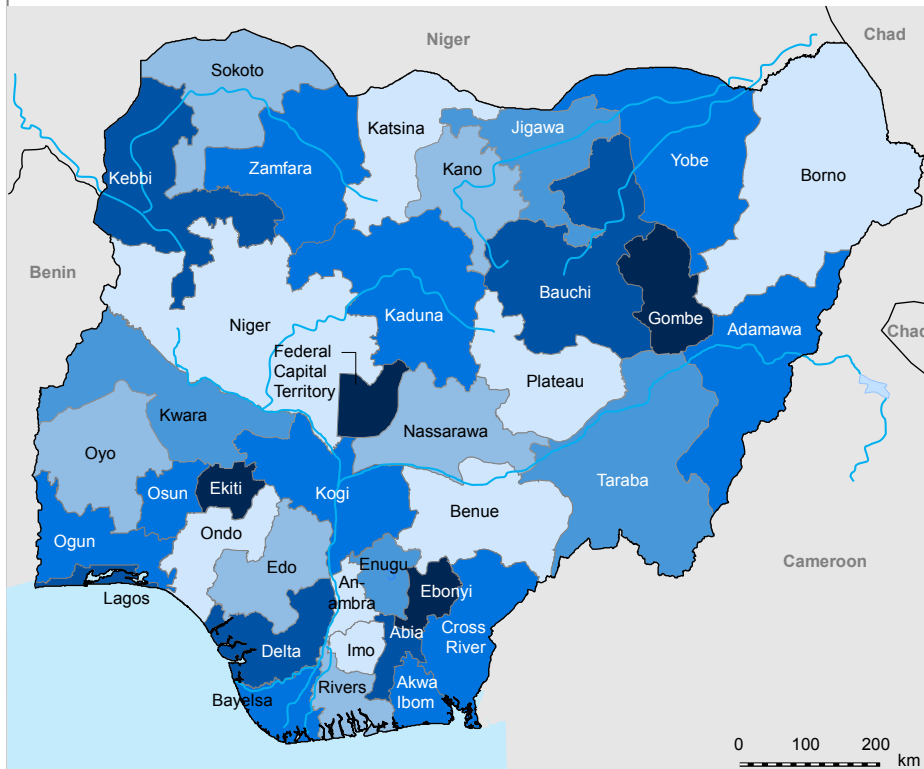
The British drew the borders of Nigeria, leaving the new country in 1960 with high hopes for the future but also with deep religious and ethnic divisions: a Christian south and a Muslim north and three major ethnic groups—the Hausa-Fulani, the Igbo, and the Yoruba (Exhibit 1). As a result of these tensions, the Republic of Biafra attempted to break away, leading to the 1967–70 civil war. The nation held together, and rising oil production supported economic growth as well as the expansion of government services and programmes. But the crisis led to a decade of military rule, which continued until the founding of the Second Republic in 1979. The Second Republic was short-lived, followed by back-to-back military coups in 1983 and 1985.

During the 1980s, Nigeria's economic fortunes declined. The Niger Delta oil fields, which began producing in the 1950s, had provided the income for a growing government, with budgets tied to oil market prices. But when world oil prices collapsed in the 1980s, years of inflationary, debt-fuelled economic policy caught up with Nigeria. President Ibrahim Babangida was forced to turn to the International Monetary Fund (IMF) for financial support and accept a structural adjustment programme, which involved the abolition of price controls, mass privatisations, currency devaluation, and large reductions in public spending. Economists continue to debate the long-term impact of these measures, which coincided with large declines in average wages and a rapid increase in poverty, which has never fallen back to pre-crisis levels. Following an abortive attempt to return to democracy in 1993 (the so-called Third Republic), Babangida was forced to “step aside” and within months his hand-picked successor was overthrown in yet another coup. Six more years of rule by military generals followed.

Exhibit 1

Nigeria is a diverse country organised as a federal constitutional republic

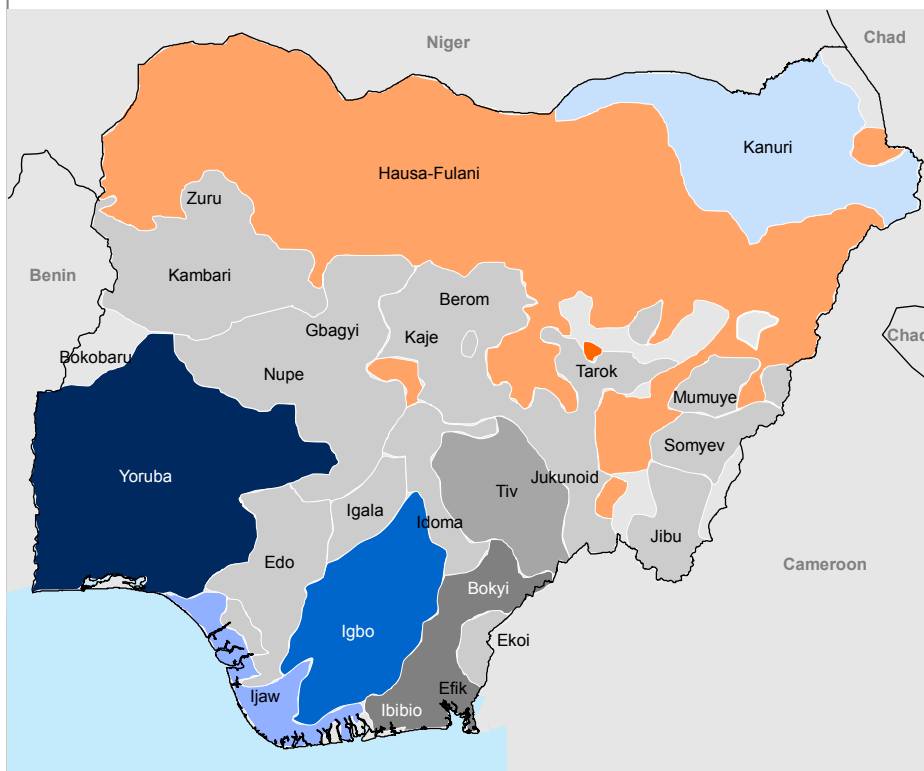
Nigeria consists of 36 states and the Federal Capital Territory ...



... with more than 250 ethnic groups and languages

Major ethnic groups
(% of population)

Hausa-Fulani 29%	Igbo 18%	Kanuri 4%	Tiv 2.5%
Yoruba 21%	Ijaw 10%	Ibibio 3.5%	Other 12%



SOURCE: Nigerian Federal Government; BBC; World Bank; Ulrich Lamm; McKinsey Global Institute analysis

Stability and reform, 1999–present

The Fourth Republic, established in 1999, has proven more durable than its predecessors. The fourth presidential elections in a row are scheduled for 2015, and development economists have praised many reforms undertaken since the second round of elections in 2003.¹²

The environment for growth has improved due to greater macroeconomic stability. In 2004, the government adopted a benchmark oil price, rather than the market price, for estimating oil revenue and setting the federal budget. The government also established the Excess Crude Account, a contingency fund (now worth more than \$3.7 billion) designed as a cushion against oil revenue shocks. These moves allowed Nigeria to pursue a countercyclical fiscal policy during and after the global financial crisis.¹³

Under the Fourth Republic, other pro-growth measures have been adopted. The banking system, for example, has been reformed to increase competition, consolidating the sector and forcing out poor performers. Competitive tendering for all public projects was introduced, reducing costs by 40 percent, although substantial challenges remain in this area.¹⁴ High-profile corruption prosecutions have increased, and Nigeria's reputation for corruption has improved since the 1990s, when the country was perennially rated second worst in the world on Transparency International's Corruption Perceptions Index. However, it remains in the bottom 25 percent.

Reforms translated into stronger growth. According to the pre-rebasing data, GDP grew on average by 8.6 percent a year from 1999 to 2010, compared with just 1.5 percent a year under military rule between 1983 and 1999 (Exhibit 2).¹⁵ Despite this growth, however, poverty rates have remained high and stagnant. On metrics of human health such as child mortality, Nigeria falls far short of the United Nations' Millennium Development Goals, and it has under-invested in education and infrastructure.

12 *Country partnership strategy for the Federal Republic of Nigeria for the period FY2014–FY2017*, World Bank, March 2014; *Nigeria: 2013 Article IV consultation*, International Monetary Fund (IMF) staff report, April 2014.

13 *Country partnership strategy for the Federal Republic of Nigeria for the period FY2014–FY2017*, World Bank, 2014; *Nigeria: 2013 Article IV Consultation*, IMF staff report, April 2014.

14 Olu Ajakaiye, Paul Collier, and Akpan H. Ekpo, "Management of resource revenue: Nigeria", in *Plundered nations? Successes and failures in natural resource extraction*, Paul Collier and Anthony J. Venables, eds., Palgrave Macmillan, 2011.

15 This figure represents pre-rebased data issued by the National Bureau of Statistics. According to the initial rebased data, released in April 2014 and covering only 2010 to 2013, Nigeria's GDP growth in those years was 6.4 percent per year in basic prices and 6.2 percent in market prices. GDP in market prices accounts for taxes and subsidies on products and is the more commonly used metric internationally, although the Nigerian statistics bureau tends to favour GDP in basic prices in its official releases.

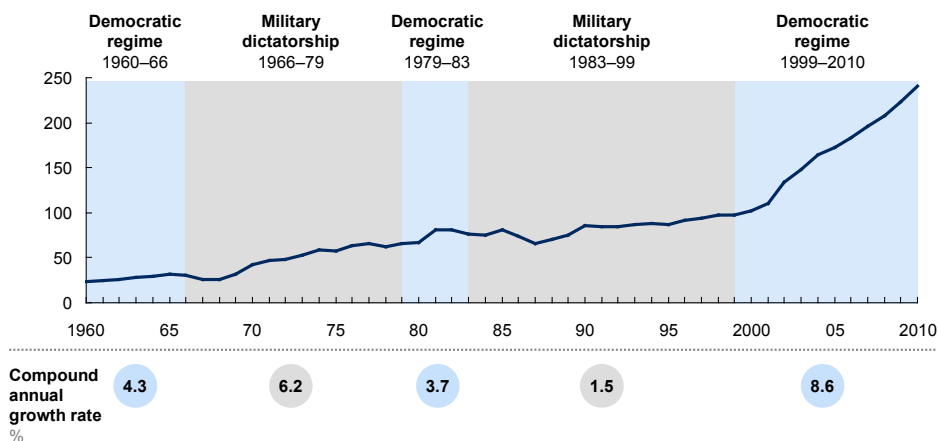
Exhibit 2

Economic growth has accelerated since 1999 under civilian rule

Nigerian economic output, 1960–2010 (based on pre-rebased historical GDP)¹

Real GDP
2013 \$ billion

■ Periods of military rule



¹ Note that currently rebased GDP is available only post-2010, so this chart uses the official GDP statistics based on 1990 structures and should be considered indicative only for the period between 1990 and 2010.

SOURCE: The Conference Board Total Economy database; World Bank; McKinsey Global Institute analysis

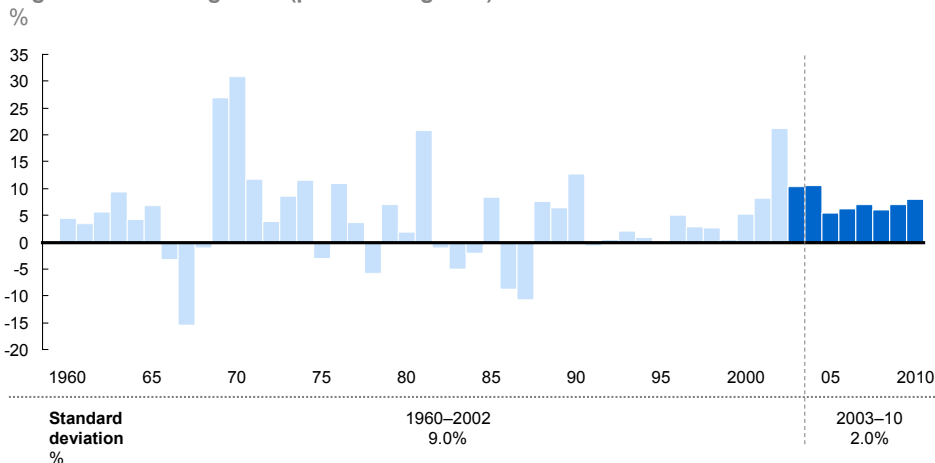
NIGERIA'S RECENT GROWTH IS OFTEN POORLY UNDERSTOOD

Nigeria's history has created an impression of the country that reflects neither the substantial progress it has made in the past decade nor the factors that point to sustained growth in coming years. Here we provide an up-to-date view of Nigeria, address lingering misconceptions, and offer insights into the strengths on which Nigeria can build.

Nigeria's growth has been stable for more than a decade

Nigeria is often thought to have an erratic economic engine, with GDP bouncing around from year to year, according to movements in the price of oil. Historically, this was an accurate assessment. Before the fiscal reforms of the past decade, government spending was determined by the price of oil. If the price was high, budgets swelled; if it fell, spending was cut dramatically and the effects were felt across the economy. The Nigerian government continues to depend on revenue from the oil and gas sector for three-quarters of its income, but budgets now are calculated using a long-run average benchmark oil price, and surpluses are paid into the Excess Crude Account. The implementation of this budgeting approach has been far from perfect, but the overall results have been less volatility in both government spending and GDP (Exhibit 3).¹⁶

¹⁶ The World Bank, for example, noted institutional vulnerabilities with the Excess Crude Account emerging in 2010 and 2011, when political pressures led to excessive ad hoc withdrawals. The IMF has also called for increased monitoring of oil revenue and greater clarity about the present system. *Country partnership strategy for the Federal Republic of Nigeria for the period FY2014–FY2017*, World Bank, March 2014.

Exhibit 3**After decades of volatility, Nigeria's economic growth has been more stable since the early 2000s**Nigerian real GDP growth (pre-rebasing data)¹

¹ Data are from prior to the rebasing exercise. Rebased data, available from 2010 onward, includes additional economic sectors, making comparisons unreliable.

SOURCE: The Conference Board; World Bank; McKinsey Global Institute analysis

Nigeria actually has a fast-growing consuming class

One of the most important underappreciated changes in Nigeria is the growing size and strength of its consuming class. Although more than 40 percent of the population falls below the national poverty line, the number of households in the consuming class is growing rapidly.¹⁷ In 2013, an estimated eight million households had incomes of more than \$7,500 per year—the threshold for what the McKinsey Global Institute considers “emerging consumers”, with sufficient income to meet all basic necessities and have money left over to start buying more and better food as well as health and education services. By 2030, we estimate that about 35 million households (an estimated 160 million people) could be living above this threshold. Today, Nigeria’s consumer market is worth nearly \$400 billion per year and, based on this expanding consuming class, could reach \$1.4 trillion a year by 2030. Food (including beverages) and non-food consumer goods would account for \$1 trillion of the total.¹⁸

Nigeria’s economic output is more diversified than is commonly believed

One misconception often held by those outside Nigeria is that oil and gas is the dominant sector and the engine of growth of the Nigerian economy, making it as dependent on global energy markets as several Middle Eastern economies. The recent rebasing exercise demonstrates that the natural resources sector is a smaller share of the economy than previously understood (see Box 1, “Rebasing: The changing structure of Nigeria’s economy”).

¹⁷ Poverty as of 2010, calculated by the National Bureau of Statistics, was 46 percent.

¹⁸ Includes spending on consumer goods, housing, telecom, transportation, health care, and education.

Box 1. Rebasing: The changing structure of Nigeria's economy

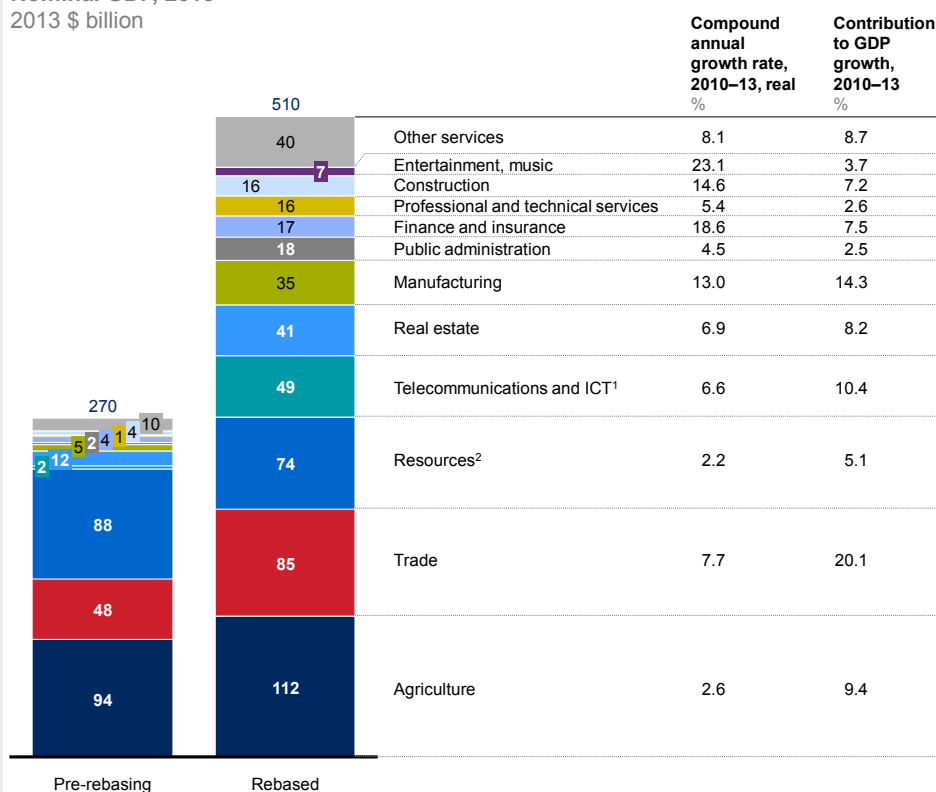
The recent rebasing exercise by Nigeria's National Bureau of Statistics, supervised and validated by the World Bank, International Monetary Fund, and African Development Bank, provides an updated assessment of the structure, growth, and price levels in the economy (Exhibit 4). Most of the increase in GDP arising from the rebasing exercise has come from changes in manufacturing, real estate, communications, and other services, which are all growing rapidly. However, restated real growth in agriculture, at 2.6 percent per year, is less than the previously reported 14 percent. The resources share of the economy has fallen by more than half, from 33 percent to 14 percent. The National Bureau of Statistics estimates a preliminary overall growth rate of 6.4 for GDP in real prices between 2010 and 2013.

Exhibit 4

Rebasing shows the contributions of sectors such as agriculture, trade, and resources more accurately

Nominal GDP, 2013

2013 \$ billion



Compound annual growth rate, 2010–13 (%)

Nominal	7.7	13.8
Real	7.0 ³	6.4

¹ Information and communications technology.

² Resources do not include oil refining, which is included in manufacturing.

³ For pre-rebased real compound annual growth rate, we use 2010–12, since real 2013 was unavailable.

NOTE: Numbers may not sum due to rounding.

SOURCE: National Bureau of Statistics, data accurate as of April 2013 GDP release; McKinsey Global Institute analysis

While Nigeria is among the nations that MGI classifies as “resource-driven”, 86 percent of its GDP is outside the resources sector.¹⁹ The majority of GDP is actually in services, and agriculture is the single largest sector, contributing 22 percent of GDP. Compared with that of other top oil-producing developing economies, Nigeria’s resources sector represents a relatively small share of GDP (Exhibit 5).²⁰ Furthermore, oil production has dropped in recent years and the resources sector is now growing by 2.2 percent a year, compared with 7.1 percent for the non-petroleum economy and 6.4 percent for the economy overall.

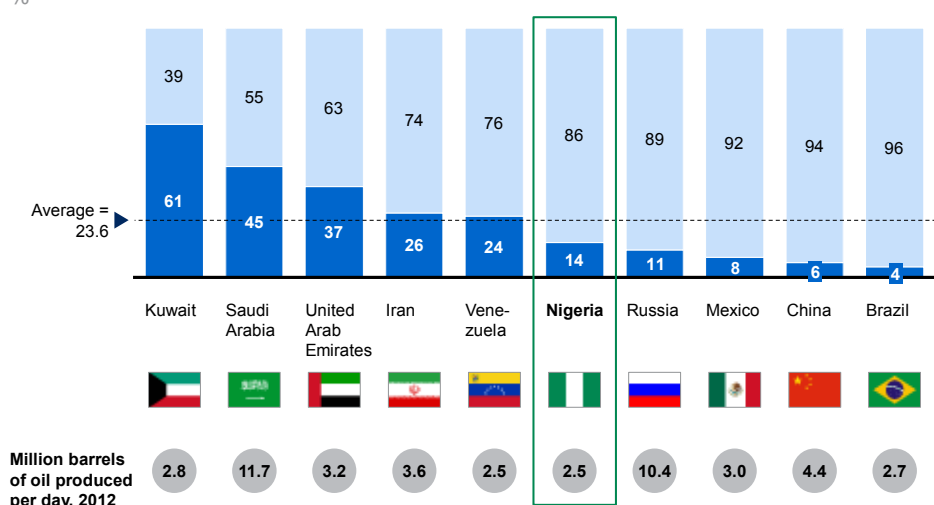
Exhibit 5

Nigeria's economy is relatively diversified compared with that of many other oil producers

Resources share of GDP, 2013¹

Leading oil producers, developing and emerging economies only²

%



1 Calculated at basic prices. Data estimates by IHS Global Insight for some countries, as 2013 numbers were not available for all.

2 Developing or emerging economies as defined by IMF.

NOTE: Numbers may not sum due to rounding.

SOURCE: IHS Global Insight; National Bureau of Statistics; US Energy Information Administration; McKinsey Global Institute analysis

Nonetheless, Nigeria remains highly dependent on oil. Some 75 percent of federal revenue comes from taxes on the oil and gas sector, and oil and gas make up more than 90 percent of exports, providing the critical source of foreign exchange to support Nigeria’s consumption of imports. Also, oil revenue ultimately ends up as earnings for individuals, so rising oil prices contribute to increased consumption.

19 MGI defines countries as being resource-driven if resources account for more than 20 percent of total exports, more than 20 percent of government revenue, or more than 10 percent of GDP. See *Reverse the curse: Maximizing the potential of resource-driven economies*, McKinsey Global Institute, December 2013.

20 “Emerging” and “developing” economies are defined by the International Monetary Fund based on three criteria: per capita income level, export diversification, and degree of integration with the global financial system. See Lynge Nielsen, *Classification of countries based on their level of development: How it is done and how it could be done*, IMF, February 2011.

Labour productivity improvements, more than labour-force expansion, are driving growth

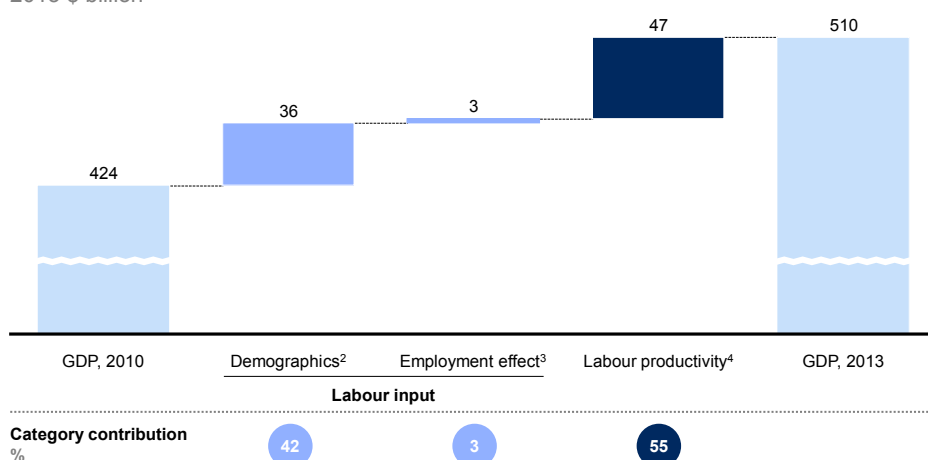
Given Nigeria's large population and rapid population growth, it is often assumed that labour-force growth (the number of people entering the labour force every year) is the main driver of GDP growth. However, labour productivity grew by 3.4 percent per year from 2010 to 2013, compared with 2.6 percent annual expansion in the working-age population, and now contributes the greatest share of GDP growth (Exhibit 6).²¹

Exhibit 6

Productivity has been the largest driver of Nigerian growth since 2010

Contribution to GDP growth, 2010–13¹

2013 \$ billion



1 GDP at basic prices, the preferred measure of the National Bureau of Statistics, was used.

2 Based on the growth of the working-age population.

3 Changes in workforce participation and employment rates.

4 Labour productivity effect is growth in labour productivity, measured by real GDP per employee.

NOTE: Numbers may not sum due to rounding.

SOURCE: National Bureau of Statistics; World Bank; IHS Global Insight; The Conference Board; McKinsey Global Institute analysis

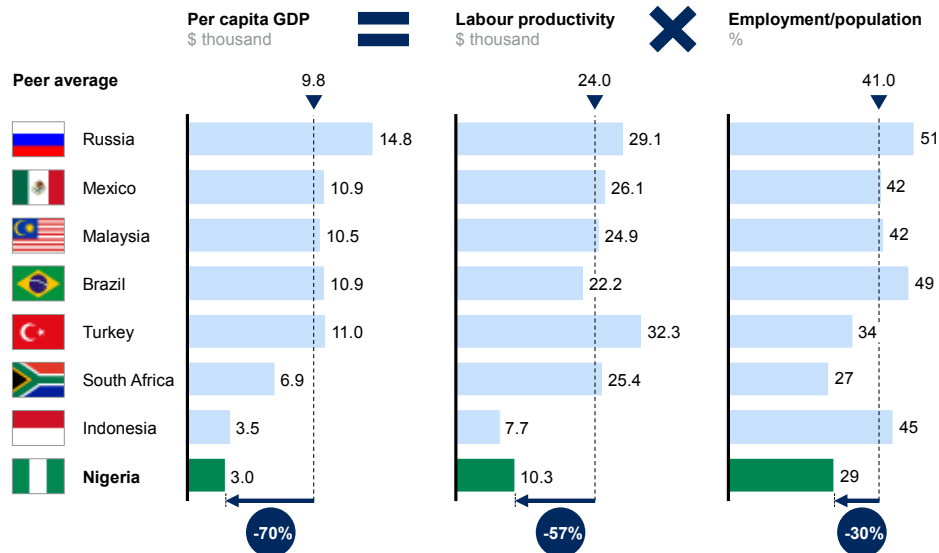
However, while labour productivity has been improving, Nigeria is still far behind other major developing economies. At less than \$10,300 per year, Nigerian output per worker is 57 percent less than the average of seven large developing economies. Nigeria also has a low ratio of employment to population. In Nigeria, this ratio is only 29 percent, compared with 45 percent in Indonesia, 49 percent in Brazil, and 51 percent in Russia.²² Due to its low productivity and its low employment-to-population ratio, Nigeria has a lower GDP per capita than seven peer economies (Exhibit 7).

21 By "labour productivity", we mean GDP per worker. This can change by increasing the capital invested per worker and so is related to the concept of capital productivity.

22 Note that the employment-to-population ratio is not a measure of unemployment, since it also depends on the share of the population that is of working age and participating in the workforce.

Exhibit 7**The gap in per capita GDP between Nigeria and seven other large developing economies is driven mainly by labour productivity**

2013



NOTE: Numbers may not sum due to rounding.

SOURCE: National Bureau of Statistics; IMF; The Conference Board; McKinsey Global Institute analysis

Productivity lags because Nigeria is not yet realising the usual benefits of urbanisation

Nigeria's low productivity largely reflects its unusual experience with urbanisation, which is not transforming the economy as it has in other transitioning nations (Exhibit 8). Typically, as people move from agriculture into employment in urban manufacturing and services, they become more productive and earn higher wages. This raises living standards in both the city and the countryside because high urban wages attract more workers to the cities and reduce rural populations. Then, city dwellers send remittances to their families at home in rural areas, who invest in improvements, such as fertiliser and mechanised tools, which raise productivity and incomes in rural areas. However, in Nigeria, people migrating to the city often face unemployment and underemployment or find jobs in the informal sector, where wages are low.

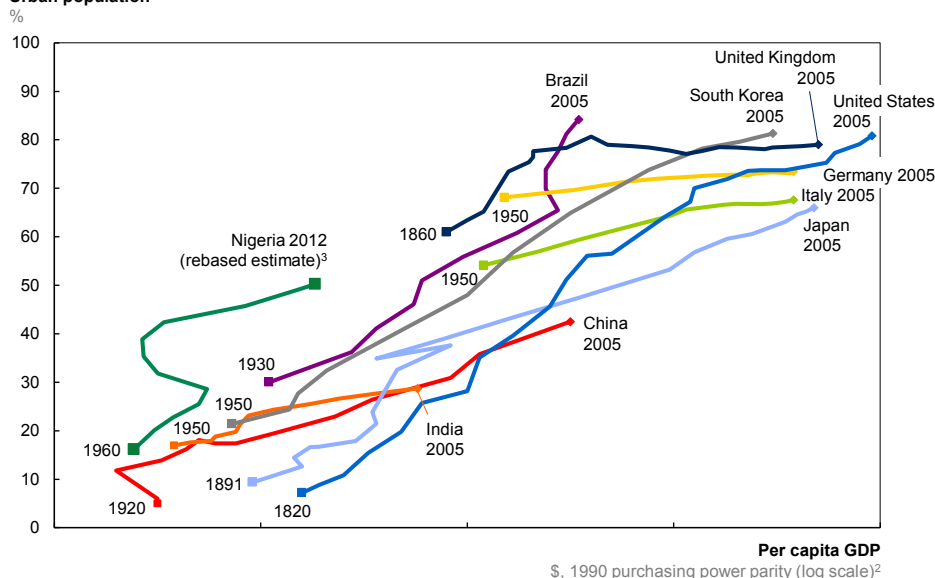
Across sectors—with the exception of resources—Nigerian productivity lags behind that of South Africa (Exhibit 9). Nigeria's higher productivity in resources is largely due to the dominance of oil and gas, which is far less labour-intensive than mining, which dominates the South African resources sector. The productivity gap between Nigeria and South Africa is particularly striking in manufacturing, where Nigerian output is just \$5,200 per worker per year, compared with nearly \$27,000 in South Africa. In trade, productivity is less than a third of South African levels, and within utilities, an area where Nigeria has long underinvested, productivity is just 13 percent of the level in South Africa.

Exhibit 8

Urbanisation is typically correlated with rising GDP per capita, but this link is weak in Nigeria

Per capita GDP and urbanisation¹

Urban population



1 Definition of urbanisation varies by country; pre-1950 figures for the United Kingdom are estimated.

2 Historical per capita GDP series expressed in 1990 Geary-Khamis dollars, which reflect purchasing power parity.

3 Estimate of rebased GDP numbers extrapolated from the four years of data available at the time of publication.

SOURCE: Population Division of the United Nations; World Bank; Angus Maddison via Timetrics; IHS Global Insight; census reports of England; "Differential structure, differential health: Industrialization in Japan, 1868–1940", in *Health and welfare during industrialization*, NBER, 1997; Paul Bairoch, *The economic development of the Third World since 1900*, Methuen, 1975; McKinsey Global Institute analysis

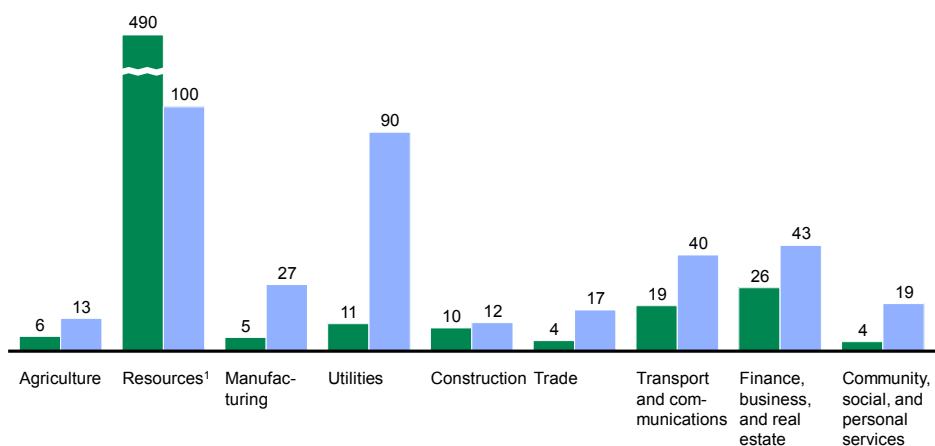
Exhibit 9

Nigerian productivity lags behind South Africa's across all sectors except resources

Labour productivity 2010

GDP contribution per employed worker by sector

2013 \$ thousand



1 Nigeria has much higher productivity in resources because oil and gas is more capital-intensive than mining, which is the largest part of South Africa's resources sector.

SOURCE: National Bureau of Statistics; Statistics South Africa; Badan Pusat Statistik; World Bank; McKinsey Global Institute analysis

Productivity is also being held back by poor infrastructure, which increases the costs of doing business across Nigeria. The core infrastructure stock of Nigeria (including roads, rail, ports, airports, power, water, and communication networks) is worth only an estimated 35 to 40 percent of GDP, compared with an average of 70 percent in other economies examined by MGI.²³ Compared with India, Nigeria has one-seventh the roads per kilometre and less than one-fifth the electricity generation capacity per person.

