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Monitoring Global Poverty

Through 2017, the last year for which global data are available, extreme poverty reduction slowed compared with previous decades, continuing the trend reported in *Poverty and Shared Prosperity 2018: Piecing Together the Poverty Puzzle* (World Bank 2018). This deceleration alone would have made it hard to reach the 2030 target of 3 percent global poverty. Now, the COVID-19 (coronavirus) pandemic has reversed the gains in global poverty for the first time in a generation. This report estimates that this reversal of fortune is expected to push between 88 million and 115 million more people into extreme poverty in 2020. But COVID-19 is not the only reversal that threatens the poverty goals: confronting conflict and climate change will also be critical to putting poverty eradication back on track. Current estimates show that poverty rates are rising in the Middle East and North Africa, driven largely by economies affected by conflict. Moreover, recent estimates indicate that between 68 million and 132 million people could be pushed into poverty by 2030 because of the multiple impacts of climate change.

In 2018, the World Bank presented poverty lines at US$3.20 a day and US$5.50 a day to reflect national poverty lines in lower-middle-income and upper-middle-income countries, respectively, which underscore that poverty eradication is far from attained once the extreme poverty threshold of US$1.90 a day has been reached. In South Asia and Sub-Saharan Africa, poverty reduction against these lines has been slower than at the extreme poverty line, suggesting that many people have barely escaped extreme poverty. The societal poverty line (SPL), which increases with a country's level of income, leads to similar conclusions: 2 billion people are still poor by this definition.

Poverty reduction has been too slow in Sub-Saharan Africa for global poverty to reach the 2030 goal. Some economies in the region have made gains, but high poverty rates persist in too many. Sub-Saharan Africa faces high levels of multidimensional poverty with high overlaps across the different dimensions, suggesting that nonmonetary deprivations are compounding monetary poverty. Extreme poverty is predicted to become increasingly concentrated in the region.

Introduction

This report paints a sobering picture of the prospect of eliminating extreme poverty by 2030. The global poverty estimates show that poverty reduction continues to slow, confirming previous predictions that the world will not reach the goal of lowering global extreme poverty to 3 percent by 2030 unless swift, significant, and sustained action is taken. The predicted effects of the COVID-19 pandemic reinforce this unwelcome outlook. The still-evolving pandemic threatens to reverse the trend in global extreme poverty reduction for the first time in 20 years, putting millions at risk of extreme poverty and

pushing the attainment of the 3 percent goal even further away.

This chapter reports new global poverty estimates for 2017.[1] An estimated 9.2 percent of the global population still lives below the international poverty line (IPL) of US$1.90 a day, which represents the typical poverty line of some of the poorest economies in the world. This percentage amounts to 689 million extreme poor, 52 million fewer than in 2015. Even though these numbers are already unacceptably high, the nowcasts of global poverty in 2020 and forecasts to 2030 raise additional concerns.[2] These estimates, largely based on Lakner et al. (2020) and Mahler et al. (2020), incorporate the effect of the COVID-19 pandemic on global poverty in both the short and long term. The results of the nowcasts show that between 88 million and 115 million people will be pushed into extreme poverty in 2020 because of the global contraction in growth caused by COVID-19. These numbers translate to a poverty rate of between 9.1 percent and 9.4 percent in 2020, offsetting past progress in poverty reduction by three years.[3] Turning to the long-term forecasts, the 2030 goal of 3 percent extreme poverty was difficult to reach under business-as-usual scenarios, as noted in the previous two editions of this report. The COVID-19 pandemic is expected to set back achievement of this goal even more unless unprecedented efforts are successful in promoting faster inclusive growth in the future.

COVID-19 is not the only driver of a reversal of fortune in progress on poverty. Regional trends in extreme poverty continue to show the enduring negative effect of conflict and fragility on poverty (Corral et al. 2020). Estimates of extreme poverty in the Middle East and North Africa show an increase between 2015 and 2018, largely driven by countries affected by conflict, although it is important to note that data gaps are particularly severe in these countries. The extreme poverty rate in Sub-Saharan Africa, although falling slightly between 2015 and 2018 (by less than 2 percentage points), remains as high as 40 percent. Because of rapid population growth, the number of Africans living below the IPL actually increased from 416 million in 2015 to 433 million in 2018.

Although this chapter focuses on tracking progress in reducing extreme poverty, as measured according to the IPL of US$1.90 per person per day, it also reports several additional poverty measures that broaden the understanding of poverty (see box 1.1 for an overview of the additional measures). The effects of the COVID-19 pandemic, as well as conflict, climate change, and the scant success in extreme poverty reduction in Sub-Saharan Africa, highlight the need for a continued focus on extreme poverty. At the same time, it is important to stress that poverty does not end when a person crosses the monetary threshold of US$1.90 a day.

Whereas extreme poverty is steadily concentrated in Sub-Saharan Africa, this geographic pattern is less pronounced when using the higher poverty lines of US$3.20 and US$5.50, which are typical of lower-middle- and upper-middle-income countries. More than 50 percent of the population in South Asia was living below the US$3.20 poverty line in 2014. In contrast, the success in reducing poverty in East Asia goes well beyond extreme poverty because 7.2 percent of the population in the region was living below the US$3.20 line and 25 percent was living below the US$5.50 poverty line in 2018. Almost 70 percent of Sub-Saharan Africa's population lives on less than US$3.20 per day; however, about half of the region's population lives in economies that are lower-middle income or richer, making the US$3.20 line a poverty measure that is also pertinent to Africa.

The SPL adapts to the income level of each country and is thus relevant even in high-income economies, where poverty rates at the absolute lines considered here are close to zero. Two billion people in the world are living in societal poverty—that is, they lack the resources necessary to lead a dignified life, taking into account that this threshold increases as countries become richer. The regional trends are similar to the other poverty measures: East Asia and Pacific shows the largest progress in reducing societal poverty, even as it is on the rise in the Middle East and North Africa and largely stagnating in Latin America and the Caribbean. Societal poverty also sheds light on the relationship between poverty, shared prosperity, and inequality, which is explored in greater detail in chapter 2.

BOX 1.1 Different Measures for Understanding Poverty

This box provides a brief overview of the additional poverty measures that were explained in depth in the previous edition of this report (World Bank 2018). Two of the measures were introduced at the recommendation of the Atkinson Commission on Global Poverty (World Bank 2017a).

Higher absolute poverty lines: US$3.20 and US$5.50 per person per day

The international poverty line (IPL) was constructed using the national poverty lines for some of the poorest economies in the world (Ferreira et al. 2016; Ravallion, Chen, and Sangraula 2009). When it was set up, 60 percent of the global population lived in low-income countries, making the IPL a meaningful measure for a large share of the world's population (World Bank 2018). As of 2017, only about 9 percent of the world's population lived in low-income countries, while 41 percent of people lived in lower-middle-income countries (LMICs) and 35 percent in upper-middle-income countries (UMICs). Based on this shift in the global distribution of income, the World Bank introduced two additional poverty lines to reflect poverty lines typically found in LMICs (US$3.20 a day) and UMICs (US$5.50 a day) (World Bank 2018). These additional poverty lines represent the median value of national poverty lines in LMICs and UMICs as of 2011 (Jolliffe and Prydz 2016). Similar to the IPL, these higher poverty lines remain fixed over time and across countries.

Societal poverty

Following the recommendations of the Atkinson Commission on Global Poverty (World Bank 2017a), the World Bank introduced the societal poverty measure, which is also a way to measure poverty as countries grow. Unlike the US$3.20-a-day and US$5.50-a-day poverty lines, which remain fixed over time, the societal poverty line (SPL) varies across countries and within countries over time. Formally, it is defined as $SPL = \max(\text{US\$1.90}, \text{US\$1.00} + 0.5 \times \text{median})$, where median is the daily median level of income or consumption per capita in the household survey. The SPL combines elements of absolute poverty with elements of relative poverty.[a] It incorporates a floor at the IPL to emphasize that the focus of the World Bank remains on extreme poverty and that the value of the SPL will never be lower than the IPL.[b] At the same time, the SPL rises with higher levels of the median (above the floor set at the IPL); that is, it is relative to median consumption across countries (Jolliffe and Prydz 2017) to capture the increasing basic needs that a person faces to conduct a dignified life as a country becomes richer. Although the SPL varies across countries and within countries over time, it still allows for meaningful global comparisons because it is defined the same way for all countries.

Multidimensional poverty measure

Also in response to the Atkinson Commission on Global Poverty (World Bank 2017a), the World Bank developed a multidimensional poverty measure (MPM) in 2018 (World Bank 2018). Six indicators (consumption or income, educational attainment, educational enrollment, drinking water, sanitation, and electricity) are selected and mapped into three dimensions of well-being (monetary standard of living, education, and basic infrastructure services) to construct the MPM. Annex 1D, table 1D.1, provides an overview of the dimensions that are included and their weight in the index, and it explains how the estimation of the index has been updated. See chapter 4 in the previous edition of this report (World Bank 2018) for a review of the relevant literature, data, and methodology for calculating the World Bank's MPM.

a. Measures of absolute poverty are based on a parameter that remains fixed over time, for example, the IPL and the US$3.20 and the US$5.50 poverty lines, and they help track poverty changes over time by keeping the benchmark fixed. Conversely, relative poverty measures change depending on the income level in a country, that is, they are relative to a measure of welfare that reflects changes in living conditions and are useful for tracking how the definition of poverty evolves as countries get richer. Useful references for understanding this difference include Atkinson and Bourguignon (2001); Foster (1998); Jolliffe and Prydz (2017); Ravallion and Chen (2011, 2019); World Bank (2017a).

b. The SPL is estimated as follows: First, the median level of daily per capita consumption (or income) for each national distribution is extracted from PovcalNet (PovcalNet [online analysis tool], World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/). Then each country-year observation is assigned a value of the SPL according to the equation given in the text. If this value exceeds US$1.90, the SPL is passed to PovcalNet to estimate the poverty rate associated with this line. The regional and global values represent population-weighted averages and use the same methodology applied to the IPL aggregate values (see annex 1A). For additional details on how the SPL is defined and how it compares with other measures of relative poverty, see Jolliffe and Prydz (2016, 2017) and chapter 3 in World Bank (2018). Additional seminal work in this field can be found in Atkinson and Bourguignon (2001) and Ravallion and Chen (2011, 2013, 2019).

The multidimensional poverty measure (MPM) shows that the high levels of extreme poverty in Sub-Saharan Africa are compounded by deprivations in nonmonetary dimensions such as access to schooling and basic infrastructure. For example, in Sub-Saharan Africa, almost 20 percent of the population lives in households where at least one school-age child is not in school. Compared with other regions, Sub-Saharan Africa also shows greater overlaps across the different dimensions of poverty: about 40 percent of the region's multidimensionally poor are deprived in all three dimensions (income, education, and access to infrastructure), compared with 11 percent in Latin America and the Caribbean and 22 percent in the Middle East and North Africa.

The data used in this chapter are mainly drawn from PovcalNet, the home of the World Bank's global poverty numbers.[4] The ability to monitor global poverty depends crucially on the availability of household survey data collected by national authorities.[5] The number of recent household surveys has improved somewhat since the first edition of this report (World Bank 2016). In particular, the number of surveys and population coverage have improved in Sub-Saharan Africa, with the improvement in population coverage driven largely by a new survey that recently became available for Nigeria.[6] At the same time, the lack of recent data for India severely hinders global poverty monitoring. Hence, 2017 is the last year for which global poverty estimates are reported, and the series for South Asia ends in 2014 (a range of estimates for 2017 is included in box 1.2), whereas data for all

BOX 1.2 Measuring Poverty in India without Recent Data

Citing concerns over the quality of the data, the government of India decided not to release the 2017/18 All-India Household Consumer Expenditure Survey data from the 75th round, conducted by the National Statistical Office. This decision leaves an important gap in understanding poverty in the country, South Asia, and the world in recent years. The latest comprehensive household consumption expenditure survey data available for estimating poverty for India date to 2011/12, the 68th round of the National Sample Survey.

The 2018 *Poverty and Shared Prosperity* report used the 2014/15 72nd round of the National Sample Survey, which includes some information on household characteristics and expenditures (but not the full consumption module used for poverty measurement) to impute a more comprehensive value of consumption (Newhouse and Vyas 2018; World Bank 2018). The results of this survey-to-survey imputation were used to derive the India estimate that underpins the 2015 global poverty count (see Chen et al. 2018, for details).

Given the relevance of India for global poverty measurement and the lack of more recent data, this box summarizes several methodologies that have been used to approximate a poverty estimate for India to be used in the 2017 global poverty count. All these estimates are subject to strong assumptions; therefore, considerable uncertainty remains over poverty in India in 2017, and this uncertainty can be resolved only if new survey data become available.

The first method is a pass-through exercise similar to the method adopted by the World Bank in its nowcasts and forecasts of global poverty (see below). A pass-through is a discount factor that accounts for the differences in growth rates in per capita household consumption expenditures in national accounts and the mean per capita household consumption expenditures recorded in surveys. Using all comparable consumption surveys available in PovcalNet, a pass-through rate of 0.67 (with a 95 percent confidence interval of [0.59, 0.75]) is estimated that is to be applied to per capita household final consumption expenditure (HFCE) growth in national accounts.[a] This estimate is in line with many of the pass-through rates available in the literature on this issue (Sen 2000; Datt, Kozel, and Ravallion 2003; Deaton and Kozel 2005; Lakner et al. 2020).

Applying this pass-through estimate to per capita HFCE growth in India as reported in the World Development Indicators using official sources results in a national poverty rate estimate of 10.4 percent in 2017 for the US$1.90 poverty line, which translates into 139 million people living in extreme poverty.[b] This number underpins the global poverty estimate (9.2 percent) for 2017 and the nowcast and forecast exercises shown in the rest of this chapter.

The second approach uses survey-to-survey imputation techniques, similar to the approach used in the 2018 *Poverty and*

(continued)

BOX 1.2 Measuring Poverty in India without Recent Data *(continued)*

Shared Prosperity report, to impute consumption into the 2017/18 Social Consumption Survey for Health (National Sample Survey, 75th round). This approach results in a lower national poverty estimate of 9.9 percent in 2017, with a 95 percent confidence interval of between 8.1 and 11.3.

The India and South Asia estimates are reported for the widest range of estimates derived from these methods. For India, the values range between 8.1 percent and 11.3 percent nationally, that is, between 109 million and 152 million people.[c] This value would translate to between 7.7 percent and 10.0 percent poor in South Asia, that is, between 137 million and 180 million people.

Neither approach is without limitations. The pass-through approach assumes that the national accounts estimates of HFCE growth are accurate and that growth is distribution-neutral. Both these assumptions have been the subject of recent debate in India.[d] The survey-to-survey method takes advantage of the variation in the survey data to capture changes in the distribution of welfare. However, if the imputation is done between periods too far apart, it may fail to capture important changes in the behavior of markets. Important structural changes in the Indian economy between 2011 and 2017 may not be captured by these imputation techniques. Thus, the range of poverty estimates could be even wider than those presented in this report.

The limitations of the methods described add to concerns about the lack of access to survey data to measure standards of living in India. Several economists and policy experts have used public news and media outlets to cite figures from different sources of data leading to opposite views about the direction of poverty rates in India in recent years.[e] The lack of data creates doubts among the general public, obstructs scientific debate, and hinders the implementation of sound, empirically based development policies. There is no alternative to timely, quality-assured, and transparent data for the design and monitoring of antipoverty policies.

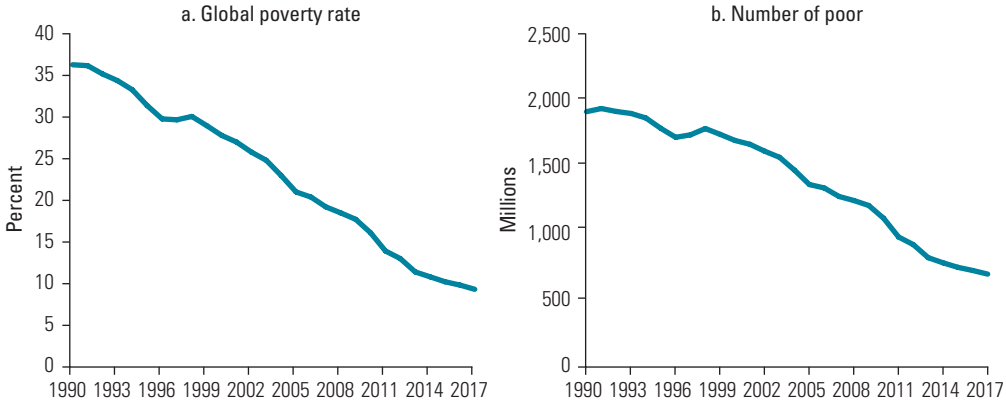
a. Further details can be found in Edochie et al. (forthcoming). Because pass-through rates are found to vary systematically between consumption and income surveys (Lakner et al. 2020), only consumption surveys are included in this sample (which is the welfare aggregate used in India). For all regions except Sub-Saharan Africa, HFCE is the national accounts aggregate used by PovcalNet to line up surveys to the reference year (Prydz et al. 2019). To isolate real changes in consumption from one survey to the next, it is important to focus on comparable surveys using the comparability metadata described in Atamanov et al. (2019).
b. See World Development Indicators (database), World Bank, Washington, DC, http://data.worldbank.org/products/wdi.
c. The 95 percent confidence interval for the pass-through estimates gives a range of 10.0 percent to 10.8 percent for the national poverty rate, which is nested within this range.
d. Academics have argued that India's growth in gross domestic product from official sources may be overstated (A. Subramanian 2019), but these findings are disputed (Goyal and Kumar 2019). Regarding changes in inequality, Chanda and Cook (2019) and Chodorow-Reich et al. (2020) find a negative short-term impact of the demonetization introduced in November 2016 among the poorest groups, which dissipates after several months. Lahiri (2020), meanwhile, reports a decline in unemployment shortly after demonetization, which may hide an important decline in labor force participation that the author also indicates is reported by Vyas (2018). Ongoing work with survey data from the Center for Monitoring Indian Economy, which produces a consumption aggregate that is comprehensive (although not fully comparable to the National Sample Survey) shows an increase in real average consumption between 2015 and 2017, but with a drop-off among the bottom quintile of the distribution.
e. For instance, economists S. Subramanian (2019) and Himanshu (2019) argue that poverty rates went up significantly. However, Bhalla and Bhasin (2020) posit that poverty in 2017/18 declined significantly with respect to 2011/12.

other regions extend to 2018. It is important to reiterate that the absence of recent data on India, one of the economies with the largest population of extreme poor, creates substantial uncertainty around current estimates of global poverty.[7] Similarly, lack of data for economies in fragile and conflict-affected situations (FCS) poses an important limitation on the measurement of poverty in those economies, which appears to be somewhat underestimated by existing methods (Corral et al. 2020).[8] This underestimation particularly affects Sub-Saharan Africa and the Middle East and North Africa, regions where one in five persons lives in proximity to conflict (Corral et al. 2020) and that have seen extreme poverty decreasing slowly or rising.

