POVERTY
IN A RISING AFRICA

OVERVIEW

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Contents

Maps

Foreword

After two decades of unprecedented economic growth, how much have the lives of African families improved? The latest estimates from the World Bank suggest that the share of the African population in extreme poverty did decline—from 57 percent in 1990 to 43 percent in 2012. At the same time, however, Africa's population continued to expand rapidly. As a result, the number of people living in extreme poverty still increased by more than 100 million. These are staggering numbers. Further, it is projected that the world's extreme poor will be increasingly concentrated in Africa.

With the adoption of the Sustainable Development Goals, including the eradication of extreme poverty by 2030, successful implementation of the post-2015 development agenda will require a solid understanding of poverty and inequality in the region, across countries and population groups, and in different dimensions.

Poverty in a Rising Africa is the first of two sequential reports aimed at better understanding progress in poverty reduction in Africa and articulating a policy agenda to accelerate it. This first report has a modest, but important, objective: to document the data challenges and systematically review the

evidence on core measures of poverty and inequality, along both monetary and nonmonetary dimensions. The findings are both encouraging and sobering.

Considerable progress has been made in terms of data for measuring the well-being of the population. The availability and quality of household survey data in Africa has improved. At the same time, not all countries have multiple and comparable surveys to track poverty trends. Reevaluating the trends in poverty, taking into account these data concerns, suggests that poverty in Africa may be lower than what current estimates suggest. In addition, Africa's population saw progress in nonmonetary dimensions of well-being, particularly in terms of health indicators and freedom from violence. While the available data do not suggest a systematic increase in inequality within countries in Africa, the number of extremely wealthy Africans is increasing. Overall, notwithstanding these broad trends, caution remains as data challenges multiply when attempting to measure inequality.

While these findings on progress are encouraging, major poverty challenges remain, especially in light of the region's rapid population growth. Consider this: even under the most optimistic scenario, there

are still many more Africans living in poverty (more than 330 million in 2012) than in 1990 (about 280 million). Despite improvements in primary school enrollment rates, the poor quality of learning outcomes, as evidenced by the fact that two in five adults are illiterate, highlights the urgency of policies to improve educational outcomes, particularly for girls. Perpetuation of inequality, in the absence of intergenerational mobility in education, further highlights the long-run consequences of failure to do so. Not surprisingly, poverty reduction has been slowest in fragile states. This trend is compounded by the fact that violence against civilians is once again on the rise, after a decade of relative peace. There is also the paradoxical fact that citizens in resource-rich countries are experiencing systematically lower outcomes in all human welfare indicators controlling for their income level. Clearly, policies matter beyond resource availability.

To maintain and accelerate the momentum of progress of the past two decades, concerted and collective efforts are also needed to further improve the quality and timeliness of poverty statistics in the region. Domestic political support for statistics can be the most important factor in the quest for better data. Development partners and the international community also have an important role to play in terms of promoting regional cooperation, new financing models, open access policies, and clearer international standards. This volume is intended to contribute toward improving the scope, quality, and relevance of poverty statistics. Because, in the fight against poverty in Africa, (good) data will make a difference. *Better data will make for better decisions and better lives.*

Makhtar Diop
Vice President, Africa Region
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Acknowledgments

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Abbreviations

AIDS   acquired immune deficiency syndrome
CPI   consumer price index
GDP   gross domestic product
HIV   human immunodeficiency virus
SDG   Sustainable Development Goal

Key Messages

Measuring poverty in Africa remains a challenge.

- The coverage, comparability, and quality of household surveys to monitor living standards have improved. Still, by 2012, only 27 of the region's 48 countries had conducted at least two comparable surveys since 1990 to track poverty.
- Regular and good-quality GDP, price, and census data are also lacking.
- Technical approaches can fill in some gaps, but there is no good alternative to regular and good-quality data. A regionwide effort to strengthen Africa's statistics is called for.

Poverty in Africa may be lower than current estimates suggest, but more people are poor today than in 1990.

- The latest estimates from the World Bank show that the share of Africans who are poor fell from 57 percent in 1990 to 43 percent in 2012. Limiting estimates to comparable surveys, drawing on nonconsumption surveys, and applying alternative price deflators suggest that poverty may have declined by even more.
- Nonetheless, even given the most optimistic estimates, still many more people are poor because of population growth: more than 330 million in 2012, up from about 280 million in 1990.
- Poverty reduction has been slowest in fragile countries, and rural areas remain much poorer, although the urban-rural gap has narrowed. Chronic poverty is substantial.

Nonmonetary dimensions of poverty have been improving.

- Health, nutrition, education, and empowerment have improved; and violence has diminished.
- But the challenges remain enormous: more than two in five adults are still illiterate, and the quality of schooling is often low; after a decade of relative peace, conflict is on the rise.
- Nonmonetary welfare indicators are weaker in resource-rich countries, conditional on income, pointing to the unmet potential of natural resource wealth.

Inequality in Africa has many dimensions.

- The data do not reveal a systematic increase in inequality across countries in Africa. But these data do not capture extremely wealthy Africans, whose numbers and wealth are increasing.
- Spatial inequalities (differences between urban and rural areas and across regions) are large.
- Intergenerational mobility in areas such as education and occupation has improved, but mobility is still low and perpetuates inequality.

Overview

Perceptions of Africa changed dramatically over the past 20 years. Viewed as a continent of wars, famines, and entrenched poverty in the late 1990s, there is now a focus on "Africa rising" and an "African 21st century."[1] At 4.5 percent a year, average economic growth was remarkably robust, especially when contrasted with the continuous decline during the 1970s and 1980s.

Substantial improvements in well-being should have accompanied this expansion. Whether or not they did remains unclear given the poor quality of the data (Devarajan 2013; Jerven 2013), the nature of the growth process (especially the role of natural resources) (de la Briere and others 2015), the emergence of extreme wealth (Oxfam 2015), the heterogeneity of the region, and persistent population growth of 2.7 percent a year (Canning, Raja, and Yazbeck 2015).

Expectations are also rising. All developing regions except Africa have reached the Millennium Development Goal (MDG) of halving poverty between 1990 and 2015 (UN 2015). Attention will now shift to the set of new global development goals (the Sustainable Development Goals [SDGs]), which include the ambitious target of eradicating poverty worldwide by 2030. The potential for a slowdown in economic growth

and projections that the world's poor will be increasingly concentrated in Africa even if the average 1995–2014 growth rates are maintained suggest the need to focus the global poverty agenda on Africa.

This report is the first of a two-part volume on poverty in Africa. This study documents the data challenges and revisits the core broad facts about poverty in Africa; the second report will explore ways to accelerate its reduction.

The report takes a broad, multidimensional view of poverty, assessing progress over the past two decades along both monetary and nonmonetary dimensions. The dearth of comparable, good-quality household consumption surveys makes assessing monetary poverty especially challenging. The report scrutinizes the data used to assess monetary poverty in the region and explores how adjustments for data issues affect poverty trends.[2]

At the same time, the remarkable expansion of standardized household surveys on nonmonetary dimensions of well-being, including opinions and perceptions, opens up new opportunities. The report examines progress in education and health, the extent to which people are free from violence and able to shape their lives, and the joint occurrence of various types of deprivation. It also

reviews the distributional aspects of poverty, by studying various dimensions of inequality.

To shed light on Africa's diversity, the report examines differences in performance across countries, by location, and by gender. Countries are characterized along four dimensions that have been shown to affect growth and poverty: resource richness, fragility, landlockedness (to capture geographic openness and potential for trade), and income status (low, lower-middle, upper-middle, and high income).

Assessing the Data Landscape

According to World Bank estimates from household surveys, the share of people living on less than $1.90 a day (in 2011 international purchasing power parity [PPP]) fell from 57 percent in 1990 to 43 percent in 2012, while the number of poor still increased by more than 100 million (from 288 to 389 million).