RECENT GROWTH HAS FAILED TO REDUCE POVERTY RATES

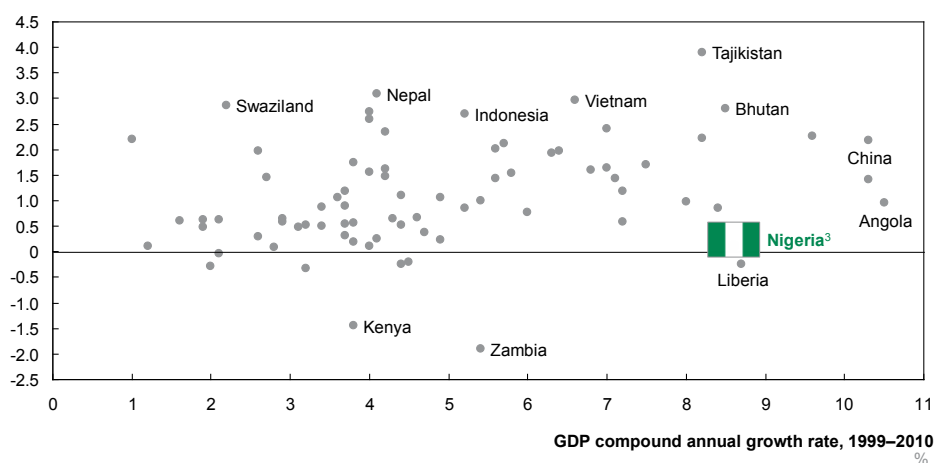
One common perception about Nigeria is accurate: the benefits of economic growth have not been shared across the population. Recently, there has been some progress in reducing poverty, but between 1999 and 2010, there was little improvement in poverty despite strong economic growth (Exhibit 10).

Exhibit 10

Despite rapid GDP growth, Nigeria has made little progress in reducing poverty

Economic growth (pre-rebasing) vs. change in poverty rate¹

Annual decrease in poverty rate, 1999–2010²
Percentage points



1 Poverty rate based on World Bank definition of \$1.25 a day in 2005 purchasing power parity terms.

2 Only countries with a 1990 poverty rate above 5% were included in analysis.

3 Based on pre-rebasing GDP data for Nigeria.

SOURCE: PovCal.Net; World Bank; McKinsey Global Institute analysis

The government, local non-governmental organisations, and international aid agencies have made extensive efforts to improve living standards among Nigeria's poor, yet poverty continues to exact a heavy toll. Life expectancy is just 54 years, eight years lower than in Ghana and 20 years lower than in Brazil. The rate of childhood malnutrition is 24 percent, more than eight times the rate in Mexico. Basic literacy among 15- to 24-year-olds—a crucial indicator for potential economic success—is just 66 percent, compared with 99 percent in South Africa.²⁴

²³ Based on pre-rebasing GDP for Nigeria.

²⁴ World Bank Millennium Development Goals database.

Poverty is a problem of both rural and urban Nigeria, but it is more severe in rural areas, where 53 percent of citizens have incomes below the national poverty line. Poverty rates are substantially higher in the more remote northern states that are far from Lagos and other economic coastal centres. One telling statistic is that 90 percent of cash transactions in Nigeria take place in just seven of the nation's 36 states.²⁵

Sources of rural poverty: An unproductive agricultural model

Across Nigeria, poor infrastructure and limited social safety nets contribute to poverty. However, there are additional specific reasons behind persistent poverty in rural and urban areas. We find that rural poverty is driven by three main factors:

- **Low agricultural productivity.** While there has been recent progress in improving productivity, Nigerian farms still have far lower yields than farms in peer economies. Crop production has grown by 2.4 percent a year since 2000, only just keeping up with population growth.²⁶ The value of agricultural production has improved in part due to increased planting of crops such as cassava and yams, which are more valuable than staples such as beans, millet, and sorghum. Crop yields have also risen, but much of this improvement has merely made up for declining yields during the 1990s. As a result, yields remain well below benchmarks; for example, cereal yields are less than a third of those in China, Indonesia, and Brazil. These low yields reflect the farming practices on Nigeria's smallholder farms (plots of less than 2 hectares), which make up more than 75 percent of cultivated land. Smallholders often lack knowledge about agricultural best practices and are often unable to invest in seeds and fertiliser. Nigerian farms use an average of 6 kilograms (kg) of fertiliser per hectare of arable land, compared with 550 kg in China, 180 kg in Indonesia and India, and 18 kg per hectare in Ghana.²⁷ This reflects a lack of access to capital: only 25 percent of farmers use formal banking, compared with 82 percent of salaried workers in Nigeria.²⁸ In 2012, only 2.8 million out of 14 million Nigerian farmers borrowed to buy fertiliser, livestock, or seeds.²⁹ Productivity is also held back by declining plot sizes, which stem from subdividing plots to accommodate a growing population of farmers and severe limitations on farmland expansion. Potential farmland today goes untilled due to weak property rights and contract enforcement; owners often cannot establish title.

The Agricultural Transformation Agenda includes a series of initiatives aimed at increasing competitiveness in agriculture and reducing reliance on imports. These reforms are too recent to be reflected in GDP numbers, but there are already indications of early progress. For example, agricultural imports by Nigeria decreased from \$11 billion in 2011 to \$8 billion in 2012.³⁰

25 Tolu Ogunlesi, "Rebasing highlights Nigeria's inequalities", *Financial Times*, April 18, 2014.

26 FAOSTAT, Food and Agriculture Organization of the United Nations, 2012.

27 *World development indicators 2012*, World Bank, April 2012.

28 *Access to financial services in Nigeria 2010 survey*, Enhancing Financial Innovation and Access, November 2010.

29 National Bureau of Statistics.

30 Akinwumi A. Adesina, "Nigeria's agricultural transformation: Growing diversity in Nigeria's economy", presented at Nigeria summit 2014: Turning growth into prosperity, in Lagos, Nigeria, March 24, 2014. Note that real impact may be smaller due to increased illegal imports from neighbouring countries to avoid higher tariffs.

- **Poor market access.** The way that fresh food and agricultural commodities are distributed in Nigeria limits the share of value that farmers receive when goods are sold. The first cut occurs on the way to market, during which 20 to 50 percent of produce is lost to spoilage. This is far higher than the average rate for either Latin America (3 to 14 percent) or the rest of sub-Saharan Africa (8 to 18 percent).³¹ Nigeria lacks the infrastructure to keep produce fresh (in chilled trucks or rail cars) and get it to market quickly (via good roads and reliable train service). Currently, smallholder farms have little access to processing, storage, and marketing facilities. At the end of harvest season, farmers often sell produce to traders, who have the capacity to store food until prices are higher. Such middlemen capture 40 percent of the margin from rice production compared with only 32 percent for the farmer. In beef production, farmers capture only 24 percent of the margin. Generally, Nigerian farmers also do not capture much additional value from processing raw crops into higher-value products. In Nigeria only 10 percent of cassava is processed into flour, sweeteners, and industrial products. Most production is used for human consumption. But in Brazil, 85 percent of cassava goes to processors and 95 percent does in Thailand.³² Farmers could do some of this processing themselves and would likely realise greater returns as a result. Shifting more value to farmers would enable them to accumulate savings, which they can invest in seeds, fertiliser, equipment, and other inputs to improve productivity, thus starting a virtuous cycle.

- **Population growth.** Unlike in other fast-growing and urbanising economies, in Nigeria, the rural population has continued to grow—by about 2.7 percent annually since 2000.³³ However, the amount of land under cultivation has not expanded as quickly, and cropland per worker has actually been falling by 1.7 percent per year, restricting potential productivity increases linked to scale benefits.³⁴ The rising rural population also dilutes the positive effects that urbanisation can have on farm incomes. Typically, as cities and manufacturing capabilities develop in a country, farm implements and machinery become more widely available and remittances from relatives in the city are often used to help pay for them. In Nigeria, however, poor employment and low wages in the cities limit remittances and, with rising rural populations, there are more people back home to support. This leaves little remittance money for each rural resident to invest.

31 Jenny Gustavsson et al., *Global food losses and food waste: Extent, causes, and prevention*, Food and Agriculture Organization of the United Nations, January 2011.

32 FAOSTAT, Food and Agriculture Organization of the United Nations; UN Conference on Trade; International Centre for Tropical Agriculture.

33 Canback & Company, 2013.

34 FAOSTAT, Food and Agriculture Organization of the United Nations, 2012.

Sources of urban poverty: High informality, low productivity, and high costs of living

In Nigeria, urbanisation has not raised incomes the way it has in other developing economies. This is because formal job creation and skill development in Nigeria's cities have been weak, which depresses incomes and reflects a business environment that serves the country poorly. We identify three major reasons for persistent urban poverty:

- **Informality among small business.** Nationally, 32 million Nigerians are employed in microbusinesses with, on average, only 1.9 employees, and the vast majority of these firms are informal enterprises.³⁵ According to pre-rebased government data, such enterprises account for more than a quarter of GDP. Nigerians launch businesses outside the formal economy for two reasons: they have little access to formal employment, and they can avoid taxation and regulatory burdens with little risk of being caught or prosecuted. In addition, there are few incentives to operate formally. For example, a key reason to formalise is to be able to enforce contracts, but Nigeria's ineffectual judicial system does not guarantee such protections in practice. Instead, business owners must rely on social trust, vastly limiting the range and size of transactions their businesses can contemplate.

Economies pay a large price for informality. One study found that an increase of one standard deviation in the size of the informal sector leads to a decline of one to two percentage points in the rate of per capita GDP growth.³⁶ In countries with high informality, it is rare to see a strong cohort of fast-growing small and mid-sized businesses that have access to capital and can drive job creation, productivity, and innovation. In Nigeria, revenue from informal enterprises flows to the individual owners, so that capital is not retained in the business and used for investment. Formal enterprises that have retained earnings, by contrast, have a greater tendency to make capital investments, such as increasing store size or buying new machinery to raise labour productivity. Informality, then, is a major reason that in Nigeria, productivity in urban-oriented work such as manufacturing and trade is actually less than agricultural productivity (Exhibit 11), depressing wages in those industries.

35 Microbusinessses are defined by the National Bureau of Statistics as those with fewer than ten employees and assets valued at less than five million naira.

36 Ana Maria Oviedo, Mark R. Thomas, and Kamer Karakurum-Ozdemir, *Economic informality: Causes, costs, and policies—a literature survey*, World Bank working paper number 167, May 2009.

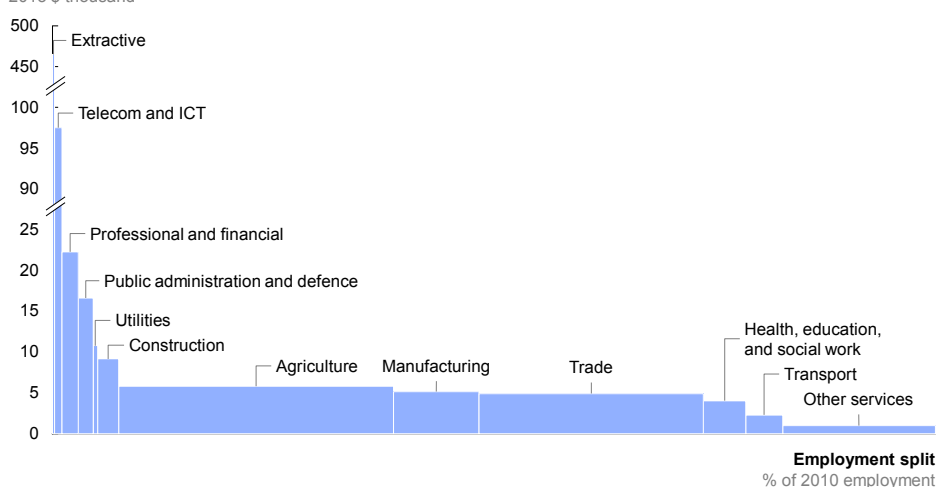
Some 85 percent of microbusinesses in Nigeria are funded with personal savings, and less than one-tenth receive bank loans. An estimated 98 percent are entirely uninsured.³⁷ Very few microenterprises have the resources to withstand a shock or to invest in productivity and growth. The National Enterprise Development Programme, launched in February 2014, includes reforms aimed at addressing the constraints faced by small businesses and encouraging formalisation. It is a promising new programme, but its benefits have yet to affect the broader economy.

Exhibit 11

In Nigeria, the productivity of urban-based sectors, such as basic manufacturing and trade, is lower than that of agriculture

Labour productivity

GDP contribution per employed worker by sector, 2010¹
2013 \$ thousand



¹ Data are based on rebased data. 2010 was used to include the latest sectoral release of comprehensive employment numbers.

SOURCE: National Bureau of Statistics; McKinsey Global Institute analysis

- A lack of permanent hiring by large businesses.** Informality is not restricted to small, informal enterprises. Even large businesses in Nigeria have been known to hire workers off the books, sometimes engaging them on a day-to-day basis to avoid taxes and circumvent regulatory burdens associated with formal contracts. Also, hiring full-time workers on formal contracts requires employers to comply with union-negotiated pay scales that can be significantly above market wages. Informal hiring persists, despite improvements in Nigerian employment law, because there is so much excess supply in the labour force. However, while companies save on wages, there are other costs of informal hiring for employers and employees, including low commitment on both sides, low morale, and low productivity. Companies that use irregular, informal labour are much less likely to invest in training, and employees move from job to job without acquiring skills. This limits a worker's opportunities to join the formal economy, raise productivity, and earn higher pay.

³⁷ Survey report on micro, small, and medium enterprises (MSMEs) in Nigeria, National Bureau of Statistics and Small and Medium Enterprises Development Agency of Nigeria, 2010.

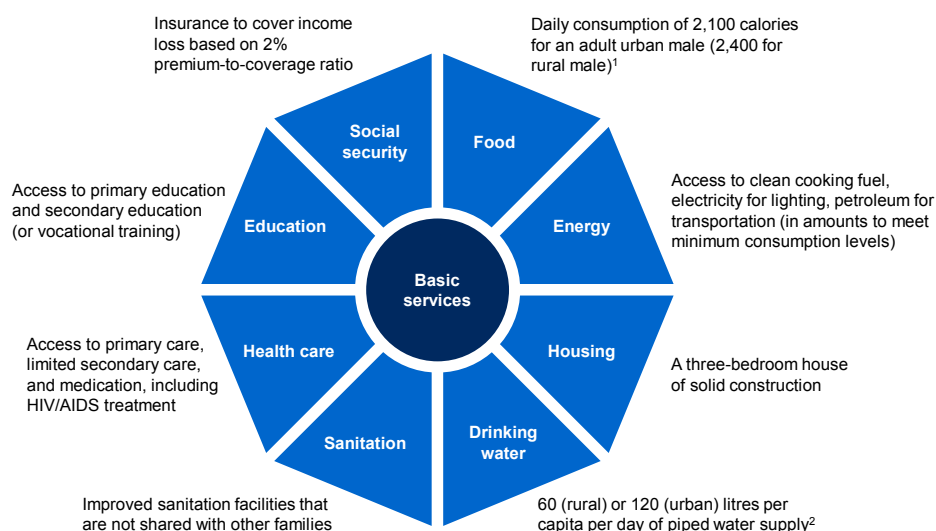
- **High cost of living.** The effects of low incomes in Nigerian cities are compounded by high costs of living. Nigeria is significantly more expensive than other emerging-market peers. On a purchasing power parity basis, prices in Nigeria are 40 percent higher than those in Indonesia and 90 percent higher than those in India.³⁸ High food prices, reflecting the poor productivity of agriculture, are a major driver of high costs. For poor urban Nigerians, food takes up 74 percent of income. Housing and transport consume a much lower share of income, but this is often because decent housing and transportation are simply beyond the reach of the poor. Formal housing is expensive in urban Nigeria because land is scarce and the housing stock in many cities is limited. In Lagos, where population growth is high and the housing shortage is most severe, poor people crowd into shantytowns, and even into floating slums in some cases. Transportation costs are high because there is only a very basic, yet still expensive, mass-transit system. Poor citizens travel by other means on overcrowded roads where poor maintenance compounds traffic jams.

NIGERIA'S EMPOWERMENT LINE

To understand Nigeria's challenge in translating growth into broad-based improvements in living standards, we use the MGI Empowerment Line. The line is an estimate of the income needed to afford eight essentials for a decent standard of living, after consideration of taxes and subsidies and assuming that the necessary goods and services are accessible (Exhibit 12).³⁹

Exhibit 12

Access to eight necessities defines economic empowerment



1 Daily consumption requirements are lower for low-income individuals in urban areas than those in rural areas due to lower levels of hard manual labour.

2 Drinking water means water for household uses as well as for personal consumption.

SOURCE: McKinsey Global Institute analysis

38 Calculated using the urban purchasing parity price (PPP) conversion rates for the two countries relative to market exchange rates, using data from the World Bank. PPP allows for comparisons of costs across economies by looking at what the equivalent consumption would cost per US dollar.

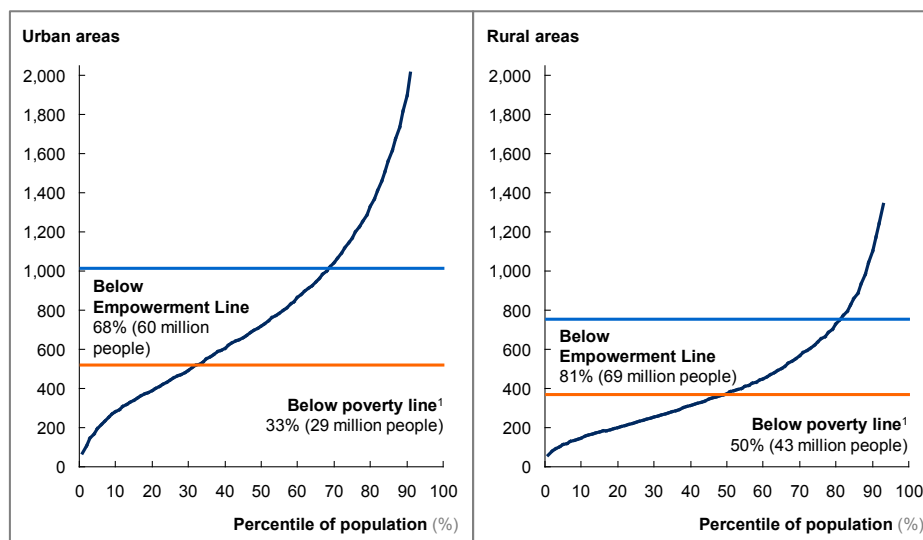
39 MGI's Empowerment Line was first calculated for India in *From poverty to empowerment: India's imperative for jobs, growth, and effective basic services*, McKinsey Global Institute, February 2014. The appendix in that document describes the full methodology.

We have calculated the Empowerment Line for both urban and rural areas of Nigeria (\$1,016 per person per year in cities and \$758 in the countryside) and find that 129 million Nigerians, or 74 percent of the population, live below the Empowerment Line (Exhibit 13). This compares with an official poverty rate of 46 percent in 2010 and an estimate of 41 percent for 2013, based on recent trends in poverty reduction.⁴⁰ We estimate that 81 percent of rural citizens (69 million people) and 68 percent of the urban population (60 million people) live below the Empowerment Line. Of these, an estimated 57 million—31 million in urban areas and 26 million in rural areas—fall into the “vulnerable” category, meaning that they are above the government poverty line but are not yet economically empowered. Inclusive growth and specific policy initiatives can help people in this group move up into empowerment.

Exhibit 13

Almost 60 million Nigerians are “vulnerable”—above the poverty line, but below the Empowerment Line

Average consumption expenditure
Annual \$ per capita, 2013



1 National poverty line calculated for 2013 based on trends in poverty and population between 2004 and 2010. Income level for poverty line should not be strictly interpreted, as number is projected and based on caloric intake rather than income level. Data will thus not match official 2010 figures.

SOURCE: General Household Survey 2012–2013, Wave 2, Post-Harvest Visit, National Bureau of Statistics; McKinsey Global Institute analysis

By examining the costs that determine the level of Nigeria’s Empowerment Line, it is possible to focus on policies that can help meet or reduce those costs. As noted, Nigeria has high food and housing costs, and they are the two biggest factors in the cost of empowerment. Food purchases account for 44 percent of the \$1,016 per person per year that is needed for empowerment in urban areas and represent 52 percent of the \$758 needed in rural areas. Housing accounts for a further 14 percent of the total cost of meeting the empowerment living standard in Nigeria’s cities.

40 2013 estimate by McKinsey Global Institute, extrapolating from the 2010 data issued by the National Bureau of Statistics.

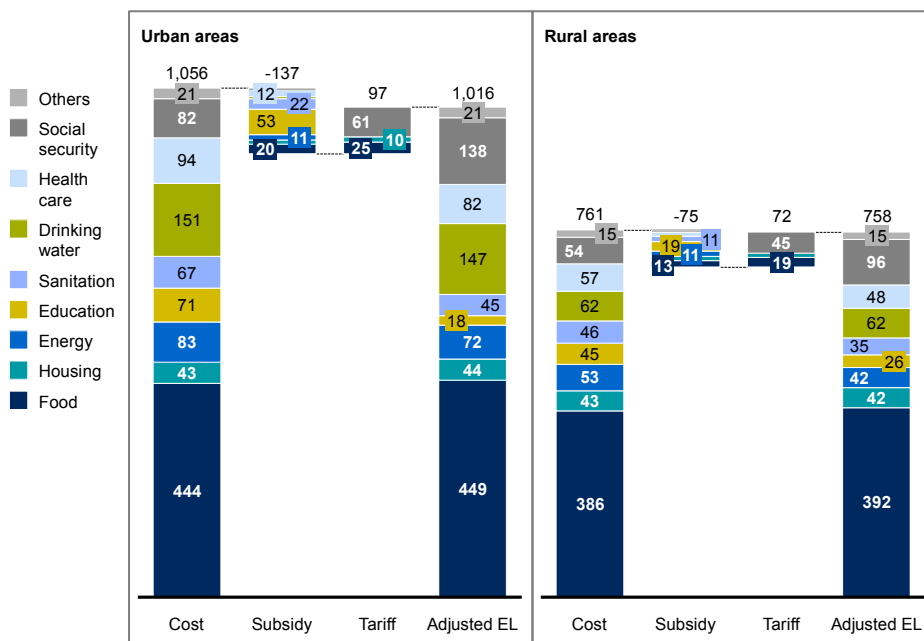
Examining the composition of the goods and services that constitute empowerment also shows how government policies affect the Empowerment Line level. For example, we see in Exhibit 14 that the total impact of government subsidies (the value of direct aid such as subsidised agricultural inputs or “in-kind” benefits such as improvements to sanitation systems) is worth about \$137 per year for urban dwellers and \$75 for rural Nigerians. In effect, this spending reduces the cost of empowerment by 13 percent in urban areas and 10 percent in rural areas. However, we also see the impact of government tariffs, which raise the price of imported goods, adding nearly \$97 to the cost of living in urban areas and \$72 in rural areas. According to our calculations, the tariff on food raises the cost of economic empowerment by around \$25 per person per year in urban areas and \$19 in rural areas.⁴¹

Exhibit 14

The Empowerment Line calculates the cost before subsidies and tariffs of meeting eight basic needs, minus the value of government services

Consumption requirement and Nigerian Empowerment Line (EL)

Annual \$ per capita, 2013



NOTE: Numbers may not sum due to rounding. Data labels below 10 not shown.

SOURCE: McKinsey Global Institute analysis

We can also see where subsidies may not be serving the intended purpose. It is often assumed, for example, that Nigeria's fuel subsidies are helping the poor. However, while fuel subsidies account for about 10 percent of government spending received by the poor, this represents just 1 percent of income for those at the Empowerment Line. Many of Nigeria's poor rely on charcoal rather than petroleum products and thus are helped little by the subsidy.

41 See Volker Treichel et al., *Import bans in Nigeria increase poverty*, World Bank Africa trade policy note number 28, March 2012. For an analysis on the effects of tariffs, see Dani Rodrik, *Industrial policy for the twenty-first century*, Harvard Kennedy School working paper number RWP04-047, November 2004.

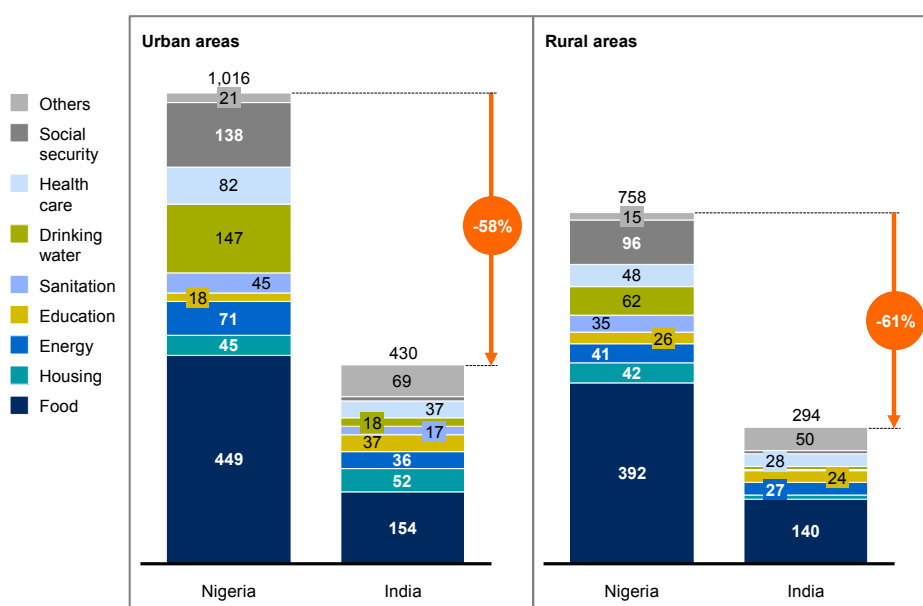
When we compare Nigeria's Empowerment Lines with those of India, which has similar levels of GDP per capita, we can see just how steep the challenge is in Nigeria (Exhibit 15). In both urban and rural areas, Nigerians need to earn more than twice as much as Indian citizens to meet their basic needs. Once again, it is clear that food is the driving factor, underscoring the need for improvement in agricultural productivity. This would not only raise output and farm incomes; it can also reduce the cost of food across the nation and improve the lives of all Nigerians.

Exhibit 15

The Empowerment Line for Nigeria is more than twice as high as for India in both urban and rural areas

Consumption requirement and Empowerment Line

Annual \$ per capita after government subsidies, 2013



NOTE: Numbers may not sum due to rounding. Data labels below 10 not shown.

SOURCE: McKinsey Global Institute analysis

Analysing Empowerment Line data shows how much needs to be done to bring citizens to the Empowerment Line. It also points to solutions beyond raising productivity and making growth more inclusive. If the goal is to make it easier to reach the Empowerment Line, Nigeria may need to reconsider tariffs that are raising food prices, for example. While there is economic debate about the second-order effects of tariffs, which we have not analysed here, reducing at least some of these tariffs would likely have a positive effect due to the direct reduction on the cost of living for poor Nigerians. In light of what this analysis reveals about the effects of subsidies, the government might also consider whether more targeted forms of support for the poor, such as direct cash transfers, might achieve more impact for less money. Of course, any change in the subsidy system must be carefully planned and communicated beforehand.



Nigeria has achieved significant economic progress since the turn of the century, but much remains to be done, particularly in raising productivity and reducing poverty. In the next chapter we examine the potential sources of continuing economic growth and the opportunity to accelerate poverty reduction.



2. Sizing Nigeria's growth and empowerment opportunity

Between now and 2030, we believe that Nigeria has the potential to build on the record of consistent growth that it has established in the past decade and achieve significant reductions in poverty. By capitalising on its strengths and positioning itself to take advantage of emerging global trends, Nigeria potentially could triple its GDP by 2030, easily becoming a top-20 economy (up from 26th today). There could also be significant progress in the effort to reduce poverty. If growth can be made more inclusive, Nigeria could help lift 70 million people out of poverty and move nearly 120 million above the Empowerment Line by 2030.⁴²

NIGERIA'S ECONOMIC GROWTH IS BEING SHAPED BY POWERFUL GLOBAL TRENDS

Nigeria is well positioned to benefit from a number of macro trends in the global economy, such as the shift of demand to developing economies and the explosion of digital technologies. It could also be hurt by certain trends, such as the development of energy sources that could reduce demand for Nigerian oil. In addition, several potentially positive trends, such as urbanisation, could turn out to be negative if Nigeria does not adopt appropriate reforms and build needed capabilities.

Demand shifts toward emerging markets

Developing economies are already the fastest-growing markets for manufactured goods. MGI estimates that annual consumption in developing economies will rise from \$12 trillion in 2010 to \$30 trillion in 2025, when it will account for nearly 50 percent of the world's total, up from 32 percent in 2010.⁴³ Some 1.8 billion people could be added to the ranks of the global consuming class, and with the appropriate reforms to improve its business environment, Nigeria could be well positioned to meet this demand, within its own borders and beyond.⁴⁴

Until recently, the rise of developing-economy consumers has been mainly an Asian and Latin American phenomenon, but now a large consuming class is emerging in Africa, too. By 2020, more than half of African households—128 million—are expected to be in the consuming classes,

⁴² We base this projection on Nigeria's achieving its potential in terms of both economic growth and inclusiveness.

⁴³ Yuval Atsmon et al., "Winning the \$30 trillion decathlon: Going for gold in emerging markets", *McKinsey Quarterly*, August 2012.

⁴⁴ *Urban world: Cities and the rise of the consuming class*, McKinsey Global Institute, June 2012. In that report, MGI defines the consuming class as individuals with sufficient income for significant consumption beyond daily necessities, about \$3,600 per year in 2005 purchasing power parity terms. For our analysis of Nigerian consumers, we use a slightly different definition.

expanding markets for everything from mobile phones to refrigerators to soft drinks.⁴⁵

A rapidly growing, but more competitive, resource landscape

Global investment in resources is set to double over the next 20 years to meet rising demand for fuel and other commodities.⁴⁶ However, the competitive landscape is shifting rapidly, and international competition is increasing. Advances such as hydraulic fracturing and horizontal drilling are opening up new reserves in previously declining markets, and production from new countries is also coming onstream. The use of horizontal drilling and fracking, the technologies used for reaching unconventional reserves such as the natural gas and light tight oil trapped in rock formations (often shale), is now widespread. The development of unconventional oil and gas fields is most advanced in the United States and Canada, but other nations are beginning to develop their reserves. China could be among the biggest producers of shale gas in this group, while Argentina and Australia could be the biggest producers of light tight oil. To get at China's huge shale gas reserves, in January 2013 the Chinese government awarded exploration rights in 19 areas, and it has entered into an agreement with the US government to share technological know-how.⁴⁷

Declining production and the rise of new technologies and new sources of supply around the world are changing the global energy landscape in ways that may threaten the long-term prospects of Nigeria's oil sector. A downturn in oil production or a decline in oil prices caused by new and cheaper sources of supply or falling global demand could have far-reaching economic and political ramifications. Falling government oil revenue could result in rising unemployment in the public sector, an inability to fund critical infrastructure projects, and shrinking social safety nets that could frustrate efforts to reduce poverty. While Nigeria's geological promise remains attractive, getting the regulatory regime right will be necessary for the country to remain a competitive investment destination. Capturing future investment in the resources sector will require Nigeria to increase the competitiveness of its domestic production, including addressing issues such as regulatory uncertainty, theft, and lack of access to reliable electricity supply. We discuss this in further detail later in this chapter.

The spread of the digital economy

Internet penetration in Africa is expected to more than triple by 2025, with Internet access growing from 16 percent of the population to 50 percent. As in other developing economies, in Nigeria, mobile phones are the primary form of Internet access. There are already more than 100 million mobile phone connections and 50 million Internet connections in Nigeria, making it the largest mobile market in

45 We identify three tiers of consuming-class households: emerging consumers, with annual incomes of \$7,500 to \$20,000; the consuming middle class, with annual incomes of \$20,000 to \$70,000; and global consumers, with annual incomes greater than \$70,000. See *Lions on the move: The progress and potential of African economies*, McKinsey Global Institute, June 2010.

46 *Reverse the curse: Maximizing the potential of resource-driven economies*, McKinsey Global Institute, December 2013.

47 *Resource revolution: Tracking global commodity markets*, McKinsey Global Institute, September 2013.

Africa.⁴⁸ The number of mobile connections has been increasing by 23 percent per year since 2007, but penetration is still low compared with other emerging economies; Nigeria ranks 159th for mobile phone use and 128th for Internet penetration globally.

The digital revolution has already brought massive change to how businesses and economies in the developed world operate. Information technologies and wireless communications are now sweeping the developing world, too. These forces can bring disruptive change, opening up the path for new businesses, making commerce more efficient, and providing new ways to deliver government and social services and help reduce poverty. For consumers, entry into the digital economy is becoming far easier. Mobile networks can enable citizens in even the most remote regions of developing economies to leapfrog into the digital economy by using mobile phones for e-commerce, banking, and payments. In Nigeria, the Ministry of Agriculture is now using mobile technology to deliver fertiliser subsidy coupons to farmers, for example.

In the first decade of the millennium, these new technologies had less impact on Nigeria than on other emerging economies. Few traditional businesses in Nigeria have taken full advantage of digital technology to improve operations and reach out to customers and suppliers in new ways. Only 49 percent of registered businesses in Nigeria have a website, and limited access to capital, lack of advanced IT skills, and the poor power infrastructure are serious constraints. Today, Nigeria is behind other developing economies in deriving economic value from the Internet. We estimate that the Internet contributes less than 1 percent of GDP in Nigeria, a quarter of the contribution in Senegal (Exhibit 16).