Monitoring global poverty: Tracking progress toward the 2030 goals

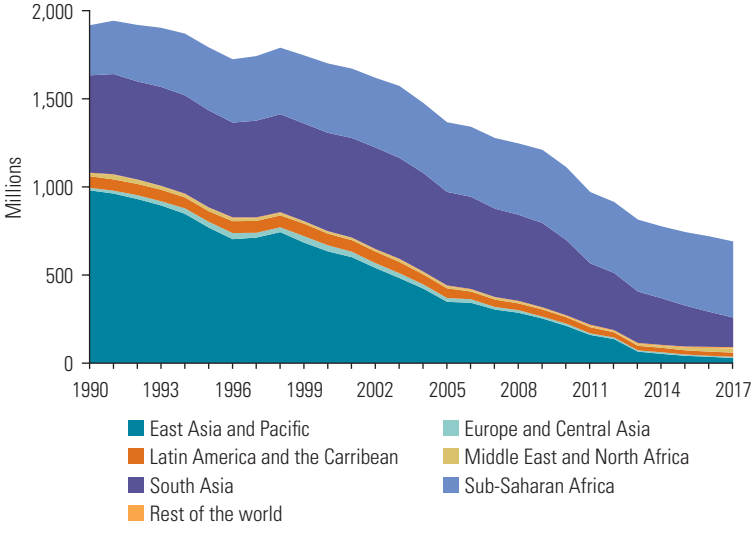
The past 25 years have seen remarkable progress toward ending extreme

FIGURE 1.1 Global Poverty Rate and Number of Poor at the US$1.90-a-Day Poverty Line, 1990–2017



Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: The global coverage rule is applied (see annex 1A).

FIGURE 1.2 Number of Poor at the US$1.90-a-Day Poverty Line, by Region, 1990–2017



Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: The height of each area gives the global number of poor in each year, which can be found in table 1A.2. The figure reported for South Asia uses the India estimate that is included in the global headcount (see box 1.2).

poverty. The number of people living below the IPL decreased from 1.9 billion in 1990 to 741 million in 2015. This decreasing trend is confirmed by the data for 2017. Poverty has fallen further, to 689 million (figure 1.1, panel b)—52 million less than in 2015 and 28 million less than in 2016 (see annex 1A, table 1A.2). Yet the number of people living in extreme poverty remains unacceptably high, and there are several reasons to believe that the target of reducing the share of people living in extreme poverty to below 3 percent by 2030 will not be achieved.

The slowdown in poverty reduction observed in 2015 by the previous *Poverty and Shared Prosperity* report (World Bank 2018) is confirmed in the new poverty figures presented here (figure 1.1, panel a). Between 1990 and 2015, the global rate of extreme poverty fell by about 1 percentage point per year. However, toward the end of that period, the rate of poverty reduction slowed. For example, between 2013 and 2015, the poverty rate fell by about 0.6 percentage point per year. Continuing this trend, the global poverty rate fell by less than a half percentage point per year between 2015 and 2017, with 9.2 percent of the global population still living below the IPL in 2017.

One reason for this deceleration is Sub-Saharan Africa's slower pace of poverty reduction compared with other regions, in line with the forecast that extreme poverty will be a predominantly African phenomenon in the coming decade (Beegle and Christiaensen 2019; World Bank 2018) (also see later in this chapter). Figure 1.2 shows the number of extreme poor in each region in 1990–2017 (see also annex 1A, table 1A.2).[9] Although the number of poor has fallen in many regions,

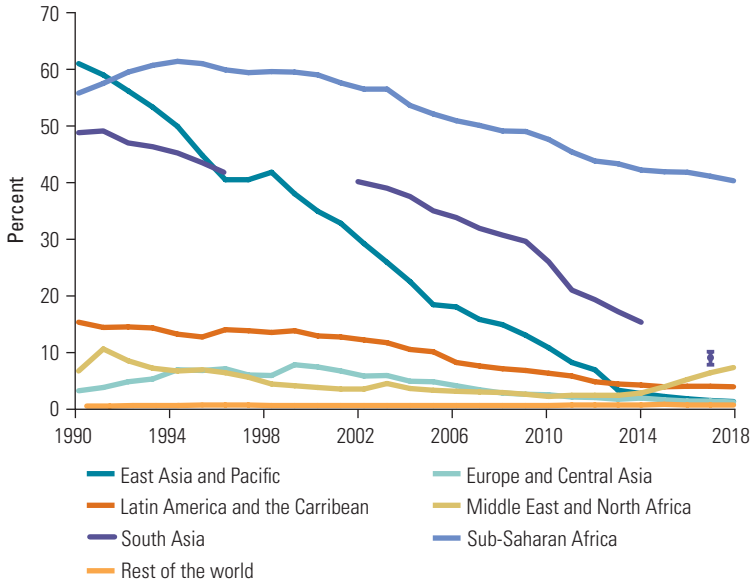
most notably East Asia and Pacific and, more recently, South Asia, there has been no reduction in Sub-Saharan Africa. In fact, the number of people living in extreme poverty in Sub-Saharan Africa rose from 284 million in 1990 to 431 million in 2017. The Middle East and North Africa has also seen an increase in the number of poor in recent years, driven largely by the economies in the region that are affected by conflict.

During this time, the poverty rate has continued to fall in Sub-Saharan Africa, but not fast enough to keep up with rapid population growth in the region (Beegle and Christiaensen 2019). Figure 1.3 shows the trends in the extreme poverty rate by region. The poverty rate in Sub-Saharan Africa declined, but only slightly, from 41.7 percent to 40.2 percent, between 2015 and 2018 (for details, see annex 1A, table 1A.2, panel c). The extreme poverty rate remains greater than 40 percent in the region, with some economies showing poverty rates exceeding 60 percent. Given Sub-Saharan Africa's poor performance in reducing extreme poverty in recent years and its crucial role in reaching the 2030 goal of ending extreme poverty, the final section of this chapter provides a more detailed analysis of the region.

The recent estimates for South Asia are subject to additional uncertainty given the absence of recent data for India, which is why the time series ends in 2014. Using various methods to estimate poverty for India in 2017 results in a range for the regional extreme poverty headcount ratio of between 7.7 percent and 10.0 percent. Box 1.2 provides a summary of the methodologies used to address the lack of recent data on India for the global monetary poverty measures.

The Middle East and North Africa region showed an increase in the extreme poverty rate between 2015 and 2018. The rate rose from 2.3 percent in 2013 to 3.8 percent in 2015 and almost doubled to 7.2 percent in 2018. The conflicts in the Syrian Arab Republic and the Republic of Yemen are among the leading explanations for this increase (Corral et al. 2020).[10] Comparing this trend with trends in other regions, the 2018 estimate indicates that the levels of extreme poverty are higher in the Middle East and North Africa than in Latin America and the Caribbean for the first time, although the levels are difficult to compare because of the use of different welfare aggregates in the two regions.[11]

FIGURE 1.3 Trends in Poverty Rates at the US$1.90-a-Day Poverty Line, by Region, 1990–2018



Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: Lined-up poverty estimates for South Asia are not reported for 1997–2001 and after 2014 because of a lack of population coverage (see box 1.2 on India and annex 1A). For South Asia in 2017, a range [7.7; 10.0] is reported, as described in box 1.2.

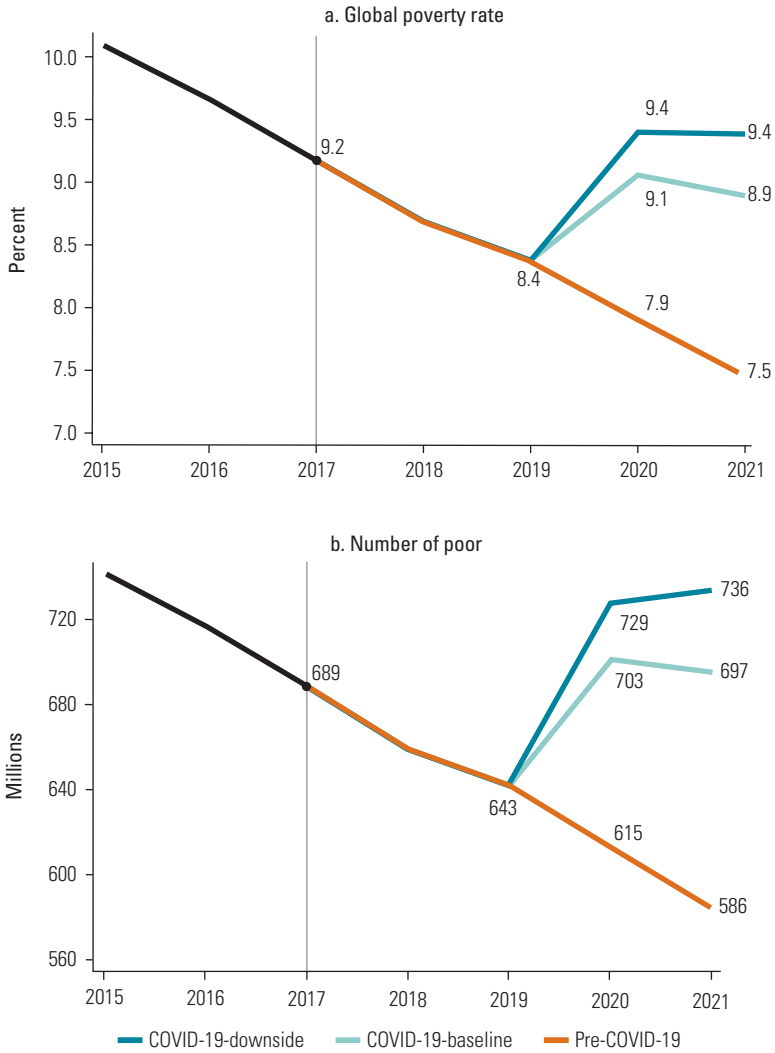
Latin America and the Caribbean has seen stagnation in the extreme poverty rate, at about 4 percent, for the sixth straight year. This slowdown in poverty reduction is even clearer if compared with the progress in East Asia and Pacific, where extreme poverty continues to decline. Europe and Central Asia offers a more consistent comparison, given that it has also largely used income surveys in recent years; in contrast to the stagnation in Latin America and the Caribbean, Europe and Central Asia has seen a continued decline in extreme poverty.

Nowcasting global poverty to 2020 and 2021: The impact of COVID-19

Global extreme poverty numbers are reported only through 2017, which is the latest year with sufficient global population coverage of household survey data. The complexity of household surveys results in an inevitable

time lag between when national statistics offices collect their data and when results are released. Using information on national accounts growth rates after 2017, it is possible to predict, or *nowcast*, poverty for 2020. However, such an exercise involves additional assumptions about the relationship between national accounts growth and growth in the survey welfare aggregate (measured either as consumption or income). In particular, it is assumed that (1) only 85 percent of national accounts growth is passed through to the survey welfare aggregate, and that (2) growth is distribution neutral, such that all households grow at the same rate (which equals 0.85 times national accounts growth).[12] This method is similar to the approach PovcalNet uses to line up surveys to a common reference year (Prydz et al. 2019; World Bank 2015a).[13]

FIGURE 1.4 Nowcasts of the Global Poverty Rate and Number of Poor at the US$1.90-a-Day Poverty Line, 2015–21

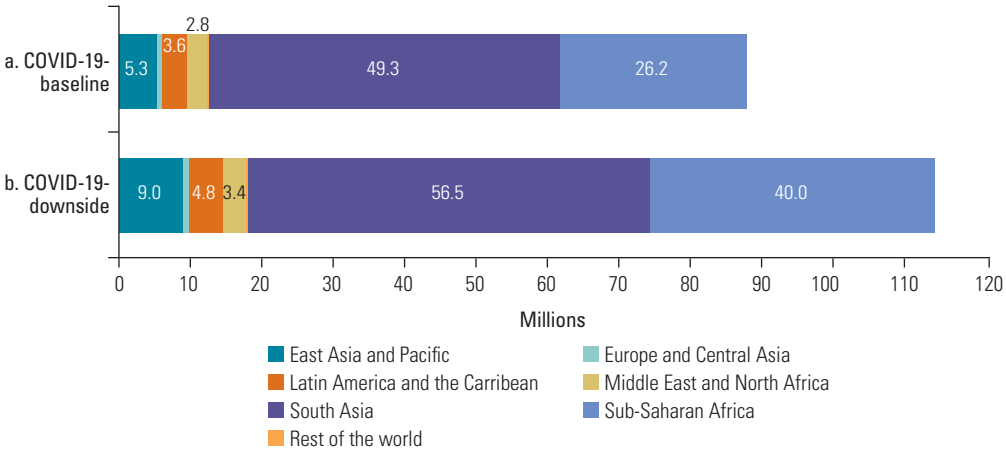


Sources: Updated estimates of Mahler et al. 2020, based on Lakner et al. 2020; PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/; World Bank 2020a, 2020b.
Note: Three growth scenarios are considered: First, pre-COVID-19 uses the January 2020 *Global Economic Prospects* (GEP) growth forecasts for 2020 and 2021, predating the COVID-19 crisis, and the June 2020 forecasts for 2019. Second and third, COVID-19-downside and COVID-19-baseline use the June 2020 GEP growth forecasts projecting a contraction in global growth in 2020 of 8 percent and 5 percent, respectively. Mahler et al. (2020) use the January 2020 GEP growth forecasts (World Bank 2020a) for the pre-COVID-19 scenario in 2019. They thus find a difference in projected poverty rates under the pre-COVID-19 and COVID-19 scenarios in 2019. To calculate the number of additional poor attributable to COVID-19 in 2020, they use a difference-in-differences methodology. Here, it is sufficient to use the raw difference between the pre-COVID-19 and COVID-19 scenarios for 2020.

Nowcasting global poverty to 2020 provides an estimate of the effect of the COVID-19 pandemic on global poverty. The magnitude of this effect is still highly uncertain, but it is clear that the pandemic will lead to the first increase in global poverty since the 1998 Asian financial crisis, when global poverty increased by 0.4 percentage point and 47 million people were pushed into extreme poverty relative to the previous year (see figure 1A.2 for a long-term perspective on global poverty from 1990 to 2030). However, the increase in poverty attributable to COVID-19 is estimated to be considerably larger, between 1.1 and 1.5 percentage points relative to a pre-COVID-19 scenario.[14] Given that current poverty rates are lower than in 1997, the increase in the poverty rate is larger not only in absolute terms but also in relative terms. Figure 1.4 shows the nowcast of global poverty to 2020 and 2021, updating earlier work by Mahler et al. (2020), based on Lakner et al. (2020).[15] To understand the effect of the current crisis on global poverty, this exercise is carried out using three different growth scenarios, while assuming that inequality remains unchanged.[16] The first scenario estimates the nowcast in 2020 and 2021 using gross domestic product (GDP) growth data from the January 2020 edition of the *Global Economic Prospects* (GEP) report (World Bank 2020a), which predates the COVID-19 pandemic. These numbers confirm a continuing slowdown in poverty reduction, yielding an estimated global extreme poverty rate of 7.9 percent in 2020 and 7.5 percent in 2021 (figure 1.4, panel a), corresponding to 615 million and 586 million poor (figure 1.4, panel b).

The second and third scenarios use more recent growth data from the June

FIGURE 1.5 Additional Poor at the US$1.90-a-Day Poverty Line in 2020, per the COVID-19-Baseline, and COVID-19-Downside Scenarios



Sources: Updated estimates of Mahler et al. 2020, based on Lakner et al. 2020; PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/; World Bank 2020a, 2020b.

2020 edition of the GEP report (World Bank 2020b), which incorporates the effect of COVID-19 on growth. These forecasts indicate that the COVID-19 pandemic will cause a contraction in global per capita GDP growth of between 5 percent and 8 percent in 2020.[17] These scenarios are considered separately in the calculations and translate into a global poverty rate of between 9.1 percent and 9.4 percent in 2020, setting back the clock as much as three years to a level similar to that estimated for 2017.

Using the counterfactual scenario, it is also possible to estimate the additional number of people pushed into extreme poverty by the pandemic in 2020. By comparing the poverty nowcasts using the pre-COVID-19 growth rates with those using the post-COVID-19 growth rates, it is estimated that 88 million people will be pushed into poverty under the baseline scenario and as many as 115 million people under the downside scenario.[18]

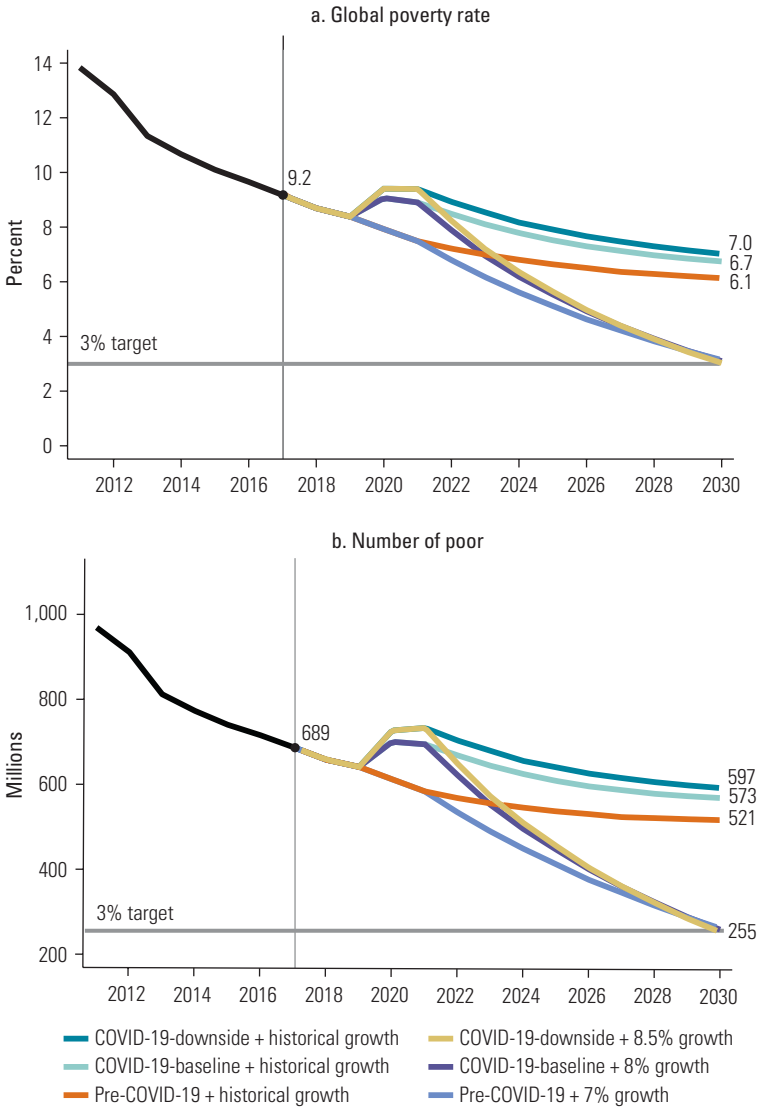
These estimates suggest that South Asia will be the region hardest hit, with 49 million additional people (almost 57 million under the downside scenario) pushed into extreme poverty (figure 1.5).[19] Sub-Saharan Africa would be the next most affected region, with between 26 million and 40 million additional people predicted to be pushed into extreme poverty. At the US$3.20-a-day poverty line discussed below in this chapter, between 175 million and 223 million people are estimated to be pushed into poverty, primarily in South Asia.

The projections in figure 1.4 assume that inequality remains unchanged. At the same time, several authors have argued that COVID-19 will have a disproportionately negative effect on the poor, exacerbating preexisting inequalities as well as creating new ones (see above). However, in the absence of data on the distributional impacts of the pandemic for a large set of countries, predicting what the effect on inequality will be is difficult.[20] Keeping this uncertainty in mind, Lakner et al. (2020) assess the effect of changes in inequality by modeling scenarios that assume a change in the Gini index of 1 percent and 2 percent per year between 2019 and 2030.

If COVID-19 also increases inequality, in 2020 global poverty under the COVID-19-baseline and COVID-19-downside scenarios would range between 9.2 percent and 9.6 percent (if the Gini index increases by 1 percent in all countries) or between 9.5 percent and 9.8 percent (if the Gini index increases by 2 percent in all countries). Compared with the distribution-neutral scenario, which projects between 703 million

and 729 million people living in extreme poverty in 2020 as reported in figure 1.4, panel b, an increase in inequality could see between 717 million and 746 million (if the Gini index increases by 1 percent) or between 734 million and 762 million (if the Gini index increases by 2 percent) people living in extreme poverty in 2020. Figure 1A.3 shows the results of relaxing the distribution-neutral assumption adopted so far and updates the Lakner et al. (2020) estimates to the latest PovcalNet data used in this chapter.