These estimates are based on consumption surveys in a subsample of countries covering between one-half and two-thirds of the region's population. Poverty rates for the rest of the countries are imputed from surveys that are often several years old using gross domestic product (GDP) trends, raising questions about the accuracy of the estimates. On average only 3.8 consumption surveys per country were conducted in Africa between 1990 and 2012, or one every 6.1 years. In the rest of the world, one consumption survey was conducted every 2.8 years. The average also masks quite uneven coverage across countries. For five countries that together represent 5 percent of the African population, no data to measure poverty are available (either because no household surveys were conducted or because the data that were collected are not accessible, or, as in the case of one survey for Zimbabwe, were collected during a period of hyperinflation and unsuitable for poverty measurement). As of 2012, only 27 of 48 countries had conducted at least two comparable surveys since 1990 to track poverty.

To be sure, the number of household surveys in Africa has been rising. Africa now ranks second to South Asia in terms of the number of national household surveys per country, according to the International Household Survey Network catalog. The region has an average of 24 surveys per country conducted between 1990 and 2012—more than the developing world average of about 22. This expansion was confined almost entirely to surveys that do not collect consumption data, however.

The increase in household consumption surveys, which are the building blocks for measuring poverty and inequality, was sluggish, though coverage increased. Since 2009 only 2 countries did not conduct a single consumption survey over the past decade (down from 10 in 1990–99). The number of countries that either did not conduct a consumption survey or do not allow access to the microdata declined from 18 in 1990–99 to 4 in 2003–12; and the number of countries with at least two consumption surveys increased, from 13 in 1990–99 to 25 in 2003–12. Many fragile states—namely, Chad, the Democratic Republic of Congo, Sierra Leone, and Togo—were part of this new wave of surveys. Nonetheless, fragile states still tend to be the most data deprived.

The lack of consumption surveys and accessibility to the underlying data are obvious impediments to monitoring poverty. But the problems do not end there. Even when available, surveys are often not comparable with other surveys within the country or are of poor quality (including as a result of misreporting and deficiencies in data processing). Consequently, countries that appear to be data rich (or have multiple surveys) can still be unable to track poverty over time (examples include Guinea and Mali, with four surveys each that are not comparable).

At a country level, lack of comparability between survey rounds and questions about quality issues often prompt intense technical debates about methodological choices and, national poverty estimates within countries (see World Bank 2012 for Niger; World Bank 2013 for Burkina Faso; World Bank 2015b for Tanzania). But much regional work in

MAP O.1   Lack of comparable surveys in Africa makes it difficult to measure poverty trends

Legend:
Number of comparable surveys conducted, 1990–2012
- 0 or 1 survey (9 countries)
- No comparable surveys (12 countries)
- 2 comparable surveys (17 countries)
- More than 2 comparable surveys (10 countries)

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SEPTEMBER 2015
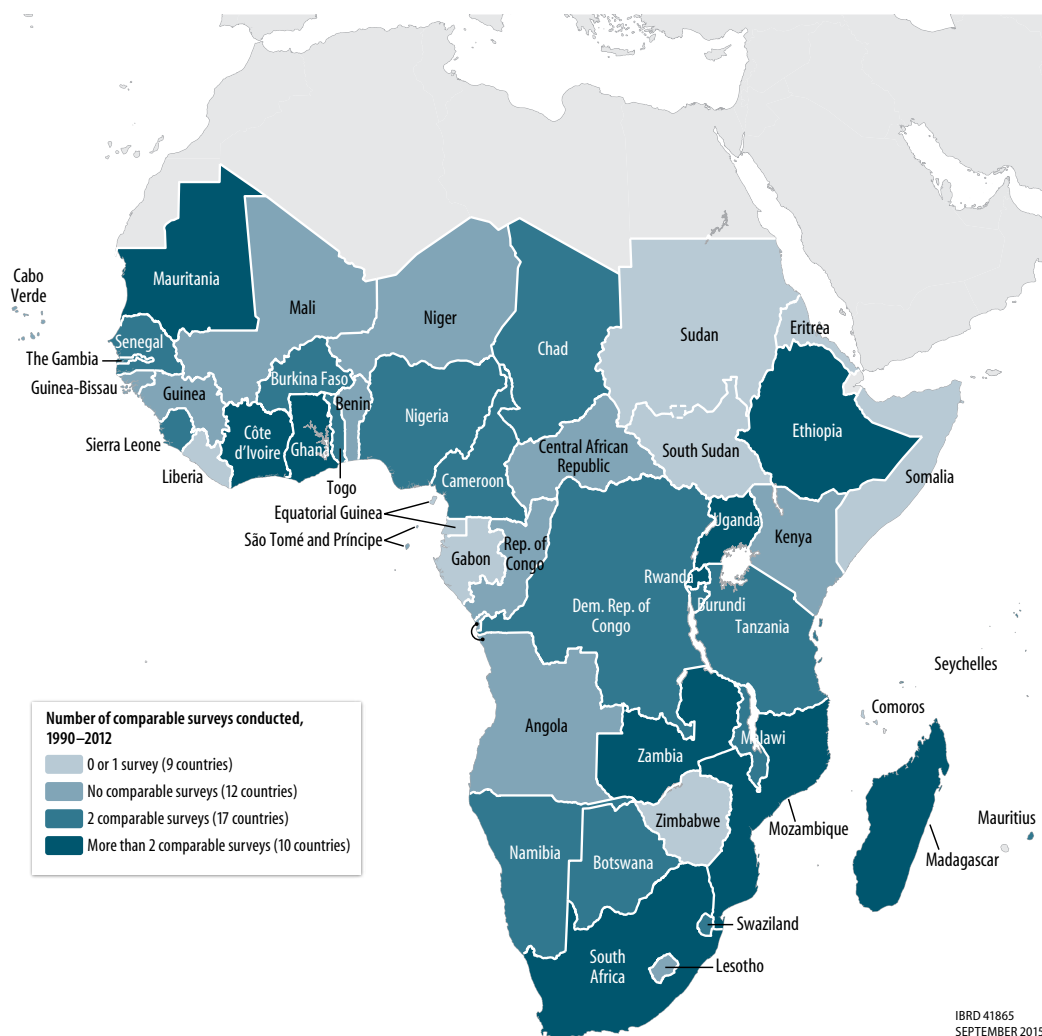
Source: World Bank data.

Africa and elsewhere disregards these important differences, relying on databases such as the World Bank's PovcalNet that has not consistently vetted surveys on the basis of comparability or quality.

If surveys that are not nationally representative (covering only urban or rural areas, for example), that were not conducted at similar times of the year (in order to control for seasonality in consumption patterns), and that collected consumption data using different instruments or reporting periods are dropped, the typical African country conducted only 1.6 comparable surveys in the 23 years between 1990 and 2012.

The challenge of maintaining comparability across surveys is not unique to Africa or to tracking poverty (see, for example, UNESCO 2015 for data challenges in tracking adult literacy). However, in Africa lack of comparability exacerbates the constraints imposed by the already limited availability of consumption surveys. It becomes especially problematic when the challenges concern populous countries, such as Nigeria. Only 27 countries (out of 48) conducted two or more

comparable surveys during 1990–2012 (map O.1). On the upside, they represent more than three-quarters of Africa's population.

The estimation of poverty also requires data on price changes. For cross-country comparisons of poverty in a base year, 2011 in this case, nominal consumption must be converted to 2011 price levels. The main method used to make this adjustment is the consumer price index (CPI), which relies on both the collection of country-specific price data and basket weights of consumer items to measure inflation. The CPI suffers from three specific problems in Africa, in addition to the more general technical difficulties. First, in many countries prices are collected only from urban markets. Second, the basket weights rely on dated household surveys and sometimes only on market purchases (excluding home-produced foods). Third, computational errors sometimes bias the data, as in Tanzania (World Bank 2007) and Ghana (IMF 2003, 2007).[3]

Across the globe, when surveys are not available in a given year, researchers use GDP to compute annual poverty estimates. Missing data are interpolated (between surveys) and extrapolated (to years before and after the previous and latest surveys) using GDP growth rates (see World Bank 2015a). Not all of these GDP data are reliable, however. Ghana, for example, leapt from low-income to low-middle-income country classification after rebasing its GDP in 2010; following rebasing, Nigeria surpassed South Africa overnight as the biggest economy in Africa. These examples suggest that GDP growth rates—and by extension the extrapolated poverty reductions—may be underestimated.