Limited access to high-speed data service has undoubtedly been one of the biggest factors slowing Nigeria's Internet economy. While millions of people use the Internet, broadband service reaches only 0.1 percent of the public in Nigeria, compared with 2.5 percent in Algeria, 1.8 percent in Egypt, and 1.5 percent in South Africa.⁴⁹ In addition, investment in digital communications infrastructure, such as fibre-optic cables, 3G networks, and broadband Internet connections, has been much lower in Nigeria than in other developing economies. Nigeria spends only 72 cents per capita on Internet-related infrastructure, which is less than 15 percent of the level in South Africa and just over a third of the level in Kenya.⁵⁰

With a large population of urban, tech-savvy young people, however, Nigeria is likely to see accelerated growth of its digital economy. Nigeria already has a crop of successful digital startups, such as Konga and Jumia in online retail, Paga in mobile payments, and Jobberman, an online job market. These companies are also innovating to deal with the challenges of last-mile delivery and payments. Local venture capital networks and angel investors, such as the Co-Creation Hub, SPARK, and the Wennovation Hub, serve as incubators for young companies and funnel international venture funding into Nigeria's digital startups. In addition, the Nigerian government has made significant investment in digitisation through such

48 *Lions go digital: The Internet's transformative potential in Africa*, McKinsey Global Institute, November 2013; World Telecommunication/ICT Indicators database, International Telecommunication Union, 2012.

49 *Lions go digital: The Internet's transformative potential in Africa*, McKinsey Global Institute, November 2013.

50 Ibid.

initiatives as the Government Integrated Financial Management System and the Nigerian National Broadband Plan.

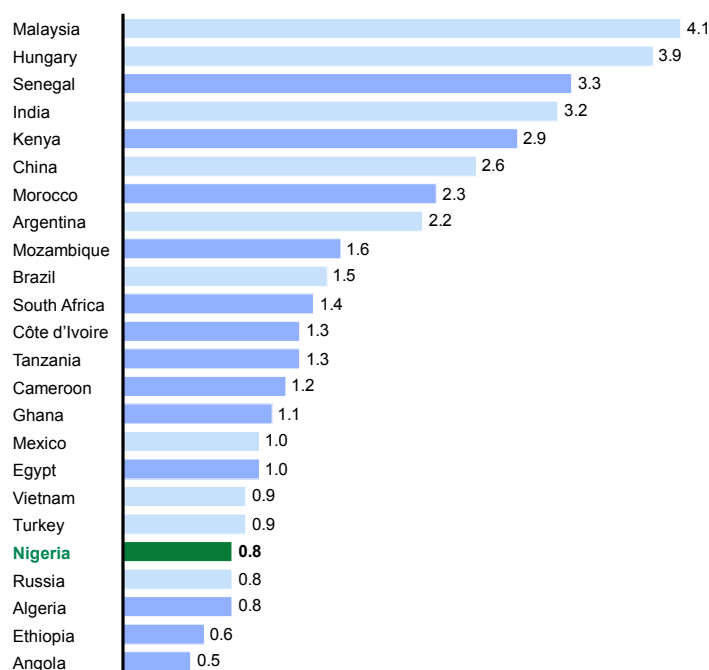
Exhibit 16

The economic impact of the Internet has been lower in Nigeria than in other developing economies

■ African nations

Internet contribution to GDP¹

%



¹ GDP assessed by expenditure method, with a share of each category attributed to the Internet.

NOTE: Numbers may not sum due to rounding

SOURCE: Gartner; IHS Global Insight; OECD; International Telecommunication Union; International Data Corp.; World Health Organization; ICD; iConsumer US 2012; Euromonitor; H2 Gambling Capital; PhoCusWright; Pyramid Research; UNESCO; McKinsey Global Institute analysis

Urbanisation

For centuries, the rise of cities has been associated with economic growth, higher productivity, and increasing wealth. Today, a new wave of urbanisation is transforming the developing world at an unprecedented rate and on a scale never before seen.⁵¹ This wave is generating explosive growth and lifting millions of people out of poverty. It is creating waves of new consumers and expanding markets for businesses of all kinds.⁵²

As noted in Chapter 1, urbanisation has not yet produced the expected benefits in Nigeria. Nevertheless, the growth of Nigeria's urban population is expected to continue at about 4 percent per year, which would mean that more than 60 percent of Nigerians could be living in urban areas by 2030. If Nigeria can link urbanisation to rising productivity and incomes in this period, urbanisation could contribute an additional \$640 billion to GDP by 2030. This is based on the urbanisation experiences of Brazil, South Korea, and the United States—countries

⁵¹ See *Urban world: Cities and the rise of the consuming class*, McKinsey Global Institute, June 2012.

⁵² See Martin Ravallion, Shaohua Chen, and Prem Sangraula, *New evidence on the urbanization of global poverty*, World Bank policy research working paper number 4199, April 2007. See also *Linking population, poverty, and development*, United Nations Population Fund, www.unfpa.org.

in which GDP per capita rose by an average of 5.3 percent for every percentage point of urbanisation.⁵³

NIGERIA HAS STRENGTHS THAT CAN HELP IT RIDE GLOBAL TRENDS

We find that Nigeria is well positioned to ride many of the trends that we outline above. It has a strategic location with access to other developing economies and an ocean port, as well as a coastal megacity, a growing consumer class, a tradition of entrepreneurship, and a young and growing population.

Coastal megacity

Lagos is the only coastal megacity in Africa.⁵⁴ Historically, regions with coastal access have superior economic records.⁵⁵ Lagos is a favourable location for trade, tourism, and industry. Nigeria could derive greater benefits from its coastal location by reforming port operations and streamlining customs processes. Lagos has also benefited from a state government that is often cited as among the most competent and effective in Nigeria. With the right reforms, Lagos and its surrounding region could thrive, even if there are structural challenges elsewhere in the country.

If Lagos were a country, its GDP would be similar to that of Angola.⁵⁶ Importantly, larger cities are typically more productive than smaller ones.⁵⁷ The productivity of a city with 200,000 people, on average, is 3 to 8 percent higher than the productivity of one with 100,000 residents.⁵⁸ This is due to a variety of advantages that generally come with large size: large urban centres attract talented and skilled individuals, who come for the superior range of opportunities; firms are more competitive; and size produces economies of scale in many ways—larger groups of consumers to sell to, better access to inputs, and more efficient delivery of public services. Because of its scale, Lagos has the potential to capture the same superior economic growth rates as other megacities. However, as noted, urbanisation is not yet working effectively in Nigeria, and today there are far more people in Lagos than jobs available in its productive sectors.

53 This analysis is based on a correlation between urbanisation and growth; there are multiple interacting causes of economic growth, only some of which are associated with urbanisation. Therefore these growth numbers should be considered indicative only.

54 Cairo is also a megacity with global shipping access, but it lies inland.

55 Paul Collier, "Africa: Geography and growth", *TEN*, Federal Reserve Bank of Kansas City, Fall 2006.

56 As of 2010. *Lagos state gross domestic product survey: 2010*, Lagos Bureau of Statistics, 2012.

57 French firms in dense areas are on average 9.7 percent more productive than firms in less dense areas. Pierre-Philippe Combes et al., "The productivity advantages of large cities: Distinguishing agglomeration from firm selection", *Econometrica*, volume 80, number 6, November 2012.

58 Stuart S. Rosenthal and William C. Strange, "Evidence on the nature and sources of agglomeration economies", in *Handbook of urban and regional economics*, edition 1, volume 4, J. Vernon Henderson and Jacques-François Thisse, eds., Elsevier, 2004.

Large-scale consumer markets

Nigeria has huge potential scale advantages compared with many other developing economies. With 170 million people, it is twice as large as the next most populous African country and is home to almost one in five sub-Saharan Africans. This can have large economic benefits. Country size and growth rates are associated. According to one study, increasing a country's population tenfold would raise the annual growth rate by 0.33 percentage points.⁵⁹ Size can benefit economies such as Nigeria in a number of ways. Having a large population to target gives local companies the potential to develop economies of scale without having to navigate export procedures and multiple legal and regulatory systems. Having many domestic players in the same market can also increase competitive intensity. Nigeria's size draws international competitors and investment. With the rebasing confirming that Nigerian GDP has surpassed that of South Africa, we would expect international players from a range of industries to take a greater interest in Nigeria. If the nation can demonstrate that it is a good place to do business, foreign investment can become a major driver of growth.

Entrepreneurial population and talented diaspora

Nigerians are very entrepreneurial. According to the 2013 Global Entrepreneurship Monitor, 41 percent of working-age Nigerians were involved in an early-stage business in the preceding three and a half years, and 81 percent of Nigerians surveyed see entrepreneurship as a desirable career choice.⁶⁰ Nigeria ranks in the top ten countries for these measures. Government programmes aimed at supporting entrepreneurship have proven very popular. For example, the Youth Enterprise with Innovation in Nigeria (YouWiN) programme receives about 60,000 applications, provides training for 6,000, and mentors 1,200 young entrepreneurs each year.⁶¹

Also, the return of a talented diaspora to Nigeria could be accelerated. An estimated 17 million Nigerians live overseas and contribute remittances equivalent to 5 percent of Nigeria's GDP.⁶²

A young and growing population

Many aging advanced economies, particularly in Europe, face the prospect of slow growth due to flat or declining populations, but Nigeria and other developing economies have large and growing working-age populations, which can be drivers of growth. Nigeria already has the ninth-largest working-age population in the world, and by 2030 the number of Nigerians of working age (15 to 64) is expected to be 50 percent higher than today. At current labour participation rates (56 percent), that demographic dividend could add 0.8 percent per year to GDP. If labour participation rates can be raised to Indonesian levels (68 percent), labour inputs could add 1.0 percent to annual GDP in 2030.

59 Philippe Aghion and Steven N. Durlauf, eds., *Handbook of economic growth*, volume 1B, Elsevier, 2005.

60 José Ernesto Amorós and Niels Bosma, *Global Entrepreneurship Monitor 2013 global report: Fifteen years of assessing entrepreneurship across the globe*, Babson College, Universidad del Desarrollo, and Universiti Tun Abdul Razak, January 2014.

61 Robert Newbury, *Case study: YouWiN! Nigeria*, Plymouth University Service and Enterprise Research Centre, 2012.

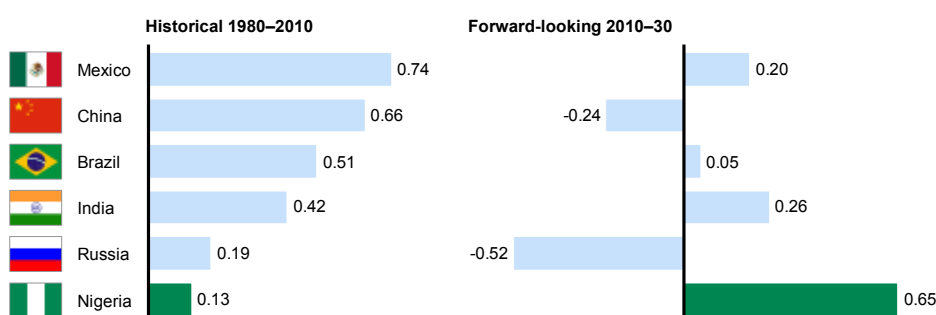
62 *Migration and remittances data*, World Bank, 2013.

Many countries have achieved economic success by capitalising on their demographic dividends. In the 1980s, additions to the working-age population contributed more than a percentage point per year to China's GDP, and in the 1990s, Brazil relied on its demographic dividend to drive growth. Nigeria's dividend is still growing (Exhibit 17). However, if millions of young people coming into the labour force cannot find jobs, Nigeria could experience rising poverty rates and higher risk of social upheaval.

Exhibit 17

Unlike other emerging economies, Nigeria still has a strong "demographic dividend" ahead

Average contribution of working-age population growth¹ to annual GDP per capita growth²
Percentage points



1 Working-age population comprises people aged 15 to 64.

2 Under ceteris paribus assumptions on labour utilisation and productivity.

SOURCE: *World population prospects: The 2010 revision*, United Nations, May 2011; McKinsey Global Institute analysis

NIGERIA HAS TO OVERCOME CHALLENGES TO REACH ITS GROWTH POTENTIAL

To take full advantage of these strengths, Nigeria needs to overcome some major challenges. Four in particular stand out: poor infrastructure, barriers to doing business, security risks, and low skill levels.

Poor infrastructure

Infrastructure continues to be a major challenge, constraining growth across all sectors. In Nigeria, the electric power infrastructure is inadequate and unreliable, forcing companies to supply their own auxiliary power with expensive diesel generators. The frequent outages also make many forms of manufacturing impractical. Nigeria has underinvested in transportation infrastructure, which is vital to economic growth. Both rail and road networks are inadequate for a country of Nigeria's area and population. Telecommunications infrastructure is also inadequate and unreliable, which rules out Nigeria as a leading call centre location. And, as noted, Internet and broadband access is limited. Water and wastewater systems also need to be built out, both to support a growing population and for irrigation, mining processes, and many forms of manufacturing. Nigeria also has a housing deficit of 17 million units, pushing up urban rents and contributing to the high cost of living.

Barriers to doing business

Gaps in Nigeria's business environment continue to be a constraint on growth. Despite recent improvements, Nigeria still has a reputation for widespread corruption. It ranks 144th out of 177 countries on Transparency International's 2013 Corruption Perception Index. Corruption acts as an added and unpredictable tax on companies of all kinds. For manufacturing firms in Nigeria, paying bribes raises the cost of doing business by an estimated 3.2 percent of sales.⁶³ It also deters foreign investment. Many international companies are sensitive to public opinion in the developed world and are acutely aware of the potential damage bribe paying could have on their reputation and on their licence to operate. If corruption is viewed as a necessary part of doing business in a location, companies may simply choose not to enter the market.

Beyond corruption, the business environment suffers from difficult regulatory processes. According to the World Bank's *Doing business* report, it takes 13 procedures to register a property in Nigeria and costs more than a fifth of property value. Approval by the state governor is required, and that takes an average of two months to secure. Exporting and importing is another major administrative hurdle; Nigeria ranks 158th out of 189 economies for trading across borders. It takes 22 days and \$1,380 per container to export, and 33 days and \$1,695 to import.⁶⁴ Similar hurdles exist for gaining construction permits. The National Competitiveness Council of Nigeria, a public-private partnership, was founded in 2012 to identify competitiveness issues and develop initiatives to address them. It is important that an effective council plays a central role in the public debate over reforms.

Based on a McKinsey survey of businesses across Africa, five concerns stand out to Nigerian employers: limited access to financing; macroeconomic conditions and economic instability; reliability of electricity; political instability; and high operating costs (see Box 2, "Employer concerns").

63 Giuseppe Iarossi and George R. G. Clarke, eds., *Nigeria 2011: An assessment of the investment climate in 26 states*, World Bank working paper number 71891, June 2011.

64 *Doing business 2014: Understanding regulations for small and medium-size enterprises*, World Bank, October 2013.

Box 2. Employer concerns

Limited access to financing. Business loans can carry interest rates of more than 20 percent (inflation in 2013 averaged 8.5 percent), and Nigerian firms are almost three times as likely to be turned down for loans as firms in Brazil and Kenya. The corporate bond market is inactive, and mortgages—a common source of startup financing—are not readily available.

Macroeconomic conditions and instability. Despite the improved stability of the past decade, business leaders remain wary about the macroeconomic and regulatory environment. In some cases, Nigeria has shifted policies unexpectedly, particularly during election years.

Reliability of electricity. Electricity demand far outstrips supply, and 90 percent of firms own a backup generator. Manufacturers need to generate

70 percent of their own electricity. We detail many of the issues facing the power sector in the next section of this chapter.

Political instability. Nigeria can often be in the news for the wrong reasons. Ongoing political violence related to the Boko Haram terrorist group in some states and to militant groups in the Niger Delta can make business difficult in those areas. There were incidents of violence and rioting around the 2011 elections, and businesses are wary of increased political instability in the lead-up to the 2015 elections.

High operating costs. Labour rates are low, but operating costs are high. Companies must generate their own power and contend with a poor and unreliable transportation system, losing an estimated 2.4 percent of sales in transit.

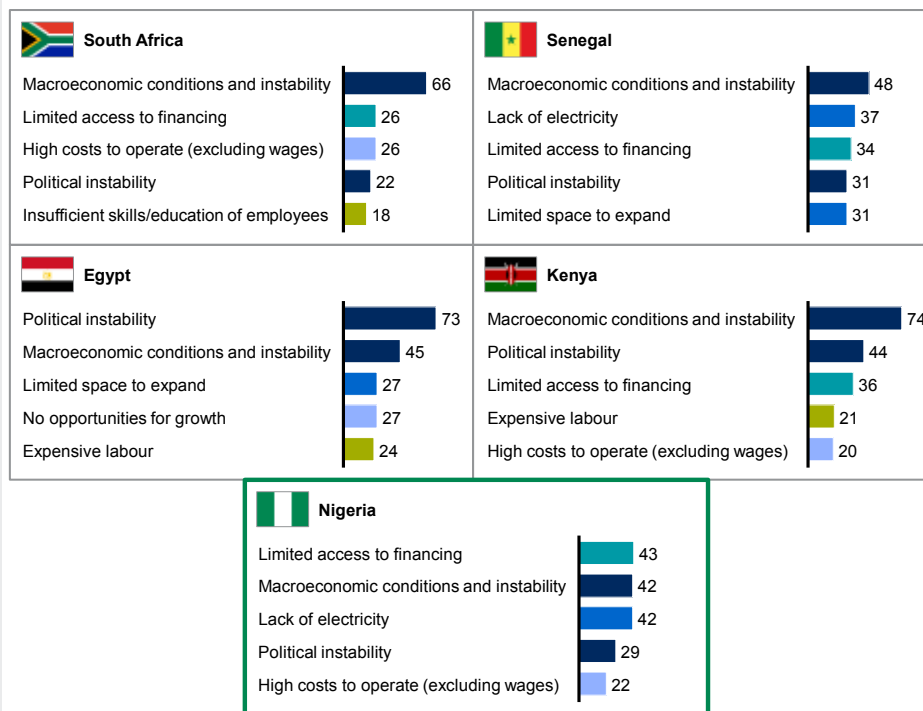
Exhibit 18

Companies cite macroeconomic conditions, access to finance, instability, and unreliable electricity as the main barriers to growth in Nigeria

Factors cited as top five obstacles for growth¹

% of enterprises

■ Macroeconomics ■ Financing ■ Infrastructure ■ Labour supply/quality ■ Business environment



¹ Survey of employers in five African nations, n = 1,373.

SOURCE: McKinsey Survey of African Businesses, 2011; McKinsey Global Institute analysis

Security risks

Security issues have played a large role in shaping Nigeria's international image, and recent events have put Nigerian terrorism in world headlines. In the first three months of 2014, more than 1,500 civilians were killed in violence associated with Boko Haram.⁶⁵ The kidnapping of more than 200 schoolgirls and multiple bombings in Abuja drew international media attention. In the south, ongoing conflict in the Niger Delta involving a number of militant groups continues to affect the oil and gas sector. Less deadly, but still damaging, is the danger of crime in Nigeria's cities.

Such security issues make it harder to attract both companies and human capital to the country. They also create challenges for companies that are operating in Nigeria. Additional spending is required for guards, and some long-distance journeys need to be made by air rather than road. In the oil and gas sector, pipeline break-ins can cause lengthy disruptions. All of these effects add to the cost of business.

Low skill levels

Well-educated workers are the building blocks of a modern, productive, and diversified economy. Low skills limit worker productivity and effectiveness, as well as wages. Higher skills translate into higher productivity and pay: a literate worker entering manufacturing in a developing economy can expect a 30 percent higher wage than an illiterate one.⁶⁶

Nigeria has a great deal to do to improve education and training. More than 10.5 million children between the ages of 6 and 17 are not in school—that is one in six of the world's out-of-school children. In the poorest areas of the country, only 30 percent of children even start primary school. For those in school, quality of education is often poor. Even after six years of schooling, only one in five Nigerians aged 15 to 29 can read and write, compared with 80 percent of Tanzanians in that age group.⁶⁷

The result of the poor performance of Nigerian schools is an adult population with large skill gaps. More than 35 million adults cannot read or write. More than two-thirds of federal civil service employees have only a high school education or less, and less than 5 percent have modern computer skills.⁶⁸ Employers rank Nigerian workers below the African average for job readiness, work experience, and rate of turnover, which adds to the cost of recruiting and hiring.⁶⁹ These skill gaps severely constrain economic activity and the effectiveness of government. On-the-job training is usually not an option: most businesses are small and informal and unable to provide training. Larger companies that hire informally typically do not invest as much as they should in training.

65 Heather Murdock, "Amnesty International: 1,500 Nigerians killed in Boko Haram violence in 2014", *Voiceofamerica.com*, March 30, 2014.

66 *From poverty to empowerment: India's imperative for jobs, growth, and effective basic services*, McKinsey Global Institute, February 2014.

67 "Monitoring progress towards the EFA goals", in *Youth and skills: Putting education to work*, Education for All Global Monitoring Report 2012, UNESCO, 2012.

68 Olukehin Iyabode Lawanson and Babatunde Wasiu Adeoye, "Public sector reforms: Implications for human resource management in Nigeria", *British Journal of Arts and Social Sciences*, volume 13, number 2, May 2013.

69 *Africa at work: Job creation and inclusive growth*, McKinsey Global Institute, August 2012.

There are enormous barriers to providing universal education across Nigeria. In northern states such as Borno and Yobe, Boko Haram specifically targets students and teachers in its crusade against Western-style education. Many parts of the country have shortages of qualified teachers, creating overcrowded classes where students do not receive the instruction or attention needed to learn to the best of their abilities. A study of 1,200 basic education teachers in Kano found that 78 percent had “limited” English skills and difficulty correcting sentences written by a ten-year-old student.⁷⁰ Nevertheless, if Nigeria is to reach its potential, an effective skills strategy is vital to provide the human capital for a growing economy.

THE \$1.6 TRILLION GROWTH OPPORTUNITY IN NIGERIA

We project that by 2030 Nigeria's economy could more than triple in size, growing to over \$1.6 trillion from \$510 billion in 2013, or by about 7.1 percent per year, in an upside case (Exhibit 19). Such growth would make Nigeria one of the world's top 20 economies by 2030, larger than the Netherlands, Thailand, or Malaysia.⁷¹ This is an estimate of Nigeria's growth potential, not a prediction of actual growth in this period (at the end of this chapter we discuss possible growth outcomes). Our estimate of growth potential is based on several key assumptions. First, we assume that Nigeria finally captures such benefits of urbanisation as higher productivity and wages, which would also have positive implications for growth in trade, agriculture, infrastructure, manufacturing, and other sectors of the economy. Also, we assume that there will be effective action by government, NGOs, and the private sector, as well as effective collaboration between these sectors, and that global economic conditions keep the Nigerian economy on a rapid growth path.

Our growth projections for Nigeria are based on bottom-up analyses of the five largest sectors: trade, agriculture, infrastructure, manufacturing, and oil and gas. We estimate that growth in trade can average 7.1 percent per year through 2030, while agriculture could grow by 5.2 percent, and both infrastructure and manufacturing by 8.7 percent.⁷² Oil and gas remains an important sector of the Nigerian economy, but growth is likely to average just 2.3 percent per year through 2030, even in a positive case.

Based on these growth rates, the structure of the Nigerian economy would shift, with trade becoming the largest contributor to GDP, accounting for about 17 percent of output in 2030. Oil and gas would drop from 14 percent in 2013 to less than 7 percent in 2030, while agriculture's contribution would shrink from 22 percent of GDP to 16 percent. Infrastructure would rise to almost 16 percent of GDP, and manufacturing to almost 9 percent in 2030. That would make infrastructure (construction and operation) and manufacturing the third- and fourth-largest contributors to Nigeria's GDP.⁷³

70 *Teacher development needs analysis: Kano state, Nigeria*, Education Sector Support Programme in Nigeria and UK Department for International Development, 2011.

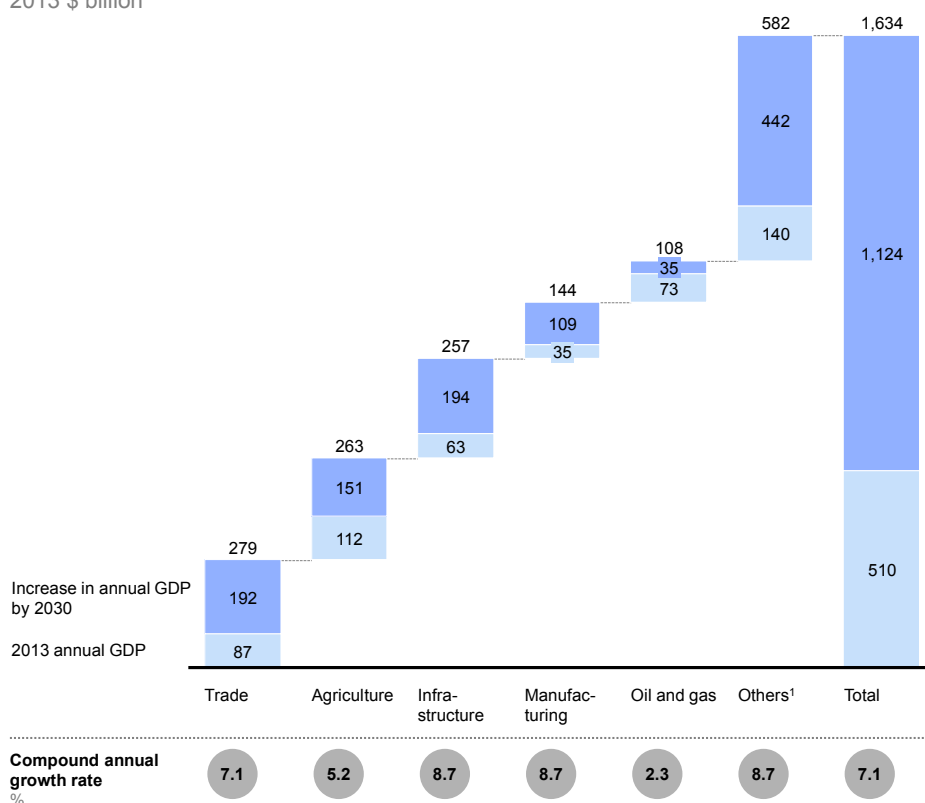
71 Based on GDP projections from Global Insight World Market Monitor.

72 Food, beverage, and tobacco manufacturing are counted in agriculture.

73 Growth in other industries is historical (from 2010 to 2013).

Exhibit 19**If Nigeria reaches its full potential, annual GDP could exceed \$1.6 trillion by 2030**

GDP contribution
2013 \$ billion



¹ Assumes growth rate from 2010 to 2013 will be maintained for these sectors; includes financial and insurance services, real estate, motion pictures, education, health, and other service industries.

NOTE: Numbers may not sum due to rounding.

SOURCE: National Bureau of Statistics; IHS Global Insight; UN FAOSTAT; World Bank; Canback Global Income Distribution Database (C-GIDD); McKinsey Global Institute analysis

To put this growth potential in context, we look at growth rates of economies around the world from 1990 to 2010. In this period, the only economies with population over ten million that managed to match or exceed the potential growth rate we project for Nigeria were China, which averaged 10.5 percent, and Vietnam, which averaged 7.1 percent. This suggests that, should Nigeria succeed in fully reaching its potential, it would become one of the great success stories of modern economic growth. To realise this potential, Nigeria will need to maximise growth in several key economic sectors, which we detail below. It will also need to continue to attract foreign direct investment (FDI) across sectors, which brings not only capital, but also capability transfers as local employees acquire skills by working for multinationals (see Box 3, “Increasing foreign direct investment”).

Box 3. Increasing foreign direct investment

Annual FDI inflows have remained relatively steady, averaging \$7 billion per year from 2007 to 2012, making Nigeria the top destination for FDI in Africa. Although the oil and gas industry still accounts for the bulk of these inflows, a noticeable shift has begun over the past decade. From 2009 to 2013, the services sector received an estimated 51 percent of FDI inflows, up from 12 percent between 2004 and 2008.

A critical part of improving FDI is addressing such barriers as weak infrastructure, a challenging business environment, skill gaps, and security risks. International best practice also suggests that efforts to increase FDI should be coordinated by a single government organisation that can act as a “one-stop shop” for promotion, cultivation, and ongoing support of companies looking to invest. Singapore established the Singapore Economic Development Board to fulfil this function. In Nigeria, such a body already exists in the form of the Nigerian Investment Promotion Commission, and efforts should be focused on strengthening this organisation to improve its effectiveness.

The government can also build a pipeline of attractive investment opportunities. Companies invest in deals, not in countries. Rather than simply promoting FDI broadly across all sectors, target industries should be prioritised based on Nigeria's relative strengths and long-term economic strategy. This should provide investors with specific investment targets to consider.

Also, it must be noted that achieving this level of growth assumes that downside risks do not significantly hinder economic progress in Nigeria. The IMF identifies a series of risks that Nigeria will need to mitigate.⁷⁴ Some of the most important risks include:

- Persistently low world oil prices and continued high levels of production losses from oil theft, which would put substantial pressure on fiscal and external accounts, significantly depleting Nigeria's fiscal buffers
- Reduced prudence in fiscal policy, with increased spending that is not aimed at human capital and infrastructure development
- Reversal of capital flows as advanced economies unwind unconventional monetary policy (known as “quantitative easing”) as well as a sustained emerging-market slowdown that would reduce investment in Nigeria
- Ongoing security problems in the north region, resulting in greater political instability.

In the following pages, we look in detail at what could drive growth in each of the five largest sectors of the Nigerian economy from 2013 to 2030.

74 Nigeria: 2013 Article IV consultation, IMF staff report, April 2014.

Trade

Trade accounts for 17 percent of Nigeria's GDP and 25 percent of employment and has been the largest driver of growth in Nigeria over the past decade.⁷⁵ This sector includes both retail trade—selling goods to consumers—and wholesale trade, which involves selling goods to businesses and retailers. While the retail sector has been highly informal and fragmented, dominated by street vendors, small shops, and open markets, chains of modern stores are expanding. The growth potential of this sector has attracted investment by consumer goods makers and retailers from around the world. In 2011 and 2012, foreign direct investment in retail totalled \$1.3 billion.⁷⁶

Rapid growth in the number of consuming households will be the principal driver of growth in trade. By 2030, 27 million more households are likely to have incomes of more than \$7,500, placing them in the bottom reaches of the consuming classes. With an average household size of 4.7, that would be about 125 million new consumers, or double the population of South Korea today. Some of the fastest growth will occur in wealthier demographic groups. The number of households that fall into the “consuming middle class” (with incomes between \$20,000 and \$70,000) and “global consumer” categories (with incomes greater than \$70,000) could rise more than tenfold to 6.2 million by 2030, from a base of 540,000 in 2013. This implies 29 million Nigerians in the middle and upper consuming classes by 2030—the equivalent of the total population of Malaysia today. These new consumers will provide fresh opportunities for retailers and manufacturers of consumer goods (for more on the consumer opportunity, see Chapter 4).

To estimate the potential growth of trade in Nigeria, we look at household consumption of consumer goods and how it will evolve as incomes rise between now and 2030. In 2013, Nigeria's total private consumption was \$388 billion. Given population growth and rising incomes, we project that total household consumption could grow by 7.8 percent a year through 2030, reaching almost \$1.4 trillion, more than that of France today. Food (including beverages) and non-food consumer goods will represent 70 percent of all consumer spending by 2030. Spending on health care and education is also likely to grow rapidly (Exhibit 20).

Based on this rise in consumption, we project that wholesale and retail trade could continue to show strong growth to 2030—about 7.1 percent a year—resulting in annual industry contribution to GDP of \$279 billion by 2030, up from \$87 billion in 2013. This growth would be driven primarily by rapidly rising household consumption as Nigeria's average income rises along with continued strong GDP growth.

Nigeria's burgeoning consuming class will likely shift demand for a range of food and non-food products. Sales of food and beverages, for example, are expected to rise by 6.8 percent per annum over the period, while sales of non-food consumer goods such as household and personal care products—a far smaller category—are expected to grow by more than 10 percent per year. Food will likely continue to account for the largest share of total consumption in 2030, since the majority of new consumers will be in the entry-level strata of the consuming class,

⁷⁵ National Bureau of Statistics.

⁷⁶ *Retailing in Nigeria*, Euromonitor International, April 2013.