FIGURE 1.6 Projection of Global Poverty at the US$1.90-a-Day Poverty Line, to 2030



Sources: Updated estimates of Lakner et al. 2020; PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/; World Bank 2020a, 2020b.
Note: All six scenarios use assumptions identical to those used in figure 1.4 until 2021. For 2021–30, scenarios with historical growth use the annualized growth rate for each country between 2008 and 2018. Another set of growth scenarios is chosen such that all economies grow at the same rate between 2021 and 2030, and such that the 2030 target of 3 percent extreme poverty is reached: these growth rates are estimated to be 7 percent for pre-COVID-19, 8 percent for COVID-19-baseline, and 8.5 percent for the COVID-19-downside.

Simulations to 2030: Checking on progress toward ending global poverty by 2030

The simulations of global poverty to 2030 use scenarios similar to those for the nowcasts but also make additional assumptions about national accounts and population growth in the longer term.[21] Any such projection over a long time horizon is subject to considerable uncertainty, compounded now by the lack of recent data on India (see box 1.2) and by the evolving effects of the COVID-19 pandemic on poverty. Until 2021, the growth scenarios are identical to those shown in figure 1.4. After 2021, the growth rate is estimated using the average annual growth for each country in the period between 2008 and 2018 (following Lakner et al. [2020] and similar to World Bank [2018]). These growth rates are then used to project forward the household survey mean until 2030. Another set of growth scenarios is chosen in which all countries grow at the same rate between 2021 and 2030, such that the 2030 target of 3 percent extreme poverty is reached. For example, under the 7 percent scenario, each country grows at 7 percent annually beginning from its position in 2021 under the pre-COVID-19 scenario. The 8 percent and 8.5 percent scenarios start from each country's position in 2021 under the COVID-19-baseline and COVID-19-downside growth rates, respectively.

Figure 1.6 shows that, even using growth rates from before the COVID-19 pandemic, the 3 percent target would not be achieved by 2030. The estimate for global poverty in 2030 would be 6.1 percent (corresponding to 521 million poor). The previous two editions of this report (World Bank 2016, 2018) similarly argue that reaching the 3 percent target requires more than business as usual (also see Ravallion 2020). Reaching the 3 percent target in a scenario without COVID-19 conditions would have required all countries to grow at 7 percent, which for the Sub-Saharan African countries is more than a quadrupling of the growth rates observed between 2008 and 2018.[22]

The remaining scenarios consider the impact of the COVID-19 pandemic. Under the COVID-19-baseline scenario, 6.7 percent of the global population will be living under the IPL by 2030. Using the COVID-19-downside scenario results in an extreme poverty headcount ratio of 7 percent in 2030. Reaching the 2030 target under the two COVID-19 scenarios would require all countries to grow at rates of 8 percent (baseline) or 8.5 percent (downside) per year between 2021 and 2030, which would be equivalent to more than quintuple the historical growth rates in Sub-Saharan Africa.

COVID-19 not only sets back poverty by three years but also implies, as simulated here, about a billion additional person-years spent in extreme poverty over the next decade. The distribution-neutral nowcasts show that between 88 million and 115 million additional people will be pushed into poverty in 2020. For the entire decade 2020 to 2030, the additional new poor due to COVID-19 will range between 831 million (under the baseline scenario) and 1.16 billion (under the downside scenario).[23]

Figure 1A.3, in annex 1A, shows the range of global poverty estimates by relaxing the distribution-neutral assumption. Under the COVID-19-baseline scenario, global poverty in 2030 would rise to 8.2 percent (11.3 percent) if the Gini index rises by 1 percent (2 percent) per year in every country, compared with 6.7 percent in the absence of distributional changes. In contrast, if inequality were to decline, global poverty in 2030 could be as low as 5.6 percent (1 percent decline in the Gini index) or 4.7 percent (2 percent decline in the Gini index). Under the COVID-19-downside scenario, global poverty would rise to between 8.6 percent (with a 1 percent rise in the Gini index) and 11.8 percent (with a 2 percent rise in the Gini index), corresponding to between 732 million (with a 1 percent rise in the Gini index) and 1 billion (with a 2 percent rise in the Gini index) people living in extreme poverty globally. On a more positive note, a decline in the Gini index by 1 percent per year in every country would be one way to offset the increase in poverty as a result of COVID-19.[24] These results illustrate that changes in inequality matter for our ability to end global poverty (see also box 2.3 in chapter 2; Bergstrom 2020; Lakner et al. 2020).

Although the COVID-19 pandemic will have a decisive impact on poverty reduction in the coming decade, other global challenges also hinder the world's progress toward poverty eradication. This report, specifically chapter 3, focuses on two of these challenges—conflict and climate change. Although conflict is already affecting extreme poverty in the Middle East and North Africa and in Sub-Saharan Africa, climate change poses a global threat that is likely to further affect the projections discussed so far. Box 1.3 presents estimates aimed at measuring the impact of climate change on extreme poverty in the next decade.

BOX 1.3 How Is Climate Change Affecting Poverty? Nowcasts and Forecasts

Climate change disproportionately affects the poor, who have fewer resources to mitigate negative impacts and less capacity for adaptation. Quantifying climate-related impacts on poorer households is important for guiding policy and interventions. Jafino, Hallegatte, and Walsh (forthcoming) model the effects of climate conditions on socioeconomic outcomes, applying the method developed for the 2016 World Bank report *Shock Waves: Managing the Impacts of Climate Change on Poverty* (Hallegatte et al. 2016; see also Hallegatte and Rozenberg 2017) to the most recent household surveys.

For each country included in the analysis, the model incorporated information on household size and demographics, urbanization, labor force participation, and household income or consumption. The model is used to create baseline scenarios for the future distribution of household income and poverty for each country in 2030, in the absence of climate change, by combining various assumptions about the socioeconomic and technological drivers of

(continued)

BOX 1.3 How Is Climate Change Affecting Poverty? Nowcasts and Forecasts *(continued)*

poverty, such as changes in labor productivity in various sectors, structural change in the economy, or improvements in education levels. Among hundreds of scenarios, the analysis selected one set of optimistic baseline scenarios (with inclusive economic growth, low inequality, universal access to basic infrastructure, and steady progress toward achieving the Sustainable Development Goals) and one set of pessimistic baseline scenarios with slower and unequal growth. Then the model is used to assess the expected change in extreme poverty due to climate change via five channels in those baselines: agricultural productivity and prices, food prices, natural disasters, the effect of extreme temperature on outdoor workers' productivity, and health issues, including malaria, diarrhea, and stunting.

The results of this exercise are presented in Jafino, Hallegatte, and Walsh (forthcoming) and can be summarized as follows: The analysis was performed for 86 economies covering 64 percent of the total poor population. In most baseline scenarios and most regions, the largest impact of climate change on extreme poverty comes through higher food prices. In the pessimistic baseline, on average 39 million additional people will be pushed into poverty because of these higher food prices. To provide a global estimate, the number is scaled up to account for the missing population, resulting in 61 million additional poor people globally. Significant additional impacts arise from worsening health conditions (on average, 43 million additional poor) and natural disasters (more than 25 million additional poor). The effects also vary by region. Food prices play the largest role in pushing people into extreme poverty in Sub-Saharan Africa and South Asia (with an average of 36 million and 18 million additional poor, respectively), whereas health dominates in Latin America and the Caribbean and East Asia and Pacific (5 million and 6 million additional poor, respectively).

If all five climate impact channels are considered simultaneously, 132 million people on average will be pushed into poverty in the pessimistic baseline scenarios; the figure is 68 million on average in the optimistic baseline scenarios. These estimates are consistent, but slightly higher, than the assessment in the *Shock Waves* report (Hallegatte et al. 2016).[a]

These results show the importance of the baseline scenarios for assessing the impacts of climate change and highlight the interdependence of achieving different Sustainable Development Goals. Ensuring that all people have decent jobs and income, food security, and access to clean water and appropriate health care is an efficient way to reduce climate change vulnerability. At the same time, the impacts of climate change are large enough to make adaptation and risk management a powerful contributor to poverty eradication. In other words, good development (Hallegatte et al. 2016) and poverty reduction help reduce climate change impacts, and reducing climate change impacts contributes to development and poverty reduction.

This analysis shows how good development can contribute to reducing future climate change impacts. However, it considers impacts only to 2030, a short time horizon for climate change impacts. It should be kept in mind that the impacts of climate change on poverty will only be emerging by that date, and the effect will likely be much larger in the longer term. Preventing a continued increase in the impacts of climate change would require stabilizing global temperatures, which in turn requires that global net greenhouse gas emissions be reduced to zero before the end of the twenty-first century (Hallegatte et al. 2016).

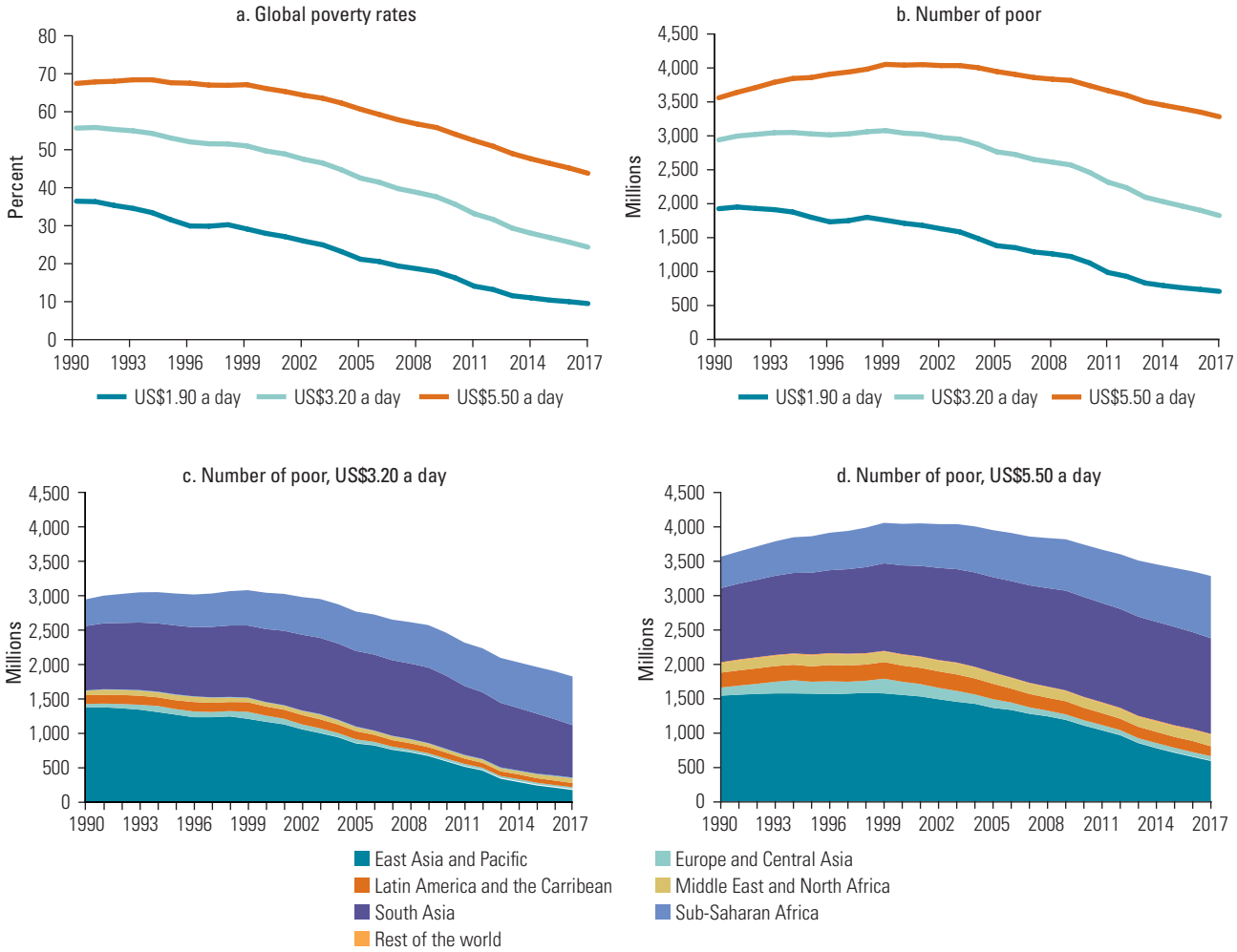
a. Because of the different methodologies and data used in the analysis presented in this chapter, the effect of climate change on poverty is considered separately. Specifically, the estimated additional people living in poverty because of climate change should not be read as cumulative to those estimated in the projections discussed elsewhere in the chapter. The climate impact scenarios refer to a separate exercise consisting in measuring the distribution of hundreds of counterfactual exercises between scenarios with climate change (including effects on food prices, productivity, natural disasters, and increased diseases) and a baseline scenario without climate change. The numbers of 68 million and 132 million additional poor refer to the average value of multiple simulation results grouped into optimistic (that is, low poverty) and pessimistic (that is, high poverty) scenarios within cases of high climate change impact. For low climate change impact, the average changes range from 32 million to 42 million people entering poverty compared with the baseline scenario without climate change. Reducing the impact of climate change has clear poverty-reduction effects according to these simulations. Further discussion of methods is available in chapter 1 of Hallegatte et al. (2016) and updated in Jafino, Hallegatte, and Walsh (forthcoming). It can plausibly be argued that many of those pushed into poverty because of COVID-19 will also be those with fewer resources to endure climate change. Many of the poor are exposed to multiple risks, and empirical challenges do not permit accounting simultaneously for all the different factors that affect poverty. Chapter 3 of this report discusses the overlapping of multiple risks and poverty in more detail.

Beyond extreme poverty: The US$3.20-a-day and US$5.50-a-day poverty lines

The World Bank's priority remains eradicating extreme poverty as measured by the IPL. However, achieving the vital goal of lifting all people above the US$1.90 threshold will not end poverty in the world. Poverty evolves as countries grow and develop. Figure 1.7 shows global poverty rates (panel a) and the number of poor (panel b) at the US$1.90, US$3.20, and US$5.50 poverty lines (see box 1.1 for further details on the definition of these lines; also see Jolliffe and Prydz 2016 and World Bank 2018).[25]

About a quarter of the global population is living below the US$3.20 poverty line, and almost half is living below the US$5.50 line, compared with less than a 10th living below US$1.90. These figures translate to 1.8 billion people and 3.3 billion people at the US$3.20 and US$5.50 poverty lines, respectively. The number of people living below US$3.20 today is as high as the number of people in extreme poverty in 1990, the starting point of this analysis, which is perhaps one way to illustrate the scale of the challenge that remains at these higher lines. The number of people living below US$5.50 per person per day has barely declined over the past 25 years.

FIGURE 1.7 Global Poverty Rate and Number of Poor, US$3.20-a-Day and US$5.50-a-Day Poverty Lines, 1990–2017



Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: Panel c shows the geographic distribution of the number of poor at the US$3.20 line and panel d shows the geographic distribution of the number of poor at the US$5.50 line. The figures reported for South Asia use the India estimate included in the global headcount (see box 1.2). The global number for 2017 uses the global coverage rule.

The COVID-19 pandemic and the risks associated with climate change and conflict expose the vulnerability of many millions of individuals who have escaped extreme poverty but can easily fall back.

There is some evidence of a slowdown in poverty reduction at the higher lines, but it is somewhat less dramatic than for the extreme poverty rate. The poverty rate at both these higher lines declined by about 2.5 percentage points between 2015 and 2017, similar to the decrease between 2013 and 2015. However, the poverty rate had fallen by 3.9 percentage points and 3.5 percentage points, respectively, between 2011 and 2013, pointing to stagnation in poverty reduction in the most recent years.

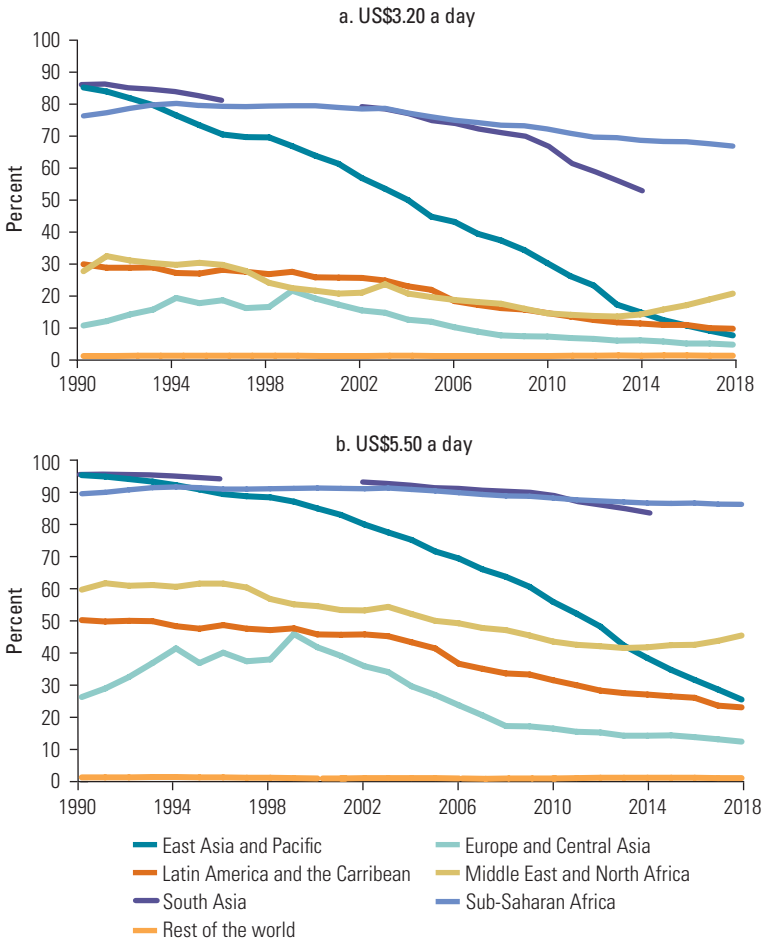
Panels c and d of figure 1.7 show the regional distribution of the global number of poor at these higher lines between 1990 and 2017 (see also tables 1B.1 and 1B.2). Unlike the number of extreme poor, the highest numbers of poor at both the US$3.20 and US$5.50 poverty lines live in South Asia rather than Sub-Saharan Africa. Although extreme poverty is becoming more highly concentrated in Sub-Saharan Africa, this concentration is much less pronounced beyond the US$1.90 threshold.

The regional trends in poverty rates also show important differences when compared with the extreme poverty estimates (figure 1.8). In South Asia, for example, the decrease in poverty has been slower at these higher lines than for extreme poverty. More than half of the region's people lived below the US$3.20 poverty line in 2014, and 96 percent of them lived in lower-middle-income countries, making the US$3.20 poverty line a relevant poverty measure for the region. Thus, millions of individuals still live in poverty in South Asia, notwithstanding the remarkable success in lifting them out of extreme poverty. In contrast, in the East Asia and Pacific region, progress in poverty reduction goes well beyond extreme poverty and all the way up to the US$5.50 poverty line, although at a slower pace at the higher lines.

For many other regions, the results at the higher poverty lines are similar to those for extreme poverty (figure 1.3). The poverty rate is increasing in the Middle East and North Africa at both the US$3.20 and US$5.50 poverty lines. The stagnation in poverty rates in Latin America and the Caribbean is confirmed at these higher lines, with about a quarter of the population living on less than US$5.50 a day (equivalent to 144 million people). Almost 90 percent of the region's population lives in upper-middle-income countries, suggesting that this is a relevant poverty line.