Another issue is that imputation based on GDP growth rates assumes that GDP growth translates one-to-one into household consumption and that all people see their consumption expand at the same pace. But GDP includes much more than household consumption: on average across a large sample of African countries, household consumption surveys captured just 61 percent of GDP per capita. The assumption that growth is evenly distributed can also be tenuous when growth

is driven by capital-intensive sectors such as mining and oil production (Loayza and Raddatz 2010) and may lead to poverty reduction being overestimated. Caution is therefore counseled, especially when extrapolating to a distant future (or past).

Improving Data on Poverty

Lack of funding and low capacity are often cited as main drivers for the data gaps in Africa. But middle-income status is not associated with the number of consumption surveys a country conducts, and countries receiving more development aid do not have more or higher-quality poverty data. In terms of capacity, the production of high-quality consumption surveys and statistics is technically complex, involving the mobilization of financial and human resources on a large scale and requiring the establishment of robust quality-control mechanisms. But many countries that do not conduct household surveys to measure poverty at the same time undertake other activities that are more or equally complex (delivering antiretroviral drugs to people with AIDS and conducting national elections, for example) (Hoogeveen and Nguyen 2015). Good governance is strongly correlated with higher-quality data (figure O.1). Countries that have better scores on safety and rule of law also have superior statistical capacity.

Many researchers have recently suggested that problems with the availability, comparability, and quality of data reflect the political preferences of elites (Carletto, Jolliffe, and Banerjee 2015; CGD 2014; Devarajan 2013; Florian and Byiers 2014; Hoogeveen and Nguyen 2015). Political elites may not favor good-quality statistics for several reasons. First, where clientelism and access to politics are limited, a record of achievement that can be supported by good-quality statistics is unnecessary because support from a small group of power brokers suffices. Second, maintaining a patronage network is costly, and high-quality statistics come at a high opportunity cost. Third, poor-quality statistics reduce accountability. The prevailing

FIGURE O.1   **Good governance and statistical capacity go together**
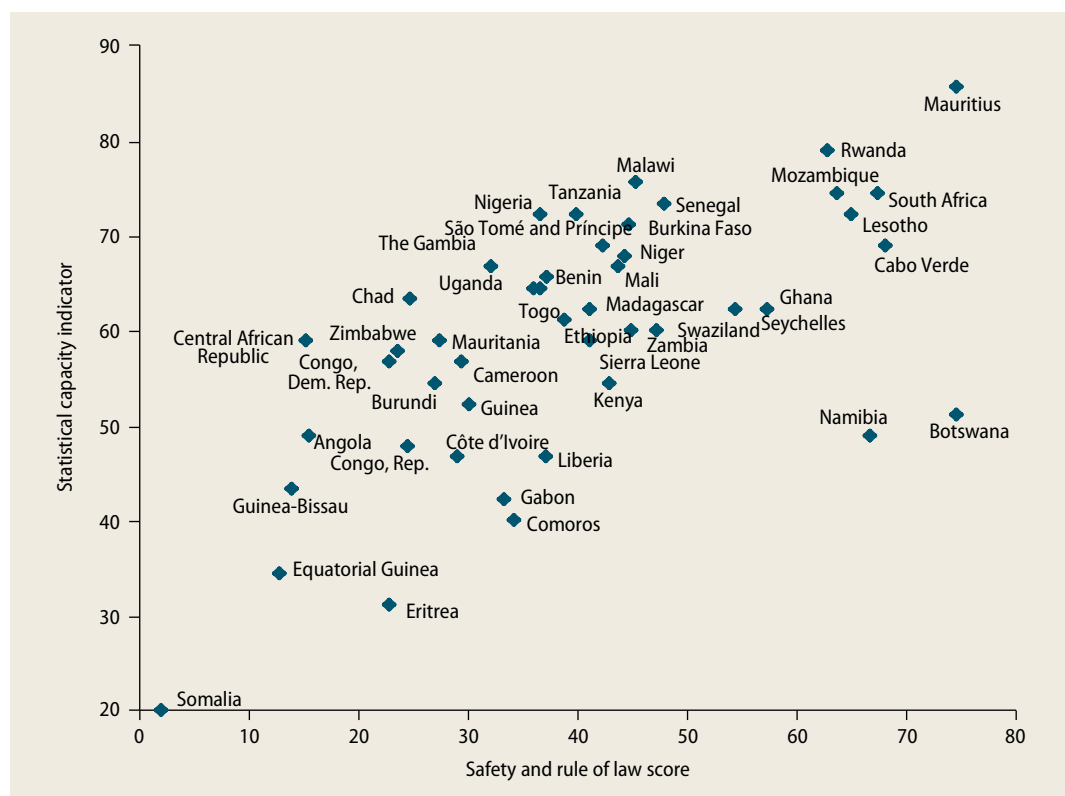
Source: Hoogeveen and Nguyen 2015.

political arrangements thus favor less (or less autonomous) funding for statistics because it represents one way to exercise influence over statistical agencies. In some countries donor financing has replaced domestic financing, but the interests of donors are not always aligned with the interests of governments. This problem highlights the need for alternative financing models, including cofinancing arrangements, preferably under a coordinated regional umbrella and with adequate incentives for quality improvements.

Politics and funding are not the only reasons statistics are inadequate. The evidence presented here suggests that better outcomes were possible even with the set of surveys that were conducted. African countries collected on average 3.8 consumption surveys in the past two decades, but many of them could not be used to track poverty reliably because of comparability and quality concerns caused

by failure to adhere to methodological and operational standards. While this problem partly reflects the lack of broader political support domestically, regional cooperation and peer learning, as well as clear international standards, could help improve technical quality and consistency. The Program for the Improvement of Surveys and the Measurement of Living Conditions in Latin America and the Caribbean (known by its acronym in Spanish, MECOVI) provides a compelling model for achieving better poverty data.

Revisiting Poverty Trends

Various technical approaches can be applied to address some of the data shortcomings in tracking regional poverty trends. They include limiting the sample to comparable surveys of good quality, using trends in other

nonconsumption data rather than GDP to impute missing poverty estimates, and gauging inflation using alternative econometric techniques.

Taking these steps affects the view of how poverty has evolved in Africa. The estimate from PovcalNet in figure O.2 shows the now-familiar trend in poverty from surveys in the World Bank PovcalNet database. It provides the benchmark. These estimates are population-weighted poverty rates for the 48 countries, of which 43 countries have one or more surveys.[4] For years for which there were no surveys, poverty was estimated by imputation using GDP growth rates.

The estimate based on only comparable surveys shows the trends when only comparable surveys are used and the same GDP imputation method is applied. It largely mirrors the PovcalNet estimate. In contrast, when in addition to controlling for comparability, quality is taken into account, the 2012 estimate of poverty in Africa is 6 percentage points lower than the PovcalNet estimate

(37 percent instead of 43 percent). The series of comparable and good-quality surveys only excludes some of the surveys from Burkina Faso, Mozambique, Tanzania, and Zambia and replaces the poverty estimates of the two comparable but poorer-quality surveys of Nigeria (Nigeria Living Standards Surveys 2003/04 and 2009/10) with the estimate from the General Household Survey Panel 2010/11, which has been deemed of good quality. Poverty gap and severity measures follow similar trajectories, after correction for comparability and quality.