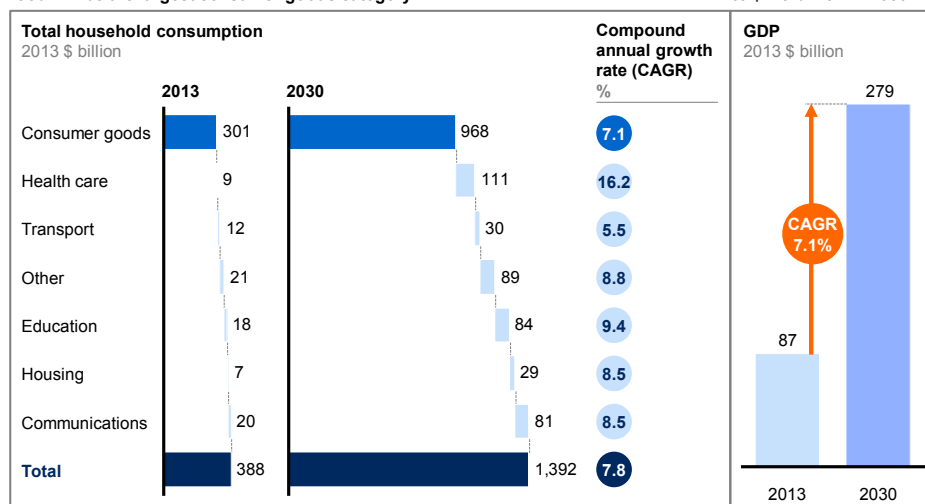
where food spending still represents a relatively high proportion of total income. However, as incomes rise, the share of consumption devoted to food should decrease from just over 70 percent in 2013 to just over 60 percent in 2030, creating greater potential for spending in other categories.

Exhibit 20

Trade in consumer goods will be a leading driver of GDP, potentially growing by 7.1 percent per year, from \$87 billion to \$279 billion in 2030

Total consumption in Nigeria is expected to reach \$1.4 trillion; food will be the largest consumer goods category

Trade GDP could rise from \$87 billion in 2013 to \$279 billion in 2030



SOURCE: Canback Global Income Distribution Database (C-GIDD); National Bureau of Statistics; IHS Global Insight; McKinsey Global Institute analysis

The new wave of consumers in Nigeria represents a huge opportunity for consumer-facing businesses. But to capture the full potential, these companies need to improve productivity and target the most important pockets of consumer demand in cities across Nigeria. Today companies in the trading sector have low productivity—about \$4,300 of output per worker per year in 2010 vs. \$16,800 in South Africa. This accounts for 32 percent of Nigeria's overall productivity gap to South Africa.

Several factors limit productivity in the trade sector. Securing land for developing new, modern-format stores can be expensive and time-consuming, and there are significant challenges in supply-chain management, given poor infrastructure and the limited number of large-scale local suppliers. In addition, the high costs of manufacturing in Nigeria present margin challenges when catering to a nation of value-conscious consumers.⁷⁷ Nigeria will need to address these challenges to realise the potential for GDP growth in the trade industry.

Agriculture

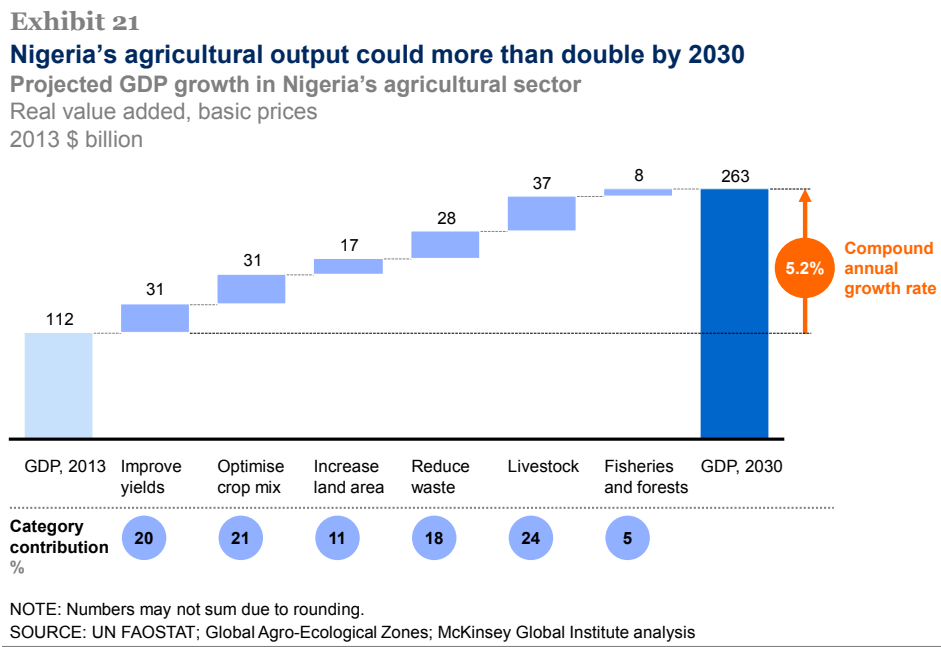
Agriculture is Nigeria's largest sector, contributing 22 percent of GDP, according to the government's rebased statistics. It is also the largest employer, with nearly a third of the labour force working in agriculture.⁷⁸ However, as noted in Chapter 1, agriculture has suffered from decades of low productivity. While

77 Reinaldo Fiorini et al., *Africa's growing giant: Nigeria's new retail economy*, McKinsey Consumer and Shopper Insights, December 2013.

78 *Labour force statistics*, National Bureau of Statistics, 2010.

improving agricultural performance can be challenging, there is significant upside potential, with benefits across the economy.

We estimate that Nigeria could more than double agricultural output, from \$112 billion per year in 2013 to \$263 billion by 2030. This implies raising the annual growth rate to 5.2 percent from 2.6 percent in recent years. Capturing this potential would require a four-pronged approach in crop farming—boosting yields, shifting more production into high-value crops, reducing post-harvest and distribution losses, and increasing land under cultivation—as well as improvements to fisheries and livestock production (Exhibit 21). Large commercial farms could also be a significant employment opportunity for a young labour force. Commercial farms are not a major factor in Nigerian agriculture today, but they could evolve if titling and land transfer processes are strengthened and simplified.



Improving crop yield and optimising crop mix together account for 40 percent of the upside potential we identify for agriculture. Today, rice yields in Nigeria are only 71 percent of South African levels and 36 percent of Brazil’s. We believe yields across Nigerian crops could reach their ecological potential (a level estimated by the Food and Agriculture Organization of the United Nations based on soil and climate type), rising by around 31 percent on average and creating overall value of \$31 billion per year by 2030. To increase yields, Nigeria needs to build on the work of the Agricultural Transformation Agenda and ensure that farmers can gain access to the fertiliser, equipment, and other inputs needed to match the yields of other large developing economies.

Agricultural output can be improved further by shifting crop mixes away from low-value crops such as sorghum and millet toward more high-value crops such as fruits and vegetables. Currently, crop choice is often determined by cultural or historical factors. By shifting up to 15 percent of the land area within each state to appropriate higher-value crops, Nigeria could raise agricultural output by \$31 billion per year in 2030—the same contribution as improved yields. In some cases, this could require investment in irrigation or hardier crop varieties.

In addition, there is potential to significantly increase the amount of farmland in each state. This would raise productivity and farm incomes, particularly if the new land is planted in high-value crops. To add more land, Nigeria would need to reduce barriers to acquiring plots, such as ineffective systems for determining land ownership, which have historically limited additions to farmland. In Nigeria, 71 million hectares of unforested land are available for agriculture, but only 52 percent of this land is currently used for agriculture. By addressing land titling issues, Nigeria has the potential to increase farmland by 0.7 percent a year (the rate expected by the Food and Agriculture Organization of the United Nations across sub-Saharan Africa) without requiring further deforestation, adding almost five million hectares of farmland by 2030.⁷⁹

Currently, smallholder Nigerian farmers lose more than 40 percent of harvests of certain crops to spoilage and waste, due to lack of access to markets and affordable storage. Together with upgrading rural infrastructure (such as improving roads), we believe on-farm storage and better access to markets could reduce waste in the food distribution system to Latin American levels.⁸⁰

Our estimates for growth in the agriculture sector assume that the output of livestock and fish rises to the level of peer countries and that forestry continues its recent growth. Livestock could be a particular opportunity through demand growth and efficiency gains. Since livestock is an important segment in the north region, reforms to boost production could also play a role in raising incomes in some of Nigeria's poorest areas, helping to reduce potential security threats.

The evolution of food, beverage, and tobacco processing in Nigeria could also contribute to the success of agriculture. These are manufacturing industries and not counted as agriculture in national accounts. But the huge growth opportunity in food manufacturing has important implications for demand and growth in agriculture. We estimate that food, beverage, and tobacco processing could grow at 6.8 percent annually to reach \$72 billion by 2030, from a base of \$24 billion today.

The government is helping to make the connection between agriculture and food processing by creating staple crop processing zones where crops such as wheat would be grown and processed. This is a key element of the Agricultural Transformation Agenda. Successful implementation of the crop processing zone plan could add between \$4 billion and \$9 billion to GDP annually while creating 110,000 to 250,000 jobs, the government estimates.⁸¹ Already the programme has attracted significant investment commitments from Flour Mills of Nigeria, the Dangote Group, Syngenta, Indorama, AGCO, Belstar Capital, and other companies. A major challenge, however, will be expanding access to these processing facilities for smallholder farmers.

If Nigeria can fulfil its aspiration to reaccelerate growth in agriculture, the sector can once again play an important role in increasing economic output and can become a strong force in relieving poverty. Rising farm incomes, driven by higher

79 *World agriculture: Towards 2015/30*, Food and Agriculture Organization of the United Nations, 2002.

80 Waste varies by crop. The FAO estimates that in sub-Saharan Africa, post-harvest waste is 8 to 18 percent, and total losses (agricultural, post-harvest, processing, packaging, and distribution) are 13 to 43 percent. Latin American levels vary, from 3 to 14 percent for post-harvest losses and from 11 to 37 percent across the whole value chain.

81 According to estimates from the Federal Ministry of Agriculture and Rural Development.

productivity, would play a significant role in reducing rural poverty. In addition, a healthier rural economy could support a more effective urbanisation process and lead to less urban poverty as well.

Infrastructure

Infrastructure is a major enabler of growth in developed and emerging economies. In our examination of the sector in Nigeria, we look at a number of different types of infrastructure that we consider the “core” stock in a country—transportation; electricity, gas, and steam supply; water supply and sewerage; real estate; and telecommunications. To size the opportunities, we have examined the economic impact of both construction of infrastructure across these areas and the operation of infrastructure (except in the case of real estate).⁸²

Historically, Nigeria has underinvested in infrastructure. A certain level of infrastructure is required to support GDP growth, and across different types of economies, the stock of infrastructure averages about 70 percent of GDP (excluding real estate). While developing economies typically have lower rates of infrastructure investment, Nigeria's assets are low by even those standards—an estimated 35 to 40 percent of GDP.⁸³ To achieve Nigeria's growth potential, accelerated investment is needed across the five infrastructure asset classes we consider:

- **Transportation.** Transportation includes roads, railways, airports, seaports, and inland waterways. The country's 200,000-kilometre road network constitutes the largest infrastructure asset, but it is severely limited compared with those of peer economies.⁸⁴ The road density of Nigeria, at 21 kilometres per 100 square kilometres, is just one-fifth that of India. The quality is often poor, with large stretches that are either unpaved or in need of repair. Traditionally, investment in maintenance has not been sufficient to keep up with annual deterioration, which is accelerating due to rising traffic volumes resulting from population growth. The Nigerian rail system received little investment during the latter half of the 20th century, leaving the country with less than 5,000 kilometres of rail track.⁸⁵ The government has begun to re-invest in railways, but Nigeria has a long way to go to catch up with its peers. Current traffic density, at only 15,000 tons per kilometre, is substantially lower than the already low levels of other African railway networks.⁸⁶ Weaknesses in infrastructure and operations have meant that both passenger and freight traffic remain low.

The air transportation infrastructure consists of five international and 19 domestic airports. Substantial investment is needed to bring them into line with international standards. In particular, they need improved passenger facilities, increased capacity, and business hubs around the major airports. In water transportation, Nigeria has an inland waterway system and several major ocean ports, most of which are in the hands of private concessions. Port

82 Sizing here refers only to the additional GDP that is generated within the specific economic sector or industry. Economy-wide effects are not included.

83 Based on pre-rebased GDP.

84 CIA World Factbook, www.cia.gov.

85 Ibid.

86 Vivien Foster and Nataliya Pushak, *Nigeria's infrastructure: a continental perspective*, The International Bank for Reconstruction and Development/World Bank Group, February 2011.

traffic rose 42 percent between 2007 and 2012, but congestion is an issue.⁸⁷ The system requires further improvement and expansion to accommodate Nigeria's growth.

- **Electricity, gas, and steam supply.** The lack of reliable electricity supply in Nigeria is one of the country's biggest weaknesses. Installed generation capacity is 10,000 megawatts (MW), but current output is only 3,500–4,500 MW and demand widely expected to dramatically outstrip both.⁸⁸ Major causes of low utilisation include limited gas availability, historically poor maintenance of infrastructure, and limited ability to evacuate power (manage flow). Unreliable electricity forces many businesses and households to install their own generators, at significant cost, and reduces Nigeria's attractiveness as an investment destination. Some 83 percent of firms surveyed by the World Bank found electricity to be a major or very severe problem for their business. For manufacturing firms, outages cost an average of 4.3 percent of sales, rising to 8.5 percent for the country's microbusinesses.⁸⁹ The power sector has recently undergone a privatisation process that is intended to improve the operations of both generation and distribution systems, while increasing the energy supply and the financial viability of the sector. The transmission grid also needs investment. Lack of maintenance has led to transmission losses of as much as 30 percent. Further extension of power lines and major investment in substations are both needed. In order to unleash growth potential, significant new investment is needed in generation. Nigeria has more than 50 gigawatts of gas-fired generation potential, as well as significant hydro and coal resources to augment this capacity.
- **Water supply and sewerage.** Safe water and sanitation are critical to human well-being and will become an increasing challenge with Nigeria's rapid population growth. Improved water supply also is necessary for agriculture, mining, and industrial production. Despite Nigeria's ample water resources, many of these needs are not being met. Just 61 percent of the population has access to an adequate drinking water source, and just 31 percent has access to adequate sanitation. These levels are considerably below the UN Millennium Development Goals targets.⁹⁰ Nigeria also needs to expand its network of treatment stations and pipelines.
- **Real estate.** Nigeria has an estimated 200 million square metres of real estate, of which 160 million are residential, 30 million are commercial space, and ten million are industrial.⁹¹ On a per capita basis, these levels are one-third to one-sixth the levels in Indonesia.⁹² Much of the housing stock is dilapidated, with widespread unsanitary conditions. The required investment to improve housing quality and availability will only rise as the population grows and more of the population moves to urban areas. A particular challenge is housing Nigerians at the bottom of the economic pyramid. Many Nigerians live on

87 Nigerian Ports Authority, www.nigerianports.org.

88 *Roadmap for power sector reform, revision 1*, Nigerian Presidential Task Force on Power, August 2013; *A guide to the Nigerian power sector*, KPMG, December 2013.

89 Giuseppe Iarossi and George R. G. Clarke, eds., *Nigeria 2011: An assessment of the investment climate in 26 states*, World Bank working paper number 71891, June 2011.

90 Millennium Development Goals indicators, United Nations Statistics Division.

91 McKinsey calculations based on Pike Research data.

92 Nigeria has 0.92 square metre of residential space per capita, 0.20 square metre of commercial space, and 0.04 square metre of industrial space.

land to which they do not have rights. Homeownership today is limited by a weak mortgage industry, with only 20,000 mortgages in the entire country.⁹³ A number of efforts, including the National Housing Policy (2006), have been made to improve housing stock, but the shortage of housing has not been reduced significantly.

- **Telecommunications.** Following a successful deregulation effort, the telecommunications sector has been growing rapidly in recent years and, according to the rebased data, has been a significant contributor to GDP growth. However, there is need for further investment to address huge demand, which often can overwhelm existing infrastructure. South Africa, for example, has four times as many base stations as Nigeria, despite a much smaller population. Nigeria ranks 112th out of 144 nations in the overall readiness of its ICT (information and communications technology) network, according to the World Economic Forum.⁹⁴ There is also much potential to expand access. Despite recent improvements in access, many Nigerians still do not have basic telephone service. And, although it is growing, mobile penetration is only 72 percent, compared with 140 percent in South Africa in 2013.⁹⁵ Only around 30 percent of Nigeria's population had Internet access in 2013, and much of that was at sub-broadband speeds.⁹⁶

Nigeria has a large need for investment in infrastructure. Based on extensive analysis of available data and interviews with stakeholders in the country, we estimate that, excluding real estate, \$839 billion would need to be invested in infrastructure through 2030 to allow the economy to reach its full potential.⁹⁷ The bulk of this investment would be in power and transportation systems, but there is also significant need in telecommunications and water infrastructure. Together these investments would raise the size of the construction sector in 2030 by \$39 billion over the 2013 level. Use of improved water, electricity, telecommunications, and transportation infrastructure could contribute an additional \$119 billion to 2030 GDP.

Nigeria also presents a large potential opportunity for real estate investment, if it can enact effective reforms in the regulation of foreign investment and land ownership. India and Indonesia, which have similar income levels, have built significantly more residential, commercial, and industrial space than Nigeria. To close just half the current gap with those countries, Nigeria would need to invest a further \$645 billion by 2030. This would lift the contribution of the real estate sector to construction GDP by \$37 billion to \$41 billion in 2030. Between core infrastructure and real estate, total infrastructure investments in Nigeria could reach \$1.5 trillion between 2014 and 2030 (Exhibit 22). In total, infrastructure

93 Peter O. Adeniyi, *Improving land sector governance in Nigeria: Implementation of the Land Governance Assessment Framework*, World Bank and International Food Policy Research Institute, November 2011.

94 Beñat Bilbao-Osorio, Soumitra Dutta, and Bruno Lanvin, eds., *The global information technology report 2014: Rewards and risks of big data*, World Economic Forum, April 2014.

95 World Cellular Information Service.

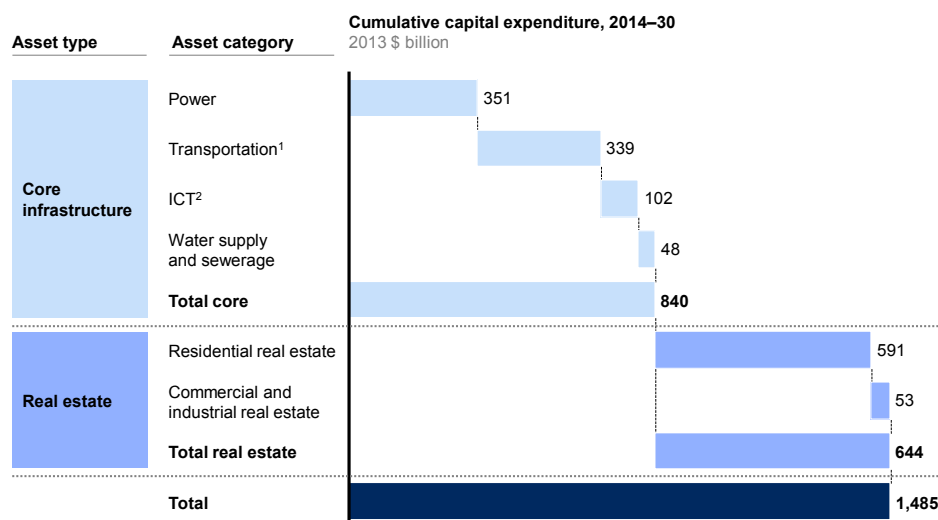
96 Business Monitor International.

97 The projections for infrastructure investment and resulting GDP in this section assume an ambitious and efficient rollout of projects over the next two decades. However, the exact infrastructure requirements are uncertain since they are strongly influenced by the level of growth in other sectors and the ability to execute projects. In some potential scenarios, core infrastructure investment requirements, excluding real estate, could be as much as \$1 trillion between 2013 and 2030.

could contribute \$257 billion to GDP in 2030, achieving an annual growth rate of 8.7 percent over the period.

Exhibit 22

Should Nigeria reach its full potential, capital spending on infrastructure and real estate could rise to \$1.5 trillion through 2030



1 Transport includes road, rail, ports, waterways, and airports.

2 Information and communication technology.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

To succeed in infrastructure development, Nigeria can look to examples of countries that have made large and rapid investments in infrastructure to enable growth. Between 2004 and 2012, China increased its road network by 2.4 times, and Malaysia more than doubled its network. From 2007 to 2010, Morocco tripled its electricity production from renewable energy sources.⁹⁸ Chile provides an example of effective infrastructure planning. Its National Public Investment System evaluates all proposed projects on a cost-benefit basis, using standard forms, procedures, and metrics to ensure consistency.

Rolling out a major infrastructure plan is a difficult task, and the effective delivery of projects at the desired cost will require improvements in government capabilities. Project management will need to be improved, and further skills should be developed in the appropriate Nigerian government departments (see Chapter 3 for more on improving government delivery).

Financing large-scale infrastructure initiatives is also a challenge for Nigeria. While the government has sizable revenue streams from the oil and gas sector, there are already many claims on this money. To fund infrastructure, other emerging economies have turned to public-private partnerships. While Nigeria does use such partnerships, it does not do so as extensively as other developing economies. From 1990 to 2012, Nigeria launched 52 public-private partnerships, compared with 1,064 in China and 643 in Brazil.⁹⁹ In addition, funding should be adequate for maintenance needs to ensure that new assets do not deteriorate prematurely.

⁹⁸ "Electricity production from renewable sources (kWh)", World Bank, databank.worldbank.org.

⁹⁹ Private Participation in Infrastructure Projects database, World Bank and Public-Private Infrastructure Advisory Facility, http://ppi.worldbank.org/resources/ppi_aboutDb.aspx.

The Nigerian National Planning Commission is working on the National Integrated Infrastructure Master Plan, which identifies the required investments to bring infrastructure in Nigeria in line with the country's growth aspirations over the next 30 years. The plan also identifies and elaborates on enablers for implementation that would need to be put in place for successful execution. This effort should prioritise the two most important aspects of infrastructure in Nigeria: electric power and transportation. Already, Nigeria has made important progress in the power sector through its privatisation programme. It is important to note, however, that ongoing investment in privatised power plants and the transmission grid also will be required.

Weak infrastructure has held Nigeria back in many ways. With the right reforms and adequate investment, a huge upside is possible, both in the value of the infrastructure sector itself and in the growth of the broader economy. Nations such as Malaysia have shown how valuable effective infrastructure can be in driving economic development.

Manufacturing

Building a manufacturing sector has been a stepping stone in economic development for nations since the Industrial Revolution. It enables large-scale industrialisation and moves agricultural workers into more productive activities. It helps economies diversify and allows resource-rich economies to become less resource-dependent and create more relatively high-paying jobs. After establishing a strong base in labour-intensive manufacturing industries, such as apparel, developing economies typically try to move up the manufacturing value chain to innovation-driven industries such as auto manufacturing, which can add greater value to a country's economy.

How a nation progresses in manufacturing depends on its situation. Manufacturing is often described as a single sector. However, products vary enormously in nature and manufacturing method. Some manufacturing industries require access to specific materials, some are more capital-intensive, and others need to locate in or close to end markets. In a 2012 report, *Manufacturing the future*, MGI developed a segmentation of manufacturing industries to better understand the role that different industries play in employment and growth in different nations, based on their resources, capabilities, location, and other factors.¹⁰⁰ It identifies five subsectors: global innovation for local markets, regional processing, energy- and resource-intensive commodities, global technologies/innovators, and labour-intensive tradables.

Nigeria's manufacturing sector is currently dominated by businesses in the regional processing and energy- and resource-intensive subsectors. These industries make up 92 percent of manufacturing GDP, showing that Nigeria has few labour-intensive industries and that innovation-based industries have not yet developed. To further develop manufacturing, the Nigerian Ministry of Industry, Trade and Investment has set a target of significantly increasing manufacturing GDP by 2017. To pursue this goal, the ministry has launched the Nigeria Industrial Revolution Plan (NIRP), which aims to focus expansion efforts on manufacturing sectors in which Nigeria has competitive and comparative advantages. Phase 1 focuses on building up six industries: palm oil, textiles, basic metals, automobile

¹⁰⁰ See *Manufacturing the future: The next era of global growth and innovation*, McKinsey Global Institute and McKinsey Operations Practice, November 2012.

assembly, petrochemicals, and plastics and rubber. The focus on automobiles and petrochemicals could help to build up the global innovation for local markets segment in Nigeria.

This type of industrial policy, even in developing economies, is not without critics, who say that it causes market distortions and can impose higher costs on non-targeted industries (see Box 4, "Industrial policy-making that favours local production").

Box 4. Industrial policy-making that favours local production

Policies to support nascent manufacturing industries in developing economies, often referred to as backward integration policies, set incentives to encourage companies to produce locally, rather than relying on imported goods or inputs. Countries commonly set such policies with a goal of creating jobs or to ensure domestic sources of critical goods, such as food. Typically, governments also seek to exploit their comparative advantages, often with an eye towards eventually competing in export markets to improve their trade balance. Also, there are potential spillover effects, such as the development of services or subcontractors that are needed by the growing industry. These new companies can localise more of the value chain.

Nevertheless, these policies can have side effects. They often rely on a combination of protective tariffs, import quotas, exchange rate controls, preferential licensing terms, and subsidised loans, which can distort markets in economically inefficient ways. Backward integration policies tend to benefit some industries at the expense of others. The protected industries can wind up being globally uncompetitive, and domestic prices may be unnecessarily inflated.

Forms of these policies generally have worked well for South Korea and Taiwan. Pairing backward integration policies with aggressive export programmes, those "Asian Tigers" became global leaders in many manufacturing sectors. Latin America's efforts have been less successful due to weak implementation

and excessive protectionism.¹ Progress in GDP per capita reflects the results: in 1950, Brazil, Chile, and Argentina had two to four times the GDP per capita of South Korea, but by 2000, the Tigers had about twice the GDP per capita of Latin American countries. In Africa, backward-integration policies have often failed.² Many have not achieved the desired impact, and their protections for favoured industries have often resulted in reduced competitiveness.

So how can such industrial policy be done effectively? Typically, industrial policy is most helpful for developing new industries and ensuring sufficient coordination across the economy to allow complex interdependent development to take place. In any case, incentives should apply only to new activities and should have a specific sunset date. There should be clear benchmarks for success, and public support should target economic activities rather than specific industries. Finally, subsidised activities must have clear potential for spillover effects.³

1 Guillermo Rozenwurcel, *Why have all development strategies failed in Latin America?* UNU-WIDER research paper number 2006/12, 2006.

2 Kanayo Ogujiuba, Uche Nwogwugwu, and Enwere Dike, "Import substitution industrialization as learning process: Sub-Saharan African experience as distortion of the 'good' business model", *Business and Management Review*, volume 1, number 6, August 2011.

3 See Dani Rodrik, *Industrial policy for the twenty-first century*, Harvard Kennedy School working paper number RWP04-047, November 2004.

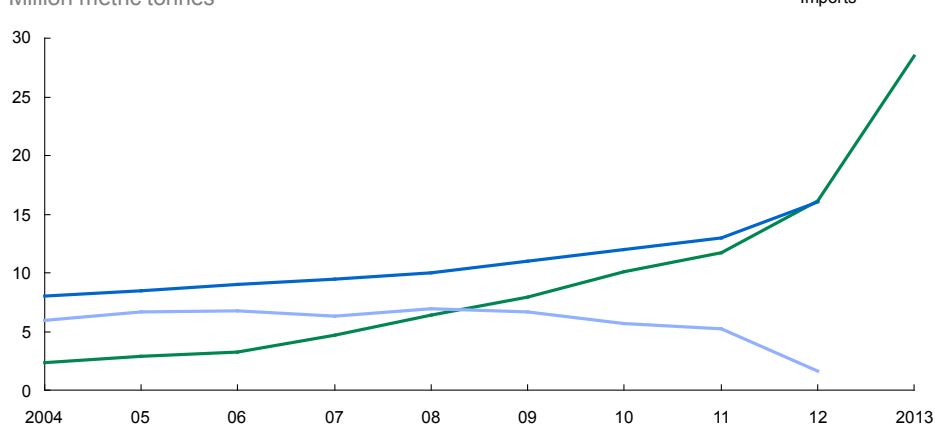
Many developing economies have used mechanisms like the NIRP to nurture specific industries and reduce reliance on imports. In Nigeria, such a policy was used relatively successfully to shift the nation from being a large importer of cement to becoming nearly self-reliant. To do this, Nigeria exploited its large deposits of limestone, gypsum, and other raw materials needed for cement manufacture. These advantages were somewhat offset, however, by weaknesses in the power and transportation infrastructure that the cement industry relies on.

Under the government's cement industry plan, companies that committed to making investments in local cement production could import cement for a limited period until local manufacturing could be established. Under the policy, 15 import licenses were granted, with a clear deadline for investments in local production. As a result, the installed capacity of cement production in Nigeria increased from five million metric tonnes in 2000 to 28.5 million metric tonnes in 2013, and cement imports fell from 77 percent of the market in 2003 to 10 percent in 2012, saving Nigeria an estimated \$1.4 billion per year in foreign exchange (Exhibit 23). In addition, the industry has attracted an estimated \$8 billion in investment.¹⁰¹ As a result, the Nigerian construction industry has ample cement from local production, with prices remaining more or less constant in real terms over the period, despite year-by-year fluctuations.

Exhibit 23

Nigerian cement production has grown 12-fold since 2004, and imports have fallen sharply

Million metric tonnes



SOURCE: Ndefo Okigbo, "Development of the Nigeria cement industry", *International Journal of Innovative Research in Engineering and Science*, 2013; Cement Manufacturers' Association of Nigeria; *Business Day*; *Global Cement Report*, International Cement Review (2007, 2009, 2011, 2013); McKinsey Global Institute analysis

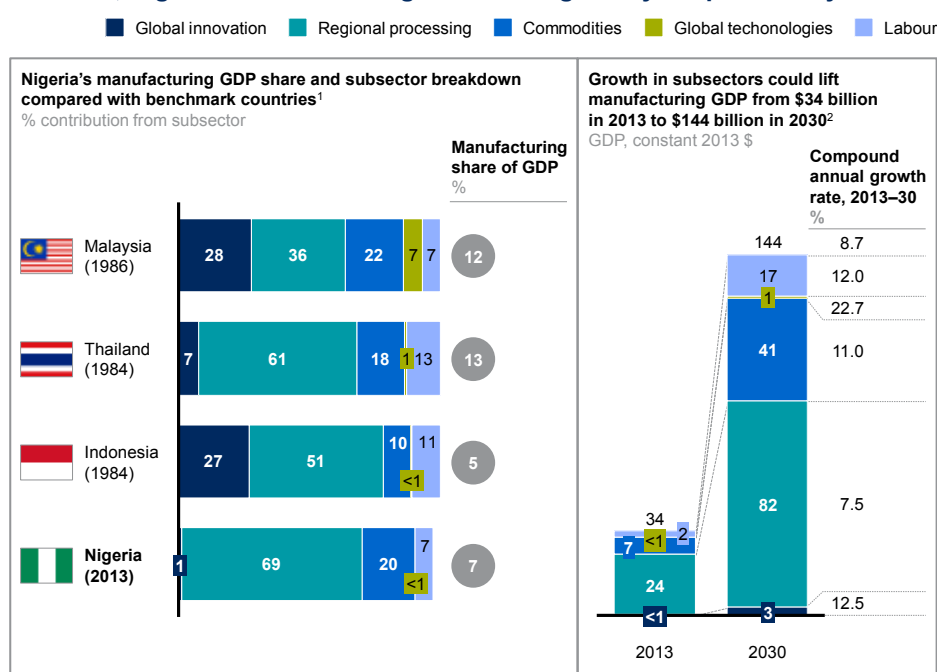
Overall, manufacturing in Nigeria remains at a relatively early stage of development, contributing \$35 billion, or about 7 percent of GDP, in 2013. It has, however, achieved strong growth recently, with output rising by 13 percent per year from 2010 to 2013. We expect the growth rate to moderate over the longer term (double-digit growth rates are seldom maintained over a 20-year period). Indeed, from 1990 to 2010, China and Vietnam were the only economies of significant size that maintained growth rates of more than 8 percent in manufacturing value added (11.8 percent and 10.6 percent, respectively).

¹⁰¹ Crusoe Osagie, "Nigerian cement industry attracts fresh \$8 billion investment", Thisdaylive.com, January 23, 2014.

We believe Nigeria is more likely to follow the pattern seen in such high-growth developing economies as Indonesia, Malaysia, and Thailand during their periods of strongest expansion in manufacturing. The contribution of manufacturing to GDP at the start of these countries' growth periods is much more like that of Nigeria today than those of China or Vietnam in the early 1990s. Starting at different times, Indonesia, Malaysia, and Thailand each racked up 18 years of 8 to 11 percent annual growth in manufacturing during their periods of rapid industrialisation (Exhibit 24). And each country was able to double manufacturing's contribution to GDP in the space of five years, which is the goal of the NIRP. Should Nigeria match the achievements of these countries, it could realise a fourfold increase in manufacturing output by 2030, to \$144 billion per year (an annual growth rate of 8.7 percent).

Exhibit 24

Based on the pattern of countries such as Indonesia, Malaysia, and Thailand, Nigerian manufacturing GDP could grow by 8.7 percent a year



1 Benchmark countries and time periods selected on the basis that they were able to double manufacturing's share of GDP in five years from the starting year—the goal of the Nigeria Industrial Revolution Plan (NIRP).

2 Growth by subsector from each of the benchmark countries used to project Nigerian subsector growth.

NOTE: Numbers may not sum due to rounding.

SOURCE: IHS Global Insight; NIRP; McKinsey Global Institute analysis

Given similar starting points as Indonesia, Malaysia, and Thailand in terms of manufacturing share of GDP and composition of its manufacturing sector, Nigeria has the potential to emulate their growth as its manufacturing sector develops. Manufacturing in Nigeria would still be concentrated in regional processing, commodities-intensive, and labour-intensive industries; global innovation manufacturing would likely remain a smaller subsector through 2030.