The highest poverty rates are once again in Sub-Saharan Africa. Figure 1.9 shows that almost 70 percent of the region's population is living below the US$3.20

FIGURE 1.8 Poverty Rates at the US$3.20-a-Day and US$5.50-a-Day Poverty Lines, by Region, 1990–2018



Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: Additional information on yearly lined-up estimates can be found in tables 1B.1 and 1B.2 in annex 1B. South Asia estimates are not reported for the period 1997–2001 and stop in 2014 because of a lack of population coverage.

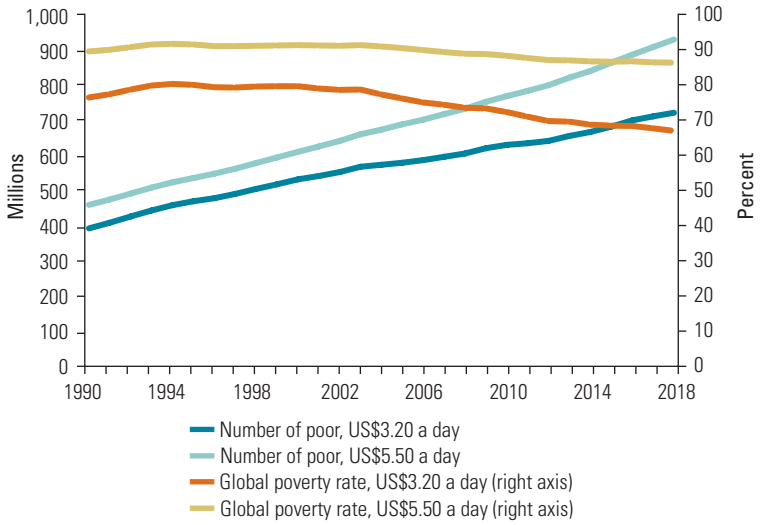
poverty line and almost 90 percent is living under the US$5.50 poverty line. As in the case of extreme poverty, given the high rate of population growth in the region, the number of poor has increased over time. Notwithstanding the high concentration of extreme poverty in Sub-Saharan Africa, it should not be assumed that these higher lines are not meaningful measures of poverty in the region. About half of the population lives in countries that are at least lower-middle income, for which the US$3.20 poverty line would be typical.

A relative poverty measure: The societal poverty line

So far, this chapter has reported measures of absolute poverty. One of the original goals of the IPL was to fix the threshold for a person to be defined as poor so that poverty could be monitored over time (Ravallion, Datt, and van de Walle 1991). The previous section explains why the World Bank has added two complementary higher absolute poverty lines that are more typical of the national poverty lines found in lower-middle-income and upper-middle-income countries (Jolliffe and Prydz 2016; World Bank 2018). This section presents results for global and regional societal poverty (see box 1.1; Jolliffe and Prydz 2017; World Bank 2018).

The SPL is not designed to capture the national poverty lines for countries in one income group rather than another. Instead, societal poverty increases with the income level of each country and is thus relevant even in high-income economies, where extreme poverty rates are very close to zero. At the same time, this concept translates into a very different picture for poverty reduction at both the global and regional levels. In contrast to the absolute poverty lines presented in this chapter, the SPL varies across countries and within a country over time, increasing with the level of income as captured by the median. In addition, the SPL, at least in its relative portion, can be seen as a measure of inequality; hence, this section also relates to the discussion on shared prosperity and inequality in chapter 2.

FIGURE 1.9 Poverty Rates and Number of Poor, US$3.20-a-Day and US$5.50-a-Day Poverty Lines, Sub-Saharan Africa, 1990–2018

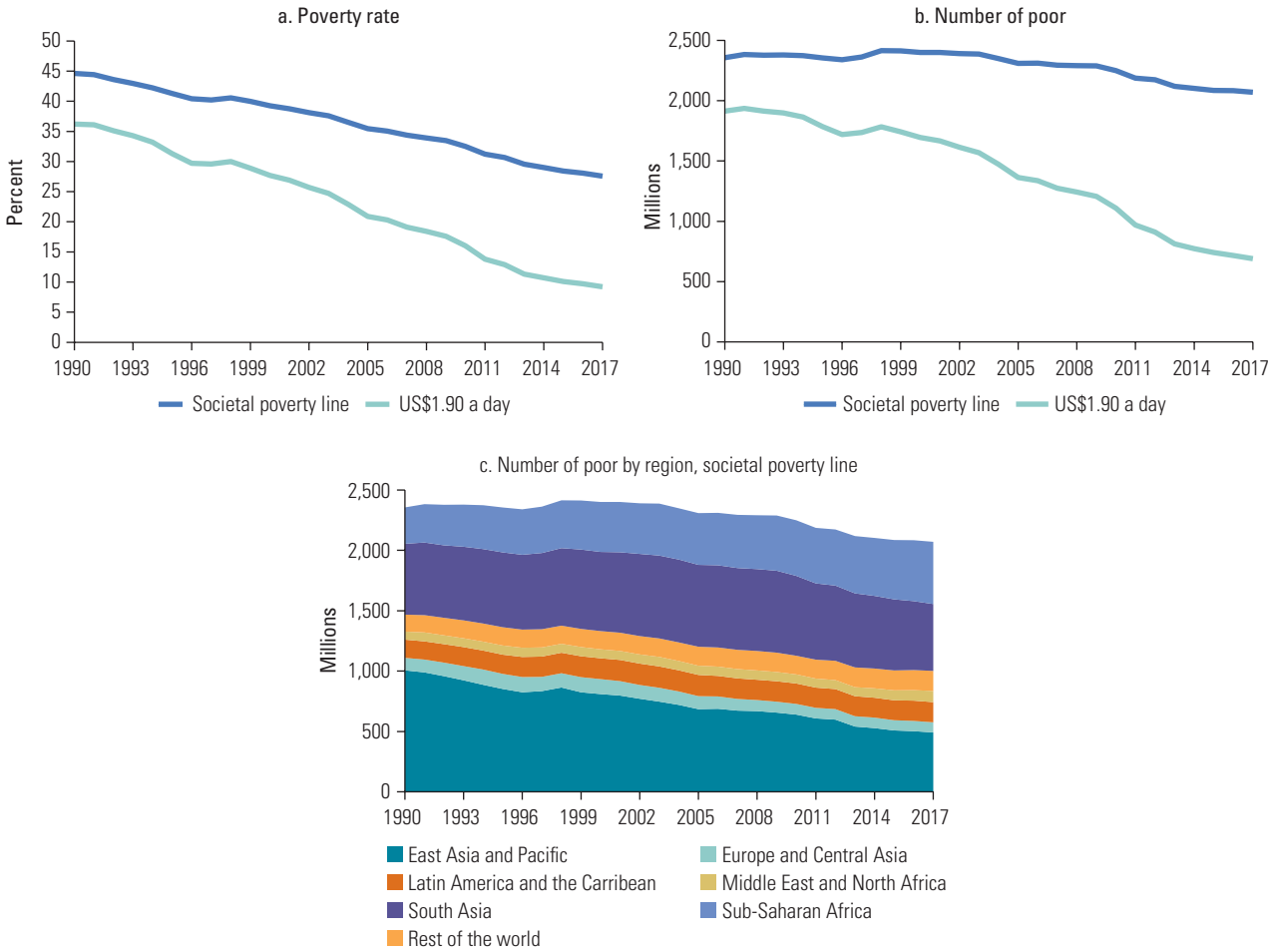


Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: See tables 1B.1 and 1B.2 for yearly lined-up estimates.

The average value of the SPL at the global level was US$7.20 in 2017, increasing from US$6.90 in 2015 (see annex 1C, table 1C.1). Figure 1.10 compares the different trends for extreme poverty and societal poverty. Given that the SPL increases with median income, it is not surprising that societal poverty has declined at a slower pace than extreme poverty. In 2017, there were still 2 billion people living below their countries' respective SPLs, 14 million less than in 2015 (figure 1.10 panel b). Figure 1.10, panel c, shows the geographical distribution of the number of poor living in societal poverty (see table 1C.1). The richer regions (for example, Europe and Central Asia or the high-income economies falling in the 'Rest of the world' category) account for a larger share of global societal poverty using the SPL than if compared with the absolute poverty lines presented above. Also, the number of poor is fairly stable in most regions, with the exception of East Asia and Pacific, which also shows a noticeable reduction by this poverty measure.

This analysis concludes by examining the differences in societal poverty rates across regions. Although there are differences in the levels of societal poverty across regions,

FIGURE 1.10 Global Societal Poverty Rate and Number of Poor, Compared with International Poverty Line Estimates, 1990–2017



Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: The coverage rule for the global lined-up estimates is applied to the three panels. Global societal poverty is calculated using a population-weighted average of country-specific societal poverty rates (see table 1C.1 for the full series of yearly lined-up estimates). The treatment of missing economies is identical to the other monetary poverty measures. The figure reported for South Asia uses the India estimate that is included in the global headcount (see box 1.2). IPL = international poverty line.

the trends look similar. In fact, figure 1.11 shows that, although societal poverty is highest in Sub-Saharan Africa and has stagnated there over the past decade, the gap with other regions is much narrower by this measure compared with what was presented in previous sections of this chapter, largely because other regions have higher poverty rates according to the SPL, which by construction is higher in richer countries and regions.

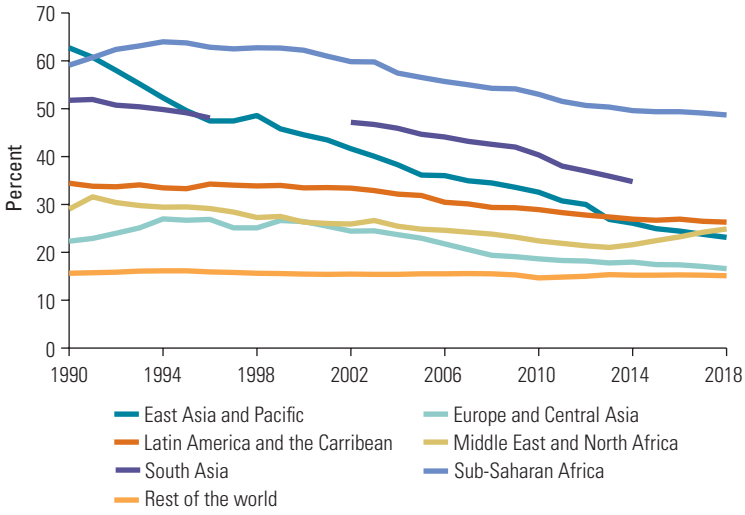
Europe and Central Asia shows one of the lowest values at about 17 percent. In the high-income economies included in the 'Rest of the world' category, 15 percent of the population lives below an SPL, that is, on average, about US$24 a day (see table 1C.1). The trends for other regions in figure 1.11 are similar to what was observed earlier in this chapter: societal poverty is on the rise in the Middle East and North Africa, consistent with the increase in extreme poverty in the region. East Asia and Pacific shows the largest progress in societal poverty reduction, whereas Latin America and the Caribbean has stagnated.

Beyond monetary poverty: The multidimensional poverty measure

Poverty is a complex and multifaceted phenomenon. When poor people are asked in participatory studies what makes them feel poor, they indicate a wide range of deprivations: not having enough to eat, having inadequate housing material, being sick, having limited or no formal education, having no work, and living in unsafe neighborhoods. To reflect this complex experience and inform policies to address it, the multidimensional poverty measure (MPM) incorporates deprivations across several indicators of well-being (see box 1.1; annex 1D; World Bank 2018).

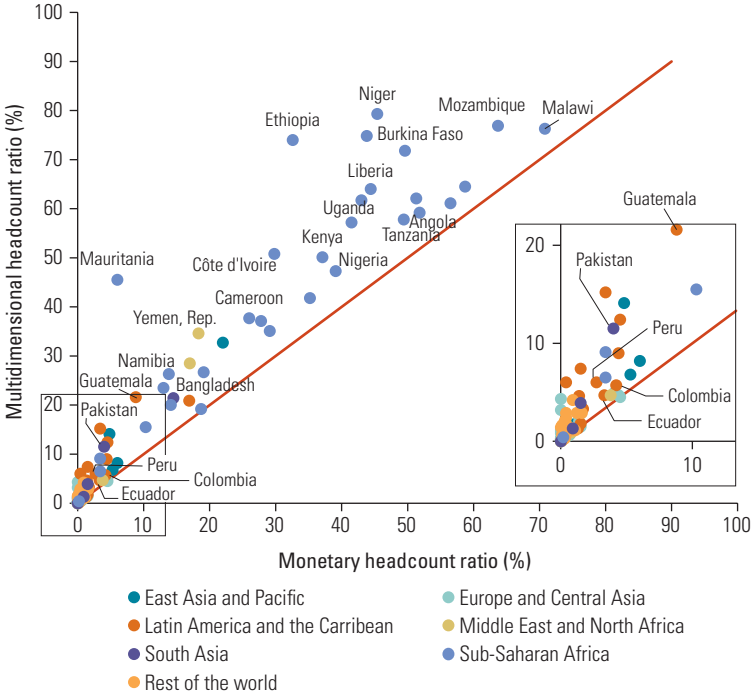
The MPM builds on monetary extreme poverty, which is the focal point of the World Bank's monitoring of global poverty and is included as one of the MPM dimensions, along with access to education and basic infrastructure. The MPM is at least as high as or higher than the monetary poverty headcount in a country, to reflect the additional role of nonmonetary dimensions in increasing multidimensional poverty. Figure 1.12 illustrates this point by plotting the correlation between monetary poverty and multidimensional poverty; the distance from the red 45-degree line highlights in which economies the difference between the two measures is greatest. This difference might be as large as 34 percentage points (Niger) or relatively low as in Tanzania (8.4 percentage points).[26] Although Niger and Tanzania have similar monetary poverty rates (45.4 percent and 49.4 percent, respectively), the multidimensional poverty headcount is considerably higher in Niger (79.3 percent vs. 57.8 percent), suggesting that nonmonetary deprivations play a greater role in Niger. Taking a different perspective, Angola and Uganda show similar levels of multidimensional poverty, although Uganda has lower levels of monetary poverty (41.5 percent vs. 51.8 percent in Angola). Some economies might have low monetary poverty headcounts, but a large share of their populations might be deprived in the other dimensions, for example, Guatemala (9 percent vs. 22 percent) and Mauritania (6 percent vs. 46 percent).

FIGURE 1.11 Societal Poverty Rates, by Region, 1990–2018



Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: Each estimate is the population-weighted average of economy-level societal poverty rates by region. Societal poverty lines are estimated at the economy level using the formula in box 1.1. The regional coverage rule is applied and estimates for South Asia are not reported in the period 1997–2001 and after 2014 because of a lack of population coverage.

FIGURE 1.12 Correlation between Monetary and Multidimensional Poverty Headcount, circa 2017



Source: Global Monitoring Database.
Note: The figure shows the relationship between the monetary poverty headcount (horizontal axis) and the multidimensional poverty headcount (vertical axis) for 114 economies. The full list of economies can be found in annex 1D. The red line is the 45-degree line.

The analysis in this section is based on the set of harmonized household surveys compiled in the Global Monitoring Database (GMD) (see annex 1D).[27] The monetary poverty rate in the MPM is not directly comparable to the monetary poverty measures in PovcalNet used elsewhere in the chapter for two primary reasons: first, not all surveys in PovcalNet include the additional indicators required by the MPM, and, second, PovcalNet lines up surveys to a common reference year, whereas the MPM uses the monetary headcount ratio in the survey year.[28]

As with monetary poverty, Sub-Saharan Africa experiences the highest levels of deprivations in multidimensional poverty, with more than half of the population multidimensionally poor (see table 1.1). Although almost 20 percent of the population lives in households in which at least one school-age child is not enrolled in school (table 1.2), this is the dimension under which the lowest share of individuals is deprived in the region, suggesting a possible reduction in multidimensional poverty for future generations.[29]

Although multidimensional poverty is endemic in Sub-Saharan Africa, other regions of the world also show high deprivations in some dimensions. Table 1.2 shows important differences when comparing monetary poverty to deprivations in other dimensions. About a third of those who are multidimensionally deprived are not captured by

TABLE 1.1 Monetary and Multidimensional Poverty Headcount, by Region and the World, circa 2017

Region	Monetary poverty, headcount ratio (%)	Multidimensional poverty, headcount ratio (%)	Number of economies	Population coverage (%)[a]
East Asia and Pacific	4.1	6.2	9	30
Europe and Central Asia	0.3	1.6	25	89
Latin America and the Caribbean	3.4	6.8	16	89
Middle East and North Africa	4.2	6.8	6	58
South Asia	8.1	15.0	5	22
Sub-Saharan Africa	38.5	53.8	31	74
Rest of the world	0.8	1.4	22	69
All regions	**9.1**	**14.0**	**114**	**50[b]**

Source: Global Monitoring Database.
Note: The monetary headcount is based on the international poverty line. Regional and total estimates are population-weighted averages of survey-year estimates for 114 economies and are not comparable to those presented in previous sections. The multidimensional poverty measure headcount indicates the share of the population in each region defined as multidimensionally poor. Number of economies is the number of economies in each region for which information is available in the window between 2014 and 2018, for a circa 2017 reporting year. The coverage rule applied to the estimates is identical to that used in the rest of the chapter and details can be found in annex 1A. Regions without sufficient population coverage are shown in light grey.
a. Data coverage differs across regions. The data cover as much as 89 percent of the population in Latin America and the Caribbean and as little as 22 percent of the population in South Asia. The coverage for South Asia is low because no household survey is available for India between 2014 and 2018. Regional coverage is calculated using the same rules as in the rest of this chapter (see annex 1A). Hence, because of the absence of data on China and India, the regional coverage of South Asia and East Asia and Pacific is insufficient.
b. The table conforms to both coverage criteria for global poverty reporting. The global population coverage is 50 percent and in low-income and lower-middle-income countries it is 51 percent.