In the series depicted based on the subset of comparable and good-quality surveys, the information base for Nigeria, which encompasses almost 20 percent of the population of Africa, shifts. The 2003/04 and 2009/10 surveys showed no change in poverty in Nigeria. The poverty rate indicated by the alternative survey for 2010/11 (26 percent) is half the estimate obtained from the lower-quality survey (53 percent) in 2009/10. Given that only one survey is retained, the estimated poverty trend for Nigeria also relies more on the GDP growth pattern (which was high during the 2000s) as well as a lower poverty rate for 2010/11. Reestimating the poverty rate with only comparable surveys of good quality but without Nigeria indicates that Nigeria accounted for a large fraction of the additional decline observed using the corrected series (the red line). Without Nigeria, the corrected series declines from 55 percent to 40 percent (a 15 percentage point drop), compared with 57 percent to 43 percent (a 14 percentage point drop) in PovcalNet. Confidence in the revised regional series depends significantly on how reliable the trends in Nigeria's poverty obtained using the good-quality survey and greater dependence on GDP imputation are considered.

Consumption data gaps can also be filled by applying survey-to-survey (S2S) imputation techniques to nonconsumption survey data. In this method, at least one survey with consumption and basic household characteristics is combined with nonconsumption surveys with the same basic characteristics for different years. Consumption for the years

FIGURE O.2   Adjusting for comparability and quality changes the level of and trends in poverty
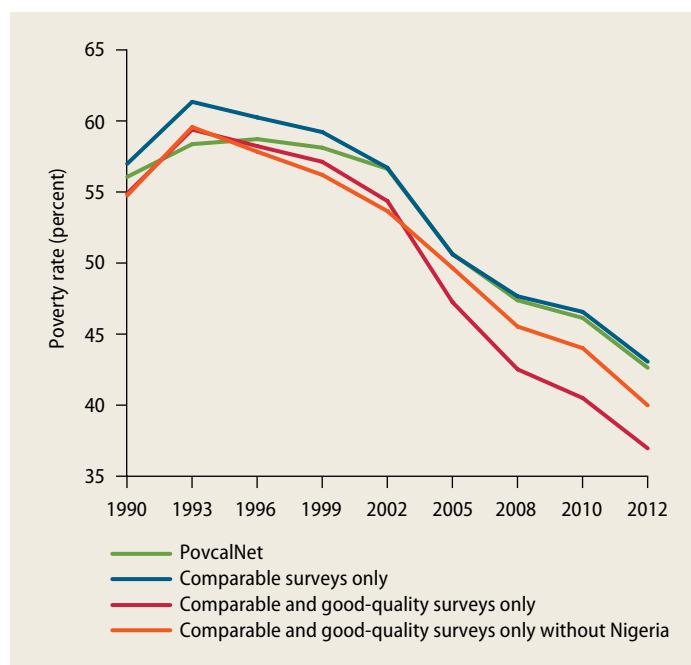
Sources: World Bank Africa Poverty database and PovcalNet.
Note: Poverty is defined as living on less than $1.90 a day (2011 international purchasing power parity).

with no survey is then estimated based on the evolution of the nonconsumption household characteristics as well as the relation between those characteristics and consumption, as estimated from the consumption survey. Where they have been tested, these prediction techniques perform mostly well in tracking poverty, although, as with GDP extrapolation, caution is counseled when predicting farther out in the past or the future (Christiaensen and others 2012; Newhouse and others 2014; World Bank 2015a). Applying this method to the 23 largest countries in Africa (which account for 88 percent of both the population and the poor) and keeping only good-quality and comparable consumption surveys suggests that poverty declined from 55 percent in 1990–94 to 40 percent in 2010–12 (figure O.3, blue line). This decline is slightly larger than the one obtained from the World Bank's PovcalNet for the same 23 countries (which showed the poverty rate falling from 57 percent to 43 percent) (green line) but smaller than the 19 percentage point reduction obtained using the comparable and good-quality surveys and GDP imputation for these countries (red line).

Another approach to addressing consumption data gaps is to forgo using consumption data entirely and examine changes in household assets. However, although changes in asset holdings may be indicative of some aspects of household material well-being, this approach does not yet serve well as a proxy or replacement for what consumption measures.

A final issue concerns how consumption data from a given survey year are adjusted to the year of the international poverty line, which is 2011. National CPIs are typically used to inflate/deflate nominal consumption to this benchmark year. To address concerns about applying CPI to adjust consumption of households, researchers can look for evidence of the potential level of CPI bias and the implications of any bias for poverty trends. An overestimated (underestimated) CPI will result in flatter (steeper) poverty trends.

One way to assess CPI bias is by using the Engel approach (Costa 2001; Hamilton 2001). It is based on the assumption that the

FIGURE O.3   Other estimates also suggest that poverty in Africa declined slightly faster and is slightly lower
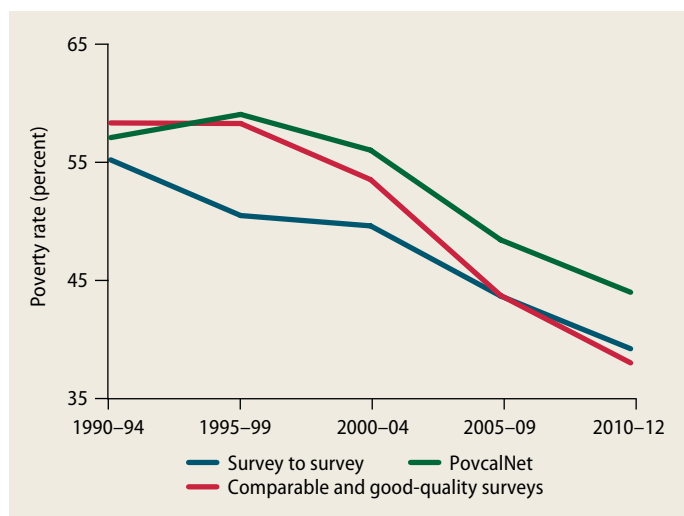
Source: World Bank Africa Poverty database; calculations using additional household surveys for the 23 largest countries in Africa.

Engel curve (which shows households' food budget share declining as real consumption rises) remains constant over time, so that deviations indicate over- or underestimation of the price deflator used. Application to urban households in 16 African countries with comparable surveys during the 2000s suggests that CPIs in Africa tend to overstate increases in the (urban) cost of living. Poverty in many African countries may have declined faster than the data indicate if the CPI is overestimated. Research on many more countries as well as rural areas and time periods is needed to confirm these results.

Taken together, this set of results suggests that poverty declined at least as much as reported using the World Bank database PovcalNet and that the poverty rate in Africa may be less than 43 percent. This news is encouraging. Nonetheless, the challenges posed by poverty remain enormous. As a result of rapid population growth, there are still substantially more poor people today (more than 330 million in 2012) than there were in 1990 (about 280 million), even under the most optimistic poverty reduction scenario (that is, using comparable and good-quality surveys only).

This exercise also underscores the need for more reliable and comparable consumption data to help benchmark and track progress toward eradicating poverty by 2030, as envisioned under the SDGs. More generally, it counsels against overinterpreting the accuracy conveyed by point estimates of poverty—or other region- or countrywide statistics of well-being. These estimates provide only an order of magnitude of levels and changes, albeit one that becomes more precise the more comparable and reliable is the underlying database.

Profiling the Poor

What distinguishes countries that have succeeded in reducing poverty from those that have failed? What are the effects of income status, resource richness, landlockedness, and fragility?