Government policies and initiatives will be important for the growth of manufacturing in Nigeria. In addition to promoting six specific industries, the NIRP effort includes initiatives to raise overall manufacturing competitiveness by improving industrial infrastructure and raising skills. The plan also calls for greater investment in technology and innovation, stronger product standards, greater access to finance, and a better investment climate. In addition, the NIRP aims to

drastically improve access to Nigeria's natural gas for industrial use, particularly in the north, and to establish more industrial parks to encourage investment in local manufacturing.

Oil and gas

While Nigeria's oil and gas industry is no longer the country's largest sector, it continues to play a vital role. Oil and gas account for more than 90 percent of exports, providing the foreign capital to purchase food and manufactured goods from abroad. Taxes on the sector also generate the vast majority of government revenue, making the health of oil and gas a factor in everything from national security to schools.

However, the sector has struggled in recent years. While many of Nigeria's assets have low geological costs, the country may not be as competitive in attracting investment as it has been in the past. Between 2010 and 2013, the national accounts recorded a growth rate of just 2.1 percent per year in oil and gas GDP. While precise data are unavailable, the best estimates suggest oil production declined by 7 percent between 2011 and 2013, from 2.52 million barrels a day to 2.35 million. In onshore oil, production fell by an estimated 18 percent over the same period, from 765,000 barrels a day to 628,000.¹⁰² Critical projects such as deep water oil development and export terminals for liquefied natural gas have suffered delays. Many of the international oil companies are looking to divest onshore and shallow-water assets.¹⁰³ If Nigeria cannot attract new investment in oil and gas projects, production could continue to fall—reducing government revenue and weakening both the balance of trade and the broader economy.

Companies face a number of difficulties with Nigeria's regulatory environment. Most onshore and shallow-water fields are developed through joint ventures with the national oil company, but international players complain that state investment is often slow in coming or incomplete.¹⁰⁴ Slow government approvals can lengthen cycle times in both joint ventures and production-sharing contracts, which is a deterrent for investors. And, although the government has raised domestic gas prices substantially in recent years, most domestic gas is still sold below the international market price. The proposed Petroleum Industry Bill is another question mark for investors. The measure has been delayed since 2008, and some private-sector players and industry experts have raised concerns about the bill in its current form. Industry observers have pointed out the omission of defined royalties and production-sharing contract terms in the legislation and say that this may cause hesitation among investors.¹⁰⁵ The Nigerian Extractive Industries Transparency Initiative has criticised the provisions regarding discretionary grants, which it says could allow arbitrary decisions and run counter to the principles of transparency and accountability.¹⁰⁶

¹⁰² Ucube, Rystad Energy, www.rystadenergy.com.

¹⁰³ Femi Asu, "Independents stepping up role in Nigeria's oil industry", *Business Day*, May 28, 2014.

¹⁰⁴ Benoît Faucon, "Funding shortfall hits Shell's plan to reduce gas burning", *Wall Street Journal*, May 20, 2014.

¹⁰⁵ "Wood Mackenzie's assessment of the Nigerian Petroleum Industry Bill", Wood Mackenzie press release, September 27, 2012.

¹⁰⁶ *NEITI position on the Petroleum Industry Bill 2012*, Nigeria Extractive Industries Transparency Initiative, May 2013.

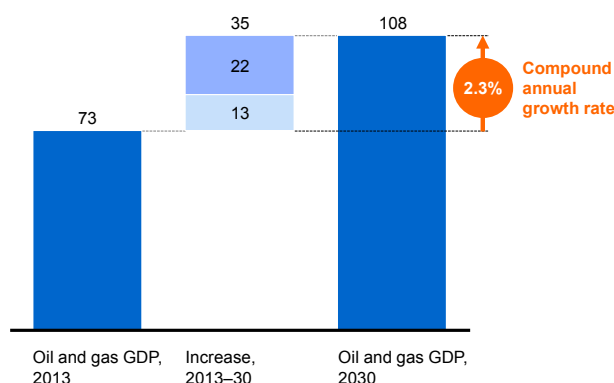
Operating issues are also holding back the sector. It still suffers from widespread theft; estimates vary, but Chatham House estimates that 100,000 barrels a day were lost in onshore and shallow-water areas in the first quarter of 2013.¹⁰⁷ This costs companies not just lost oil revenue, but also interrupted operations and the expense to repair pipelines that are damaged by thieves and vandals. Operators also have important security concerns, some of which are linked to community issues in the country's oil-rich Niger Delta area. The security situation also means that higher salaries are needed to attract workers, and it creates multiple additional operating expenses, ranging from more security personnel to greater crew moves by air. Lack of a reliable power supply adds to the sector's challenges.

Government has an opportunity to improve the prospects of the oil and gas sector—to the benefit of producers and the nation. Natural gas has the potential to contribute substantially to Nigeria's economic transformation, both in expanding electricity generation and through development of gas-based industries. However, to capitalise on the opportunity, Nigeria will need to expand the gas pipeline network quickly, and that will depend on investors who will not participate if prices are not set at the right level. The regulatory framework must also be seen as predictable, supportive of private investment, and stable over the long term. The McKinsey Global Institute and McKinsey Energy Insights have worked together to estimate the potential of the Nigerian oil and gas sector. With the right reforms, we estimate that liquids production could increase from 2.35 million barrels a day on average to 3.13 million barrels a day by 2030. This would exceed the previous high of 2.6 million barrels and would contribute an additional \$22 billion to GDP by 2030. Nigerian natural gas has the potential for rapid growth of 6.0 percent per year. This could create additional annual GDP of \$13 billion by 2030. In total, the oil and gas sector has the potential to contribute \$108 billion per year by 2030, up from \$73 billion in 2013 (Exhibit 25).

Exhibit 25

Oil and gas could contribute an additional \$35 billion to Nigerian GDP by 2030

GDP contribution
2013 \$ billion



SOURCE: National Bureau of Statistics; Rystad Energy; McKinsey Energy Insights; McKinsey Global Institute analysis

¹⁰⁷ Christina Katsouris and Aaron Sayne, *Nigeria's criminal crude: International options to combat the export of stolen oil*, Chatham House, September 2013.

Maximising the potential for oil and gas production depends not only on attracting new investment, but also on raising performance within the industry. This will also be critical to achieving Nigeria's potential in other sectors, such as power and manufacturing. The upside case also assumes that certain conditions prevail and that growth enablers are in place. We assume that international oil prices stay at current levels or move higher; domestic gas prices will be set at a level that allows attractive returns; gas pipelines are expanded without further delays in planned projects; industry reform ensures globally competitive terms for producers; reduced uncertainty improves the investment environment; and OPEC quotas are adjusted as required. Finally, the case also depends on improved security and a steep drop in theft and vandalism.

EMPOWERING 120 MILLION PEOPLE

We believe that if Nigeria achieves its potential for economic growth and inclusiveness, nearly 120 million people can move above the Empowerment Line and 70 million people can be lifted out of poverty (as defined by the Nigerian government) by 2030.¹⁰⁸ This would be a very impressive achievement. As we discussed in Chapter 1, strong economic growth in Nigeria has not yet translated into a large-scale reduction in poverty. In 2010, 46 percent of the population, or approximately 70 million people, was living below the poverty line, and projecting from recent trends, we estimate that in 2013 the poverty rate had fallen to 41 percent of the population, or 72 million people.¹⁰⁹ A further 57 million are living below the Empowerment Line, with enough income to meet subsistence needs but not enough to afford a decent standard of living across eight basic services.

Other rapidly growing countries have successfully converted economic gains into lower poverty rates, and we believe Nigeria can do this, too. Between 1999 and 2010, Brazil reduced its poverty rate by an average of 0.15 percentage points for every 1 percent gain in GDP per year. For South Africa, this ratio was 0.30, and for Ghana it was 0.25. Indonesia did even better, reducing the rate of poverty by 0.52 percentage points for every percent of GDP growth. Depending on the data source, Nigeria has reduced poverty by only 0.02 to 0.05 percentage points for each percent of GDP growth (Exhibit 26). If Nigeria were to raise the ratio of poverty reduction to GDP to 0.20 percentage points for every point of GDP growth (between Ghana and Brazil), the national poverty rate could be reduced from the estimated 41 percent in 2013 to 23 percent by 2030, assuming the business-as-usual GDP growth case (about 5.5 percent per year) that we describe at the end of this chapter. In an upside growth case (averaging 7.1 percent), the poverty rate could be reduced to 17 percent.

¹⁰⁸ Relative improvement in an upside case vs. current poverty and empowerment rates; sized estimates of people rising above the Empowerment Line add up to more than 117 million (see Exhibit 27).

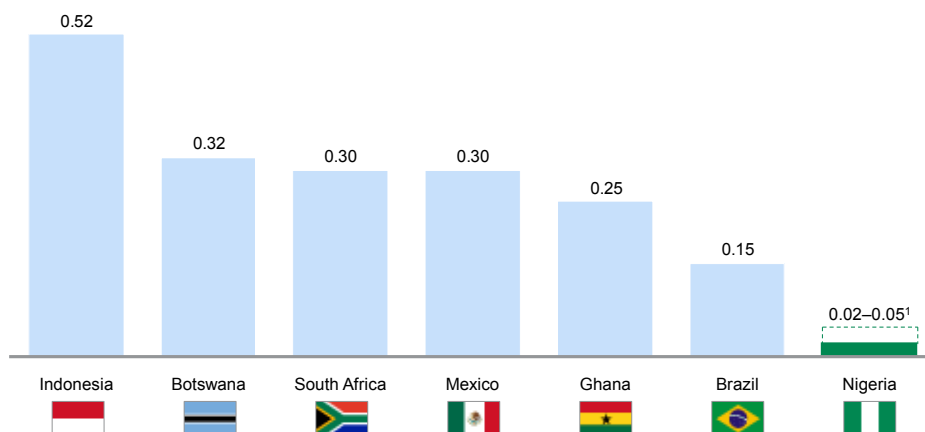
¹⁰⁹ As discussed in Chapter 1, there are various measures of poverty. The most recent large-scale estimate for Nigeria was conducted in 2010 by the National Bureau of Statistics, which calculated poverty rate of 46 percent using its metric (what it takes to get 3,000 calories per day and pay for other necessities). Using an income threshold (\$1.25 a day in 2005 purchasing power parity terms), the World Bank estimated the Nigerian rate at 68 percent in 2010. Our estimate of 41 percent is derived from the national estimate in 2010.

Exhibit 26

Nigeria has a significant opportunity to increase growth inclusiveness

Growth inclusiveness

Percentage point reduction in poverty for every percent of GDP growth, 1999–2010



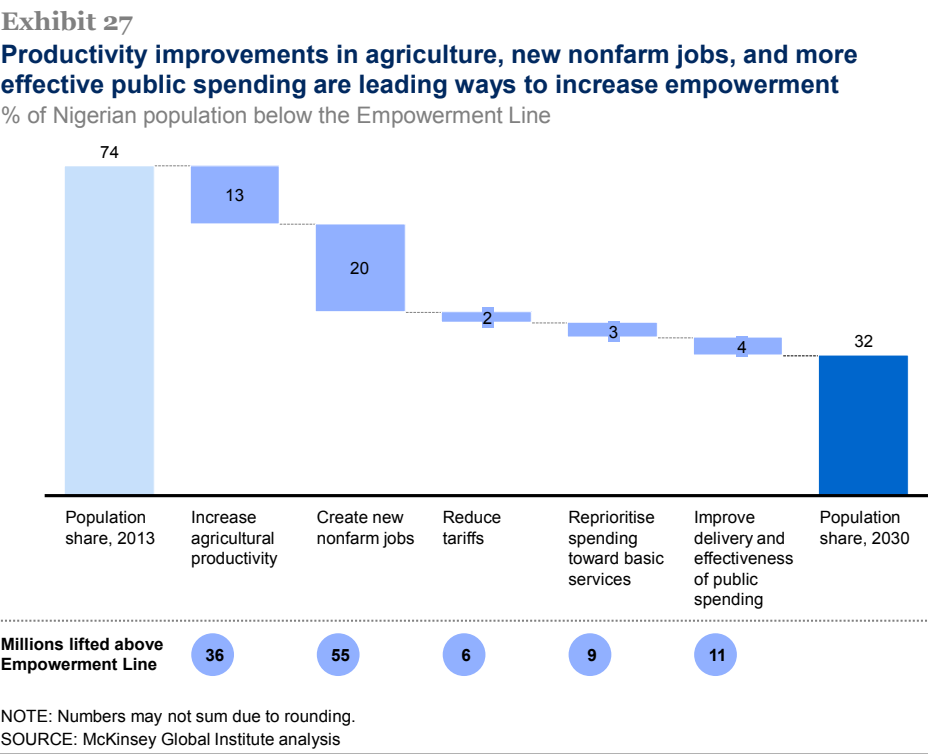
1 A range is shown for Nigeria because the ratio depends on the source used. According to World Bank data, the number was 0.02, but National Bureau of Statistics estimates place the ratio at 0.05.

SOURCE: World Bank; National Bureau of Statistics; McKinsey Global Institute analysis

How can Nigeria translate GDP growth into improved living standards and move more people above the Empowerment Line? Below we detail possible interventions that can help this happen, principally by addressing causes of poverty and seizing opportunities to raise incomes in both rural and urban areas. These initiatives would attempt to accelerate improvements in agricultural productivity and create more non-farm jobs.

Other measures would be aimed at reducing the cost of essential services and improving access to services that help support a decent standard of living. Many Nigerians with incomes above the poverty line remain below the Empowerment Line because the costs of housing, energy, food, and other basics are too high. Reprioritising public spending towards basic services and improving the delivery of these services could move more Nigerians towards an economically empowered standard of living. Together, we estimate that raising incomes and improving access to essential services could reduce the share of Nigerians living below the Empowerment Line from 74 percent in 2013 to 32 percent in 2030 (Exhibit 27). This assumes the upside growth potential scenario.¹¹⁰

¹¹⁰ This is similar to the potential for India by 2030. See *From poverty to empowerment: India's imperative for jobs, growth, and effective basic services*, McKinsey Global Institute, February 2014.



Increase agricultural productivity

More than half of Nigerians living below the Empowerment Line are in rural areas, where rising population and low agricultural productivity depress incomes. As noted, the area per farm worker is declining and even though yields are improving, they remain far below levels in peer countries. Incomes are also limited by an agricultural market system that leaves farmers with a small share of the revenue from crop sales. An underperforming agricultural sector not only reduces farm income but also raises food costs, making it harder for rural (and urban) families to reach the Empowerment Line. If farm production and productivity can be improved in the ways outlined in this chapter and farmers can capture more value when their crops and livestock are sold, we estimate that some 36 million rural Nigerians could be lifted above the Empowerment Line.

Create new non-farm jobs

Urban poverty is driven in large part by poor employment opportunities. We believe that by enabling small business growth, encouraging formal employment, and investing in skills, Nigeria could bring additional 55 million urban residents above the Empowerment Line.

- **Enable small business growth.** As we discussed in Chapter 1, the biggest barrier to small business growth is informality. Over the long term, the goal should be to reduce informality—a difficult challenge for all developing economies. In the near term, however, a more practical goal for Nigeria would be to help the informal sector function more effectively by improving contract enforcement, building social trust, and expanding access to credit—essentially providing the most important benefits of formalisation. These benefits can be obtained through the formation of market associations, industry bodies, employee guilds, and other sanctioning organisations that can help small businesses and their employees enforce informal contracts and can improve

access to capital by providing collateral for credit. Such organisations can also provide the mutual trust mechanisms that are common in the formal economy, which can reduce the risks of dealing with suppliers, customers, and employees, and enable microbusinesses to expand their activities.

Government can also encourage small business growth by addressing deficiencies in the business environment that have been identified by both the World Bank and the World Economic Forum.¹¹¹ As noted in these surveys, Nigeria has a reputation as a difficult business environment, with obstacles ranging from gaining access to electric services to filing taxes.

- **Increase formal employment.** To encourage large urban companies to hire workers on a formal, full-time basis, the government can offer tax incentives and support skills certification. Having employee guilds certify the skills of applicants would also encourage formal hiring in full-time positions. Once formal employees are on long-term contracts, companies are more likely to invest in the skill training and career development that are often missing today. Nigeria already has two programmes aimed at raising skills and preparing workers for formal employment: the Graduate Internship Scheme, which provides skill development for 50,000 young Nigerians, and the National Youth Service Corps, which seeks to create entry-level jobs for Nigerian youth.
- **Boost skills.** As we discussed earlier, the low skill levels of Nigerian workers are an enormous barrier to employment. Improving education and boosting workplace skills are essential to job creation.¹¹² The government could play an important role by increasing the output of the education system (enrolling and graduating more students), supporting vocational training programmes, and raising the productivity of the education sector.¹¹³

Reduce tariffs

As noted, the government can also lower the cost of empowerment by reducing tariffs that raise the price of food, medicines, and basic household goods and act as a highly regressive tax on low-income households. The World Bank estimates that removing these tariffs would have the same effect as increasing household incomes by 9 to 10 percent.¹¹⁴ Removing just half of these tariffs could help lift 6 million Nigerians above the Empowerment Line.

Reprioritise public spending towards basic services

High costs of food, housing, transportation and other necessities keep the Empowerment Line out of reach for many Nigerians. In addition to raising incomes to meet these costs, investments in infrastructure (particularly housing and transportation) and improved delivery of basic services such as health care can bring down the cost of reaching empowerment. Effective social safety nets—programmes to provide additional income for those in need, assistance

111 *Global competitiveness report, 2013–2014*, World Economic Forum, September 2013; *Doing business 2014: Understanding regulations for small and medium-size enterprises*, World Bank, October 2013.

112 For further details on required initiatives to boost skills, see *Africa at work: Job creation and inclusive growth*, McKinsey Global Institute, August 2012.

113 See *Education to employment: Designing a system that works*, McKinsey Center for Government, January 2013, for more details.

114 Volker Treichel et al., *Import bans in Nigeria increase poverty*, World Bank Africa trade policy note number 28, March 2012.

in overcoming shocks, and subsidies for services such as health care and education for the poor—can also play a role in reducing the effective cost of living. If the Nigerian government were to increase funding that reaches the poor by approximately 40 percent, it could lift 9 million people above the Empowerment Line by 2030.¹¹⁵

Improve delivery and effectiveness of public spending

Raising the amount of money allocated to direct assistance and other aid programmes is only the first step. Government must then ensure that each dollar is delivered to those who need it and that money spent on public-sector programmes and services has the maximum impact. Too often, this is not the case. For example, a recent MGI report found that in India only 50 percent of spending was reaching intended recipients. The authors concluded that instituting reforms could raise that share to 75 percent.¹¹⁶ If similar improvements were made in Nigeria, 11 million people could be lifted over the Empowerment Line.

India and Nigeria also have significant opportunities to improve delivery of government services and programmes by adopting proven best practices that are used in other nations. In Chapter 3, we discuss these opportunities in detail.

The role of population

There is a complex relationship between population growth, economic growth, and poverty. Nigeria's growing population can power faster GDP growth or put upward pressure on poverty rates. Typically, birth rates decline as per capita income rises. As countries urbanise and shift away from agriculture, there is less need for large families to provide farm labour. Improvements in health care also influence birth rates in developing economies: when child mortality rates fall, families have fewer babies because more of them are likely to survive to adulthood. Lower birth rates also reduce rates of maternal mortality and morbidity. As a result, in India, for example, the population growth rate slowed from 2.0 percent in 1960 to 1.3 percent today; in Brazil, population growth slowed from 3.0 percent to 0.9 percent over the same period. In Nigeria, by contrast, population growth increased from 2.1 percent to 2.8 percent over the same period, despite strong GDP growth. Lower birth rates are correlated with falling poverty rates.

When family size declines, household incomes are spread among fewer people. Smaller family sizes thus not only lift families out of poverty, but also enable societies to stretch their resources and make greater per capita investment in health and education. The United Nations Commission on Population and Development estimates that an accelerated fertility decline in high-fertility countries such as Nigeria could have reduced poverty by 14 percent between 2000 and 2015.¹¹⁷

¹¹⁵ Refer to the appendix for detailed assumptions.

¹¹⁶ *From poverty to empowerment: India's imperative for jobs, growth, and effective basic services*, McKinsey Global Institute, February 2014.

¹¹⁷ *Fertility, reproductive health and development*, Report of the Secretary General, United Nations Commission on Population and Development, forty-fourth session, April 2011.

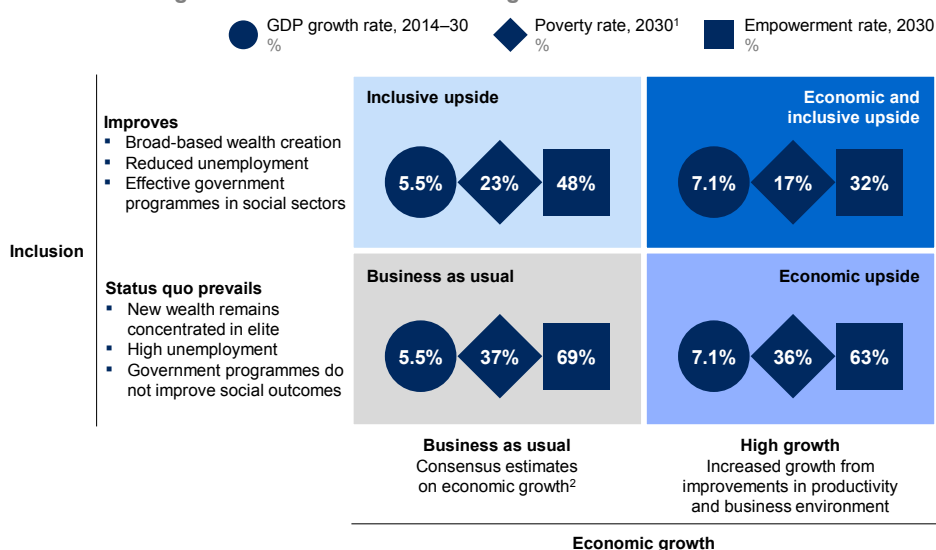
Raising educational attainment among women and improving female career prospects is one way that some countries have used to encourage lower birth rates. In 24 high-fertility countries in Africa, women aged 15 to 19 with no formal schooling had a birth rate four times that of women who had at least a secondary education.¹¹⁸ In Mauritius and Indonesia, family planning programmes and reproductive health education initiatives contributed to declining birth rates. We have not quantified the impact of reducing population growth in this report, since natural changes in the fertility rate are already factored into the population forecasts.

FOUR SCENARIOS FOR GROWTH AND INCLUSION IN NIGERIA

As we have shown in this chapter, Nigeria has the potential to continue healthy GDP growth and to vastly improve its ability to turn economic growth into improved living standards. This could make Nigeria a leading global economy and raise tens of millions of people out of poverty. Even if growth falls short of its maximum potential, Nigeria could still bring more people out of poverty than it has in the past if it makes growth more inclusive, takes steps to address the costs of the eight essentials of economic empowerment, and improves delivery of public services. Or Nigeria could come up short in both GDP growth and poverty reduction.

Here, we discuss four possible scenarios and sets of outcomes for GDP growth and poverty reduction through 2030. We consider two economic cases. The business-as-usual (base) case of 5.5 percent average GDP growth reflects the consensus of published economic forecasts. In the second scenario, the upside case, Nigeria achieves its full economic potential and GDP growth averages 7.1 percent. We also consider two cases for inclusion. The first assumes the historic ratio between GDP and poverty reduction in Nigeria continues, and future economic growth mainly benefits those at the top of the income spectrum. The second case assumes that Nigeria can match Brazil's historic relationship between GDP and poverty reduction, with income gains delivered throughout society and the cost of empowerment reduced. By combining these cases, we derive four potential paths for the scale and nature of growth to 2030 (Exhibit 28). While Nigeria has many potential paths, these are useful directional indicators of how Nigeria's economic growth and social progress may unfold.

118 Ibid.

Exhibit 28**Four scenarios illustrate a range of potential outcomes****Cases for GDP growth and inclusiveness in Nigeria**

1 Poverty rate based on Nigerian national poverty line definition.

2 Average of estimates for Canback Global Income Distribution Database (C-GIDD) (5.3%) and Economist Intelligence Unit (5.6%).

SOURCE: McKinsey Global Institute analysis

- **“Business-as-usual case”** (base case for economic growth and inclusion). In this scenario, Nigeria’s GDP would grow at 5.5 percent and the poverty rate would fall to 37 percent; the share of Nigerians living below the Empowerment Line would fall only slightly, to 69 percent.¹¹⁹ In the base-growth case, oil and gas production declines due to continuing investor uncertainty and more favourable opportunities elsewhere, leading to a drop in government spending. Non-oil sectors continue to grow and long-term economic growth averages 5.5 percent per year, the consensus business-as-usual case.¹²⁰ We assume that current reforms to raise agricultural productivity have limited lasting impact and that unemployment remains high, while government programmes in health, education, and poverty do not reduce poverty rates significantly.
- **“Economic upside”** (upside case for economic growth; base case for inclusion). Nigeria reaches its full potential of 7.1 percent GDP growth, through successfully reforming several key sectors of the economy. However, in this scenario, rising wealth remains concentrated (with the top 5 percent of Nigerians controlling 28 percent of spending, as is the case today).¹²¹ With a very limited “trickle-down” effect, 36 percent of Nigerians would continue to live in poverty, despite healthy economic growth, and the share living below the Empowerment Line would fall to about 63 percent. In this scenario, agricultural output would increase, but middlemen would continue to capture more value than farmers, so the impact on poverty would be small. Programmes to improve basic services such as health and education would be largely ineffective due to continued patronage and other flaws in

119 Extrapolated from the 2010 national poverty rate of 46 percent published by the National Bureau of Statistics.

120 Based on forecasts from C-GIDD and the Economist Intelligence Unit.

121 General household survey, 2012–2013, Wave 2, National Bureau of Statistics (based on a sample of 30,000 individuals across all states).

the system. This scenario could lead to instability: growing inequality would increase the risk of political strife and conflict, which in turn could threaten growth prospects.

- **“Inclusive upside”** (base case for economic growth; upside case for inclusion). The base case for economic growth in the key sectors could still result in progress in reducing poverty, if gains were shared more widely via effective programmes to deliver basic services. This also assumes success in efforts to transform the agricultural sector and in increasing formal employment in urban areas. We estimate that this could reduce the poverty rate to 23 percent and the share of Nigerians living below the Empowerment Line to 48 percent.
- **“Economic and inclusive growth upside”** (upside case for both economic growth and inclusion). If Nigeria can stimulate growth in the five key sectors we analyse (trade, agriculture, infrastructure, manufacturing, and oil and gas) and if global conditions permit, the economy could achieve its potential, with GDP growth of 7.1 percent per year through 2030. If this growth is made more inclusive through effective delivery of social services and other measures, the poverty rate would fall to 17 percent by 2030, and only 32 percent of Nigerians would be left below the Empowerment Line. In this scenario, people who were previously on the cusp of poverty could become consumers, driving demand for goods and services that would contribute to GDP growth and employment. This scenario would involve steady increases in productivity and would create an economy that is more resilient in the face of oil and food price volatility.

It is important not to overinterpret the results of this exercise. These are scenarios, not forecasts. They are intended to help frame the choices Nigeria faces and understand the potential consequences of those choices on poverty and growth. The results do not include any dynamic equilibrium adjustment for additional economic effects that may result from the scenarios themselves. For example, we do not consider the impact on global oil prices as a result of changes in Nigeria's production. Furthermore, the subtleties of the interactions between inclusiveness and economic prosperity have not been fully considered. For example, a more inclusive society would have higher levels of education, and these skills potentially would drive faster economic growth.

□ □ □

Nigeria has a huge opportunity to not only sustain long-term economic growth, but also to transform the lives of the poorest Nigerians. Making this happen will be far from easy. In the next chapter, we look at how government can help translate this potential into reality by designing and delivering programmes and services more effectively.



3. The government delivery challenge

For Nigeria to achieve the upside potential for growth and poverty reduction, the government will need to play a central role. It will need to continue and expand efforts to support key industries, and it should pursue further improvements in areas such as health care, education, infrastructure, and access to capital. Most importantly, the government can vastly improve its ability to design, manage, implement, and monitor programmes and services to ensure that its investments deliver the intended results and that citizens receive the maximum benefit.

Nigeria has an excellent opportunity to improve the delivery of government services. While major government initiatives are under way in key sectors and a good deal of innovation is taking place, programmes continue to fall short of goals. Overall, government programmes have failed to significantly transform outcomes on a broad scale. There are also large variations in outcomes across the country as well as a large gap between what is spent and what should be achievable for the money, based on what peers have done.

While Nigeria has its own challenges and unique circumstances, we find that around the world government delivery is held back by similar issues: corruption, a lack of empowered leaders, competing priorities, an absence of effective delivery mechanisms, minimal pressure to perform, large capability gaps, and limited collaboration with external stakeholders. By focusing on these barriers and learning from global and local experience in public-sector system transformation, Nigeria can come closer to realising its vast potential.

Based on McKinsey experience globally and with the Nigerian public sector, we identify six areas that Nigeria should focus on to improve government delivery: empower capable leaders, prioritise programmes, intensify pressure to perform, use delivery units, build critical capabilities, and leverage external stakeholders.

DESPITE MANY INNOVATIVE INITIATIVES, NIGERIA HAS FAILED TO ACHIEVE LARGE-SCALE IMPACT

Across federal, state, and local governments in Nigeria, officials and civil servants are trying new approaches and looking for ways get better results. Despite these initiatives and the day-to-day efforts of government, the impact of government services is inconsistent and below that of peer nations.

- **Large variations in outcomes across the country.** Outcomes vary on several dimensions. The first is between urban and rural settings. The under-five mortality rate, for example, is 70 percent higher in rural areas than in cities.¹²² But even greater variation exists between regions and states. In Kebbi, a state in the northwest region, just 9 percent of school-aged children enrol in grade one, compared with 77 percent in Osun, a state in the southwest region.¹²³ Just 4 percent of children in Adamawa sleep under

¹²² National Bureau of Statistics, 2013.

¹²³ Ibid.

an adequately treated mosquito net—a critical protection against malaria—compared with 36 percent in Plateau.¹²⁴ One survey of farmers found that previous government fertiliser distribution programmes reached plots in the northwest region at ten times the rate as in the north-central region and that the programme had no recorded impact at all in the southwest.¹²⁵ Raising the performance of programmes across the nation to the level of programmes in high-performing states should be a top priority in Nigeria's effort to improve programme delivery.

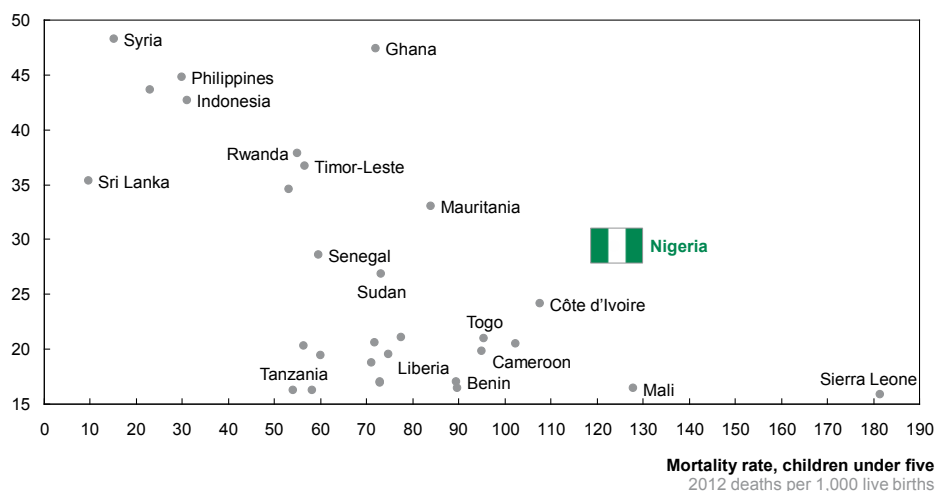
- Large gaps between spending and outcomes.** Compared with nations that spend similar amounts on government programmes, Nigeria often has poorer outcomes. In Nigeria, for example, public spending on health care amounts to \$29 per capita in purchasing power parity terms, yet 127 of every 1,000 children die before their fifth birthday. Senegal and Sudan spend similar amounts per capita on health care, yet the child mortality rate is 60 per 1,000 in Senegal and 73 per 1,000 in Sudan (Exhibit 29).¹²⁶ In addition, Nigeria gets relatively little for its infrastructure investments: it costs \$2.6 million to build one kilometre of road in Nigeria, compared with \$1.2 million in Kenya and \$400,000 in Zimbabwe.¹²⁷

Exhibit 29

Nigeria has poor outcomes compared with countries that spend similar amounts on health care

Public health-care spend per capita¹ vs. child mortality

Public health-care spending per capita
2012 \$ purchasing power parity



1 Countries with public health-care spending per capita between \$15 and \$50.
SOURCE: World Bank; McKinsey Global Institute analysis

- Large performance gaps compared to other countries.** Nigeria trails other countries on many performance metrics (Exhibit 30). In agriculture, for instance, yields are far below levels in benchmark countries, and Nigeria has one-third of India's power generating capacity per million people and less than one-tenth of China's. Nigeria also has less residential housing than peer economies, with less than one square metre of floor space per

124 Ibid.

125 Ibid.

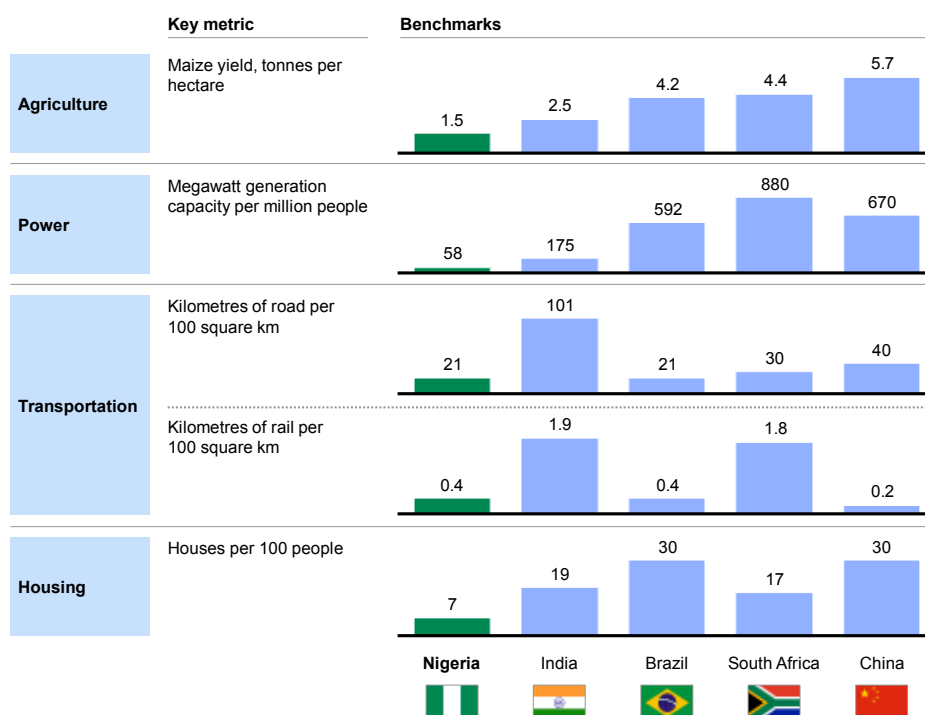
126 *World development indicators 2012*, World Bank, April 2012.