TABLE 1.2 Share of Population Deprived in Each Indicator, 114 Economies, circa 2017

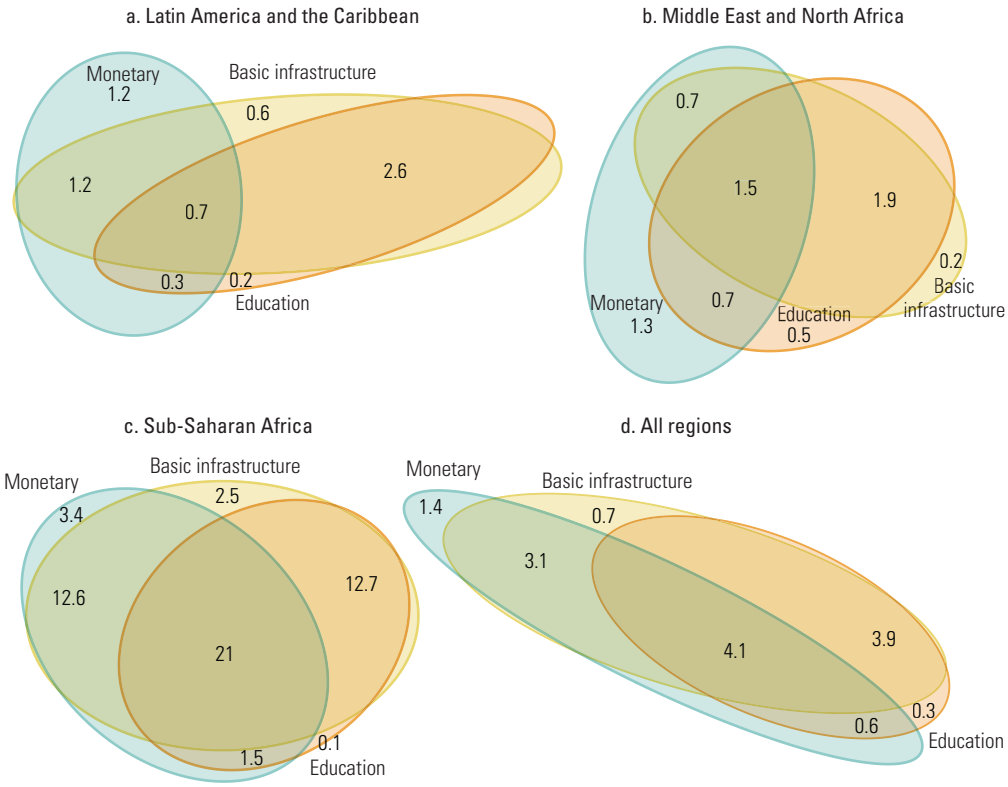
Region	Monetary (%)	Educational attainment (%)	Educational enrollment (%)	Electricity (%)	Sanitation (%)	Drinking water (%)
East Asia and Pacific	4.1	7.0	3.0	4.2	13.6	10.2
Europe and Central Asia	0.3	0.8	2.6	1.6	8.8	3.3
Latin America and the Caribbean	3.4	9.3	2.6	1.7	18.8	3.1
Middle East and North Africa	4.2	9.4	8.1	4.7	7.8	2.9
South Asia	8.1	31.4	6.4	15.2	37.3	5.8
Sub-Saharan Africa	38.5	32.3	19.5	46.2	59.9	29.3
Rest of the world	0.8	0.8	0.0	0.0	0.2	0.2
All regions	**9.1**	**15.4**	**5.9**	**11.7**	**23.6**	**9.0**

Source: Global Monitoring Database.
Note: This table shows the share of population living in households deprived in each indicator of the multidimensional poverty measure. The monetary poverty headcount is based on the international poverty line. Regional and total estimates are population-weighted averages of survey-year estimates for 114 economies and are not comparable to those presented in previous sections. The coverage rule applied to the estimates is identical to that used in the rest of the chapter and details can be found in annex 1A. Regions without sufficient population coverage are shown in light grey.

monetary poverty, in line with the findings of the previous edition of this report (World Bank 2018). The gap is particularly striking between sanitation and monetary poverty in Europe and Central Asia, Latin America and the Caribbean, and the Middle East and North Africa; but it is also large when looking at educational attainment. For example, Latin America and the Caribbean and the Middle East and North Africa show a difference of less than 1 percentage point in their monetary headcount, but larger differences in educational enrollment and sanitation. On the one hand, the share of the population living in households with at least one school-age child not enrolled in school is more than three times higher in the Middle East and North Africa than in Latin America and the Caribbean (likely related to the negative effects of conflict in the Middle East and North Africa). On the other hand, the share of population lacking appropriate sanitation is close to 19 percent in Latin America and the Caribbean, more than twice that of the Middle East and North Africa and of Europe and Central Asia.

There are stark overlaps in the forms of deprivation afflicting households in Sub-Saharan Africa (World Bank 2018). Figure 1.13 shows that 21 percent of the population in Sub-Saharan Africa is deprived in all three dimensions, a figure that equates to about 40 percent of the region's multidimensionally poor.[30] This overlap is lower in other regions; for example, 0.7 percent of the population (that is, only 11 percent of the multidimensionally poor) in Latin America and the Caribbean is deprived in all three dimensions, compared with 1.5 percent of the population (that is, 22 percent of the multidimensionally poor) in the Middle East and North Africa.

FIGURE 1.13 Deprivation in Multiple Dimensions, circa 2017



Source: Global Monitoring Database.
Note: The figure shows the overlap in different dimensions of the multidimensional poverty measure at the household level. It shows the share of households (in percent) deprived in all indicators and in each combination of the monetary, education, and basic infrastructure dimensions. Only Latin America and the Caribbean, the Middle East and North Africa, and Sub-Saharan Africa are shown because these regions have sufficient population coverage.

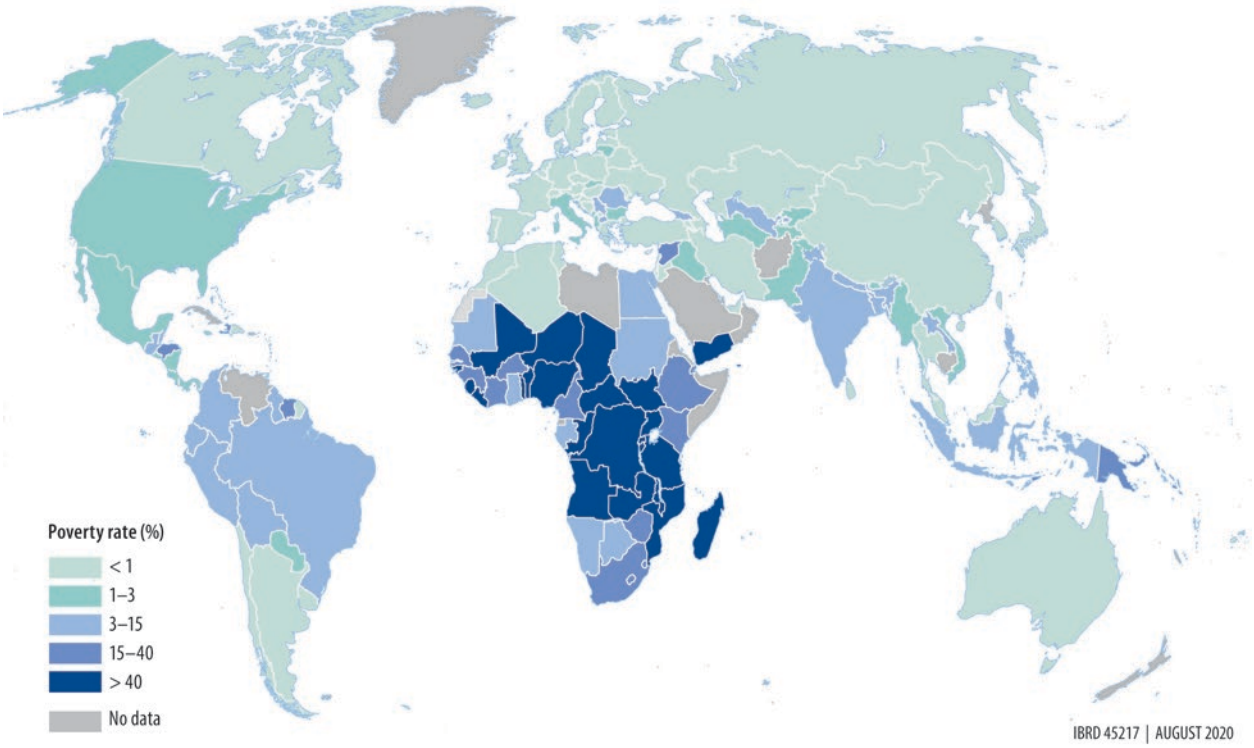
Because of a lack of comparable data over time, changes in the regional and total estimates since 2013 (the reporting year published in World Bank [2018]) cannot be discussed.[31]

A focus on extreme poverty in Sub-Saharan Africa

Whereas global and regional aggregate poverty measures monitor progress toward the 2030 Sustainable Development Goals, policy action needed to eradicate poverty largely happens at the national and subnational levels. Therefore, this section focuses on differences across countries, with an emphasis on Sub-Saharan Africa, the region with the largest concentration of the extreme poor. Chapter 3 takes an additional step, providing an even finer disaggregation of poverty, for example, by place of residence, gender, and age group.

Map 1.1 shows the geographical distribution of poverty rates by economy in 2017. The concentration of high poverty rates in Sub-Saharan Africa recalls the image of a poverty belt extending from Senegal to Ethiopia and from Mali to Madagascar. Of the 44 economies with available poverty estimates in the region, 38 have a rate of extreme poverty higher than 10 percent. Half of the economies have poverty rates higher than 35 percent. These numbers become even more alarming when compared with the levels of extreme poverty in other regions. Of the 20 economies with the largest poverty rates (based on PovacalNet estimates) 18 are in Sub-Saharan Africa, and 2 are in the Middle East and North Africa (Syria and the Republic of Yemen).[32]

MAP 1.1 Poverty Rate at the US$1.90-a-Day Poverty Line, by Economy, 2017



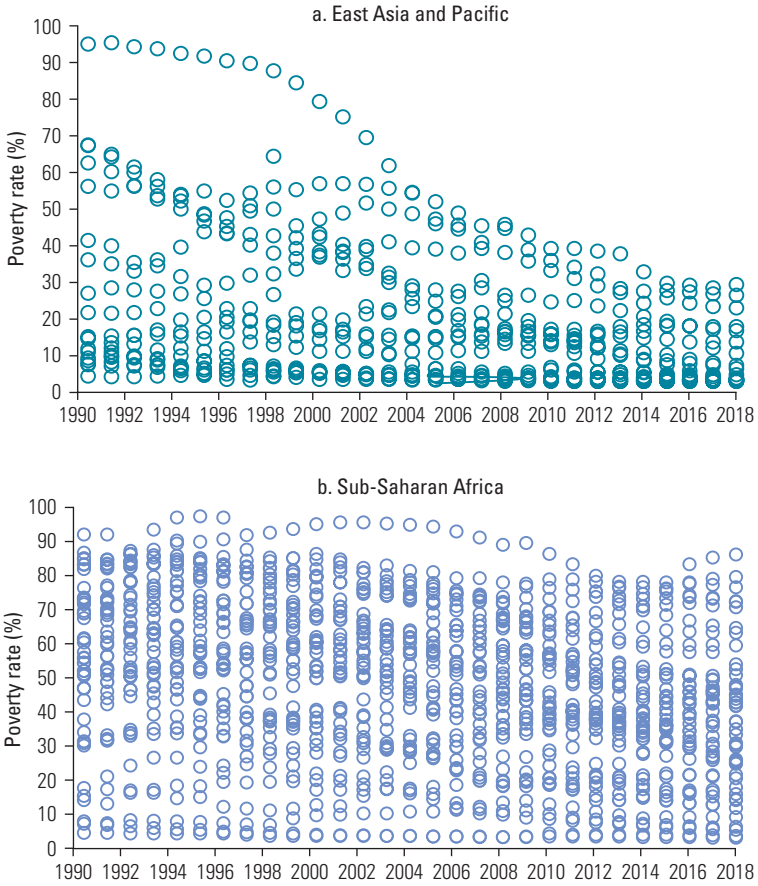
Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: The map shows the lined-up poverty rates (at the international poverty line) for 2017 for economies with available data in PovcalNet. The figure uses the India estimate included in the global headcount (see box 1.2).

Perhaps even more alarming than having 40 percent of the Sub-Saharan African population living in extreme poverty is the stagnation of poverty at such high levels over the past three decades. Figure 1.14 shows the dispersion in extreme poverty rates between 1990 and 2018 in Sub-Saharan Africa and compares this pattern with the distribution in East Asia and Pacific.[33] East Asia and Pacific has seen a remarkable compression in poverty rates over that period. In contrast, the range of poverty rates in Sub-Saharan Africa has barely narrowed between 1990 and 2018, extending from close to 0 to about 80 percent. This does not mean that individual economies have not seen progress in poverty reduction, but rather that the region still has many economies with poverty rates well above the world average. The reasons for the stagnation in these economies are numerous. Fragility and conflict play a crucial role (Corral et al. 2020), as do the degree of policy effectiveness and institutional stability (World Bank 2018).[34] Many of the economies in figure 1.14 have small populations, thus contributing less to global and regional extreme poverty. However, having such large shares of the national population living below the IPL cannot go unremarked.

An examination of country-level information also reveals different local patterns in poverty rates. Of the 32 economies in Sub-Saharan Africa for which the latest two years of survey data are comparable in PovcalNet, 25 show a decrease in poverty, whereas 7 show an increase.[35] Looking at changes that are greater than 1 percentage point per year, 9 economies show a decline, and 4 economies show an increase. For every economy where poverty increased by more than 1 percentage point per year, there were two economies where it declined. This underscores that progress in poverty reduction has been achieved. Ethiopia registered a decrease of 7 percentage points in its extreme poverty rate between 2004/05 and 2015/16, confirming a virtuous trend since the early 2000s. The share of population living below the IPL decreased from 44 percent to 37 percent between 2005 and 2015 in Kenya and from 23 percent to 13 percent between 2009 and 2015 in Namibia. However, because of rapid population growth, the number of poor actually increased in Ethiopia and Kenya during the periods considered. For example, the number of poor in Ethiopia increased by 3 million over this period.

Other economies in Sub-Saharan Africa have been less successful. Angola saw extreme poverty rise by 18 percentage points in the past decade. Extreme poverty increased by 6 percentage points in Uganda between 2012 and 2016. Both examples show a reversal in poverty reduction compared with the previous period. Similarly, remarkable progress in poverty reduction in Tanzania has come to a halt: after an

FIGURE 1.14 Variation in Poverty Rates, East Asia and Pacific versus Sub-Saharan Africa, 1990–2018

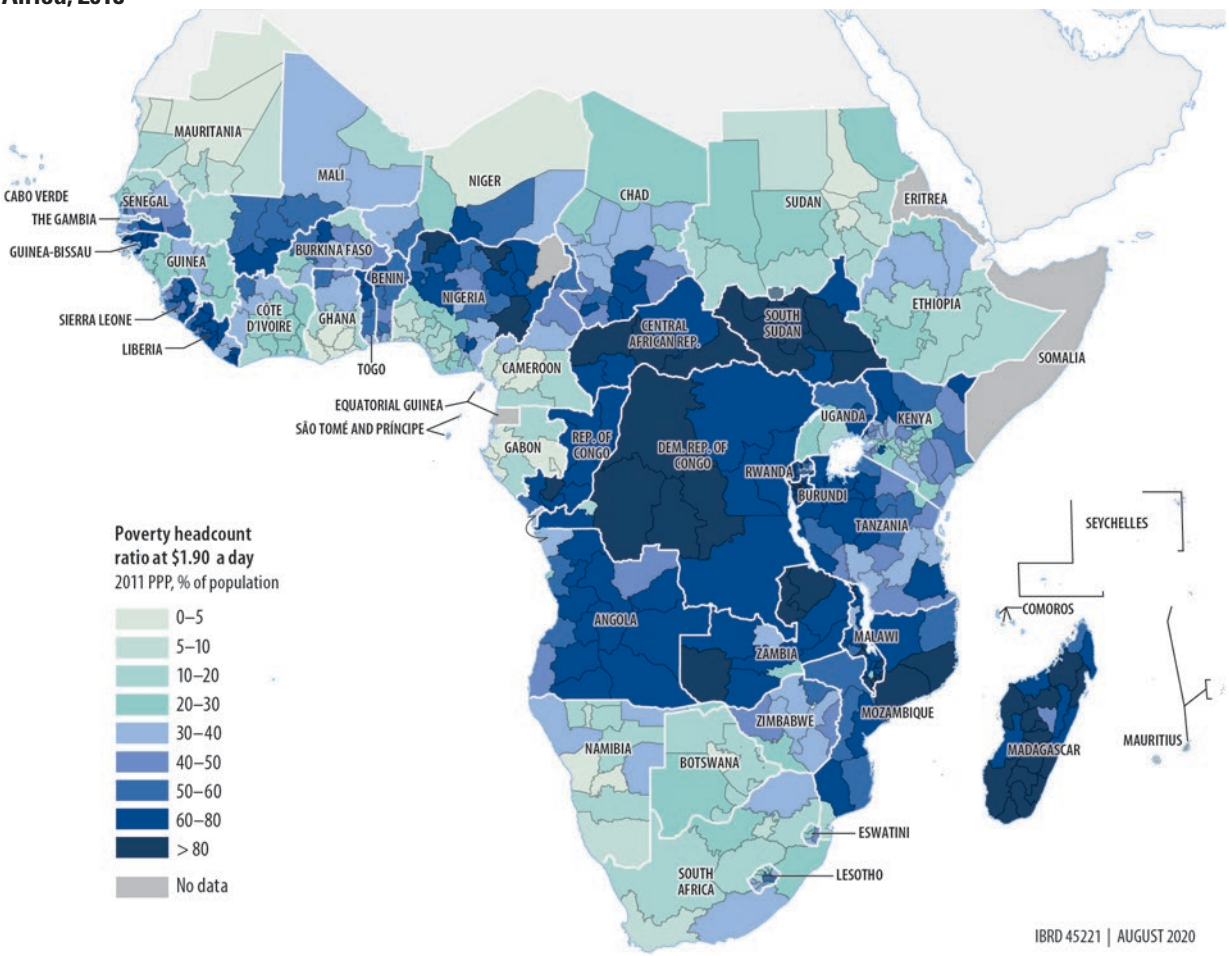


Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: The figure shows the variation in lined-up poverty estimates between 1990 and 2018 for economies in Sub-Saharan Africa and compares it with economies in East Asia and Pacific. Each dot represents the poverty rate estimate for an economy in a lineup year for the two regions. Poverty rates are based on the US$1.90 line.

11-percentage-point drop in poverty between 2007 and 2011, data for 2017 show stagnation at a poverty rate of 49 percent. A similar trend can be observed in Ghana, where poverty rose by 1 percentage point between 2012 and 2016 after having dropped by 12 percentage points between 2005 and 2012. These examples help illuminate the region's limited progress in poverty reduction in recent years.[36]

Map 1.2 provides information on the distribution of extreme poverty at the subnational level in Sub-Saharan Africa. The data show that in some economies, for example, Madagascar and South Sudan, extreme poverty is evenly distributed over the national territory. Other economies, such as Angola and Nigeria, show considerable heterogeneity across subnational areas. In Nigeria, administrative areas in the north and northeast have poverty rates higher than the national average, but poverty rates are lower in areas closer to the coast. In addition, in some places poverty "hot spots" are spread across borders, such as the regions in the Central African Republic bordering the Democratic Republic of Congo and South Sudan.