Not surprisingly, fragility is most detrimental to poverty reduction. Between 1996 and 2012, poverty decreased in fragile states (from 65 percent to 53 percent), but the decline was much smaller than in nonfragile economies (from 56 percent to 32 percent). The

FIGURE O.4   Fragility is associated with significantly slower poverty reduction

Change in poverty rate (percentage points) compared to alternative category

- Middle income: −1.1
- Landlocked: −7.1
- Resource rich: −12.6***
- Fragile: 15.1***

Source: World Bank Africa Poverty database.
Note: Figure shows results of a regression on the change in the poverty rate for 43 countries from 1996 to 2012 based on estimated poverty rates using comparable and good-quality surveys.
*** Statistically significant at the 1% level.

gap in performance is 12 percentage points in favor of nonfragile countries. Conditional on the three other country traits, the difference in poverty reduction between fragile and nonfragile countries rises to 15 percentage points (figure O.4). Middle-income countries as a group did not achieve faster poverty reduction than low-income countries, and being resource rich was associated with poverty reduction that was 13 percentage points greater than in non-resource-rich countries after controlling for other traits. The main driver for the difference in poverty reduction in resource-rich and resource-poor countries, however, is corrections to the Nigeria data. More surprisingly, once resource richness, fragility, and income status are controlled for, landlocked countries did not reduce poverty less than coastal economies (the effect is not statistically significant and the point estimate is even negative). This finding contradicts the common notion that landlocked countries perform worse than coastal countries because transport costs impede trade and lower competitiveness (Bloom and Sachs 1998).

Although Africa is urbanizing rapidly, in the majority of countries, 65–70 percent of the population resides in rural areas (Canning, Raja, and Yazbeck 2015). Across countries rural residents have higher poverty rates (46 percent in rural areas in 2012 versus 18 percent in urban areas, using corrected data for all countries). But the gap between the poverty rate in rural and urban areas declined (from 35 percentage points in 1996 to 28 percentage points in 2012). Among the four geographic regions, only urban areas in West Africa halved poverty. Poverty among rural populations in West and Southern Africa declined about 40 percent.

Africa is distinguished by a large and rising share of female-headed households. Such households represent 26 percent of all households and 20 percent of all people in Africa. Southern Africa has the highest rate of female-headed households (43 percent). West Africa exhibits the lowest incidence (20 percent), partly reflecting the continuing practice of polygamy, together with high remarriage rates among widows. The poverty rates among people living in male-headed
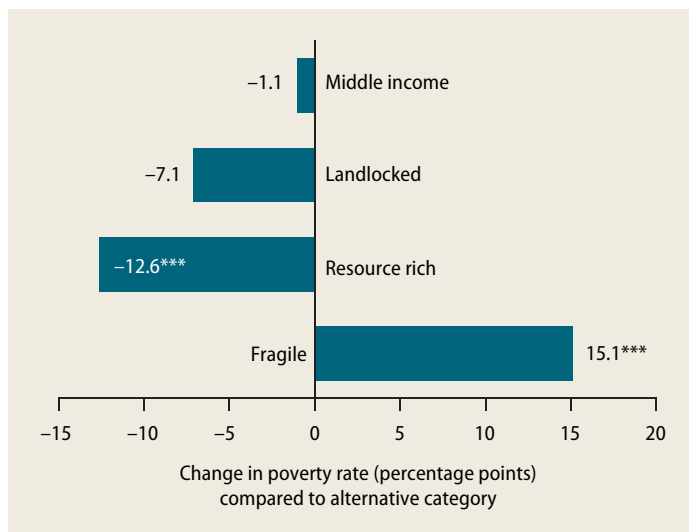
households (48 percent) are higher than in female-headed households (40 percent), except in Southern Africa, where poverty among female-headed households is higher (Milazzo and van de Walle 2015).

Two caveats are warranted. First, the smaller household size of female-headed households (3.9 people versus 5.1) means that using per capita household consumption as the welfare indicator tends to overestimate the poverty of male-headed households relative to female-headed households if there are economies of scale among larger households (Lanjouw and Ravallion 1995; van de Walle and Milazzo 2015). But household composition also differs: the dependency ratio is 1.2 among households headed by women and 1.0 among households headed by men. Counting children as equivalent to adults can lead to an underestimation of poverty in male versus female-headed households. Understanding the differences in poverty associated with the gender of the household head is intertwined with how one defines the consumption indicator used in measuring poverty. Second, woman household heads are a diverse group. Widows, divorced or separated women, and single women frequently head households that are relatively disadvantaged , as opposed to households with a temporarily absent male head (van de Walle and Milazzo 2015).

The evidence examined above captures snapshots of poverty. Looking at the body of evidence on the evolution of households' poverty over time (that is, taking movies of people's poverty status) reveals large variation across countries. Panel data estimates of chronic poverty (the share of households staying poor throughout) range from 6 percent to almost 70 percent. Countries with similar poverty rates can also be quite dissimilar in terms of their poverty dynamics. A systematic assessment using synthetic two-period panels (which are less prone to measurement errors) constructed for 21 countries reveals that about 58 percent of the poor population was chronically poor (poor in every period), with the remaining poor being poor only transiently (in only one period) (Dabalen and Dang 2015). Chronic poverty remains pervasive in the region.

Taking a Nonmonetary Perspective

Many aspects of well-being cannot be properly priced or monetarily valued (Sandel 2012; Sen 1985), such as the ability to read and write, longevity and good health, security, political freedoms, social acceptance and status, and the ability to move about and connect. Recognizing the irreducibility of these aspects of well-being, the Human Development Index (HDI) and the Multidimensional Poverty Index (MPI) (Alkire and Santos 2014) focus on achievements in education, longevity and health, and living standards (through income, assets, or both), which they subsequently combine into a single index.

This study expands the scope to include freedom from violence and freedom to decide (a proxy for the notion of self-determination that is critical to Sen's capability approach).[5] It also examines jointness in deprivation, by counting the share of people deprived in one, two, or more dimensions of poverty. This approach achieves a middle ground between a single index of nonmonetary poverty (which requires weighting achievements in the various dimensions) and a dashboard approach (which simply lists achievements dimension by dimension, ignoring jointness in deprivation) (Ferreira and Lugo 2013).

The focus in selecting indicators was on outcomes (not inputs) that are measured at the individual (not the household) level. Information on these indicators is now much more widely available than it once was, although some of the comparability and quality issues highlighted above also apply (see, for example, UNESCO 2015 for a review of data challenges in tracking adult literacy).

Overall, Africa's population saw substantial progress in most nonmonetary dimensions of well-being, particularly health and freedom from violence. Between 1995 and 2012, adult literacy rates rose by 4 percentage points. Gross primary enrollment rates increased dramatically, and the gender gap in education shrank. Life expectancy at birth rose 6.2 years, and the prevalence of chronic malnutrition among children under 5 fell by 6 percentage points. The number

of deaths from politically motivated violence declined by 75 percent, and both the incidence and tolerance of gender-based domestic violence dropped. Scores on voice and accountability indicators rose slightly, and there was a trend toward greater participation of women in household decision-making processes.

These improvements notwithstanding, the levels of achievement remain low in all domains, and the rate of progress is leveling off.[6] Despite the increase in school enrollment, today still more than two out of five adults are unable to read or write. About three-quarters of sixth graders in Malawi and Zambia cannot read for meaning—just one example of the challenge of providing good-quality schooling. The need to reinvigorate efforts to tackle Africa's basic educational challenge is urgent.