127 BMO Infrastructure Service, Business Monitor International.

capita, compared with 5.4 square metres in India and 5.7 square metres in Indonesia.¹²⁸

Exhibit 30

Nigeria has performance gaps relative to peer developing economies across major sectors



SOURCE: World Bank; McKinsey Global Institute analysis

HOW NIGERIA CAN IMPROVE DELIVERY OF PROGRAMMES AND SERVICES

These performance gaps present an enormous opportunity for improvement. As we have seen in other nations, a system-transformation approach is often required to improve performance in the public sector. Whether the goal is to improve health outcomes, increase agricultural output, reduce water shortages, raise workplace skills, or enable economic growth, we find that an organisation-wide transformation, rather than isolated interventions, is essential to improving performance. For instance, building schools is relatively easy, but raising educational attainment in Nigeria will require a broad set of actions involving teachers, parents, school administrations, curricula, teaching colleges, and federal and state education departments. Creating lasting improvement in outcomes requires transforming the whole system.

Based on a broad body of research on government delivery globally and McKinsey's own work with governments, we see that successful transformations of government services and programmes—or entire economies—have common attributes. These are listed here in Box 5, “A model delivery framework”.¹²⁹

¹²⁸ Global Building Stock Database, Pike Research, 2014.

¹²⁹ See also, *Delivery 2.0: The new challenge for governments*, McKinsey & Company, October 2012.

Box 5. A model delivery framework

Based on experience with more than 60 governments globally in the past decade, McKinsey has identified ten best practices.

1. **Priorities and outcomes.** Government leaders should focus on three to six top-priority outcomes to guide how projects are chosen and managed and should remain focused on those priorities, resisting pressure to modify or expand scope.
2. **Labs.** The lab approach uses a group of 30 to 50 key people, often from both the public and private sectors, who come together for about eight weeks of intensive work to tackle a specific problem. At the end, the lab issues targets and detailed action plans, delivers key stakeholder sign-offs and budget approvals, and designates a delivery team.
3. **Budget.** Budgets must be based on a clear picture of both cost and government ability to pay, which requires early collaboration with the Ministry of Finance. Where budgets are tight, funding can be found by reallocating funds to priority areas using “impact per dollar” analysis. Savings through improved procurement can also help bridge the gap.
4. **Public feedback.** The public and other stakeholders should be engaged through meetings, polls, and social media campaigns to build support and help find better solutions. One government invited the media, the opposition, and the public to a series of “open days”, which drew more than 20,000 people to discuss proposed targets and plans.
5. **Road map.** The government should publish a road map outlining the targets and plans to achieve them. A high-profile launch of the road map by the highest levels of leadership creates both collective pressure to perform and individual accountability to deliver.
6. **Delivery units.** Delivery units are dedicated teams that rigorously track performance, identify and solve problems, and course correct as needed. They vary in size and can be centralised or embedded within agencies. Successful delivery units have an outstanding leader with access to top government leadership, talented staff from the private and public sectors, and influence in ministries.
7. **Performance management and problem solving.** Accountability for outcomes is assigned to individuals and enforced with intensive, regular, data-based performance dialogues. Performance management should include problem solving and provide early warnings to leadership about emerging risks.
8. **Capability building.** From the top levels of leadership to the front line and at every stage of delivery, government needs to invest in talent. Core delivery skills as well as subject matter knowledge are required. Capability building ensures that impact can be sustained.
9. **Communicating impact.** The impact of government work should be communicated credibly and frequently through regular (independently verified) reports. Citywide and statewide branding campaigns can call attention to new roads and schools. Social media can be used to share real-time updates and solicit feedback.
10. **Institutionalising delivery.** Successful delivery processes should be embedded across the government. Governments should redefine budget processes and commit to fiscally sustainable measures, introduce performance management systems at all levels, and ensure that outcomes become integrated into civil service evaluation.

OPPORTUNITIES FOR NIGERIA TO ACCELERATE DELIVERY AND ACHIEVE LARGE-SCALE IMPACT

Applying this global set of best practice lessons to the Nigerian context, we identify six practices for the Nigerian government to use to enhance its delivery capabilities: empower capable leaders, prioritise programmes and outcomes, intensify pressure to perform, use delivery units, build critical capabilities, and leverage external stakeholders.

Empower capable leaders

Nigeria needs to find, train, and empower strong leaders to improve results. In a 2011 report, 6,000 civil servants who were interviewed from 100 organisations across the Nigerian government agreed overwhelmingly that leadership and lack of political will were the biggest issues they face in implementing public projects and delivering government services.¹³⁰ In recent years, Nigeria has demonstrated instances of successful institutional reform, which illustrate the impact of strong and dedicated leadership. For example, one academic case study cites the reform of the National Agency for Food and Drug Administration and Control between 2001 and 2008.¹³¹ Under this leadership, the incidence of fake drugs was reduced by more than half (see Box 6, “Cracking down on counterfeit drugs”).

Box 6. Cracking down on counterfeit drugs

A decade ago, the problem of fake and adulterated drugs in Nigeria was immense. In 2003, the National Institute for Pharmaceutical Research and Development reported that 80 percent of drugs for sale in Lagos were fake. Nigerians were suffering and dying. The National Agency for Food and Drug Administration and Control (NAFDAC), a unit of the Federal Ministry of Health, was charged by the president with ending the menace. The leadership of NAFDAC set four main strategies: restructuring and reorganising the NAFDAC staff and upgrading physical infrastructure; improving operations (with new regulations and tighter control of clinical trials); engaging stakeholders (both the public and drug manufacturers); and raising enforcement activity. NAFDAC “named and shamed” violators, blacklisted offending companies, seized and destroyed fake and substandard drugs, and turned offenders over to prosecutors.

NAFDAC reduced the incidence of fake drugs from 41 percent in 2002 to 16 percent in 2006 and 10 percent in 2011.¹ In opinion polls, NAFDAC was rated the most effective government agency in Nigeria for three years in a row.² The United Nations Office on Drugs and Crime has also rated Nigeria as West Africa's most effective drug control country and commended the work of NAFDAC.³

1 Dora Nkem Akunyili, *The war against counterfeit medicine: My story*, Safari Books, 2010.

2 Joe Abah, *Strong organisations in weak states: Atypical public sector performance in dysfunctional environments*, MGSOG dissertation series, volume 28, Boekenplan, June 2012.

3 Ibid.

130 Federal Government of Nigeria, *Voices from the service: Official report of the civil servants survey*, 2011.

131 Joe Abah, *Strong organisations in weak states: Atypical public sector performance in dysfunctional environments*, MGSOG dissertation series, volume 28, Boekenplan, June 2012.

There have been other examples in Nigeria of outstanding leaders bringing about institutional reform at both the federal and state levels, but exemplary leadership is not the norm in the public sector. Many senior roles require no specified credentials or experience, and considerations other than merit and track record often drive leadership appointments.

In our research, we find that what distinguishes successful projects and programmes is the presence of empowered leaders. Strong leaders consistently secure political backing and are thus empowered to take decisive action, put in place skilled teams, and create working environments in which their teams can execute their programmes successfully.

We have found a number of key characteristics of successful government leaders in Nigeria and elsewhere:

- **Vision.** Outstanding leaders demonstrate an ability to see an old problem through a new lens and introduce innovative, even controversial, approaches to solve persistent problems.
- **Pragmatism.** Successful leaders have a realistic view of the Nigerian environment and effectively anticipate potential roadblocks, using skillful planning and enlisting stakeholder networks to navigate obstacles. For instance, some leaders have been able to raise funding for their organisations by engaging with the media, private-sector players, and the National Assembly.
- **Focus on results.** Successful leaders focus on results. We found that leaders who clearly delegated goals to subordinates and held them accountable through performance management were more effective in achieving their goals. Leaders who were more removed from the process and did not participate in reviews had poorer results.
- **Zero tolerance for corruption.** Many of the leaders who achieved noteworthy results were also known for having zero tolerance for corruption. These leaders had personal reputations for being incorruptible and also put measures in place in their organisations to discourage rent seeking.
- **Prior relevant experience.** Individuals who came into leadership with a good knowledge of the subject matter and were familiar with the nuances of current developments in the sector typically have excelled. Many successful leaders have had some private- and social-sector experience, enabling them to bring in best practices from other fields.

Prioritise programmes and outcomes

Given resource constraints, it is important to focus on a small set of programmes that are prioritised for potential return and speed of implementation. By clearly defining outcomes, decision makers can easily identify which programmes deserve the highest priority. For instance, Malaysia invested significant effort in prioritising six National Key Results Areas that became the focus of its Government Transformation Programme, and it has achieved strong results across all six areas. Among the results: the number of low-performing schools fell by almost 50 percent from 2011 to 2012, and about 100,000 people were lifted out of poverty in 2012 alone. Additionally, it is important to establish the right outcomes-based metric for each priority to ensure that delivery efforts have the intended consequences.

In Nigeria, many priorities compete for government attention and resources. For instance, the first implementation plan for Nigeria Vision 20:2020, the government's economic transformation programme, lists 25 distinct areas for reform with more than 140 initiatives and interventions and more than 200 priority programmes and projects.¹³² The document addresses a comprehensive range of issues but does not include in-depth delivery plans for any initiatives or any indication of which efforts should be given high priority because of their potential impact.

To improve delivery, programmes should be launched only after a rigorous prioritisation process that narrows the focus to a small set of programmes (three to six) that have the highest potential impact and greatest chances of success. The outcomes can be chosen using different approaches—ranging from a “top-down, agenda-driven” approach, where leaders rely mainly on political instinct, to a “consultative, fact-based” approach, where leaders seek input from their colleagues and even the public.

Once programmes are selected, the right metric for each priority must be set and metrics should be designed to measure outcomes, not inputs. For instance, water board performance should be measured by how many more Nigerians have gained access to clean drinking water rather than how many bore holes have been drilled.

The third step is delivery planning, in which teams develop plans for how they will deliver on each of their targets to meet the overall aspiration. It is very important to set a trajectory for implementation that outlines key milestones, an overall timetable, and mitigations against risks and constraints that might throw the work off course.

Some governments have adopted the labs approach to refocus priorities. Labs can operate independently of existing organisations and are able to break down silos. They have been used to translate high-level strategies into detailed implementation plans.

¹³² *Nigerian vision 20:2020: The first national implementation plan (2010–2013), volume II: Sectoral plans and programmes*, National Planning Commission, May 2010.

Intensify pressure to perform

Performance improves when it is explicitly managed. But performance management requires accountability, and in Nigeria, accountability is a challenge. This is partly because the government is highly fragmented, with more than 400 federal agencies, and cooperation is needed across federal, state, and local organisations. Moreover, the performance-management tools of the civil service are poorly implemented.¹³³ To improve performance management, target outcomes need to be assigned to individuals, and progress needs to be documented in regular, data-based performance dialogues. To enlist public pressure to improve performance, goals and targets must be widely communicated, and updates about progress must be shared.

The UK experience in battling street crime provides an example of the potential impact of effective performance management. In 2002, as muggings and robberies were escalating, Prime Minister Tony Blair announced a goal of having street crime under control within six months. He assembled a task force that reported to him and held cabinet ministers individually accountable for progress on goals. Blair attended weekly reviews where he was briefed on progress based on the latest data. Within six months, robberies were down by 10 percent; by 2005, they had dropped by 56 percent (see Box 7, “Enforcing performance to win the battle against street crime”).

Box 7. Enforcing performance to win the battle against street crime

From 1999 to 2001, street crime in the United Kingdom had risen by an alarming 45 percent. In March 2002, Prime Minister Tony Blair launched his street crime initiative and set a very public goal to get street crime under control within six months. Blair announced his goal in a session of Parliament and in the media, and he made clear that the police would be accountable to the public if they failed to deliver.

In addition, the prime minister assembled a street-crime task force, made up of police and non-police experts, that reported directly to him. Individual cabinet ministers were assigned accountability for progress on meeting crime reduction goals, and Blair met weekly with the task force for progress reviews in which charts showed performance against targets.

The impact was rapid and dramatic. Police mapped the location of each robbery and identified hot spots, shifted more than 2,000 officers to street crime units, rendered stolen mobile phones unusable to make stealing phones a waste of time, and engaged insurance companies in the war against crime. Within six months, robberies dropped by 10 percent in high-priority areas where crime had been highest.¹ By 2005, robberies had dropped 56 percent from the peak.

1 Nick Tilley et al., *Problem-solving street crime: Practical lessons from the Street Crime Initiative*, Research Development and Statistics Directorate, UK Home Office, 2004.

133 Imran Rasul and Daniel Rogger, *Management of bureaucrats and public service delivery: Evidence from the Nigerian Civil Service*, University College London, October 2013.

In Nigeria, institutional arrangements and weak systems often obstruct service delivery, and typically no one is held accountable for actual delivery. Overall, performance management is lacking, and most civil servants do not even have clearly documented tasks or targets. The performance management tools that exist are not implemented well.¹³⁴

To deliver better results, the government, citizens, and other stakeholders will need to intensify the pressure for government workers to perform. Internal performance management should begin with assigning accountability for outcomes to individuals, whether political leaders or civil service leaders. Once accountability is established, performance dialogues (intensive, regular conversations between the leader of the government and the leader accountable for each outcome) are essential for performance management. Performance dialogues must be informed by relevant data, and results should be presented on a regularly updated dashboard—ideally online—to help managers respond quickly to performance issues. It is unrealistic to roll out such an ambitious change to the entire civil service population at once, so performance management routines should be introduced into high-priority areas first.

In Nigeria, there already is pressure from the top to improve performance of government officials. Recently the president executed performance agreements with his ministers, and many ministers have made similar contracts with the permanent secretaries of their ministries and heads of departments and agencies who report to them. While this has been a good initial step, opportunities remain to improve the enforcement of the performance agreements. Performance goals have not been cascaded through the bureaucracies, nor have consequence-management tools been deployed to enforce performance standards. To generate pressure to improve performance from the public, civil society, international multilateral organisations, and other stakeholders, goals and targets need to be widely communicated, and updates about progress need to be shared.

Making data about performance open and public can be a powerful tool. In many countries, for example, governments are beginning to share open data about performance to let citizens evaluate the quality of schools or hospitals, which gives those institutions a strong motivation to improve. The UK government was among the first to publish targets for its programmes in the form of public service agreements.

Use delivery units

To overcome bureaucratic and capability challenges, many governments set up dedicated delivery units. These are government entities that are responsible for putting in place a systematic approach for driving progress and delivering results in specific priority areas. These units report to high-level officials and are usually staffed by highly skilled individuals, chosen from government agencies or departments and from the private sector. Delivery units bring focused attention to implementation and can facilitate fast decision making by circumventing government bureaucracy.

¹³⁴ Joe Abah, *Strong organisations in weak states: Atypical public sector performance in dysfunctional environments*, MGSOG dissertation series, volume 28, Boekenplan, June 2012.

Delivery units can operate either centrally, at the national or state level, or within a specific ministry or programme. National delivery units typically report to the prime minister or president and play a key role in determining the national strategy and key priority areas. National delivery units have yielded strong results in the United Kingdom, Singapore, the United Arab Emirates, and elsewhere. Delivery units also can be effective at a state, ministry, or programme level. The Nigerian health-care programme Saving One Million Lives, for example, is managed by a delivery unit and has worked across agencies and state health ministries to drive implementation (see Box 8, “Saving lives in Nigeria”).

Box 8. Saving lives in Nigeria

The Saving One Million Lives (SOML) programme was created by the Nigerian Ministry of Health in 2012 to improve the country’s delivery of primary health care to women and children and to save one million lives by 2015. The programme has a three-part structure. The first part is a steering committee that works as a coordinating mechanism. It meets on a quarterly basis and is chaired by the minister. The second part is a project management team, composed of members of SOML and counterparts in the civil service who meet once a month. The third part is a dedicated programme delivery unit consisting of more than 20 experts and professionals who oversee the programme at a national level. The unit works closely with both the central government and the states to change the focus of the civil service from inputs to outcomes via a systemic view.

The ministry focused on attracting the best talent to the delivery unit and ensuring that it could work effectively across government agencies. Talent is scarce in Nigeria, and as a result individuals with the right capabilities can command high salaries. The SOML programme delivery unit worked with international funding organisations to support private-sector compensation for programme employees to attract the best talent, with funders underwriting specific positions. SOML also used workers from Nigeria’s National Youth Service Corps.

SOML has been effective by working through existing government agencies. A 25-member delivery unit cannot manage every aspect of implementation across federal and local health agencies, but it can be a driving force to push administrators and members of the civil service to carry out SOML initiatives. The programme uses a leveraged model, whereby one member of the team will work with a thematic leader at the federal level and key personnel in the states. One SOML delivery unit member works with the staff of a state health ministry on a daily basis. The delivery unit has been instrumental in helping to get the programme up and running. According to the coordinating minister for the economy, SOML initiatives had already saved 400,000 lives by January 2014.¹

¹ Ngozi Okonjo-Iweala, “Responses to the 50 questions on Nigeria’s economy posed by the House of Representatives’ Committee on Finance”, *Saharareporters.com*, January 15, 2014.

Delivery units vary in setup, size, and staff composition. The UK Prime Minister's Delivery Unit is an example of a delivery unit at the national level reporting to the prime minister, while the Los Angeles Performance Management Unit is a regional delivery unit, and Saving One Million Lives uses a ministerial-level delivery unit.

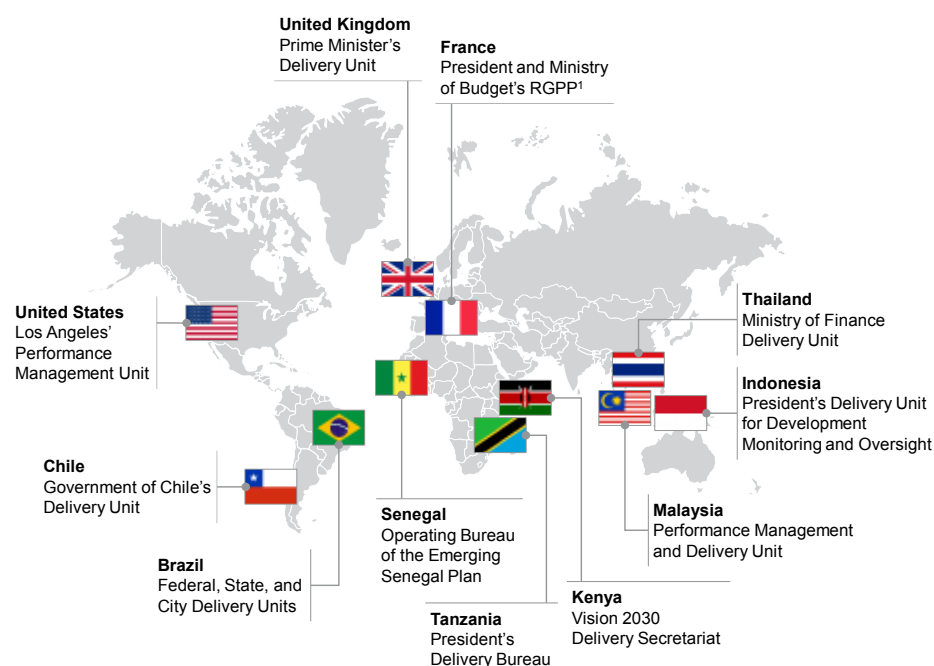
Despite variations, successful delivery units share a few key characteristics: they are headed by an outstanding leader with a strong track record of delivering outcomes; have direct access to top leadership; and hire talented staff with great problem-solving and communication skills, which they use to influence ministries without having line authority. Successful delivery units also have a constant mandate, are not too large (typically fewer than 50 members), and have the necessary access to escalate critical issues that cannot be resolved.

Inspired by the Prime Minister's Delivery Unit in the United Kingdom, which was created in 2001, many governments around the world have set up delivery units as a way to implement large-scale initiatives. These nations include Brazil, Indonesia, and Kenya (Exhibit 31).

Exhibit 31

Governments around the world have used delivery units to launch and run new programmes effectively

NON-EXHAUSTIVE



¹ RGPP (La révision générale des politiques publiques) translates as "general review of public policies".

SOURCE: McKinsey Global Institute analysis

Build critical capabilities

To achieve and sustain lasting impact, the skill of the Nigerian civil service needs to improve significantly. Investments in training are necessary but not sufficient. Nigeria offers significant opportunities for civil service training, but it is seen more as a perk than as a means to improve capabilities. Capability training needs to focus on the right skills to deliver the results, but it also must use effective teaching formats that can be scaled across large organisations. One effective approach is "train the trainer", which involves creating a cadre of experts within the organisation that can train other trainers.

To develop the needed capabilities in its public sector, Singapore emphasizes recruitment and retention of highly skilled individuals through such practices as awarding scholarships and benchmarking salaries against private-sector employment. Singapore continues to focus on skill building after hiring, and employees are expected to take at least 100 hours of relevant training a year. Each agency is required to develop an annual training road map for every employee (see Box 9, “How Singapore builds public-sector capabilities”).

In many instances today, civil servants in Nigerian ministries, departments, and agencies do not have the skills required to carry out their responsibilities effectively. Prior to 1999, rapid recruitment of government personnel under military administrations resulted in an oversized public-sector workforce, in which many employees did not have the appropriate skills for their assignments.¹³⁵ The government estimates that 70 percent of federal civil servants have a high school education or less and that less than 5 percent possess modern computer skills.¹³⁶

Box 9. How Singapore builds public-sector capabilities

Singapore is renowned as an economically successful, smoothly functioning city-state with a highly capable and honest bureaucracy.¹ The Singapore Public Service, which played a central role in the country's rapid economic growth, excels because the government recruits highly skilled talent, pays competitive salaries, and invests in continuous training.

Recruitment and promotion within the Singapore Public Service is based solely on merit.² To develop talent, the Public Service Commission and some public agencies award college scholarships to talented students who commit to working for the organisation for a specific period after graduation. To retain talent, agencies benchmark salaries against private-sector compensation, which reduces the flow of talent from the public to the private sector seen in other countries.

Additionally, Singapore emphasizes good morale and staff well-being.

To ensure that public worker skills remain current, the Singapore Public Service expects employees to undergo at least 100 hours of sponsored training per year.³ Departments and agencies are assigned training budgets and are responsible for staff training. Departments are required to develop annual training road maps for each worker (in consultation with supervisors) that provide guidance on the types of training to take to fit career development goals. These training road maps are developed as part of the annual work review and appraisal process. Ministries organise their own specialised functional training, while the central Civil Service College supplies training in core public service functions and policy areas. External vendors with specialised expertise are also used.

1 Philip Yeo Liat Kok and Vernie Oliveiro, *Public service capacity-building for local-level development: The Singapore Public Service—a case study*, United Nations Economic and Social Council, Committee of Experts on Public Administration, January 2012.

2 Ibid.

3 N. C. Saxena, *Virtuous cycles: The Singapore Public Service and national development*, United Nations Development Programme, March 2011.

135 Ngozi Okonjo-Iweala, *Reforming the unreformable: Lessons from Nigeria*, MIT University Press, 2012.

136 Olukemin Iyabode Lawanson and Babatunde Wasiu Adeoye, “Public sector reforms: Implications for human resource management in Nigeria”, *British Journal of Arts and Social Sciences*, volume 13, number 2, May 2013.

Investment in training is necessary but not sufficient. Even now, most Nigerian government organisations earmark a significant percent of their budgets for training, and the government sends many senior officials to international training programmes. However, these trips are typically viewed more as perks than as development opportunities.¹³⁷ Capability building should be:

- **Focused on the right capabilities.** Training programmes must be focused on enabling civil servants to fulfil the mandates of their specific organisations. The programmes must also be tailored for the current skill levels of employees.
- **Grounded in adult learning principles.** Interactive learning formats that include the use of repetition and coaching and that focus on capabilities and knowledge with immediate application in daily work are more effective than lecture-based training. Research shows that 90 percent of what is learned in lecture-based training is lost within three months.¹³⁸
- **Based on real-life material.** Successful programmes are adapted to the organisation and the people in the programme. Even in training, employees should be working on real problems and projects that are relevant to their jobs and that can be applied in the work environment. Such programmes have a foundation in real work settings and in settings outside of a given job.
- **Scalable and institutionalised.** To achieve system-wide impact and be sustainable, the organisation needs to develop the capacity to train itself and not rely solely on outside training. A “train-the-trainer” approach—aiming the first wave of training at creating internal experts who can train others—helps.

Leverage external stakeholders

When possible, programmes should leverage external stakeholders such as private industry, development finance institutions, the donor community, and technical implementation partners. Collaborations with outside stakeholders can be very broad, including foreign direct investment and public-private partnerships. To select partners, government should start by identifying internal skills that are lacking and outside parties that can fill those gaps. The next step is building relationships with key players and systematically removing barriers to their participation. By doing so, Nigeria can make the most of external stakeholder capabilities and resources.

An example of a programme in Nigeria that has benefited from collaborating with external stakeholders is the Agricultural Transformation Agenda. The programme established relationships with the private sector and development partners such as the World Bank and the African Development Bank. The newly created Agribusiness and Investments Unit within the ministry has helped to bring more than \$4 billion in private-sector investment into Nigerian agriculture, from companies such as Dangote, Unilever, and Cargill. The unit also secured commitments for \$3 billion from development partners. Since 2011, the programme has provided subsidies to 4.5 million farmers and helped reduce agricultural imports by more than \$3 billion.

¹³⁷ Joe Abah, *Strong organisations in weak states: Atypical public sector performance in dysfunctional environments*, MGSOG dissertation series, volume 28, Boekenplan, June 2012.

¹³⁸ Jonathan Kolodny, Adi Leviatan, and Dana Maor, “Project management in defense: The essential capability”, *McKinsey on Government*, number 8, Spring 2013.

Another example of leveraging external stakeholders is the Nigeria Mortgage Refinance Company (NMRC), which was incorporated in 2013 with the goal of developing the mortgage market and providing affordable housing. NMRC is driven by the Ministry of Finance and Ministry of Lands, Housing and Urban Development in partnership with various state governments. The company was seeded with a \$300 million loan from the World Bank and has attracted investment from commercial banks, primary mortgage banks, insurance companies, private equity investors, and international financial institutions. Government officials point out that if NMRC succeeds, it will provide additional benefits, including stimulating the housing and construction sectors and creating jobs for masons, carpenters, electricians, plumbers, painters, interior decorators, and other workers.

To succeed with external stakeholders, government leaders should keep two priorities in mind:

- **Understand skill gaps and enlist partners with necessary capabilities.** Often governments do not have all the technical and managerial capacity to carry out programmes. They need to work with the private sector and other implementation partners to get the additional capacity. Programme leaders need to identify what capabilities are critical for success, determine whether their teams have adequate competence in those areas, and, where they do not, find out if external support can fill those gaps. In Nigeria, external stakeholders have played a key role in several major initiatives. In addition to the Agricultural Transformation Agenda, which relies on private-sector and development partners, the successful polio eradication programme depended largely on the expertise of the Bill and Melinda Gates Foundation.
- **Build relationships with relevant parties and systematically reduce barriers to participation.** Many governments try to focus on creating a business-friendly environment. To leverage external stakeholders when there is a need, it is important to cultivate relationships with select companies and organisations based on their ability to contribute to specific programmes. For example, Costa Rica's development agency wanted to promote the country as a high-tech manufacturing location, but it was not even on Intel's long list of potential sites for a new chip facility. By actively marketing Costa Rica as a destination, the agency got the country added to the list and eventually secured the investment. Intel's decision to invest dramatically improved Costa Rica's credibility as an investment location and led to the creation of a technology hub. In addition, it is important for the government to have a structure and process in place to encourage collaboration. Singapore's Economic Development Board has organised an International Advisory Council of 12 C-suite leaders from global companies such as Alibaba Group, GE, and GlaxoSmithKline. The council meets with the prime minister and key members of the cabinet for three days every two years to discuss key projects and areas of focus. Members of the group continuously serve as liaisons between Singapore and investors in their home locations and business networks. Nigeria's Honorary International Investors Council aims to fulfil a similar function, and it could look to international examples such as Singapore for best practices.



The promise of inclusive growth that can reduce poverty rates and lift tens of millions of Nigerians to economic empowerment cannot be fulfilled without significant improvements in how government delivers services. Efficiency and effectiveness in government operations can have an immediate and profound impact on the lives of Nigerians, supplying critical assistance when needed and helping provide the elements of a decent standard of living—education, health care, transportation to a job, access to water and sanitation, and a chance to find housing.



4. Unlocking the consumer opportunity

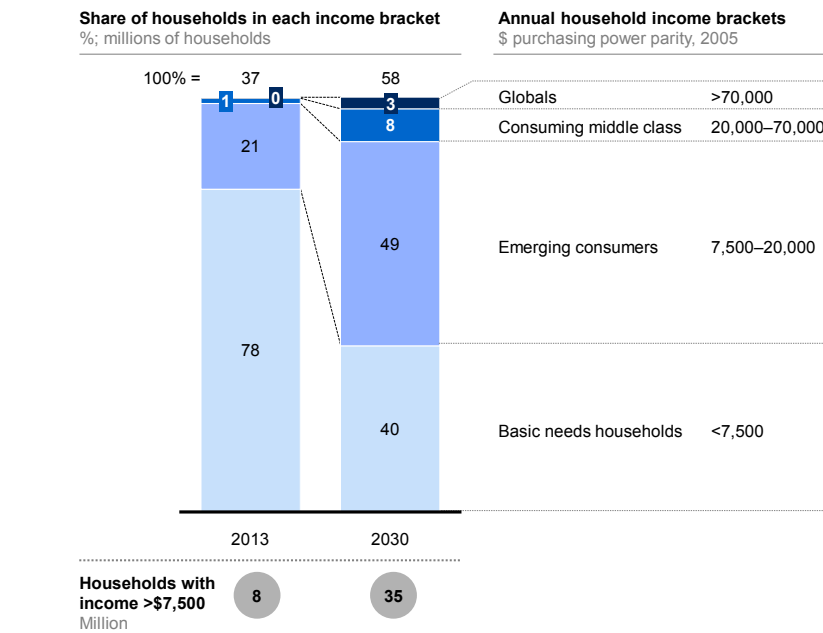
If Nigeria reaches its economic potential, the retail and wholesale trade industry could grow 7.1 percent per year. By 2030, it would likely become the largest contributor to Nigerian GDP, surpassing the agriculture sector. In this chapter, we focus on the most important opportunities in the consumer sector and how private-sector players can benefit from them.

Rapidly rising consumption by an expanding consumer class creates a particular opportunity for manufacturers and sellers of fast-moving consumer goods such as food, beverages, and personal and health products—the type of products that millions of newly minted consumers buy. Based on data from other economies on how consumption changes with rising incomes, we see demand in Nigeria poised to accelerate in such categories as fruit juices. Capturing emerging consumer demand, however, will require smart choices about where, when, and how to enter Nigerian markets. It will also require specific capabilities that international companies especially may need to develop.

As noted in Chapter 2, the number of households in Nigeria's consuming class is growing rapidly, with 35 million households expected to earn more than \$7,500 a year by 2030, leading to strong growth in private consumption (Exhibit 32). Consumption today is \$388 billion a year and is expected to reach \$1.4 trillion a year in 2030, an annual increase of about 8 percent. Seventy percent of consumption is expected to be in food (including beverages) and non-food consumer goods.