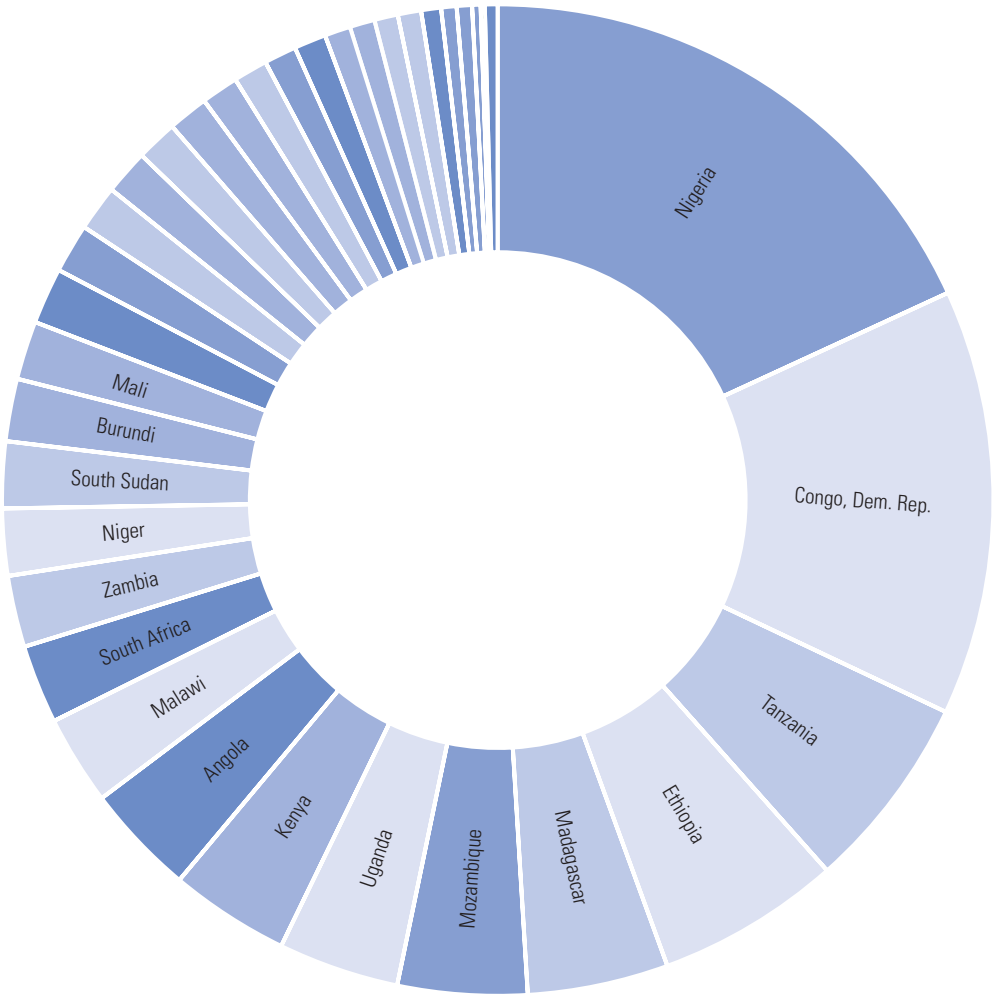
MAP 1.2 Poverty Rate at the US$1.90-a-Day Poverty Line at the Subnational Level, Lined-Up Estimates, Sub-Saharan Africa, 2018



Source: Global Subnational Atlas of Poverty (see annex 3B), based on Global Monitoring Database and PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: The poverty rates are based on the international poverty line of US$1.90 a day and are shown across areas for which the surveys are representative. The map shows lined-up estimates for 2018.

Figure 1.15 returns to the population-weighted perspective by showing the distribution of the extreme poor across African economies. Nigeria has the largest poor population in Sub-Saharan Africa (79 million extreme poor).[37] It accounts for 20 percent of the total poor in the region. Almost half of poor people in Sub-Saharan Africa live in just five economies: Nigeria (79 million), the Democratic Republic of Congo (60 million), Tanzania (28 million), Ethiopia (26 million), and Madagascar (20 million).

FIGURE 1.15 Distribution of Extreme Poor, by Economy, Sub-Saharan Africa, 2018



Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: The estimates are based on the international poverty line of US$1.90 a day. The figure shows the distribution of the number of poor across economies in Sub-Saharan Africa. The poverty estimates are for the 2018 lineup year and include an estimate of the number of poor for economies with missing data in PovcalNet (calculated using the regional population-weighted average of the poverty rate following the aggregation methodology explained in annex 1A) to reflect the regional total.

Annex 1A

PovcalNet data and methodology for measuring extreme poverty

Data source

Most of the data for this chapter come from PovcalNet, the online analysis tool for global poverty monitoring produced by the World Bank (Chen and Ravallion 2010; Ferreira et al. 2016; World Bank 2015a). PovcalNet was developed to enable public replication of the World Bank's poverty measures for the IPL. It contains poverty estimates from more than 1,600 household surveys spanning 166 economies.[38] In recent years, most of the surveys in PovcalNet have been taken from the Global Monitoring Database, the World Bank's repository of household surveys. For general documentation on PovcalNet, see the website and the Global Poverty Monitoring Technical Notes published there.[39]

The surveys report welfare aggregates in local currency, which are adjusted for price differences within countries over time using the local consumer price index (CPI) (Lakner et al. 2019) and for price differences across countries using purchasing power parities (PPPs). Throughout this chapter, the revised 2011 PPPs, which were published in May 2020, are used. As explained by Atamanov et al. (2020) and Castaneda et al. (2020), the impact of the PPP revisions on global and regional poverty estimates is minor.

Data availability: Progress and setbacks in monitoring global poverty

Table 1A.1 compares population coverage of the poverty estimates for 2013 with those for 2017. It is important to note that population coverage for 2013 is calculated using the data

TABLE 1A.1 Data Coverage, by Region and Income Group, 2013 and 2017

	Reference year 2013		Reference year 2017	
Region	**Number of economies**	**Share of population covered (%)**	**Number of economies**	**Share of population covered (%)**
East Asia and Pacific	11	94	10	97
Europe and Central Asia	26	90	26	90
Latin America and the Caribbean	18	91	18	90
Middle East and North Africa	3	25	6	58
South Asia	6	98	5	22
Sub-Saharan Africa	26	55	33	79
Rest of the world	23	75	26	78
Total	**113**	**83**	**124**	**71**
Low- and lower-middle-income countries	52	79	55	52
Fragile and conflict-affected economies	15	40	14	43

Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: The columns for reference year 2013 refer to the data available when reference year 2013 was first reported (World Bank 2016; PovcalNet vintage published in October 2016). For each reference year, coverage is calculated using economies with survey data within a three-year window either side of a reference year. Economies are assigned the classifications low-income or lower-middle-income countries, or fragile and conflict-affected economies.

that were available when the reference year 2013 was first reported (World Bank [2016] using the PovcalNet vintage published in October 2016). This calculation differs from today's population coverage for reference year 2013 because new survey data have been received since then.[40]

The total number of economies with recent survey data increased by about 10 percent between 2013 and 2017, from 113 to 124. The developments in Sub-Saharan Africa, which is a focus of the World Bank's efforts to improve data coverage in poorer economies, are particularly encouraging.[41] The region added data for seven economies and increased the population coverage by more than 20 percentage points, driven largely by new data for Nigeria, the most populous country in the region.[42] Improvements in data availability are also seen in the Middle East and North Africa, namely for the Arab Republic of Egypt, West Bank and Gaza, and the Republic of Yemen, increasing population coverage in the region to 58 percent from 25 percent. The population coverage of fragile and conflict-affected economies has improved slightly but remains at less than half.

In contrast to these positive developments, the population coverage for South Asia has fallen dramatically, from 98 percent to 22 percent between 2013 and 2017. This drop in coverage reflects the absence of recent survey data for India, which also drives the decline in population coverage for low- and lower-middle-income countries (dropping to 52 percent from 79 percent) and for the world (decreasing to 71 percent from 83 percent), despite an increase in the number of countries with surveys.[43] These estimates illustrate how the ability to monitor global poverty depends on the availability of data for populous countries, especially countries with large populations of extreme poor, and how India and Nigeria show opposite developments in the availability of data.[44]

Population coverage for the MPM in 2017 reported in the main text (see table 1.1) is worse than the population coverage reported in table 1A.1. Only a monetary welfare aggregate (consumption or income) is required to measure monetary poverty, but the estimation of the MPM requires additional indicators that capture nonmonetary deprivations.[45]

Welfare aggregates

Household surveys measure either consumption or income. In the current 2017 global estimate, about 60 percent of economies use consumption, with the rest using income. The differences between income and consumption matter for comparing trends and levels of poverty. For example, because most poverty estimates for Latin America and the Caribbean use income as a measure of welfare, it is difficult to compare the trend in poverty rates with the trend in other regions that use consumption, such as East Asia and Pacific. This difference is relevant, given that in recent years East Asia and Pacific shows lower poverty rates than Latin America and the Caribbean (see figure 1.3) pointing to stagnation in poverty reduction in Latin America and the Caribbean. Economies typically choose the concept that can be more accurately measured and that is more relevant to the country context, while balancing concerns about respondent burden. On the one hand, consumption measures of poverty require a wide range of questions and are thus more time-consuming. Income measures, on the other hand, are difficult to obtain when a large fraction of the population works in the informal sector or is self-employed, which is frequently the case in poorer economies, which therefore often opt to use consumption. Also, when households produce their own food with limited market interactions, it is harder to measure income than consumption. It should be noted that, because PovcalNet focuses on extreme poverty, it chooses consumption over income when both welfare measures are available.

Both approaches to measuring poverty have advantages and disadvantages. The consumption approach is arguably more directly connected to economic welfare. Income measures of poverty also suffer from the disadvantage that incomes might be very low—even negative—in a given period, whereas consumption is smoothed to safeguard against such shocks.[46] Consumption-based measures of

poverty, conversely, are often more time intensive and require detailed price data and often post-fieldwork adjustments. Also, the design of consumption questionnaires varies widely and, as shown by numerous experiments, can have significant effects on final poverty estimates (Beegle et al. 2012; Deaton 2001; Jolliffe 2001). Income measures often rely on no more than a handful of questions and can, at times, be verified from other sources.

Moreover, given that incomes can be very low or negative, poverty rates are typically higher when income is used rather than consumption. For a given poverty rate, poor households also tend to be further below the poverty line when income is used, as explained by the earlier point about very low incomes: although it is plausible for households to have zero income in a given period, subsistence requires a minimum level of consumption, which is strictly above zero (World Bank 2018). Moreover, because richer households tend to save larger shares of their income, inequality measures based on consumption tend to result in lower levels of inequality (Lakner et al. 2016; World Bank 2016).

The differences also matter for nowcasting and making poverty projections for the future. Such projections are typically made by assuming a fixed growth rate of household consumption or income over time. Households with zero income will never be projected to move out of poverty regardless of how large the growth rates are assumed to be (World Bank 2018).

To express the national welfare aggregates in comparable units, CPIs and PPPs are applied (Atamanov et al. 2018; Lakner et al. 2019). National CPIs are used to deflate the welfare aggregate to the PPP reference year (currently 2011). Therefore, all within-country comparisons over time depend only on national CPIs. PPPs are then used to adjust for cross-country price differences (see the detailed discussion below). In addition, PovcalNet uses rural and urban PPPs for China, India, and Indonesia to take into account the urban bias in the International Comparison Program (ICP) price data collection (Castaneda et al. 2020; Chen and Ravallion 2010; Ferreira et al. 2016; World Bank 2018).

Comparisons of country trends should also account for whether household surveys remain comparable over time. Since September 2019, PovcalNet has published a comparability data set tracking this information over time for each economy with available survey data (Atamanov et al. 2019). Comparability depends on various characteristics such as the sampling process, questionnaire, methodological changes in the construction of welfare aggregates, consistent price deflation over time and space, and so on. The full data set can be found online.[47]

Finally, global poverty estimates use data on household consumption or income per capita to measure poverty, and the IPL is expressed in per capita terms. This means that the welfare measures do not reflect differences in the distribution of income or consumption within the household and do not account for economies of scale in larger households. This approach is subject to criticism because important differences in intrahousehold allocation matter for monitoring drivers of poverty by gender, age, or economic activity. These issues are discussed in detail in chapter 5 of World Bank (2018).

Revised 2011 Purchasing Power Parities

Purchasing power parities (PPPs) are used in global poverty estimates. PPPs are price indexes that measure how much it costs to purchase a basket of goods and services in one country relative to purchasing the same basket in a reference country. They express how much of a country's currency can be exchanged for one unit of the currency of a reference country, typically the United States, in real terms. Market exchange rates do not take account of nontradable services, which are often cheaper in developing countries where factors of production (for example, labor) are not as expensive as in rich countries (the Balassa-Samuelson effect).

All the poverty estimates included in this chapter adjust for differences in relative price levels across countries using the revised 2011 PPPs released by the ICP in May 2020.[48] The original 2011 PPPs were revised mainly in light of the rebasing of national accounts data in several countries. The underlying price data remain unchanged. Because the PPPs are multilateral price indexes, revisions to national accounts weights in one or a few countries translate into changes in PPP estimates for all countries.

The revision of the 2011 PPPs has a relatively small effect on global poverty estimates. The global poverty numbers change slightly when the global income or consumption distribution is updated with the revised 2011 PPPs. The global poverty headcount ratio increases by 0.24 percentage point (equivalent to 17.7 million more poor people) in 2017. Compared with the adoption of the 2005 PPPs, which increased global poverty by 400 million people, this change in poverty is quite small (Chen and Ravallion 2010). Historically, ICP rounds have reflected not only new price information but also changes in ICP methodologies (for example, the change from 2005 to 2011 PPPs). With this concern in mind, the Atkinson Commission on Global Poverty (World Bank 2017a) has recommended against adopting future ICP rounds. Thus, the 2017 PPPs, which were published together with the revised 2011 PPPs, are not currently used for global poverty measurement and will require more analysis. However, it is necessary to adopt the revised 2011 PPPs because they incorporate new information from national accounts. This approach is similar to how PovcalNet periodically revises its other input data, such as CPI, GDP, or population estimates, to reflect the most accurate information.

PPPs are also used in the derivation of the global poverty lines. When updated with the revised 2011 PPPs, the IPL becomes US$1.87, which still rounds to US$1.90 per person per day (Atamanov et al. 2020). The higher lines—US$3.20 and US$5.50 per person per day—are derived as the median implicit national poverty lines corresponding to lower-middle-income countries and upper-middle-income countries, respectively (Jolliffe and Prydz 2016). When updated with the revised 2011 PPPs, the US$3.20 line also remains unchanged, but the US$5.50 line increases by approximately US$0.15 (Atamanov et al. 2020). Over time the World Bank's global poverty lines have been widely used in the development community, such that they could be considered to be parameters in estimating global poverty, and there is a cost to revising them frequently. Although changes in PPPs could result in a different estimate, it is important to recognize that the poverty line is a parameter chosen, using a reasonable method, to monitor progress in different parts of the global distribution of income or consumption. To this end, the World Bank has decided to keep all global poverty lines unchanged.

More details on how the revised 2011 PPPs affect the measurement of global poverty can be found in Atamanov et al. (2020) and Castaneda et al. (2020).

Derivation of regional and global estimates

Because the frequency and timing of household surveys vary across economies, regional estimates that cover as many economies as possible require projecting the survey data to the reference year for which global poverty is expressed, in this report 2017 for the global estimates. When the timing of surveys does not align with the reference year, PovcalNet "lines up" the survey estimates to the reference year using growth in national accounts consumption or GDP and assuming no changes in the distribution (Prydz et al. 2019; World Bank 2018). Thus, a lined-up estimate is available in every year for which national accounts data are available (see Castaneda et al. [2020] for updated information on national accounts data sources).

To arrive at regional and global estimates of poverty, population-weighted average poverty rates are calculated for each region. Some economies have no household survey

data that can be used to monitor poverty (or they lack the national accounts data for a particular reference year). For the regional and global aggregations, these economies are assigned the population-weighted average for the region based on the economies with data available. Population data are taken from the World Bank's World Development Indicators.[49] Regions are defined using the PovcalNet classification, which differs from the regional classifications typically used by the World Bank. Some economies, mostly high-income economies, are excluded from the geographical regions and are included as a separate group (referred to as other high-income, industrialized economies, or rest of the world in earlier publications). The list of economies included in each region can be found on the PovcalNet website.[50]

Coverage rule

In September 2020, PovcalNet began reporting annual lined-up global and regional poverty numbers. Before then, poverty estimates were reported at varying intervals and for the following years: 1981, 1984, 1987, 1990, 1993, 1996, 1999, 2002, 2005, 2008, 2010–13, and 2015. This change in reporting annual numbers is documented by Castaneda et al. (2020). Together with introducing annual lined-up estimates, the coverage rule used to report regional and global numbers has also been slightly revised (with very limited impacts on reporting, as discussed by Castaneda et al. 2020). This rule is used to determine whether a particular lineup year has sufficient population coverage to allow the estimation of regional and global poverty aggregates to be made. It is important to highlight that this change does not affect how these aggregates are estimated; it affects only whether an estimate is displayed. As noted previously, an estimate is always calculated provided that survey and national accounts data are available.

The coverage rule now includes data for survey years within three years either side of a lineup year. This change makes the rule slightly more lenient but represents a small change compared with the old rule.[51] The second change increases the threshold of population coverage at the regional level from 40 percent to 50 percent of the population. For regions in which the surveys within three years either side of the lineup year account for less than half of the regional population, the regional poverty estimate is not reported. This is a stricter parameter compared with the previous version of the coverage rule, and it balances the previous requirement. The third additional requirement addresses the goal of focusing the measurement of global poverty on economies where most of the poor live. Specifically, it tries to avoid a situation in which the global population threshold is met by having recent data in the high-income countries, East Asia and Pacific, and Latin America and the Caribbean, which together account for a very small share of the global extreme poor. Under this requirement, global poverty estimates are reported only if data are representative of at least 50 percent of the population in low-income and lower-middle-income countries, because most of the poor live in these groups of countries. This requirement is applied only to the global poverty estimate, not at the regional level. The World Bank classification of economies according to income groups in the lineup year is used.[52]

Using these new rules, the global extreme poverty rate stops in 2017, even though information is available up to 2018 for individual regions—except for South Asia where the regional estimate is reported only through 2014. Reporting the most recent regional estimates for which the coverage rule is satisfied is an attempt to provide the most up-to-date poverty estimates and recognizes the immense effort by countries to collect timely household survey data with which to monitor global poverty.