Health outcomes mirror the results for literacy: progress is happening, but outcomes remain the worst in the world. Increases in immunization and bednet coverage are slowing. Nearly two in five children are malnourished, and one in eight women is underweight.
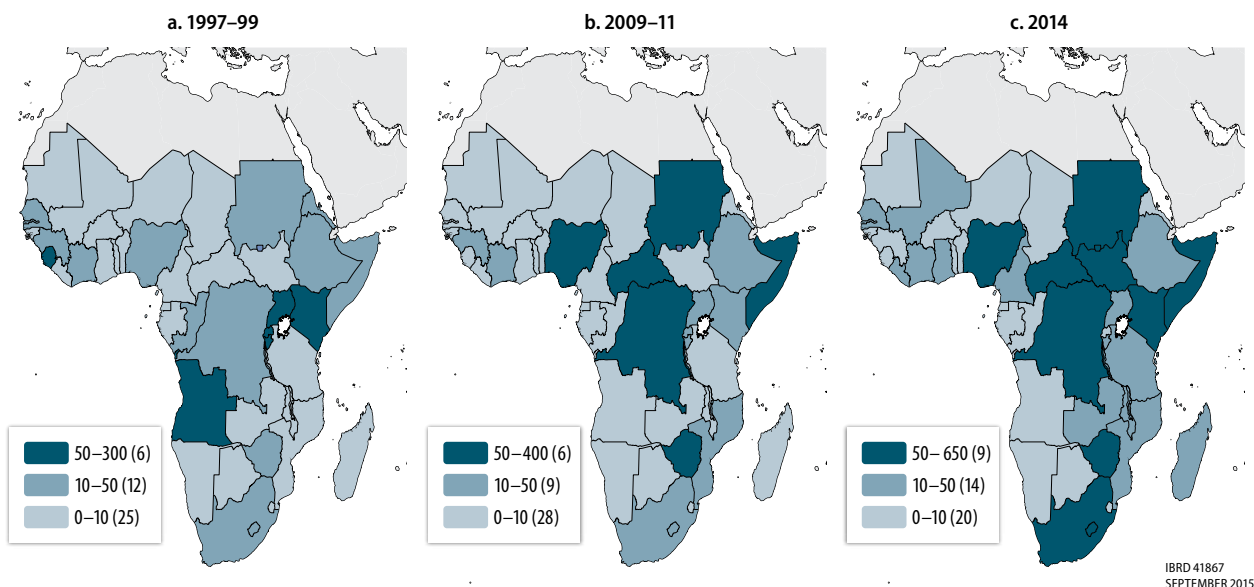
At the other end of the spectrum, obesity is emerging as a new health concern.

Africans enjoyed considerably more peace in the 2000s than they did in earlier decades, but the number of violent events has been on the rise since 2010, reaching four times the level of the mid-1990s (map O.2). Violence is increasingly experienced in terms of political unrest and terrorism rather than large-scale civil conflicts.

Africa also remains among the bottom performers in terms of voice and accountability, albeit with slightly higher scores than the Middle East and North Africa and East Asia and the Pacific. Tolerance of domestic violence (at 30 percent of the population) is still twice as high as in the rest of the developing world (figure O.5), and the incidence of domestic violence is more than 50 percent higher. Higher tolerance of domestic violence and less empowered decision making among younger (compared with older) women suggest that a generational shift in mindset is still to come.

Around these region-wide trends there is also remarkable variation across countries

MAP O.2   **The number of violent events against civilians is increasing, especially in Central Africa and the Horn**

a. 1997–99

50–300 (6)
10–50 (12)
0–10 (25)

b. 2009–11

50–400 (6)
10–50 (9)
0–10 (28)

c. 2014

50– 650 (9)
10–50 (14)
0–10 (20)

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SEPTEMBER 2015

Sources: Armed Conflict Location and Events Dataset (ACLED); Raleigh and others 2010.
Note: Maps indicate annual number of violent events against civilians; number in parentheses indicates the number of countries. For the following countries there are no data: Cabo Verde, Comoros, Mauritius, São Tomé and Príncipe, and the Seychelles.

FIGURE O.5 **Acceptance of domestic violence is twice as high in Africa as in other developing regions**
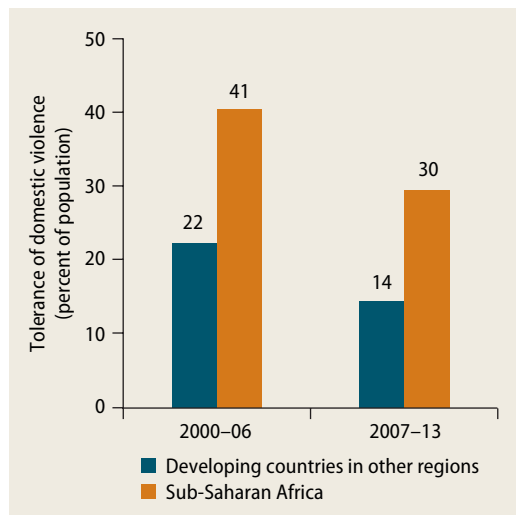
Source: Data from Demographic and Health Surveys 2000–13.
Note: Figures are population-weighted averages of 32 African and 28 non-African developing countries.

and population groups. Literacy is especially low in West Africa, where gender disparities are large. High HIV prevalence rates are holding life expectancy back in Southern Africa. Conflict events are more concentrated in the Greater Horn of Africa and the Democratic Republic of Congo.

Rural populations and the income poor are worse off in all domains, although other factors, such as gender as well as the education of women and girls, often matter as much or more (at times in unexpected ways). Women, for example, can expect to live in good health 1.6 years longer than men; and, among children under 5, boys, not girls, are more likely to be malnourished (by 5 percentage points).[7] At the same time, illiteracy remains substantially higher among women, women suffer more from violence (especially domestic violence), and they are more curtailed in their access to information and decision making. Multiple deprivation characterizes life for a sizable share of African women (data on men are not available).

Several groups—including orphans, the disabled, and refugees and internally displaced persons—have traits that may make them particularly vulnerable. In 2012, 3.5 million children in Africa were two-parent orphans (had lost both parents), and another 28.6 million children were single-parent orphans, bringing the total number of orphans to 32.1 million. The prevalence of orphanhood is particularly high in countries in or emerging from major conflict and in countries severely affected by HIV/AIDS. Because it can be correlated with wealth and urban status, orphanhood does not always confer a disadvantage on children in terms of schooling. Data on school enrollment among 10- to 14-year-olds in the most recent Demographic and Health Surveys show that in half of the countries surveyed, orphans were less likely to be enrolled than nonorphans.

In a sample of seven African countries for which comparable data are available, almost 1 working-age adult in 10 faces severe difficulties in moving about, concentrating, remembering, seeing or recognizing people across the road (while wearing glasses), or taking care of him- or herself. People with disabilities are more likely to be in the poorest 40 percent of the population, largely because of their lower educational attainment (Filmer 2008). They score 7.2 percent higher on the multidimensional poverty index than people without disabilities (Mitra, Posärac, and Vick 2013). Not unexpectedly, disability rates show a statistically significant correlation with HIV/AIDS and conflict.

Africa had an estimated 3.7 million refugees in 2013, down from 6.7 million in 1994 but up from 2.8 million in 2008. In addition, there were 12.5 million internally displaced people, bringing the number of people displaced by conflict to 16.2 million in 2013, or about 2 percent of Africa's population (Maystadt and Verwimp 2015). The main source of refugees is the Greater Horn of Africa, although the number of refugees from Central Africa is still about 1 million, about half of them from the Democratic Republic of Congo.

Although the suffering associated with displacement is tremendous, the displaced are not necessarily the poorest; and fleeing often

helps them mitigate the detrimental effects of conflict (Etang-Ndip, Hoogeveen, and Lendorfer 2015). Refugee status is also not always associated with weaker socioeconomic outcomes. Finally, local economies often also benefit from the influx of refugees (Maystadt and Verwimp 2015) through increased demand for local goods (including food) and services, improved connectivity (as new roads are built and other transport services provided to refugee camps), and entrepreneurship by refugees themselves.

Three overarching aspects stand out from a review of the nonmonetary dimensions of poverty in Africa. First, fragile countries tend to perform worse and middle-income countries better. This unsurprising finding confirms the pernicious effects of conflict and is consistent with the widely observed associations with overall economic development.

Second, controlling for these factors, there is a worrisome penalty to residing in a resource-rich country: people in resource-rich countries tend to be less literate (by 3.1 percentage points), have shorter life expectancy (by 4.5 years) and higher rates of malnutrition among women (by 3.7 percentage points) and children (by 2.1 percentage

points), suffer more from domestic violence (by 9 percentage points), and live in countries that rank low in voice and accountability measures (figure O.6).