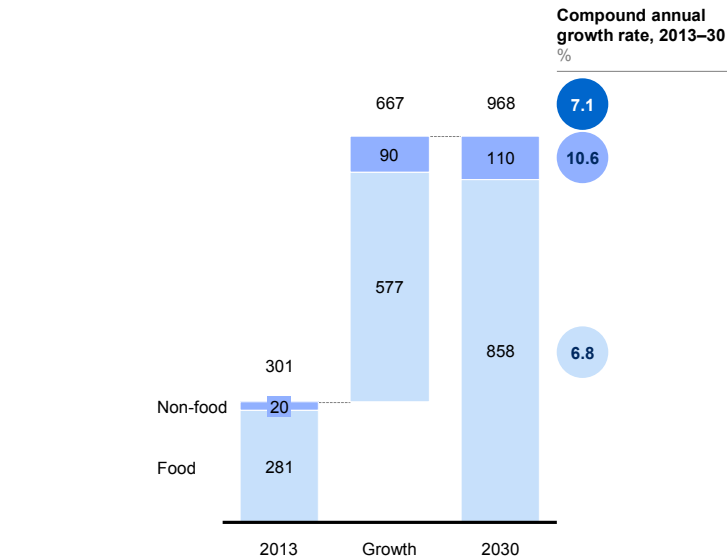
Sales of food and non-food consumer goods are expected to rise 7.1 percent a year, growing more than threefold, from \$301 billion in 2013 to close to \$1 trillion in 2030. For packaged food and beverages, sales are projected to grow by 6.8 percent per year, contributing around 85 percent of the growth in consumer goods. Non-food goods such as personal care products will grow even faster, by about 10.6 percent a year, to reach \$110 billion in 2030 (Exhibit 33). Growth in consumer goods in Nigeria would outpace growth in other African nations, including South Africa and Egypt, where sales are expected to rise by only around 4 percent.

Exhibit 32
Nigeria could have 35 million “consuming-class” households by 2030



NOTE: Numbers may not sum due to rounding.
SOURCE: National Bureau of Statistics; Canback Global Income Distribution Database (C-GIDD); McKinsey Global Institute analysis

Exhibit 33
Demand for consumer goods in Nigeria could more than triple by 2030
Private consumption of food and non-food consumer goods
2013 \$ billion



SOURCE: National Bureau of Statistics; Canback Global Income Distribution Database (C-GIDD); McKinsey Global Institute analysis

THE CONSUMER ENVIRONMENT IN NIGERIA TODAY

The consumer industry is made up of manufacturers—food processors and makers of non-food products—retailers, wholesalers, and distributors. In both manufacturing and retail, there are purely local companies (both formal and informal), international companies with a strong and traditional local presence, and foreign multinationals.

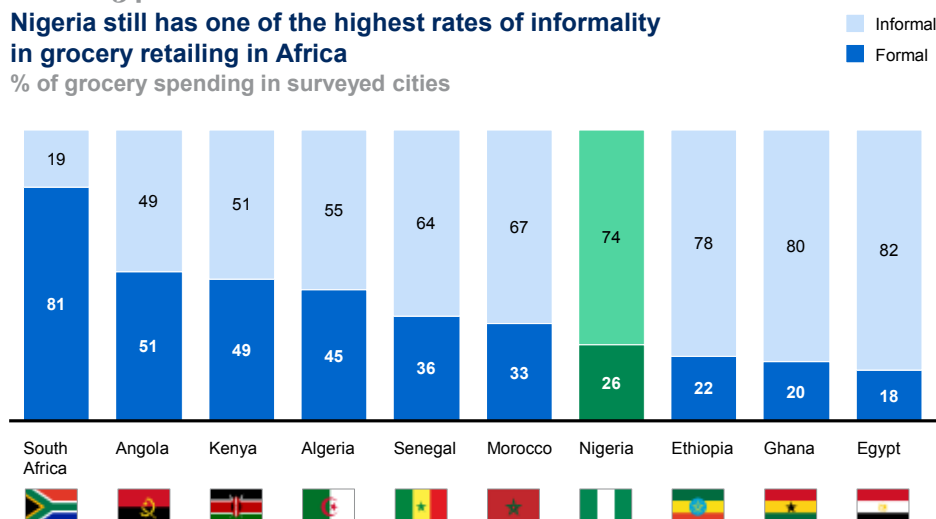
Retailers

In consumer goods retailing, more than 70 percent of sales in Nigeria still go through informal and fragmented channels, such as small shops, market stalls, and street vendors (Exhibit 34). However, modern retailers such as Shoprite and Artee/Spar are making inroads, and sales through modern-format stores are growing by 28 percent per year (albeit from a very low base).¹³⁹ The new stores appeal to more affluent Nigerian consumers, who enjoy the modern retail environment.

Exhibit 34

Nigeria still has one of the highest rates of informality in grocery retailing in Africa

% of grocery spending in surveyed cities



SOURCE: McKinsey Africa Consumer Insights Center; McKinsey Global Institute analysis

The modern trade sector is dominated by foreign chains. Approximately 20 global retail chains are active in Nigeria. Since entering in 2005, South Africa-based Shoprite has grown to eight stores across Nigeria and has announced plans to open 44 more in the next four years. Massmart, with its Game brand and only two stores, has achieved the highest retail sales at \$35 million. The locally based Artee Group, which includes the Park 'n' Shop and Spar brands, has five centres across Nigeria. Other players include international retailers Mr Price and Hawes and Curtis. However, the recent exit of South Africa's Woolworths, which cited high rents and duties, supply-chain issues, and marketing difficulties, illustrates that challenges in the Nigerian market must be managed carefully. Nevertheless, given the projected growth in the industry and rising incomes, it can be expected that the demand for formal retail will continue to grow, creating significant opportunity for large chains to increase sales.

¹³⁹ Euromonitor International database.

Manufacturers

Global consumer-goods manufacturers have been operating in Nigeria for nearly a century. Some of the largest multinational consumer products manufacturers in Nigeria include the following:

- **Guinness Nigeria (Diageo).** Guinness Nigeria is a subsidiary of Diageo and had revenue of \$736 million in 2012.¹⁴⁰ It owns breweries and plants across Nigeria, where it produces beer and ready-to-drink beverages that are customised for the local market, in addition to importing spirits from Diageo's global portfolio. The company's most important brand is Guinness beer.
- **Unilever.** Unilever Nigeria traces its roots to Lever Brothers (West Africa) Limited, which started as an importer in 1923. The company now manufactures food, home, and personal-care products. Its sales were \$350 million in 2012. Products include food and drink (Lipton, Knorr, and Royco), home care (Omo and Sunlight), and personal care (Pears, Lux, and Vaseline).
- **Procter & Gamble.** P&G Nigeria has its head offices in Lagos, with manufacturing plants in Ibadan and Agbara. Nigeria is P&G's West African business and production hub, with a strong portfolio of brands. Products include household care (Pampers, Ariel, and Vicks), and beauty and grooming (Always, Oral-B, and Gillette).

In addition to foreign multinationals, there has been continued growth among Nigerian manufacturers. These include units of international players with a long-standing local presence, as well as purely local manufacturers. Together, the eight largest publicly traded local consumer goods companies recorded revenue of more than \$4 billion in 2012. The group includes three beer brewers: Nigerian Breweries (Heineken), International Breweries, and Champion Breweries; and five food processors: Flour Mills, Dangote Flour Mills, Honeywell Group, National Salt Company, and Northern Nigeria Flour Mills. La Casera produces beverages, and UAC makes convenience foods. PZ Cussons Nigeria, the largest subsidiary of UK-based PZ Cussons, produces consumer goods such as personal care products (Imperial Leather, Carex, and Cussons Baby), home care items (Zip and Morning Fresh), electrical goods (Haier Thermocool), and food and nutrition products (Yo!, Nunu, and Coast).

LOOKING FOR POCKETS OF DEMAND WITHIN THE NIGERIAN MARKET

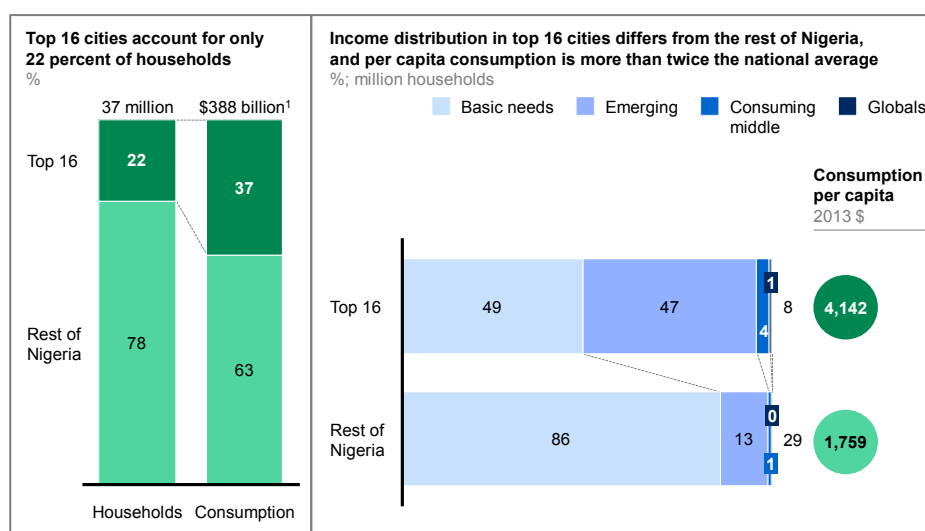
To capture demand in new consumer markets such as Nigeria, companies need to develop ways to identify new kinds of opportunities. Nationwide strategies are no longer effective in advanced economies, and they are even less likely to succeed in developing ones where there are sharper differences in culture, demographics, and wealth. Increasingly, companies must look for pockets of growth within cities and regions.

140 Company revenue data in this section from Bloomberg and company reports.

We have analysed income distributions in Nigeria's 16 largest cities to make a first cut at the best geographic opportunities. We use MGI's classification of global consumer types: those in "basic needs", with household incomes less than \$7,500 per year; emerging consumers, with incomes between \$7,500 and \$20,000; the consuming middle class, with \$20,000 to \$70,000 in annual income; and global households, which earn more than \$70,000.¹⁴¹ Based on this analysis, we can see that the 16 largest cities, which are home to only 22 percent of Nigeria's population, accounted for 37 percent of consumption in 2013 (Exhibit 35). Only 49 percent of households in these cities fall into the basic needs category, compared with 86 percent of households in the rest of Nigeria. At \$4,142, per capita consumption in the top 16 cities is almost 2.5 times as high as in the rest of Nigeria, where per capita consumption is only \$1,759 per year.

Exhibit 35

The top 16 cities in Nigeria have far more higher-income households, and per capita consumption is more than twice the national average



¹ In 2005 purchasing power parity terms.

NOTE: Numbers may not sum due to rounding.

SOURCE: National Bureau of Statistics; Canback Global Income Distribution Database (C-GIDD); McKinsey Global Institute analysis

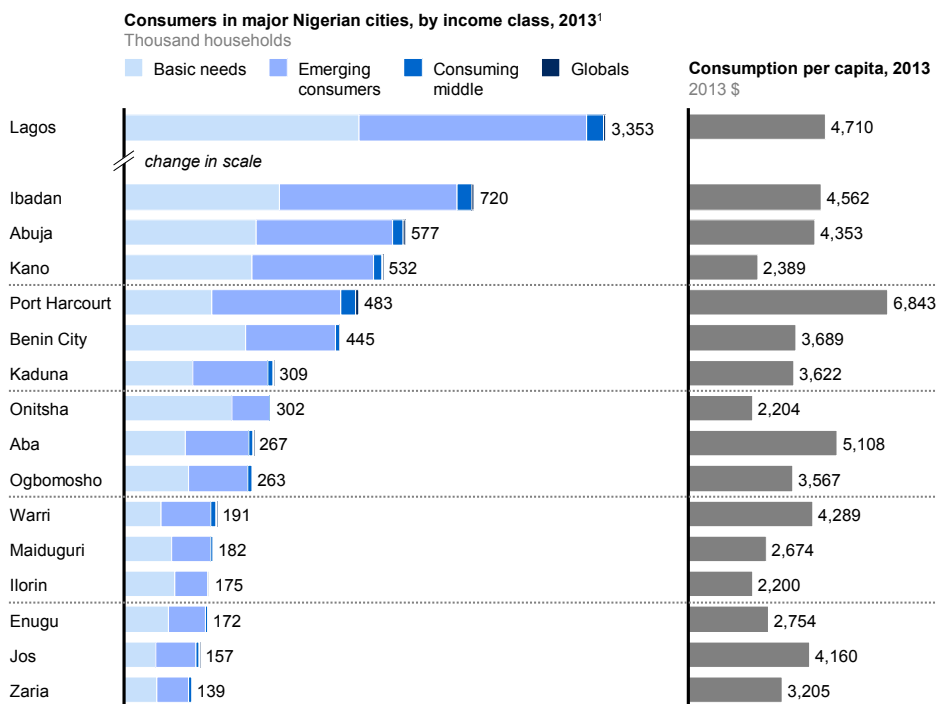
Lagos, the largest city, has more households within all income brackets and therefore remains the most important market. Its total number of households is more than four times that of the next largest city, Ibadan, and some 1.7 million households in Lagos were in the consuming class in 2013 (Exhibit 36).

Depending on their products and target customer demographics, companies can use such data to target particular cities with marketing and distribution strategies. Companies that are focused on the luxury segment may gravitate to places such as Port Harcourt, where per capita consumption is highest. Companies looking for fast-growing consumer markets might focus on Ibadan, Abuja, and Warri.

¹⁴¹ *Urban world: Cities and the rise of the consuming class*, McKinsey Global Institute, June 2012.

Exhibit 36

Lagos is by far the largest city in Nigeria and is developing a huge consuming class, but other cities have higher consumption per capita



¹ MGI urbanisation income classification used: "basic needs" are households with incomes less than \$7,500 per year (in 2005 purchasing power parity terms); "emerging consumers", \$7,500–\$20,000; "consuming middle class", \$20,000–\$70,000; "globals", more than \$70,000.

SOURCE: Canback Global Income Distribution Database (C-GIDD); McKinsey Global Institute analysis

Marketers can also target clusters of cities. While population levels drop off quickly from Lagos, which has 15 million residents, in several areas cities are close enough together to produce sizable population clusters—five million to eight million residents.¹⁴² Exhibit 37 shows three major clusters: Ibadan, Ilorin, and Ogbomosho, just north of Lagos; a cluster of six cities around the Niger Delta in the southeast (including Port Harcourt, Benin City, and Onitsha); and a northern corridor, including Kano, Kaduna, and Zaria. Companies playing in all three of these clusters could target 20 percent more households earning above \$7,500 than in Lagos (Exhibit 38). When viewed through this lens, other interesting insights also emerge. For instance, total GDP in the southeastern cluster alone is \$63 billion, which rivals that of Lagos (\$68 billion) despite having far fewer households.¹⁴³

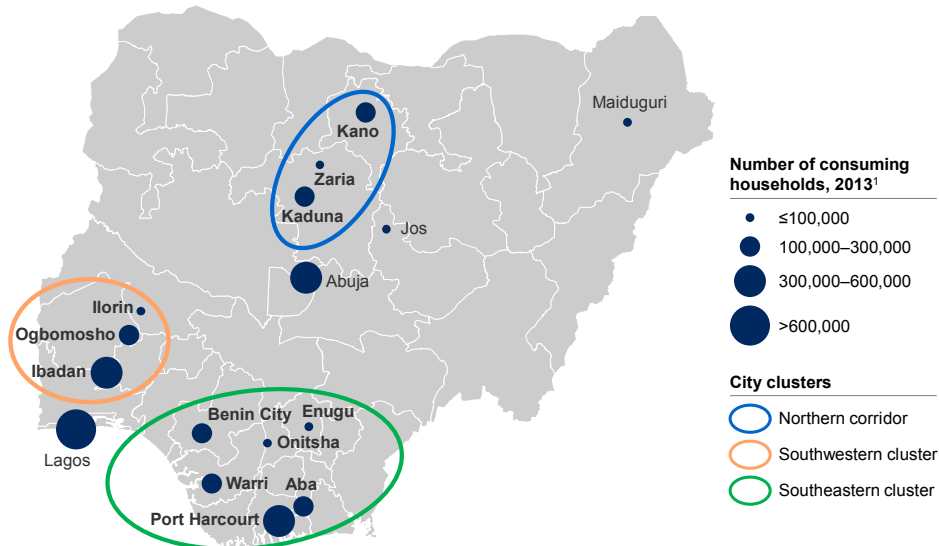
¹⁴² C-GIDD.

¹⁴³ C-GIDD; McKinsey Global Institute analysis.

Exhibit 37

Nigeria's major cities can be looked at as broader clusters, with the southeastern cluster containing the greatest number of consumers

Cities in Nigeria with populations over 750,000

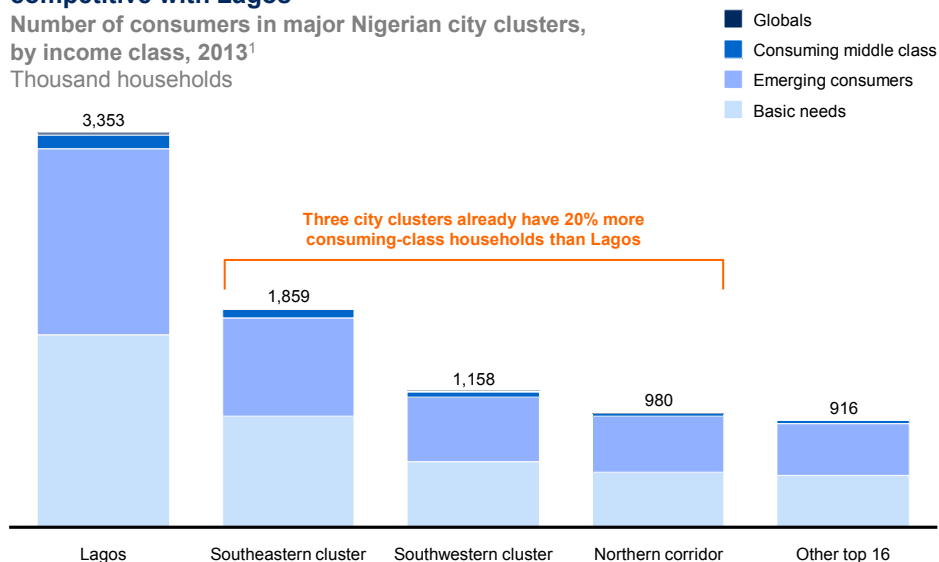


1 Aggregate households within the "emerging consumers", "consuming middle class", and "globals" segments.
SOURCE: Canback & Company; McKinsey Global Institute analysis

Exhibit 38

When viewed as single consumer markets, other city clusters are competitive with Lagos

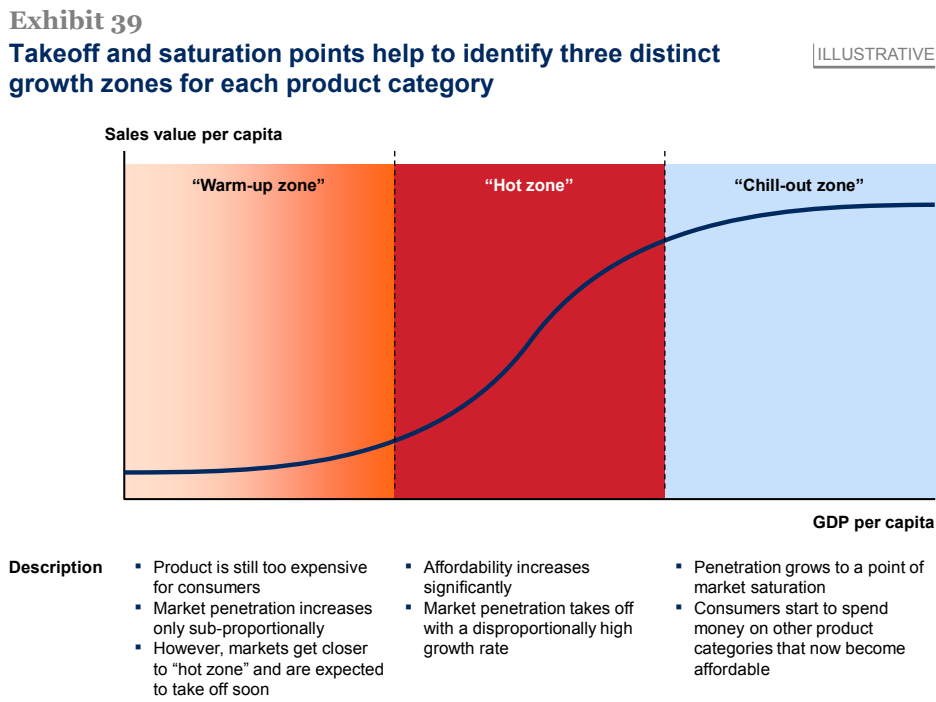
Number of consumers in major Nigerian city clusters, by income class, 2013¹
Thousand households



1 Southeastern cluster consists of Aba, Benin City, Enugu, Onitsha, Port Harcourt, and Warri. Southwestern cluster consists of Ibadan, Ilorin, and Ogbomosh. Northern corridor consists of Kaduna, Kano, and Zaria.
SOURCE: Canback & Company; McKinsey Global Institute analysis

TIMING: SELLING THE RIGHT PRODUCT AT THE RIGHT TIME, BASED ON RISING INCOMES

While the overall consumer growth opportunity in Nigeria is enticing, timing is critical: consumer goods categories become attractive to new consumers only at a certain point in an economy’s development. McKinsey research has documented how purchases of specific categories rise along with incomes. For example, before incomes hit a certain level, consumers rarely buy prepared baby food. However, once that income threshold is reached, sales can accelerate rapidly. Typically, adoption follows an “S” curve pattern, starting with a “warm-up zone”, where the product is too expensive for most buyers, followed by the “hot zone”, in which a critical mass of customers can afford the product and sales rise rapidly. Eventually, sales stabilise in the “chill-out zone”, when the market is saturated (Exhibit 39). Using S-curve analysis, companies can time market entry and expansion strategies to match the evolution of demand and participate in the most rapid stage of demand growth.



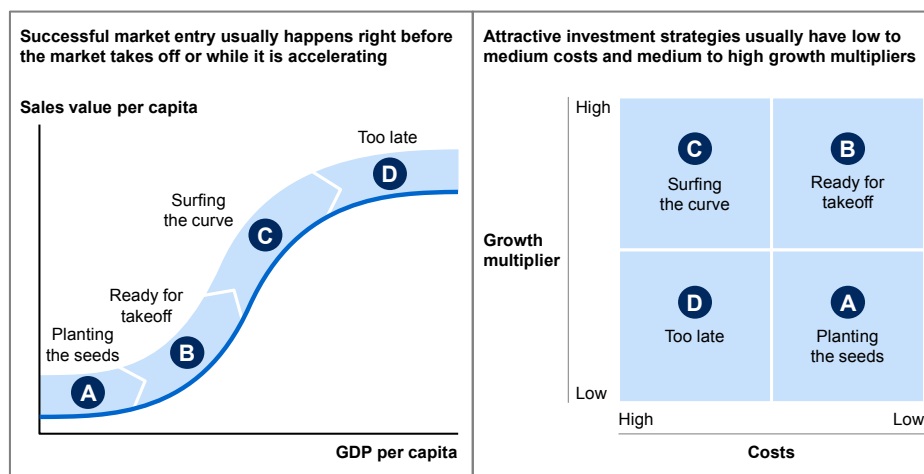
SOURCE: McKinsey Global Growth Compass; McKinsey Global Institute analysis

By modelling a product category’s sales growth trajectory relative to a country’s GDP per capita, the inflection points demarking zone transitions can be established for different categories of goods. Looking at how product categories have taken off historically in countries around the world at various income levels, marketers can predict the probable sales trajectories for different categories in Nigeria (or any other developing economy). This allows companies to anticipate when sales will accelerate or plateau and to adopt the appropriate strategies based on a category’s position on the curve (Exhibit 40).

Exhibit 40

Four distinct investment options identified—success depends on timing, cost of investment, and growth multiplier

ILLUSTRATIVE



SOURCE: McKinsey Global Growth Compass; McKinsey Global Institute analysis

In general, the most desirable market entry point is right before a category hits its “hot zone”. However, an earlier entry—a “planting the seeds” approach—can give a competitor first-mover advantage. Entering after the hot-zone phase is under way may cost more, but catching most of the acceleration can be lucrative, too. The S-curve can also alert marketers when a product is approaching the chill-out zone and it is too late to benefit from market expansion. In addition, it is important to note that companies can attempt to shift the curve by creating early demand through marketing and price promotions.

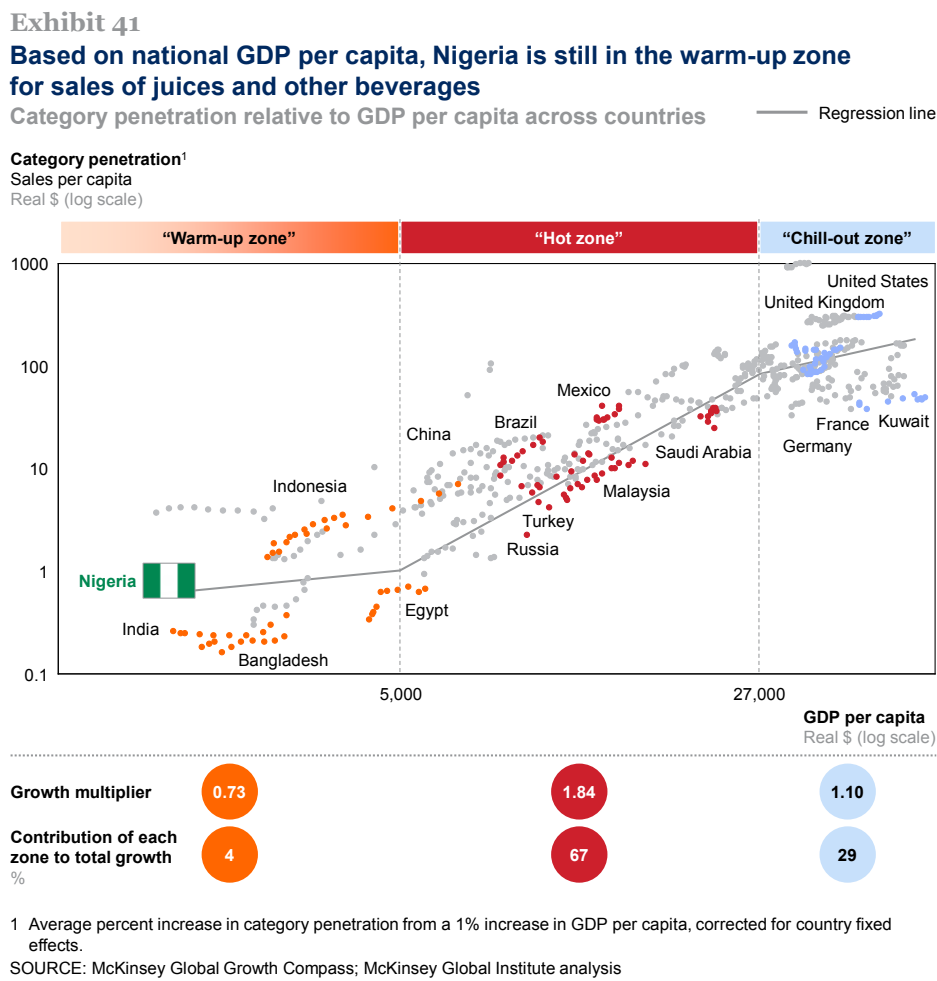
Procter & Gamble's strategy for entering the baby care market in Nigeria in the mid-1990s is an illustration of a “planting the seeds and developing the category” approach. By engaging before the category hit its takeoff point, P&G was able to develop an understanding of the market and consumers ahead of competitors. It carefully chose its point of entry and marketing messages, and it had time to educate consumers and encourage product trials. In doing so, the company created demand for a category earlier than it would otherwise have existed, shifting the S-curve to the left (inducing sales growth at a lower level of GDP per capita than normal). As a result, the category overall has grown by \$500 million over the past seven years, with P&G's approach allowing it to capture and maintain a category leadership position.

Beverages

The juice, RTDs (ready-to-drink beverages such as bottled ice tea), and other drinks category (excluding carbonated soft drinks and beer) typically enters the hot zone when economies reach \$5,000 per capita (Exhibit 41).¹⁴⁴ Across different countries, the category carries a high hot-zone multiple of 1.84, meaning that for every 1 percent increase in GDP per capita, drink sales will increase by 1.84 percent. In Nigeria, the drinks category is reaching the hot zone in parts of

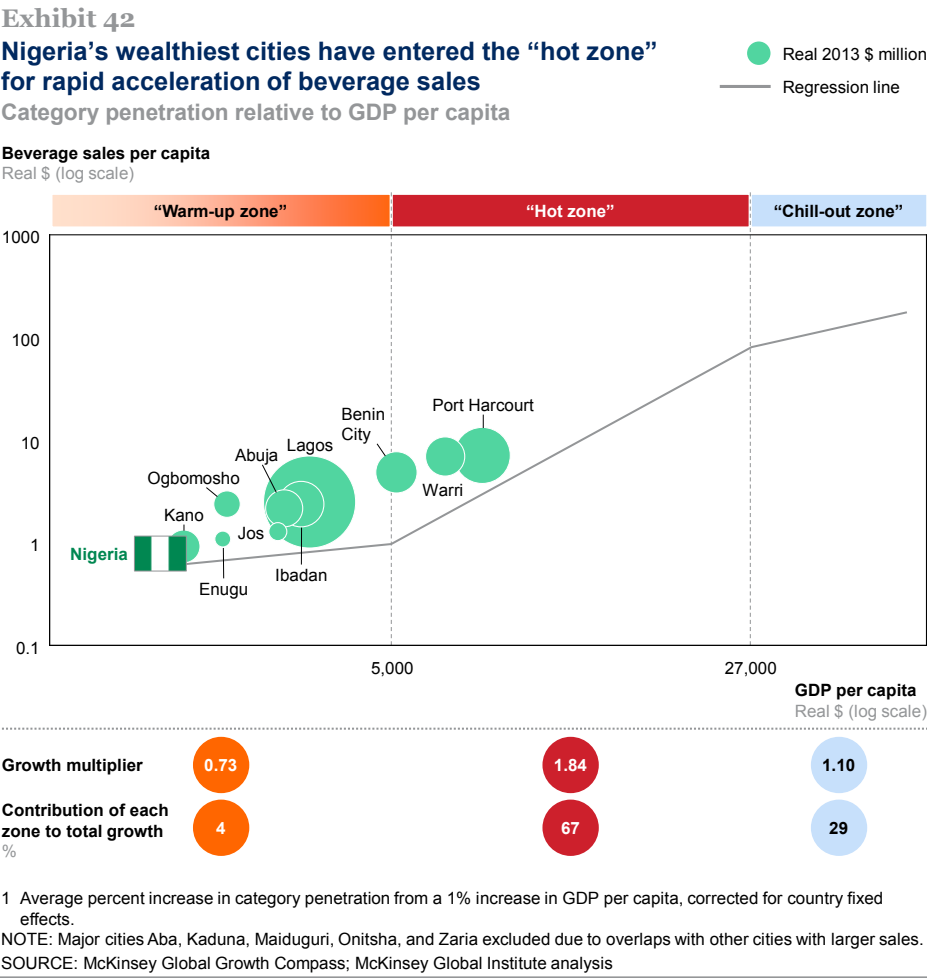
144 This juice, RTDs, and other drinks segment is based on an international classification and includes juices, fruit-flavoured drinks, sports drinks, squashes, fruit powders, and iced/RTD teas and coffees. It does not include sweet alcoholic drinks (sometimes classed as RTDs in Nigeria), which would have a different growth profile.

the country that have above-average GDP per capita. Sales are already about \$420 million a year.



S-curve analysis can help marketers pinpoint opportunities at the city level. In Exhibit 42, we look at GDP per capita in the ten cities with the highest current sales of juice, RTDs, and other drinks as well as for Nigeria as a whole. Not surprisingly, these include some of the cities with the highest incomes and consumption—Warri, Benin City, and Port Harcourt—which have already entered the beverage “hot zone”. Lagos, Ibadan, and Abuja are all approaching the takeoff point. In Kano, Enugu, and Ogbomoshos, the “hot zone” is still some way off, since GDP per capita in these cities is closer to the Nigerian average. Considering this, companies can begin to tailor market entry strategies on a city level, picking the right categories to push at the right time, depending on specific city wealth levels. Finally, companies should bear in mind that even within a specific category, certain subsegments may grow faster than others at different points on the S-curve. An example of this is the beer market, where growth in the value segment is expected to be higher, at 11 percent, than in the premium or mainstream segments (8 and 7 percent, respectively) to 2016.¹⁴⁵

145 *Beer in Nigeria*, Euromonitor International, August 2012.



CAPABILITIES REQUIRED FOR SUCCESSFUL PRODUCT ENTRY IN NIGERIA

To enter Nigeria's consumer markets successfully, companies will need to deal with a fragmented wholesale and retail environment that favours local players, which have advantages in reaching the informal and fragmented market. New players will need to manage distributors effectively and take a city-level, rather than a national, view of markets.