TABLE 1A.2 Global and Regional Extreme Poverty

a. Global poverty rate at the US$1.90-a-day poverty line, 1990–2017

Year	Poverty rate (%)	Poverty gap (%)	Squared poverty gap (%)	Number of poor (millions)	Global population (millions)
1990	36.2	12.8	6.2	1,912.4	5,280.1
1993	34.3	12.1	5.8	1,897.9	5,537.5
1996	29.7	9.9	4.7	1,718.9	5,789.6
1999	28.9	9.6	4.6	1,741.3	6,034.5
2002	25.7	8.4	3.9	1,613.9	6,272.7
2005	20.9	6.4	2.9	1,362.9	6,511.7
2008	18.4	5.5	2.5	1,243.1	6,756.9
2011	13.8	4.1	1.9	969.1	7,002.9
2014	10.7	3.2	1.5	773.8	7,254.2
2015	10.1	3.1	1.4	741.4	7,339.0
2016	9.7	3.0	1.4	716.9	7,424.3
2017	9.2	2.9	1.4	689.1	7,509.1

b. Poverty rates (%) at the US$1.90-a-day poverty line, by region, 1990–2018

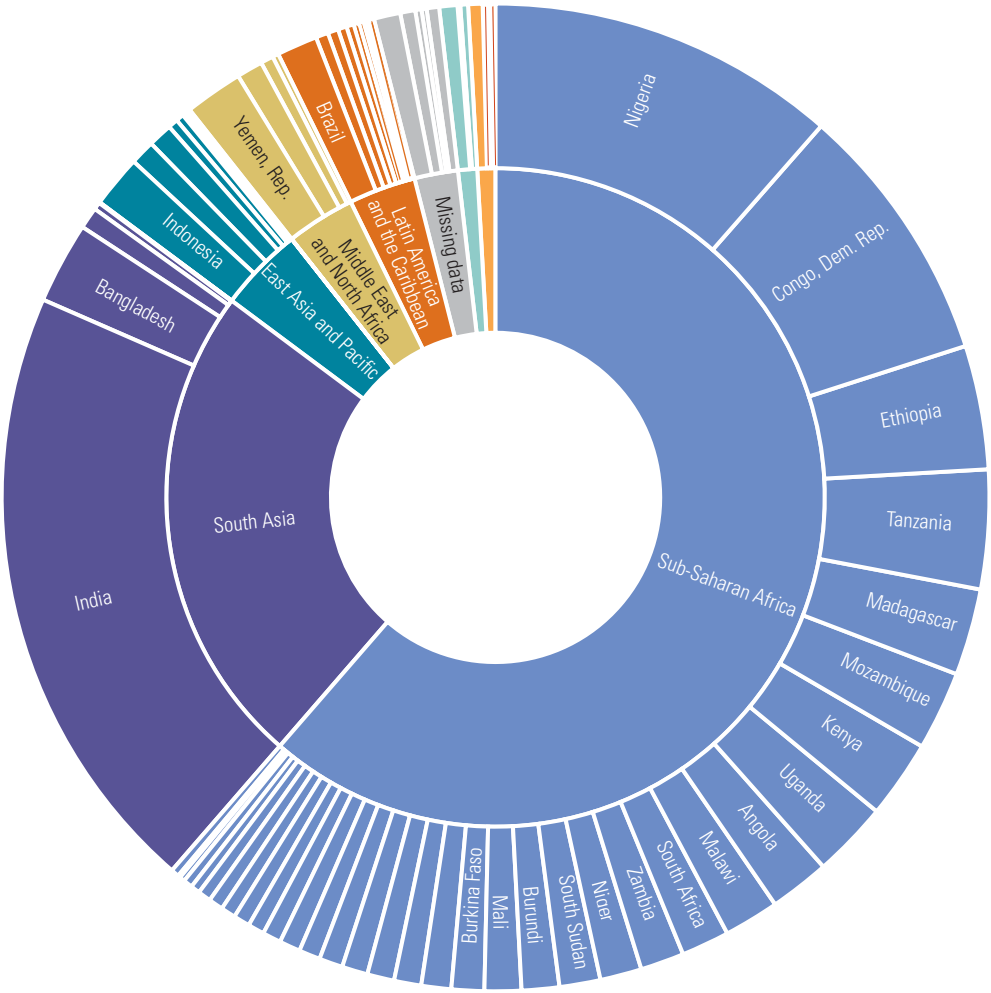
	1990	1993	1996	1999	2002	2005	2008	2011	2014	2015	2016	2017	2018
East Asia and Pacific	60.9	53.2	40.4	37.9	29.1	18.3	14.8	8.1	2.6	2.1	1.7	1.4	1.2
Europe and Central Asia	3.1	5.2	7.0	7.7	5.7	4.7	2.7	2.0	1.8	1.5	1.3	1.3	1.1
Latin America and the Caribbean	15.2	14.2	13.9	13.7	12.1	10.0	7.0	5.7	4.1	3.8	3.9	3.9	3.8
Middle East and North Africa	6.6	7.1	6.3	4.0	3.4	3.2	2.8	2.3	2.7	3.8	5.1	6.3	7.2
South Asia	48.7	46.2	41.6	–	39.8	34.9	30.6	20.9	15.2	–	–	–[a]	–
Sub-Saharan Africa	55.7	60.6	59.8	59.4	56.4	52.0	49.0	45.3	42.1	41.8	41.7	41.0	40.2
Rest of the world	0.4	0.5	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.6	0.6	0.6

c. Number of poor (millions) at the US$1.90-a-day poverty line, by region, 1990–2018

	1990	1993	1996	1999	2002	2005	2008	2011	2014	2015	2016	2017	2018
East Asia and Pacific	976.9	891.5	702.1	681.8	538.4	346.2	285.9	159.7	53.3	42.2	35.3	29.3	24.5
Europe and Central Asia	14.4	24.5	33.0	36.2	26.7	22.1	12.9	9.7	8.7	7.3	6.2	6.5	5.6
Latin America and the Caribbean	66.3	65.6	67.6	69.8	64.4	55.3	39.9	33.7	25.2	23.6	24.5	24.4	24.2
Middle East and North Africa	15.0	17.4	16.6	10.9	10.0	9.7	9.0	8.0	9.8	13.8	19.1	24.0	28.0
South Asia	551.9	559.3	536.0	–	574.0	529.8	486.6	347.9	262.4	–	–	–[a]	–
Sub-Saharan Africa	283.8	335.0	358.4	384.8	395.1	394.4	403.4	404.2	407.9	416.4	426.8	430.8	433.4
Rest of the world	4.1	4.6	5.2	4.9	5.1	5.5	5.5	6.0	6.5	7.1	6.9	6.5	6.5

Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: Panel a shows the global poverty numbers for selected lineup years. The poverty rate refers to the percentage of the population living on less than the international poverty line (IPL) of US$1.90 a day. The poverty gap is the average consumption shortfall of the population where the nonpoor have no shortfall. Number of poor is the number of people living below the IPL calculated using the poverty rate and population data from the World Bank World Development Indicators. Population is the global total population in each year. Panels b and c show the regional lined-up poverty estimates at the IPL for selected years between 1990 and 2018. The regional coverage rule is applied, and poverty estimates for South Asia are not reported for the period 1997–2001 and after 2014 because of a lack of population coverage. See PovcalNet for a full series of yearly lined-up estimates. – = not available.
a. See box 1.2 for an estimate of poverty in South Asia in 2017.

FIGURE 1A.1 Global Distribution at the US$1.90-a-Day Poverty Line, by Region and Economy, 2017



Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: For each economy, the number of poor is calculated using the lined-up poverty estimate and the population in 2017. The figure uses the India estimate that is included in the global poverty headcount (see box 1.2). The estimate for the number of poor in economies with no available data in PovcalNet is included under the missing data category. For these economies, the number of poor is calculated using the regional (population-weighted) poverty headcount ratio. More details can be found in the "Derivation of regional and global estimates" section of this annex.

TABLE 1A.3 Poverty Rate at the US$1.90-a-Day Poverty Line, by Economy, Most Recent Survey Year

Economy	Survey year	Number of poor (millions)	Poverty rate (%)	Poverty gap (%)	Ratio of poverty gap to poverty rate (%)[a]
Albania	2017	0.0	1.3	0.2	15.3
Algeria	2011.2	0.2	0.4	0.2	33.6
Angola	2018.2	15.9	51.8	23.9	46.1
Argentina	2018	0.5	1.3	0.5	34.9
Armenia	2018	0.0	1.4	0.2	16.7
Australia	2014	0.1	0.5	0.4	74.9
Austria	2017	0.0	0.3	0.2	74.9
Azerbaijan	2005	0.0	0.0	0.0	

(continued)

TABLE 1A.3 Poverty Rate at the US$1.90-a-Day Poverty Line, by Economy, Most Recent Survey Year *(continued)*

Economy	Survey year	Number of poor (millions)	Poverty rate (%)	Poverty gap (%)	Ratio of poverty gap to poverty rate (%)[a]
Bangladesh	2016	22.9	14.5	2.7	18.3
Belarus	2018	0.0	0.0	0.0	
Belgium	2017	0.0	0.1	0.1	80.0
Belize	1999	0.0	13.9	6.0	43.3
Benin	2015	5.2	49.6	22.4	45.2
Bhutan	2017	0.0	1.5	0.2	15.9
Bolivia	2018	0.5	4.5	1.7	37.7
Bosnia and Herzegovina	2011	0.0	0.1	0.0	34.4
Botswana	2015.8	0.3	14.5	3.9	26.8
Brazil	2018	9.3	4.4	1.6	37.1
Bulgaria	2017	0.1	1.4	0.4	32.7
Burkina Faso	2014	7.7	43.8	11.2	25.5
Burundi	2013.5	7.2	72.8	31.1	42.7
Cabo Verde	2015	0.0	3.4	0.7	21.3
Cameroon	2014	5.9	26.0	8.4	32.5
Canada	2017	0.1	0.2	0.1	34.3
Central African Republic	2008	2.8	65.9	32.8	49.8
Chad	2011	4.7	38.1	15.2	39.9
Chile	2017	0.1	0.3	0.2	57.3
China (rural)	2016	5.9	1.0	0.2	20.2
China (urban)	2016	1.3	0.2	0.0	28.8
China (national)	2016	7.2	0.5	0.1	21.8
Colombia	2018	2.1	4.2	1.7	40.2
Comoros	2014	0.1	19.1	6.8	35.6
Congo, Dem. Rep.	2012.4	53.3	77.2	39.3	50.9
Congo, Rep.	2011	1.7	38.2	15.4	40.3
Costa Rica	2018	0.1	1.5	0.6	38.6
Côte d'Ivoire	2015	6.9	29.8	9.8	32.7
Croatia	2017	0.0	0.5	0.3	60.8
Cyprus	2017	0.0	0.0	0.0	35.3
Czech Republic	2017	0.0	0.0	0.0	
Denmark	2017	0.0	0.1	0.1	62.6
Djibouti	2017	0.2	17.0	5.6	33.0
Dominican Republic	2018	0.0	0.4	0.1	33.8
Ecuador	2018	0.6	3.3	1.0	30.5
Egypt, Arab Rep.	2017.8	3.7	3.8	0.6	16.9
El Salvador	2018	0.1	1.5	0.3	22.2
Estonia	2017	0.0	0.3	0.2	65.0
Eswatini	2016.2	0.3	29.2	9.8	33.5
Ethiopia	2015.5	33.8	32.6	9.4	28.9
Fiji	2013.2	0.0	0.5	0.1	16.3
Finland	2017	0.0	0.1	0.1	94.1
France	2017	0.0	0.0	0.0	39.2
Gabon	2017	0.1	3.4	0.8	24.8
Gambia, The	2015.3	0.2	10.3	2.3	22.0
Georgia	2018	0.2	4.5	1.2	26.9
Germany	2016	0.0	0.0	0.0	
Ghana	2016.8	3.8	13.0	4.6	35.5
Greece	2017	0.1	0.9	0.4	48.7
Guatemala	2014	1.3	8.8	2.6	29.1

(continued)

TABLE 1A.3 Poverty Rate at the US$1.90-a-Day Poverty Line, by Economy, Most Recent Survey Year *(continued)*

Economy	Survey year	Number of poor (millions)	Poverty rate (%)	Poverty gap (%)	Ratio of poverty gap to poverty rate (%)[a]
Guinea	2012	3.8	36.1	10.6	29.4
Guinea-Bissau	2010	1.0	68.4	32.0	46.8
Guyana	1998	0.1	11.7	4.0	34.3
Haiti	2012	2.5	24.5	8.0	32.5
Honduras	2018	1.6	16.9	6.8	40.3
Hungary	2017	0.1	0.6	0.3	58.5
Iceland	2015	0.0	0.0	0.0	13.1
India (rural)	2011.5	227.4	26.3	5.4	20.6
India (urban)	2011.5	56.9	14.2	2.9	20.4
India (national)	2011.5	284.6	22.5	4.6	20.6
Indonesia (rural)	2018	4.6	3.9	0.5	13.0
Indonesia (urban)	2018	5.1	3.4	0.5	14.1
Indonesia (national)	2018	9.7	3.6	0.5	13.6
Iran, Islamic Rep.	2017	0.3	0.3	0.1	16.0
Iraq	2012	0.5	1.7	0.3	15.4
Ireland	2016	0.0	0.1	0.1	66.9
Israel	2016	0.0	0.2	0.0	18.6
Italy	2017	0.9	1.4	1.1	78.5
Jamaica	2004	0.0	1.7	0.4	22.2
Japan	2013	0.9	0.7	0.2	22.6
Jordan	2010.2	0.0	0.1	0.0	25.1
Kazakhstan	2017	0.0	0.0	0.0	28.4
Kenya	2015.7	18.2	37.1	11.7	31.6
Kiribati	2006	0.0	12.9	3.3	25.6
Korea, Rep.	2012	0.1	0.2	0.1	45.1
Kosovo	2017	0.0	0.4	0.2	35.7
Kyrgyz Republic	2018	0.0	0.6	0.1	15.5
Lao PDR	2012.3	1.4	21.2	4.9	22.9
Latvia	2017	0.0	0.8	0.3	42.7
Lebanon	2011.8	0.0	0.0	0.0	
Lesotho	2017.1	0.6	27.8	9.6	34.6
Liberia	2016	2.0	44.4	14.5	32.6
Lithuania	2017	0.0	1.0	0.8	79.5
Luxembourg	2017	0.0	0.3	0.2	56.2
Madagascar	2012	17.3	77.4	38.7	50.0
Malawi	2016.3	12.2	70.8	29.8	42.1
Malaysia	2015.3	0.0	0.0	0.0	13.5
Maldives	2016	0.0	0.0	0.0	
Mali	2009.9	7.6	50.3	15.8	31.4
Malta	2017	0.0	0.2	0.1	55.7
Mauritania	2014	0.2	6.0	1.4	23.8
Mauritius	2017	0.0	0.2	0.0	12.2
Mexico	2018	2.2	1.7	0.5	28.1
Micronesia, Fed. Sts.	2013	0.0	15.4	5.5	36.1
Moldova	2018	0.0	0.0	0.0	5.2
Mongolia	2018	0.0	0.5	0.1	11.7
Montenegro	2015	0.0	1.4	0.3	18.3
Morocco	2013.5	0.3	0.9	0.2	17.9
Mozambique	2014.4	16.7	63.7	28.6	44.9
Myanmar	2017	0.7	1.4	0.2	15.3
Namibia	2015.3	0.3	13.8	4.8	34.7

(continued)

TABLE 1A.3 Poverty Rate at the US$1.90-a-Day Poverty Line, by Economy, Most Recent Survey Year *(continued)*

Economy	Survey year	Number of poor (millions)	Poverty rate (%)	Poverty gap (%)	Ratio of poverty gap to poverty rate (%)[a]
Nepal	2010.2	4.0	15.0	3.0	20.3
Netherlands	2017	0.0	0.2	0.1	36.8
Nicaragua	2014	0.2	3.4	0.8	22.2
Niger	2014	8.7	45.4	13.7	30.2
Nigeria	2018.8	78.5	39.1	12.5	31.9
North Macedonia	2017	0.1	4.6	1.9	40.6
Norway	2017	0.0	0.3	0.2	71.0
Pakistan	2015.5	8.1	4.0	0.5	12.8
Panama	2018	0.1	1.7	0.5	30.3
Papua New Guinea	2009.7	2.8	38.0	14.8	38.9
Paraguay	2018	0.1	1.4	0.3	24.8
Peru	2018	0.9	2.7	0.7	25.5
Philippines	2015	7.8	7.6	1.4	18.5
Poland	2017	0.1	0.3	0.2	54.7
Portugal	2017	0.0	0.4	0.2	50.9
Romania	2017	0.6	3.1	1.2	39.4
Russian Federation	2018	0.0	0.0	0.0	16.4
Rwanda	2016.8	6.8	56.5	20.9	36.9
Samoa	2013.3	0.0	1.1	0.1	12.4
São Tomé and Príncipe	2017	0.1	35.6	13.1	36.7
Senegal	2011.3	5.0	38.5	13.1	34.0
Serbia	2018	0.0	0.0	0.0	10.6
Seychelles	2013	0.0	1.2	0.5	39.8
Sierra Leone	2018	3.3	43.0	11.7	27.2
Slovak Republic	2016	0.1	1.3	1.2	86.4
Slovenia	2017	0.0	0.0	0.0	
Solomon Islands	2013	0.1	25.1	6.8	27.2
South Africa	2014.8	10.4	18.7	6.1	32.7
South Sudan	2009	4.1	44.7	20.1	45.1
Spain	2017	0.3	0.7	0.5	79.4
Sri Lanka	2016	0.2	0.9	0.1	11.6
St. Lucia	2016	0.0	4.6	2.6	56.9
Sudan	2014	4.6	12.2	2.8	22.9
Suriname	1999	0.1	23.4	16.6	71.0
Sweden	2017	0.0	0.2	0.1	54.8
Switzerland	2017	0.0	0.0	0.0	
Syrian Arab Republic	2004	0.3	1.7	0.2	14.5
Taiwan, China	2016	0.0	0.0	0.0	
Tajikistan	2015	0.3	4.1	0.9	21.0
Tanzania	2017.9	27.8	49.4	15.9	32.1
Thailand	2018	0.0	0.0	0.0	14.8
Timor-Leste	2014	0.3	22.0	4.4	20.2
Togo	2015	3.7	51.1	20.7	40.5
Tonga	2015	0.0	1.0	0.2	18.9
Trinidad and Tobago	1992	0.0	3.2	0.8	25.2
Tunisia	2015.4	0.0	0.2	0.0	13.1
Turkey	2018	0.0	0.0	0.0	20.7
Turkmenistan	1998	2.2	49.0	18.0	36.8

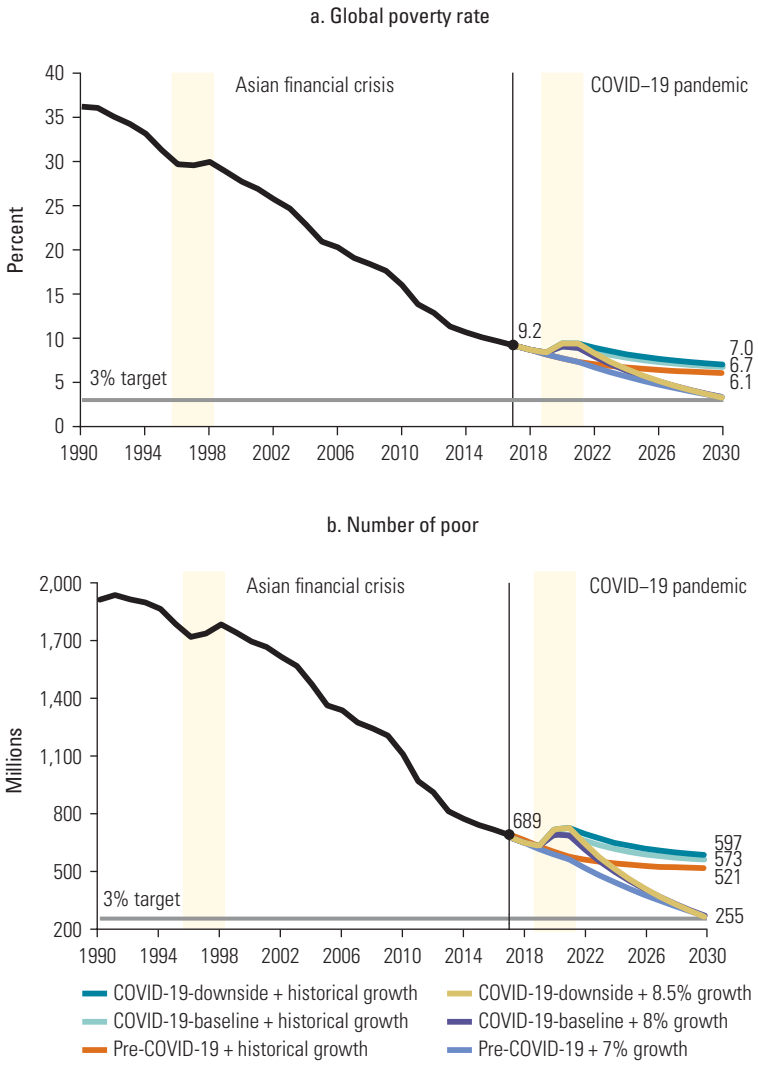
(continued)

TABLE 1A.3 Poverty Rate at the US$1.90-a-Day Poverty Line, by Economy, Most Recent Survey Year *(continued)*

Economy	Survey year	Number of poor (millions)	Poverty rate (%)	Poverty gap (%)	Ratio of poverty gap to poverty rate (%)[a]
Tuvalu	2010	0.0	3.3	0.4	12.2
Uganda	2016.5	16.5	41.5	13.1	31.6
Ukraine	2018	0.0	0.0	0.0	16.6
United Arab Emirates	2014.4	0.0	0.0	0.0	
United Kingdom	2016	0.1	0.2	0.1	68.9
United States	2016	3.2	1.0	0.9	88.8
Uruguay	2018	0.0	0.1	0.0	51.5
Uzbekistan	2003	15.7	61.6	21.8	35.4
Vanuatu	2010	0.0	13.2	3.3	24.8
Venezuela, RB	2006	2.8	10.3	7.1	69.5
Vietnam	2018	1.8	1.9	0.4	18.8
West Bank and Gaza	2016.8	0.0	0.8	0.1	15.7
Yemen, Rep.	2014	4.7	18.3	4.2	23.2
Zambia	2015	9.3	58.7	30.7	52.2
Zimbabwe	2017	4.8	33.9	9.3	27.3