Third, better-educated women (secondary schooling and above) and children in households with better-educated women score decisively better across dimensions (health, violence, and freedom in decision). More rapid improvement in female education and women's socioeconomic opportunities will be game changing in increasing Africa's capability achievement.

Measuring Inequality

Although not all aspects of inequality are necessarily bad (rewarding effort and risk taking can promote growth), high levels of inequality can impose heavy socioeconomic costs on society. Mechanically, higher initial inequality results in less poverty reduction for a given level of growth. Tentative evidence also suggests that inequality leads to lower and less sustainable growth and thus less poverty reduction (Berg, Ostry, and Zettelmeyer 2012) (if, for example, wealth is used to engage in rent-seeking or other distortionary economic behaviors [Stiglitz 2012]). The pathway by which inequality evolves thus matters for poverty reduction and growth.

The report measures inequality using the Gini index, which ranges from 0 (perfect equality) to 1 (perfect inequality). It shows that inequality is especially high in Southern Africa (Botswana, Lesotho, Namibia, South Africa, Swaziland, and Zambia), where Gini indices are well above 0.5 (map O.3).

Of the 10 most unequal countries in the world today, 7 are in Africa. Excluding these countries (five of which have populations of less than 5 million and most of which are in Southern Africa) and controlling for country-level income, Africa has inequality levels comparable to developing countries in other parts of the world. Inequality levels do not differ significantly between coastal and landlocked, fragile and nonfragile, or resource-rich and resource-poor countries, controlling for subregion.

FIGURE O.6   Residents in resource-rich countries suffer a penalty in their human development
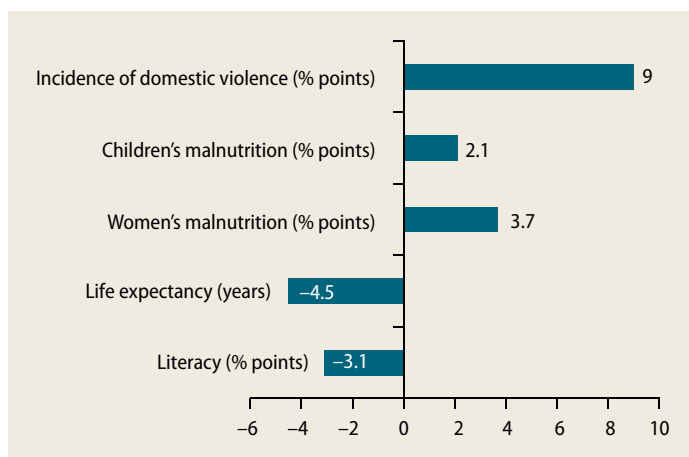
Source: Staff calculations based on World Health Organization and multiple Demographic and Health Surveys.
*Note:* Figure shows the gap between resource-rich and other countries in Africa. Results control for demographic factors, education, poverty, and other country characteristics (income, fragility, landlockedness).

MAP O.3 **Inequality in Africa shows a geographical pattern**

Source: World Bank Africa Poverty database.
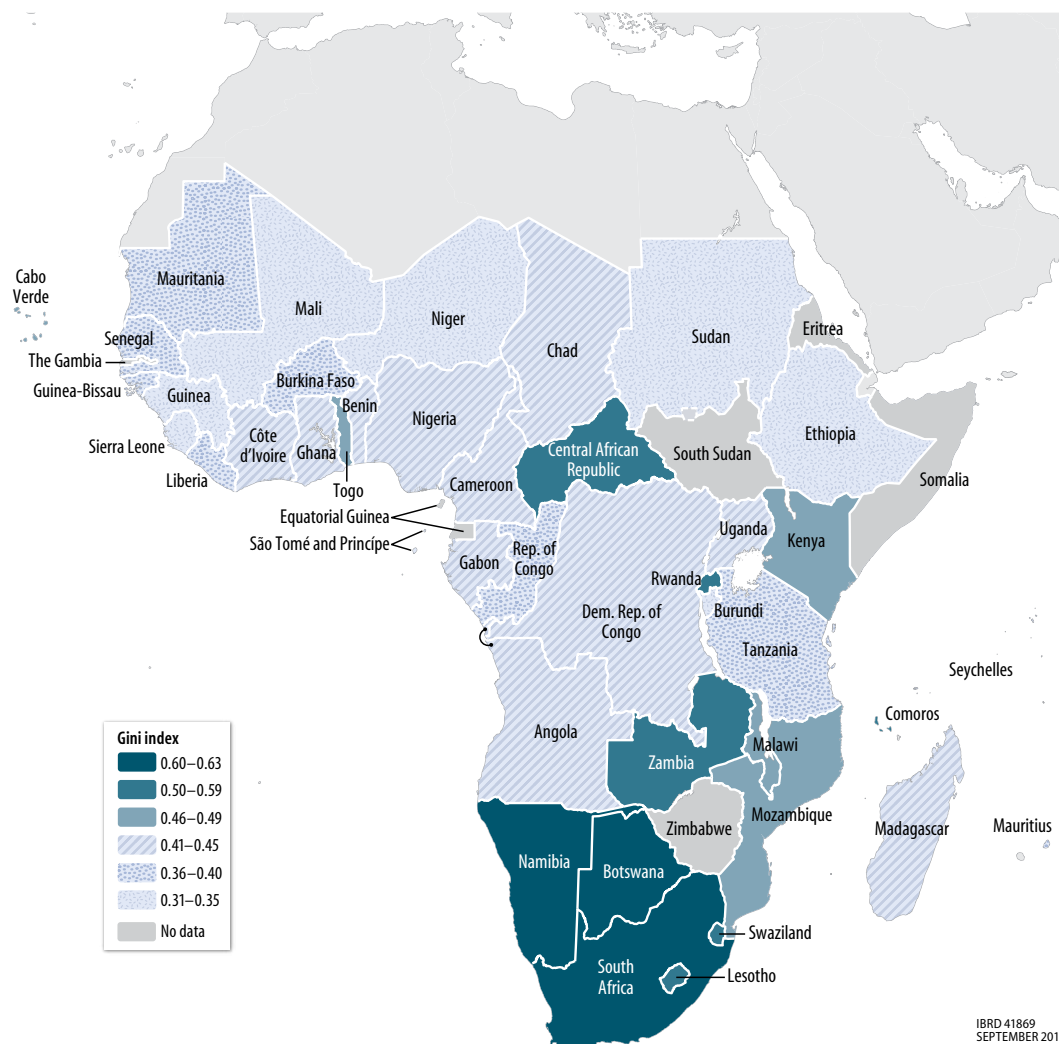
For the subset of 23 countries for which comparable surveys are available with which to assess trends in inequality, half the countries experienced a decline in inequality and the other half saw an increase. No clear patterns are observed by countries' resource status, income status, or initial level of inequality. While one might have expected a more systematic increase in inequality given Africa's double decade of growth and the role the exploitation of natural resources played in that growth, the results presented here do not provide strong evidence for such a trend.

Although declines in inequality are associated with declines in poverty, poverty fell, despite increasing inequality, in many countries (figure O.7, quadrant 1).

For Africa as a whole, ignoring national boundaries, inequality has widened. The Africa-wide Gini index increased from 0.52 in 1993 to 0.56 in 2008. A greater share of African inequality is explained by gaps across countries, even though within-country inequality continues to dominate. These results stand in contrast to changes in global inequality (Lakner and Milanovic
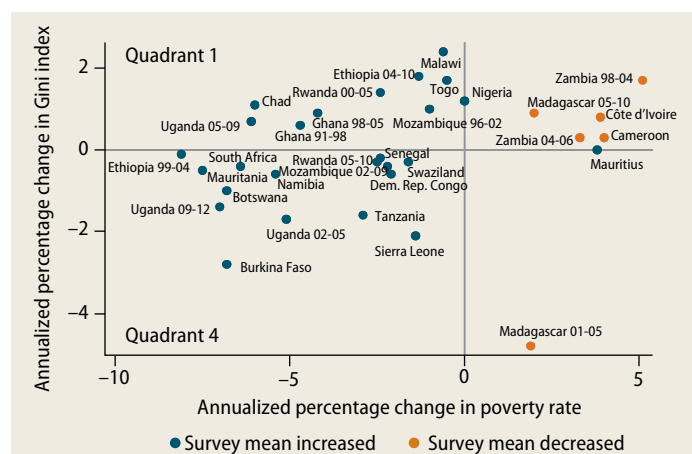
Source: Countries in World Bank Africa Poverty database with comparable surveys.
Note: Ethiopia 1995–99, an outlier, is excluded. Survey years are indicated for countries with more than one pair of comparable surveys.