The market in Nigeria is highly diverse, made up of more than 250 ethnolinguistic groups with their own languages and cultural practices. The population is spread across a wide area with large population centres accounting for a relatively low proportion of the population, and the infrastructure connecting regions is poor. For these reasons, companies need to develop a deeper understanding of this market, potentially more than they usually do for other economies, and develop a set of microplans that target specific customer segments and regions. As we have seen, to take advantage of the consumer opportunity, companies need to choose the right product categories, the most promising locations, and the right moments to move. In addition, companies need to adapt and build specific capabilities in five strategic and operational disciplines to execute successfully in Nigeria.

Optimising the route to market will play a critical role

The highly fragmented nature of Nigeria's market makes optimising routes to market crucial to success (see Box 10, "Finding a route to market in Nigeria"). Simply choosing distributors will not be sufficient. While Lagos is relatively well served by wholesalers, distributors, and retailers, the quality and reach of distribution networks drops off sharply in other cities. The supply chain generally consists of primary distributors, small wholesale companies, and the fragmented retail industry, which includes small shops and street vendors. Nigerian Breweries (Heineken) operates through 150 distributors and approximately 2,000 wholesalers that together serve as many as 525,000 retail outlets.¹⁴⁶ Manufacturers often have a direct (but usually non-exclusive) contractual relationship with primary distributors and little control over the rest of the distribution chain.

Generally, local players have an advantage because of their familiarity with the Nigerian retail sector. For this reason, companies entering the market usually partner with local distributors that have established networks. KFC, for example, launched in Nigeria in late 2009 by partnering with the Nigerian group Chellarams, whose local knowledge helped the fast-food chain open more than 20 stores by 2013.¹⁴⁷

Box 10. Finding a route to market in Nigeria

In a joint venture, Haier, a Chinese appliance maker, and PZ Cussons, a supplier and distributor of consumer goods with a long history in Nigeria, established a supply chain using local distributors. Using PZ Cussons' Nigerian expertise, the venture created three distinct routes to market: superstores in major cities that bought directly from the joint venture, independent retailers in other large cities that purchased goods from wholesale depots, and small retailers that purchased goods from a network of local distributors.

Coca-Cola's Nigerian operations rely on a large network of independently owned manual distribution centres. These businesses are financed by Coca-Cola, which also trains the owners, creating a capable and loyal network with extensive reach. To make manual distribution easier in areas with poor roads, the company supplies distributors with pushcarts for deliveries. In this way, Coca-Cola was able to outmanoeuvre one of its main competitors, which had been trying to incent a shared distributor to deprioritise Coca-Cola products. Coca-Cola has also gained greater control over the route to market as a whole.¹

1 *The rise of the African consumer*, McKinsey Africa Consumer Insights Center, October 2012.

146 Company reports.

147 Reinaldo Fiorini et al., *Africa's growing giant: Nigeria's new retail economy*, McKinsey Consumer and Shopper Insights, December 2013.

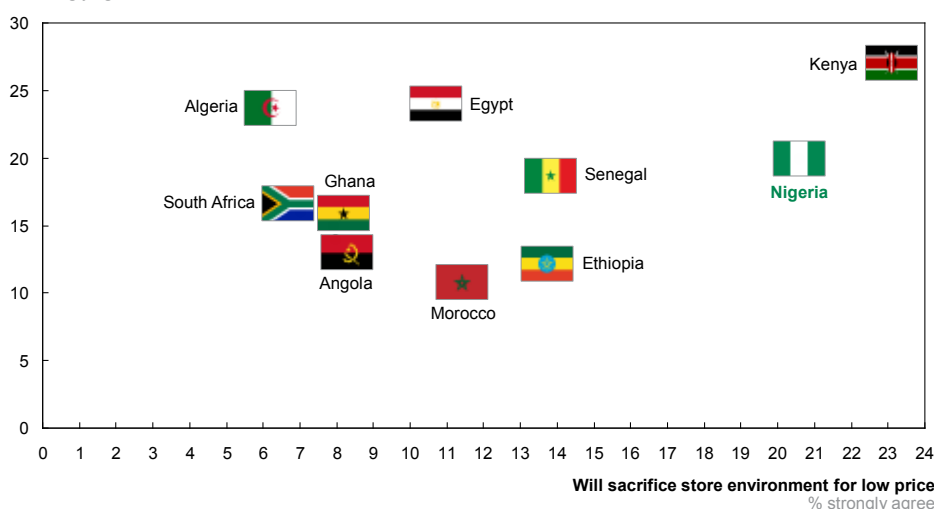
Selecting the right categories and setting value-driven price points are crucial

Price is particularly important for Nigerian consumers, who are among the most price-sensitive in Africa. For example, 21 percent say they are willing to settle for a narrower range of products and a worse shopping environment if a store offers a lower price (Exhibit 43).

Exhibit 43

Nigerians are more price-sensitive than most other African consumers

Will sacrifice product range for low price
% strongly agree



SOURCE: McKinsey Africa Consumer Insights Center; McKinsey Global Institute analysis

To reach a range of Nigerian consumers, companies should develop a portfolio of products that caters to the different income levels. This must be done carefully: products for lower-income consumers must be differentiated to avoid cannibalisation of higher-priced products. As Procter & Gamble learned in other markets, it could dramatically raise share (by 15 to 30 percent) for its Crest, Tide, Pampers, and Rejoice brands by adjusting pricing and features for different income levels. With Crest, for example, the company reformulated the toothpaste and changed packaging to reduce cost and price by 50 percent. The strategy allowed P&G to capture a 21 percent market share with \$250 million total sales.¹⁴⁸

Category selection requires a customised approach in Nigeria. A US beer manufacturer may consider only alcoholic beverages in its competitive set, but Nigerian consumers are likely to be making purchasing trade-offs across multiple categories. For instance, cash-strapped consumers may need to decide between such differing products as mobile-phone airtime and beer. Finally, as has been discussed, category selection and entry strategies should be based on careful S-curve analysis.

148 Euromonitor, AC Nielsen.

Building strong brands will drive customer loyalty despite price consciousness

Companies need to make the most of Nigerians' high brand loyalty through a strong focus on developing a clear value proposition and image. Nigerians may place a higher value on low prices than on store environment and product range, but they are also significantly more brand loyal than the average African consumer. One of the reasons for this is that the Nigerian consumer environment is characterised by low trust, and brands therefore serve as a mechanism to assure the customer of a product's quality.

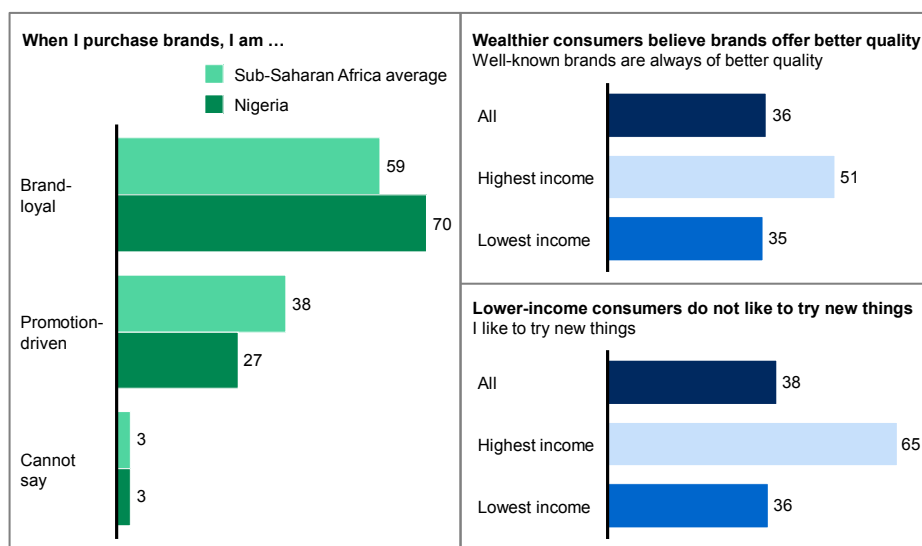
In surveys, 70 percent of Nigerians indicate that their purchases are based on brand loyalty, compared with 59 percent of sub-Saharan Africans. And, despite their willingness to trade ambience and selection for price, only 27 percent of Nigerians say they choose products based on promotions (vs. 38 percent of sub-Saharan Africans) when purchasing strongly branded goods (Exhibit 44).¹⁴⁹ Indomie, an Indonesian noodle brand, provides a good example of how effective branding can create a highly successful product. The company followed a five-step approach to successfully introduce a new food product to Nigerians and make its brand dominant (see Box 11, "Indofood's five steps to building brand loyalty in Nigeria").

Exhibit 44

Nigerian consumers are very loyal when purchasing strongly branded products, but drivers of loyalty differ across income groups

Nigerian consumers

% agree



SOURCE: McKinsey Africa Consumer Insights Center; McKinsey Global Institute analysis

Today television is the dominant medium for brand building, but Internet use is growing rapidly (half of urban Nigerians access the Internet each month, and 58 percent have Internet-capable phones).¹⁵⁰ Already, wealthier consumers use and trust online sources to a large extent.

¹⁴⁹ Ibid.

¹⁵⁰ *Lions go digital: The Internet's transformative potential in Africa*, McKinsey Global Institute, November 2013.

Box 11. Indofood's five steps to building brand loyalty in Nigeria

- **First build the category, then the brand.** Since instant noodle meals were unfamiliar to Nigerians, Indofoods first needed to educate consumers on their benefits.
- **Introduce a relevant, affordable product.** Indomie noodles are a cheap, clean, and filling food that does not need refrigeration and that Indofood customised for the market with flavouring tailored to local tastes after extensive research.
- **Invest in the consumer relationship.** Indofood aims to develop a lifelong relationship with Nigerian children by featuring them in advertising and establishing a fan club.
- **Build consumer trust.** By communicating credible endorsements of its product's health benefits and engaging in wide, visible endorsement of children's causes, Indofood was able to gain customer trust.
- **Advertise heavily (in local languages).** Indofood aggressively advertised its brand on television, using local languages and actors in traditional attire. The consistent theme of the commercials is mother-child relationships. "Indomie" has become a household name, synonymous with noodles in Nigeria.

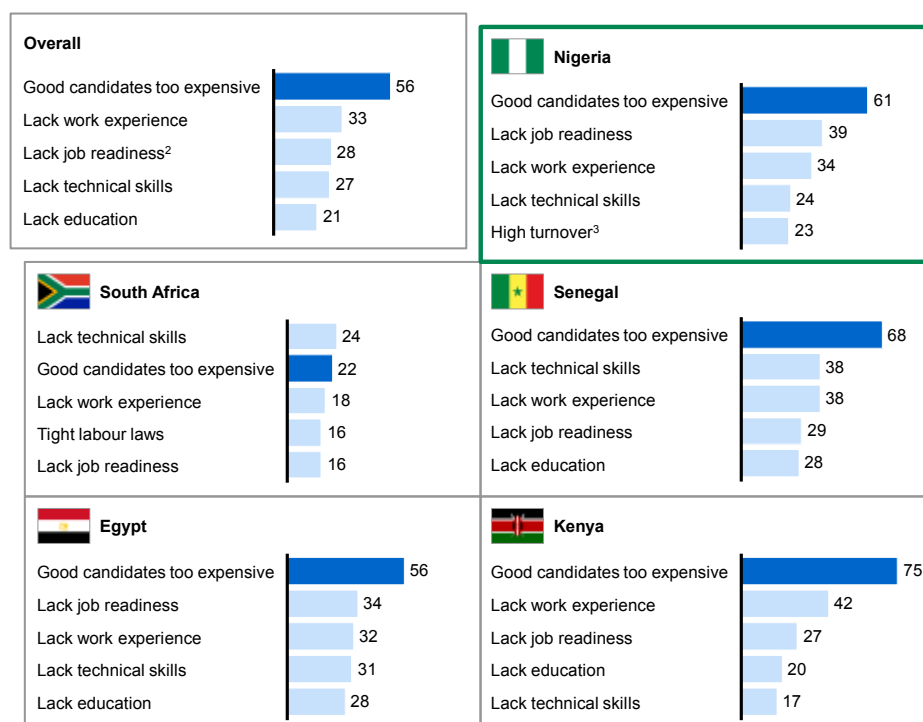
Making a long-term commitment to talent development is needed

For all its potential, Nigeria remains a challenging business environment that will require patience, persistence, and a long-term commitment. Despite rapid GDP growth and an expanding consuming class, the payoff from entering the Nigerian consumer market may take years to materialise. In the meantime, companies will need to be advocates for reforms and improvements in the operating environment that will enable their growth, such as better roads and more reliable electricity. They will also likely need to make larger investments in talent development than they have made in most other countries because of the limitations of the educational system.

Talent development will remain a significant challenge. In Nigeria, as in other parts of Africa, employers say that their top concern is the cost of qualified job candidates (Exhibit 45). In Nigeria, employers cite an overall lack of job readiness as a major concern, followed by lack of experience and specific skills. The implication is that companies will need to invest in both broad-based and job-specific training. Moreover, they may do better by cultivating highly qualified talent, rather than bidding for it on the employment market. Procter & Gamble, for example, has used a "Top Development Candidate" programme to identify and train promising graduates and put them on an accelerated career track. Companies can take a similar approach to identify and promote talent within the organisation. Another approach to talent acquisition may be to recruit overseas Nigerians with relevant backgrounds. To retain top talent, companies should consider differentiated pay schemes that reward top performers. Finally, to reduce costly employee turnover, companies can take overt steps to build loyalty and a sense of firm identity, rather than relying solely on financial incentives.

Exhibit 45**Employers say Nigerian workers require training in job readiness and technical skills**

What are the main obstacles for your company when trying to hire new employees?
% of enterprises citing factor in their top five obstacles to further hiring¹



¹ Survey of employers in five African nations; n = 1,373 employers.

² For example, punctuality and dependability.

³ Reduces employer willingness to invest in hiring and training of new workers.

SOURCE: McKinsey Survey of African Businesses, 2011; McKinsey Global Institute analysis

Managing stakeholders is important in a highly regulated setting

Companies recognise that collaboration with government and other corporations is crucial for operating successfully in Nigeria. In a recent survey, company leaders said that only customers and suppliers are more important stakeholders than government. According to McKinsey research, only 20 percent of companies report frequent success in influencing government decisions and regulatory outcomes, and less than 30 percent have formal mechanisms for tracking their reputations with government, regulators, and the media.¹⁵¹

Companies need to ensure that stakeholders, especially government agencies and regulators, are managed effectively. To improve its relationships with local stakeholders, the retailer Massmart follows a strategy of understanding the Nigerian culture, hiring and procuring locally, and pursuing corporate social investments to gain the community's trust.

¹⁵¹ McKinsey survey data.



To reach its maximum potential, Nigeria will need a systematic approach to improving the environment for growth and enabling leading industries to reach their full potential. A fast-growing consuming class can supply the demand, which will create new opportunities and employment. As the past decade has shown, however, GDP growth alone will not lift Nigerians out of poverty. To make sure that another decade does not go by in which a rich Nigeria grows richer and the poor do not progress, Nigeria will need to make it a national mission to ensure that growth is inclusive.



Appendix: Technical notes

This appendix outlines key aspects of the methodology employed in this report under the following headings:

1. MGI Empowerment Line (Chapters 1 and 2)
2. Economic potential (Chapter 2)
3. Growth in consumption expenditure (Chapter 4)
4. Inclusion potential (Chapter 2)
5. Consumer markets in the top 16 cities (Chapter 4)

1. MGI EMPOWERMENT LINE

To construct the Empowerment Line, we first estimate the economic cost per capita (the “normative spending requirement”) of a minimum acceptable level of consumption across eight basic services: food, energy, housing, drinking water (including for domestic use), sanitation, health care, and social security. A residual category, “others”, captures additional consumption requirements that are essential to ensuring a minimum decent standard of living (clothing, footwear, phone service, and entertainment). We then subtract an estimated value for the current public spending on these basic services that reaches the population to arrive at the minimum acceptable level of per capita consumption needed for a citizen to be considered economically “empowered”.

The following methodologies for determining normative costs were applied to each basic service:

- **Food.** The minimum requirements of 2,400 calories per day for a rural male and 2,100 per day for an urban male are based on research conducted for a prior MGI report, *From poverty to empowerment: India’s imperative for jobs, growth, and effective basic services*. To calculate the cost of these levels of food consumption in Nigeria, we used poverty data from the National Bureau of Statistics, which calculates the percentage of the population in rural and urban areas that eats 3,000 calories a day. We used data from the National Bureau of Statistics’ General Household Survey to estimate the level of food spending for individuals on this line, and then calculated the cost per calorie in Nigeria. From this, the cost of 2,400 and 2,100 calories per day were worked out. To estimate the amount of food purchasing that is subsidised, we rely on a survey question stating what share of food intake was “gifted” by government. The amount by which tariffs affect food costs was estimated by using shares from a World Bank policy paper on the topic.¹⁵²
- **Energy.** The cost of fuel was calculated as the total spending on fuel and energy from the General Household Survey, after adjusting for the current discount in fuel prices due to inadequate power supply. The subsidy provided by government to the power sector was taken from *A citizens’ guide to energy subsidies in Nigeria*, after adjusting for the share of population that currently has access. It was then calculated on a per capita basis.¹⁵³
- **Housing.** Given the typical household size, we judged that the minimum standard of housing for Nigerians would be a three-bedroom house with solid walls and roofing. We used survey data from the National Bureau of Statistics to estimate how much rent was paid by families living in such housing and what the ratio was between rental cost and purchase price. Using information from the National Association of Home Builders, we estimate that construction cost would be approximately 80 percent of sale price. This construction cost was amortised over ten years, and then calculated on a per capita basis. The amount of government subsidy was estimated as the number of government-constructed houses from 2010 to 2013 multiplied by the cost per house, divided by the Nigerian population.

¹⁵² Volker Treichel et al., *Import bans in Nigeria increase poverty*, World Bank Africa trade policy note number 28, March 2012.

¹⁵³ *A citizens’ guide to energy subsidies in Nigeria*, Centre for Public Policy Alternatives and International Institute for Sustainable Development, September 2012.

- **Drinking water.** This refers to water used for all domestic purposes, including drinking, bathing, washing, and cleaning. Using estimates from the National Water Supply and Sanitation policy, we determined that the required amount of water needed per person for an empowered standard of living is 60 litres per day in rural areas and 120 litres per day in rural areas. We used data from a report by the African Ministers' Council on Water, which estimated the capital and operating expenditure required to extend access to water supply to the entire urban population and 70 percent of the rural population.¹⁵⁴ We estimated that this plan would have a target consumption of approximately 30 litres per person per day for rural areas and 50 litres per person per day in urban areas. After amortising the cost of capital expenditure over a decade, we estimated the yearly cost of providing a litre per person per day. From this, we estimated the cost of reaching our target levels of consumption. The government subsidy was calculated as the cost of providing the current levels of supply, based on our estimates of cost per litre, as that is currently paid by government.
- **Sanitation.** The sanitation methodology was similar to that used for water. We used data from the African Ministers' Council on Water report, which estimated the operating and capital cost of expanding sanitation facilities to nearly 90 percent of the population. From this, the cost of sanitation per person was worked out. The government subsidy was estimated as this cost of sanitation times the number of Nigerians with current access, divided over the broader population.
- **Health care.** The cost of health care per capita was drawn from a 2008 trial of universal health insurance in Kwara. The premium payment was provided in both percentage and absolute terms for participants in the programme, and thus the total cost could be determined. The subsidy value was estimated by multiplying the share of Nigerians who receive health care (derived from data on vaccinations and pregnancy care), and the share of national health-care spending that is public. This was then calculated on a per capita basis. The effect of tariffs on health-care costs was then calculated from World Bank information.¹⁵⁵
- **Education.** The normative spending requirement on education is determined through a bottom-up cost estimate for providing a "quality" education for each child. The cost includes teacher salary, classroom costs, other building infrastructure, transportation requirements, uniforms, school supplies, textbooks, computers, teacher training, administration, and other expenses. These were developed for primary and secondary schools in both rural and urban areas. The government subsidy was calculated as the payments towards education per schoolchild, as reported by the General Household Survey 2012–2013.

¹⁵⁴ African Ministers' Council on Water, *Water supply and sanitation in Nigeria: Turning finance into services for 2015 and beyond*, Country Status Overview, 2011.

¹⁵⁵ Volker Treichel et al., *Import bans in Nigeria increase poverty*, World Bank Africa trade policy note number 28, March 2012.

- **Social security.** On the basis of a benchmarking of social security and private insurance programmes, we estimate a premium-to-coverage ratio of 2 percent. Coverage in this case is the normative spending requirement for the eight basic services plus others.
- **Others.** Consumption of all other items is measured for those at the official poverty line and then assumed to be the same for the purposes of the Empowerment Line. This is a conservative assumption, as households above the poverty line (but below the Empowerment Line) are likely to allocate a greater amount of their consumption budgets to other items beyond the basket of eight essential services due to their higher spending power. A tariff of 6 percent, the average for most imported goods, was used.

2. ECONOMIC POTENTIAL

Nigeria's overall economic potential to 2030 is estimated by conducting bottom-up projections for the five largest sectors in the economy and maintaining the historic growth rate (from 2010 to 2013, as reported in the release of rebased data in April 2014) for all other sectors.

Agriculture

Our calculations for the growth of the agriculture sector cover the cultivation of crops as well as livestock, fisheries, and forestry. We estimate the GDP growth in agriculture using revenue growth calculated through a bottom-up approach based on multiplying production figures by local or proxy prices. According to the National Bureau of Statistics, GDP contribution from crop production was \$100 billion in 2013, 89 percent of the agricultural sector. Livestock contributed \$8.9 billion, fisheries \$2.3 billion, and forestry \$1.2 billion.

We estimate the crop production in 2013 by multiplying yields and cultivated areas. Yield for each crop was estimated using the state-level data extracted from the Global Agro-Ecological Zones (GAEZ) database of the Food and Agriculture Organization (FAO) of the United Nations and the International Institute for Applied Systems Analysis (IIASA), scaling national figures to match the most recent estimates provided by FAO. Similarly, the area cultivated for each crop in each state was provided by GAEZ, then scaled at the national level to match FAO data. Revenue was then calculated by multiplying production by price for each crop. Local prices were determined using the 2012–13 General Household Survey–Agriculture from the National Bureau of Statistics and triangulated with FAO prices.

To estimate the potential increase in the agriculture sector's GDP contribution in the period to 2030, we analysed six value pools that Nigeria's agriculture sector could develop. First, we estimated that crop yields can be improved by around 30 percent on average by 2030. The figure varies for individual crops, based on comparing current yields to the potential yields in each state calculated by the GAEZ database and the IIASA. We assume that input levels would reach an "intermediate" stage as defined by the FAO and IIASA. Allowing for small elasticities in crop prices (based on the prices seen in areas with varying levels of production), this yield improvement would increase annual revenue by around \$35 billion by 2030.

Second, we estimated the impact of changing the crop mix. The value of Nigeria's current crop mix amounts to roughly \$3,500 per hectare. If the three highest-value crops in each state were to increase their share by 75 percent, 50 percent, and 25 percent, respectively, by 2030 (up to 15 percent of each state's cropland), the value per hectare would increase by around one-third, to \$4,700, at today's crop prices. Annual earnings in Nigeria's agriculture sector would increase by around \$35 billion by 2030.

Third, we estimated that the area under agricultural cultivation could increase. Carbon mapping suggests that Nigeria has around 71 million hectares of low-carbon arable land, of which only around 37 million are currently cultivated. Increasing cultivated land by a mere 0.66 percent per year to 2030—less than the rate projected by the FAO for developing economies excluding China and India—would add around 4.4 million hectares to land under cultivation. This is a small share of the 30 million hectares of arable, but currently not cultivated, land in Nigeria, but it could increase the sector's annual GDP contribution by an additional \$17 billion per year by 2030.

Fourth, we assumed that the livestock subsector can grow at a rate similar to rates seen in developing economies in Southeast Asia. Annual GDP contribution from these sources would increase by an additional \$16 billion.

Fifth, we estimate that Nigeria's fisheries subsector can grow at an annual rate of 4.6 percent to 2030, the average growth rate of Brazil, China, Egypt, India, Indonesia, Malaysia, Mexico, South Africa, Thailand, and Turkey between 2000 and 2011, according to FishStat. We assumed that forestry could continue to grow at 4.1 percent per annum, the historical rate between 2000 and 2012. This would increase the annual GDP contribution by \$7.8 billion by 2030.

Lastly, based on FAO analysis and expert interviews, we estimate that losses in the agricultural supply chain from agricultural production to postharvest handling and storage could be reduced considerably. Reducing waste from average sub-Saharan levels to Latin American levels potentially increases the value of Nigeria's agriculture output by more than \$28 billion per year by 2030.¹⁵⁶

Together, improvements in these agricultural value pools could sustain sector growth of 4.9 percent per year from 2013 to 2030 and contribute around \$250 billion per year to GDP by 2030, more than double their 2012 contribution.

Infrastructure

To estimate the potential upside to the infrastructure sector, we first calculated the current stock of core infrastructure as a share of GDP using a perpetual inventory method. To do this, we use capital expenditure data from IHS Global Insight across several infrastructure sectors—roads, rail, water transport, electricity supply, water supply and sanitation, and telecommunications. Data for several decades were used, after netting depreciation of 2.5 percent. This provided a starting stock of Nigerian infrastructure. We then used the same data to estimate what share of this stock should belong to each segment, after making a correction for telecommunications due to data gaps.

¹⁵⁶ Jenny Gustavsson et al., *Global food losses and food waste: Extent, causes and prevention*, Food and Agriculture Organization of the United Nations, January 2011.

We then projected potential capital expenditure in the country using a detailed bottom-up analysis. We benchmarked Nigeria's performance in each of the infrastructure segments—for example, the ratio of roads to land area for road infrastructure—and compared this with the performance of other emerging economies, such as Brazil, India, and South Africa. We also used insight from internal McKinsey experts and Nigerian stakeholders about specific needs in the country. Because matching the infrastructure in infrastructure investments of benchmark countries would likely take several decades, we estimate the portion that is possible by 2030, the time frame for our analysis.

To estimate a potential level for real estate investment, we compared Nigeria's floor space per capita in residential, commercial, and industrial real estate with that of other emerging markets, using data from Pike Research. Given the large gap between Nigeria and these peers, we created a target for Nigeria to close half the gap with the two lowest of these peers (India and Indonesia) after accounting for Nigeria's projected population growth by 2030. We converted this to an investment level using construction cost data for Vietnam and India, using data from Turner & Townsend's international construction cost survey 2012. The total capital expenditure across both real estate and the other infrastructure sectors was then converted into a construction GDP amount using previous McKinsey analysis of the multiplier effects of construction spending, which includes both the direct impact and the effects on Tier 1 suppliers.

To determine the GDP from the operations of additional infrastructure, we calculated the ratio between our estimated infrastructure stocks and the GDP in the relevant sector for 2013. This ratio was then applied to our estimated infrastructure stock for 2030. Real estate was excluded from this analysis, as real estate GDP is somewhat anomalous in GDP accounts. Overall infrastructure GDP was the total of operations GDP and construction GDP.

Manufacturing

To model the evolution of Nigeria's manufacturing GDP to 2030, we drew on the experience of fast-growing Southeast Asian economies (Indonesia, Malaysia, and Thailand) during their periods of economic development, when the economic contribution of their manufacturing sectors increased rapidly. The identified economies are during 20-year high-growth periods beginning in the mid-1980s.

We obtained Nigeria's 2013 manufacturing GDP breakdown from the National Bureau of Statistics and used this data to classify Nigeria's manufacturing sector into the five MGI subsectors: global innovation for local markets (chemicals, motor vehicles, and machinery), regional processing (rubber and plastics, fabricated metal, and food and beverages), energy- and resource-intensive commodities (wood products, refined petroleum, and basic metals), global technologies/innovators (computers, semiconductors, and electronics), and labour-intensive tradables (textiles, apparel, furniture, and jewellery).

To estimate the GDP contribution of Nigeria's manufacturing sector in 2030, we looked at the evolution of the sector's structure in Malaysia, Thailand, and Vietnam during their periods of rapid development and applied the subsector growth rates to the 2013 GDP breakdown in Nigeria.

Oil and gas

To calculate the potential for 2030 in GDP, we examine oil and gas separately. For oil, we use data from McKinsey Energy Insights, which calculates an upside scenario for oil production on a field-by-field basis.

For gas, we used data for current reserves from Wood Mackenzie. We then applied the ratio of undiscovered reserves to current reserves from Rystad UCube, which estimates that 40 percent of Nigeria's gas reserves have not yet been discovered. We estimated that in an upside case, Nigeria could replicate Egypt's successful discovery programme over the 1992–2004 period, during which Egypt discovered more than half of its estimated undiscovered reserves. This would mean Nigeria could discover reserves equivalent to approximately 20 percent of its current stock by 2025. We then estimate that nearly 70 percent of these reserves could be in production by 2030, based on an average of the experiences of five other developing-economy gas producers: Algeria, Angola, Egypt, Malaysia, and Thailand. We then assume a 25-year life for each gas asset, to convert the reserves number into a yearly production number. After accounting for reinjection requirements and a minimal level of flaring, we split the production into domestic use and export, based on export capacity from all planned export terminals and assuming that the West African Gas Pipeline will be operating at near capacity by 2030.

The volumes for oil, exported gas, and domestic gas volumes were then weighted by price to get an estimate for revenue to the sector. The 2013–30 growth rate indicated by this revenue calculation was then applied to the oil and gas data in the national accounts to project a 2030 GDP number.

Trade

Our estimate of future retail and wholesale trade GDP was based on the calculation for growth in consumption expenditure, listed below. Growth in trade is taken as the expected growth rate in food and non-food consumer goods.

3. GROWTH IN CONSUMPTION EXPENDITURE

We estimate household income distribution in Nigeria by taking the household distributions based on the National Bureau of Statistics' General Household Survey, average household size from the Canback Global Income Distribution Database (C-GIDD), and total population from IHS Global Insight. The survey provides an accurate picture of the household income distribution in Nigeria, which was then applied to the total number of households in the country. The survey also allows us to calculate the expenditure level, per income bracket, within different spending categories including food and beverages, non-food consumer goods, health, education, transport, and telecommunications.

To project the growth of consumption expenditure to 2030, we take into account population growth as well as changing income distribution within Nigeria. The 2030 population figure is taken from IHS Global Insight, and the number of households is calculated using the 2013 household size figure obtained from C-GIDD. Income distribution growth (by income bracket) is based on the projected C-GIDD growth by income bracket to 2018, scaled up to be in the range of that projected for China, India, and Indonesia, since we expect Nigeria

will be able to achieve similar income gains should it reach its full economic growth potential.

Applying these income bracket growth rates, we derive a new income distribution profile for Nigeria in 2030 and divide the projected 2030 population accordingly. Total spending on each of the consumption categories is then calculated by applying the 2013 household spending level per income bracket to the number of households in each income bracket in 2030. In this way, consumption growth within each consumption category and for total consumption is obtained.

4. INCLUSION POTENTIAL

To size the potential reduction in poverty, we first estimated a starting poverty rate for 2013 (the latest government estimate is for 2010). This was done by projecting forward the state-by-state trend in poverty changes between the poverty rates in 2004 and 2010, as published by the National Bureau of Statistics. To estimate the 2030 poverty rate for the low-inclusiveness scenarios discussed in Chapter 2, we then started with the historical (1999–2010) ratio of economic growth to poverty reduction in Nigeria and estimated how this rate would change by 2030 when applied to the low- and high-case scenarios for economic potential. To estimate the high case, a similar calculation was done, using Brazil's historic relationship between economic growth and poverty. To convert these poverty rates to estimates of the number of Nigerians who might be lifted from poverty, we applied both 2030 projected poverty rates to the 2030 population.

To size the potential reduction in the number of Nigerians living beneath the Empowerment Line in 2030, a more complex calculation was used. For the high-case scenario, we assume that incomes grow in rural areas in line with the growth rate for agricultural output, and in urban areas at the same pace as overall economic growth, after accounting for population growth in each area. Incomes were assumed to grow evenly across the population, so that the income of every percentile of the population grows at the same rate. We attribute the projected increase in rural incomes to improved farm productivity and the rise in urban incomes to greater non-farm job creation. For the low-case scenario, both urban and rural incomes were assumed to grow unevenly, so that incomes grew more quickly at the top of the income distribution spectrum.

For the high-case scenario, the estimated level of the Empowerment Line was reduced to reflect a number of factors (for the low-case inclusiveness scenario, we assume the cost of empowerment remains unchanged). Improvements in agricultural productivity were estimated to reduce food costs by ten percent in the high case. To estimate the impact of tariff reduction, costs in the food, healthcare and other segments were reduced by 50 percent of the potential saving by the World Bank Group. We estimated that the reprioritisation of spending towards basic services could provide access to healthcare and education to half the currently uncovered population. The spending shift could also enable Nigeria to meet Millennium Development Goal targets for water supply and sanitation coverage, all at a similar level of per capita cost, as well as doubling the government spending on housing. We estimated that the amount of government payments and subsidies that reach intended recipients could be increased by 50 percent, in line with MGI's research on other developing economies.

5. CONSUMER MARKETS IN THE TOP 16 CITIES

To analyse the consumer markets that exist in Nigeria's largest 16 cities (by population), we combined data from C-GIDD and the National Bureau of Statistics. Using C-GIDD estimates of income breakdown in each of the cities as a basis, we then made a similar adjustment for Nigeria as a whole to reweight income distributions to be in line with those recorded by the General Household Survey. For city population, GDP per capita, and consumption per capita, we used the estimates obtained from C-GIDD directly.



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