2015). Not surprisingly, the wealthiest African households are much more likely to live in countries with higher per capita GDP.

Inequality can be decomposed into two parts: inequality between groups (horizontal inequality) and inequality within groups (vertical inequality). Among the range of groups one can examine, geography, education, and demography stand out as groups for which a large share of overall inequality is explained by the group to which one belongs. From the decomposition method, spatial inequalities (by region, urban or rural, and so forth) explain as much as 30 percent of total inequality in some countries. Perhaps a more straightforward approach to assessing spatial inequality is simply to look at mean consumption per capita across geographic domains. The ratio of mean consumption between the richest and the poorest regions is 2.1 in Ethiopia (regions), 3.4 in the Democratic Republic of Congo (provinces), and more than 4.0 in Nigeria (states). Price differences across geographic areas drive some of this gap; adjusted for price differences, spatial inequalities are lower but are still large.

Education of the household head is associated with even larger consumption gaps between households. In Rwanda, South Africa, and Zambia, educational attainment of the household head explains about 40 percent of overall inequality. Countries with higher inequality tend to have a high share of their inequality driven by unequal education, which is an association that is not observed for most of the other socioeconomic groupings.

The demographic composition of the household also explains a large share of inequality (30 percent in Senegal and 32 percent in Botswana). In countries for which data are available to study trends in horizontal inequality from the mid-1990s to the present, the main drivers—geography, education, and demographics—have not changed, though some variations exist at the country level.

Inequality in Africa is the product of many forces. The circumstances in which one is born (for example, in a rural area, to uneducated parents) can be critical. Inequality of opportunity (what sociologists call *ascriptive inequality*)—the extent to which such circumstances dictate a large part of the outcomes among individuals in adulthood—violates principles of fairness.

The evidence on inequality of economic opportunity in Africa has been limited. This report draws on surveys of 10 African countries to explore the level of inequality of economic opportunity by looking at such circumstances as ethnicity, parental education and occupation, and region of birth. The share of consumption inequality that is attributed to inequality of opportunity is as high as 20 percent (in Malawi) (because of data limitations, this estimate is a lower bound). But inequality of opportunity is not necessarily associated with higher overall inequality.

Another approach to measuring inequality of opportunity is to examine persistence in intergenerational education and occupation. Does the educational attainment of a child's parents affect a child's schooling less than it did 50 years ago? Is a farmer's son less likely to be a farmer than he was a generation ago?

Among recent cohorts, an additional year of schooling of one's parents has a lower

association with one's own schooling than it did for older generations, suggesting more equal educational opportunities for younger cohorts. Intergenerational mobility trends are comparable to trends estimated for other developing countries. For occupation the findings are more mixed for the five countries for which data are available. Intergenerational occupational mobility has been rising rapidly in the Comoros and Rwanda. In contrast, it remains rigid in Guinea. The shift in the structure of occupations in the economy (sometimes called structural change) is not the sole reason for changes in intergenerational occupational mobility. Other factors, such as discrimination, social norms, and impediments to mobility (poor infrastructure, conflict, and so forth), are also changing in ways that can affect mobility.

These results tell only part of the story because household surveys are not suited to measuring extreme wealth. Data on holders of extreme wealth are difficult to collect, but such people are increasingly on the radar in discussions of inequality around the globe.

Africa had 19 billionaires in 2014 according to the Forbe's list of "The World's Billionaires." Aggregate billionaire wealth increased steadily between 2010 and 2014 in Nigeria (from 0.3 percent to 3.2 percent of GDP) and South Africa (from 1.6 percent to 3.9 percent). The number of ultra-high-net-worth individuals (people witha net worth of at least $30 million) also rose. Few detailed studies explore the level of extreme wealth of nationals. One exception comes from Kenya, where 8,300 people are estimated to own 62 percent of the country's wealth (New World Wealth 2014). The share of extreme wealth derived from areas prone to political capture, including extractives, has been declining, while the share derived from services and investment has been increasing. Between 2011 and 2014, 4 out of 20 billionaires in Africa derived their wealth mainly or partially from telecommunications. Data limitations make it difficult to draw conclusions about whether the emergence of extreme wealth in Africa is driven less by political connections than it used to be.

Notes

1. Throughout this report, *Africa* refers to Sub-Saharan Africa.
2. The focus is on a range of measurement issues, including the limited availability, comparability, and quality of consumption data and the remedies used to overcome these constraints. For a range of other measurement issues—including the measurement of service flows from housing and durable goods, the conversion of household into individual consumption measures (to account for differential needs and economies of scale), and methodological differences in constructing poverty lines—the report adopts standard approaches.
3. An additional aspect to measuring cross-country poverty is converting local currency measures into a common currency. This report adopts the new international poverty line of $1.90/day in 2011 based on the latest round of the purchasing power parity (PPP) exercise and discusses the complicated set of issues that PPPs entail.
4. The five countries for which no survey data are available to estimate poverty (Eritrea, Equatorial Guinea, Somalia, South Sudan, and Zimbabwe) were assigned the regional poverty rate based on the other 43 countries.
5. Sen's capability approach provides the philosophical foundations for the nonmonetary perspective.
6. Below-average performance in Africa's three most populous countries (Nigeria, the Democratic Republic of Congo, and Ethiopia) partly drives the high levels of nonmonetary poverty in the region.
7. Higher life expectancy for women is possible even in an environment that is disadvantageous to them, given that women are genetically predisposed to live longer (Sen 2002; World Bank 2011).

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Contents of *Poverty in a Rising Africa*

"Our knowledge of global poverty has long been compromised by inadequacies in the underlying data, in which people report how much they spend. This is nowhere more true than in Africa, where national accounts data are also very weak. So I am delighted that this report and the World Bank are directing serious attention to these issues and hope that, before too long, our basic database will be much stronger than it is today. In the meantime, this report provides an insightful synthesis of what is known about poverty in Africa today, in both its monetary and nonmonetary dimensions."

— **ANGUS DEATON**, Nobel Laureate in Economic Sciences, 2015;
Dwight D. Eisenhower Professor of Economics and International Affairs, Princeton University

"Drawing on data to profile well-being in Africa is no easy task. I strongly commend the efforts of synchronizing and reviewing many data sources in this report. It sheds a bright light—based on data—on the poverty profile of Sub-Saharan African countries over time.

Looking forward, it is critical that we continue the work of strengthening Africa's statistics and filling in data gaps that this report carefully outlines. While investing in consumption data is paramount, strengthening the methodological and analytical capacity for measuring nonmonetary dimensions of poverty must also be given a due priority. We need to focus on the multidimensions of well-being, but without high-quality and frequent data, knowledge gaps will remain."

— **SAMIA ZEKARIA GUTU**, Ethiopian Ambassador to Nigeria;
Former Director General, Ethiopia Central Statistical Agency

"Following Africa's rise, are people better off? Scrutinizing the available information, this report does an exemplary job of addressing this pertinent question. It also draws our attention to the seminal crisis at the heart of global decision making around development issues—the crisis of poor data. Bad data feed bad management, weak accountability, loss of resources, and then, bad results. Embracing the more and better data agenda is key for better governance and faster poverty reduction."

— **MO IBRAHIM**, Founder and Chair, Mo Ibrahim Foundation