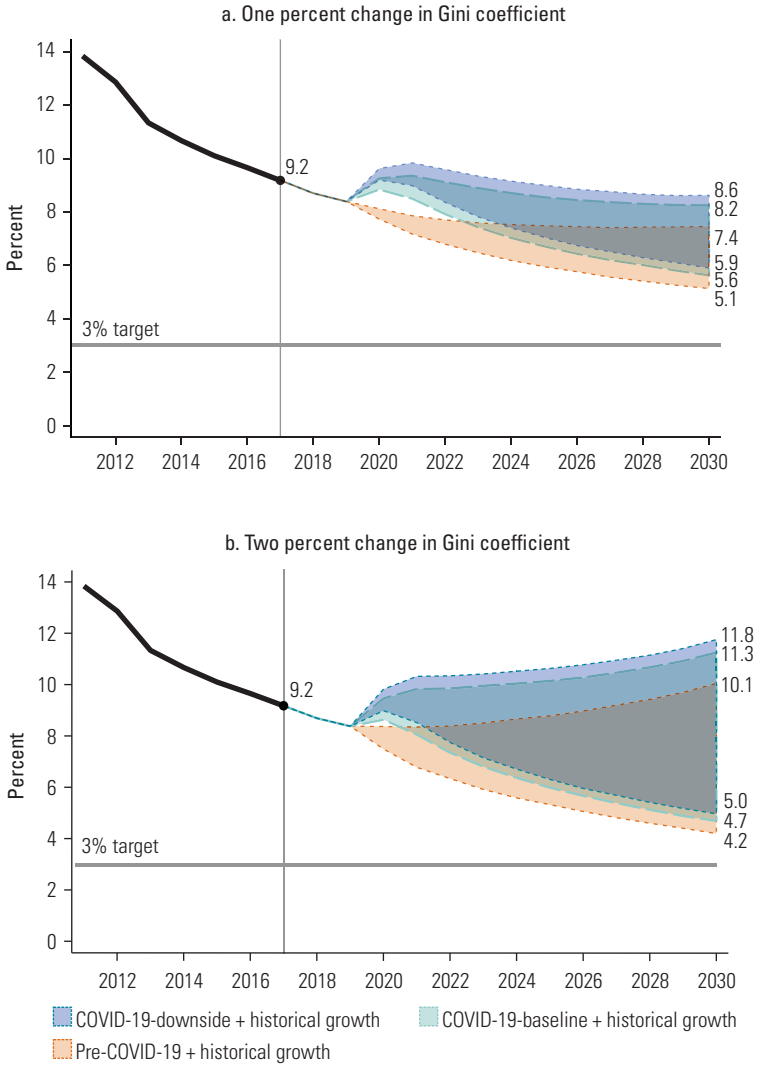
Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: The year column refers to the latest survey available. For economies that use European Union Statistics on Income and Living Conditions surveys, the survey year is backdated by one year to align with the reference period for the income data in the survey (for example, the 2016 survey is listed as 2015). The decimal year notation is used if data are collected over two calendar years. The number before the decimal point refers to the first year of data collection, and the number after the decimal point shows the proportion of data collected in the second year. For example, the Algerian survey (2011.2) was conducted in 2011 and 2012, with approximately 20 percent of the data collected in 2012. If both consumption and income measures are available in PovcalNet, consumption is reported. The poverty rate is the percentage of the population living on less than the international poverty line of US$1.90 a day. The poverty gap is the average consumption shortfall of the population, where the nonpoor have no shortfall. The ratio of the poverty gap to the poverty rate is the average consumption shortfall of the poor.
a. Differences between the ratio and the indicators presented in the table are due to rounding.

FIGURE 1A.2 Projection of Global Poverty at the US$1.90-a-Day Poverty Line, 1990–2030



Source: Lakner et al. 2020.
Note: See figure 1.6.

FIGURE 1A.3 Projection of Global Poverty at the US$1.90-a-Day Poverty Line to 2030 with Changes in the Gini Index



Source: Lakner et al. 2020.
Note: The assumption of distribution neutrality is relaxed, and a change in the Gini index of 1 percent (panel a) or 2 percent (panel b) per year is included in the projections to reflect the effect of a change in inequality during the period of analysis. See figure 1.6.

Annex 1B

Higher poverty lines: US$3.20 and US$5.50 a day

TABLE 1B.1 Global and Regional Poverty at the US$3.20-a-Day Poverty Line

a. Global poverty at the US$3.20-a-day poverty line, 1990–2017

Year	Poverty rate (%)	Poverty gap (%)	Squared poverty gap (%)	Number of poor (millions)
1990	55.5	26.9	15.7	2,931.2
1993	54.8	25.9	14.9	3,033.8
1996	51.9	23.0	12.8	3,003.3
1999	50.8	22.4	12.5	3,065.9
2002	47.3	20.3	11.0	2,965.9
2005	42.3	17.0	8.9	2,754.1
2008	38.5	15.2	7.8	2,602.3
2011	32.9	12.1	6.0	2,303.2
2014	27.8	9.8	4.8	2,013.9
2015	26.6	9.3	4.6	1,950.4
2016	25.4	8.9	4.4	1,886.6
2017	24.1	8.5	4.2	1,811.1

b. Poverty rates (%) at the US$3.20-a-day poverty line, by region, 1990–2018

	1990	1993	1996	1999	2002	2005	2008	2011	2014	2015	2016	2017	2018
East Asia and Pacific	85.0	79.4	70.2	66.6	56.6	44.5	37.0	25.8	14.5	12.0	10.3	8.7	7.2
Europe and Central Asia	10.3	15.3	18.2	21.2	15.0	11.5	7.2	6.4	5.7	5.3	4.7	4.7	4.3
Latin America and the Caribbean	29.5	28.5	27.8	27.2	25.2	21.5	15.8	13.1	10.9	10.5	10.5	9.5	9.3
Middle East and North Africa	27.3	29.9	29.3	22.1	20.6	19.2	17.1	13.7	13.8	15.3	16.7	18.5	20.3
South Asia	82.4	81.1	78.0	–	76.2	72.2	68.8	60.1	52.4	–	–	–	–
Sub-Saharan Africa	76.1	79.5	79.1	79.3	78.3	75.8	73.2	70.6	68.4	68.1	68.0	67.3	66.6
Rest of the world	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.8	0.8

c. Number of poor (millions) at the US$3.20-a-day poverty line, by region, 1990–2018

	1990	1993	1996	1999	2002	2005	2008	2011	2014	2015	2016	2017	2018
East Asia and Pacific	1,364.0	1,329.2	1,220.5	1,198.6	1,046.8	843.5	717.4	510.6	293.1	243.8	211.6	179.1	148.9
Europe and Central Asia	47.8	71.6	85.3	99.7	70.1	54.0	34.2	30.7	27.6	25.9	23.1	23.0	21.2
Latin America and the Caribbean	129.0	131.8	135.2	138.2	133.6	118.6	90.2	77.4	66.7	64.9	65.6	59.8	59.4
Middle East and North Africa	62.3	73.5	76.8	61.1	60.0	58.9	55.3	46.8	49.9	56.2	62.7	70.6	78.6
South Asia	933.7	980.6	1,004.1	–	1,100.0	1,096.5	1,095.6	998.7	904.9	–	–	–	–
Sub-Saharan Africa	387.5	439.5	474.0	514.2	548.6	575.0	602.2	630.7	662.8	678.4	695.5	706.5	718.3
Rest of the world	6.8	7.7	7.5	7.4	6.8	7.5	7.6	8.3	9.0	9.7	9.7	9.0	9.0

Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: Panel a shows the lined-up global poverty estimates at the US$3.20 line for select years in the period 1990–2017. Poverty rate is the percentage of the population living on less than US$3.20 per person per day. Poverty gap is the average consumption shortfall of the population, where the nonpoor have no shortfall. Number of poor is the number of people living below the US$3.20 line calculated using the poverty rate and population data from the World Bank World Development Indicators. The global coverage rule is applied. Panels b and c show the regional lined-up poverty estimates at the US$3.20 line for selected years between 1990 and 2018. The regional coverage rule is applied and poverty estimates for South Asia are not reported for the period 1997–2001 and after 2014 because of a lack of population coverage. See PovcalNet for a full series of yearly lined-up estimates. – = not available.

TABLE 1B.2 Global and Regional Poverty at the US$5.50-a-Day Poverty Line

a. Global poverty at the US$5.50-a-day poverty line, 1990–2017

Year	Poverty rate (%)	Poverty gap (%)	Squared poverty gap (%)	Number of poor (millions)
1990	67.3	41.8	29.0	3,552.4
1993	68.3	41.3	28.2	3,779.8
1996	67.4	38.9	25.7	3,902.4
1999	67.0	38.2	25.2	4,044.9
2002	64.2	35.6	23.1	4,028.0
2005	60.5	31.9	20.0	3,939.3
2008	56.6	29.2	18.0	3,826.4
2011	52.2	25.3	15.0	3,655.7
2014	47.4	21.8	12.6	3,440.0
2015	46.2	21.0	12.0	3,391.1
2016	45.0	20.3	11.6	3,337.6
2017	43.6	19.5	11.1	3,270.9

b. Poverty rates (%) at the US$5.50-a-day poverty line, by region, 1990–2018

	1990	1993	1996	1999	2002	2005	2008	2011	2014	2015	2016	2017	2018
East Asia and Pacific	95.1	93.1	89.2	86.8	79.7	71.3	63.4	51.9	38.0	34.3	31.2	28.2	25.0
Europe and Central Asia	25.8	36.4	39.7	45.5	35.4	26.5	16.8	15.0	13.7	13.9	13.3	12.6	11.9
Latin America and the Caribbean	49.9	49.5	48.3	47.3	45.4	41.0	33.2	29.5	26.6	26.0	25.6	23.1	22.6
Middle East and North Africa	59.3	60.8	61.2	54.8	52.9	49.6	46.7	42.1	41.4	42.0	42.1	43.4	45.0
South Asia	95.5	95.3	94.1	–	93.1	91.3	90.2	87.0	83.4	–	–	–	–
Sub-Saharan Africa	89.3	91.2	90.8	91.0	90.9	90.2	88.6	87.4	86.4	86.3	86.4	86.1	86.0
Rest of the world	1.6	1.7	1.6	1.3	1.3	1.3	1.2	1.3	1.4	1.4	1.4	1.3	1.3

c. Number of poor (millions) at the US$5.50-a-day poverty line, by region, 1990–2018

	1990	1993	1996	1999	2002	2005	2008	2011	2014	2015	2016	2017	2018
East Asia and Pacific	1,526.6	1,559.0	1,550.8	1,561.8	1,474.1	1,351.8	1,229.4	1,026.8	769.0	699.8	640.9	583.0	519.8
Europe and Central Asia	119.4	170.6	186.2	213.8	165.6	124.3	79.1	71.7	66.5	67.4	64.9	62.0	58.8
Latin America and the Caribbean	218.4	228.5	234.7	240.6	241.0	226.4	190.1	174.8	162.6	160.5	159.9	145.6	143.9
Middle East and North Africa	135.3	149.4	160.1	151.5	154.4	152.5	151.3	143.9	149.7	154.7	157.9	165.3	174.5
South Asia	1,083.0	1,152.5	1,212.0	–	1,343.0	1,386.7	1,435.2	1,445.2	1,440.2	–	–	–	–
Sub-Saharan Africa	454.9	504.1	543.7	590.0	637.4	684.9	729.3	780.1	837.4	859.5	883.0	904.7	927.1
Rest of the world	14.8	15.7	14.9	12.8	12.6	12.8	12.0	13.3	14.6	15.0	14.9	14.0	14.0

Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
Note: Panel a shows the lined-up global poverty estimates at the US$5.50 line for select years in the period 1990–2017. Poverty rate is the percentage of the population living on less than US$5.50 per person per day. Poverty gap is the average consumption shortfall of the population, where the nonpoor have no shortfall. Number of poor is the number of people living below the US$5.50 line calculated using the poverty rate and population data from the World Bank World Development Indicators. The global coverage rule is applied. Panels b and c show the regional lined-up poverty estimates at the US$5.50 line for selected years between 1990 and 2018. The regional coverage rule is applied and poverty estimates for South Asia are not reported for the period 1997–2001 and after 2014 because of a lack of population coverage. See PovcalNet for a full series of yearly lined-up estimates. – = not available.

Annex 1C

Societal poverty line

TABLE 1C.1 Global and Regional Societal Poverty

a. Global societal poverty, 1990–2017

Year	Poverty rate (%)	Average societal poverty line (US$, 2011 PPP)	Number of poor under the societal poverty line (millions)
1990	44.6	5.3	2355.2
1991	44.4	5.2	2383.5
1992	43.6	5.2	2377.8
1993	43.0	5.1	2379.2
1994	42.3	5.1	2374.4
1995	41.3	5.2	2355.9
1996	40.4	5.3	2339.5
1997	40.2	5.3	2361.8
1998	40.6	5.3	2414.9
1999	40.0	5.4	2412.3
2000	39.3	5.5	2400.3
2001	38.8	5.6	2400.7
2002	38.1	5.6	2389.9
2003	37.6	5.7	2386.9
2004	36.5	5.8	2348.1
2005	35.4	5.9	2308.4
2006	35.0	6.0	2309.9
2007	34.4	6.2	2294.4
2008	33.9	6.3	2290.3
2009	33.5	6.3	2288.4
2010	32.5	6.4	2249.8
2011	31.2	6.5	2187.0
2012	30.7	6.6	2173.8
2013	29.5	6.7	2118.4
2014	29.0	6.8	2103.5
2015	28.4	6.9	2085.9
2016	28.1	7.1	2084.2
2017	27.6	7.2	2071.4

b. Average societal poverty line (US$, 2011 PPP), by region, 1990–2018

	East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	South Asia	Sub-Saharan Africa	Rest of the world
1990	2.0	5.9	3.8	3.5	1.9	2.1	17.8
1991	2.0	5.5	4.0	3.4	1.9	2.1	18.0
1992	2.0	5.2	4.0	3.5	1.9	2.1	18.1
1993	2.0	4.9	4.0	3.5	1.9	2.0	18.2
1994	2.1	4.6	4.1	3.6	2.0	2.0	18.3
1995	2.1	4.8	4.1	3.6	2.0	2.0	18.5
1996	2.2	4.7	4.0	3.5	2.0	2.0	18.8
1997	2.2	4.8	4.0	3.5	–	2.1	19.1
1998	2.2	4.8	4.1	3.8	–	2.1	19.3

(continued)

TABLE 1C.1 Global and Regional Societal Poverty *(continued)*

	East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	South Asia	Sub-Saharan Africa	Rest of the world
1999	2.3	4.4	4.1	3.8	–	2.1	19.7
2000	2.3	4.6	4.1	3.8	–	2.1	20.2
2001	2.4	4.7	4.2	3.9	–	2.1	20.6
2002	2.5	4.9	4.1	4.0	2.0	2.1	20.9
2003	2.6	5.1	4.2	4.0	2.1	2.1	21.0
2004	2.7	5.5	4.3	4.2	2.1	2.1	21.4
2005	2.9	5.7	4.5	4.3	2.1	2.1	21.6
2006	3.0	6.0	4.9	4.3	2.1	2.1	22.0
2007	3.1	6.5	5.1	4.5	2.2	2.1	22.5
2008	3.2	7.0	5.2	4.5	2.2	2.1	22.3
2009	3.3	6.9	5.3	4.5	2.2	2.2	22.1
2010	3.6	7.1	5.5	4.6	2.3	2.2	22.3
2011	3.8	7.3	5.7	4.7	2.4	2.2	22.3
2012	4.0	7.4	5.9	4.7	2.4	2.2	22.3
2013	4.3	7.6	6.1	4.7	2.5	2.2	22.2
2014	4.6	7.7	6.1	4.7	2.6	2.2	22.5
2015	4.9	7.5	6.1	4.6	–	2.3	22.9
2016	5.1	7.7	6.2	4.6	–	2.3	23.4
2017	5.3	8.2	6.4	4.7	–	2.3	23.7
2018	5.7	8.4	6.5	4.5	–	2.3	24.1

c. Societal poverty rates (%), by region, 1990–2018

Year	East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	South Asia	Sub-Saharan Africa	Rest of the world
1990	62.7	22.3	34.4	29.0	51.7	59.1	15.6
1991	60.7	22.9	33.8	31.6	51.9	60.7	15.7
1992	58.0	24.0	33.7	30.4	50.7	62.4	15.9
1993	55.2	25.1	34.1	29.7	50.4	63.1	16.1
1994	52.3	27.0	33.5	29.4	49.8	63.9	16.2
1995	49.6	26.7	33.3	29.5	49.1	63.7	16.1
1996	47.4	26.9	34.2	29.1	48.1	62.8	15.9
1997	47.4	25.1	34.0	28.4	–	62.5	15.8
1998	48.5	25.1	33.9	27.3	–	62.7	15.6
1999	45.8	26.6	34.0	27.5	–	62.7	15.6
2000	44.5	26.4	33.5	26.3	–	62.2	15.5
2001	43.5	25.5	33.5	26.0	–	61.0	15.4
2002	41.6	24.4	33.4	25.9	47.2	59.8	15.4
2003	40.1	24.5	32.9	26.7	46.7	59.8	15.4
2004	38.3	23.7	32.1	25.4	45.9	57.4	15.4
2005	36.1	23.0	31.9	24.8	44.6	56.5	15.5
2006	36.0	21.8	30.5	24.6	44.1	55.7	15.5
2007	35.0	20.6	30.1	24.2	43.2	55.0	15.6
2008	34.5	19.4	29.4	23.8	42.6	54.2	15.5
2009	33.6	19.1	29.3	23.2	42.0	54.1	15.3
2010	32.5	18.7	28.9	22.4	40.4	53.0	14.7
2011	30.7	18.3	28.3	21.9	38.0	51.5	14.9
2012	30.0	18.2	27.8	21.4	37.0	50.7	15.0
2013	26.9	17.8	27.4	21.1	35.9	50.3	15.4
2014	26.1	18.0	26.9	21.6	34.8	49.6	15.2
2015	24.9	17.4	26.7	22.4	–	49.4	15.2
2016	24.4	17.4	26.9	23.2	–	49.4	15.3
2017	23.8	17.1	26.5	24.2	–	49.1	15.2
2018	23.2	16.6	26.3	24.9	–	48.7	15.1

(continued)

TABLE 1C.1 Global and Regional Societal Poverty *(continued)*

d. Number of poor (millions) according to the societal poverty line, by region, 1990–2018

	East Asia and Pacific	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	South Asia	Sub-Saharan Africa	Rest of the world
1990	1,006.3	103.5	150.7	66.2	586.5	301.0	141.0
1991	989.4	106.6	150.7	73.9	601.3	317.7	143.3
1992	958.3	112.1	153.0	72.9	600.4	335.7	145.4
1993	923.9	117.1	157.3	73.0	609.5	349.2	148.6
1994	887.1	126.7	157.1	73.9	615.9	363.2	150.5
1995	852.4	125.3	159.1	75.7	619.8	371.9	151.7
1996	824.7	126.3	166.2	76.2	619.0	376.3	150.7
1997	834.4	117.9	168.0	75.8	–	384.1	151.0
1998	864.0	118.2	169.8	74.1	–	395.9	150.3
1999	824.1	824.1	173.0	76.1	–	406.1	150.6
2000	809.2	124.0	172.9	74.1	–	413.7	150.9
2001	797.1	119.4	175.5	74.6	–	416.5	151.4
2002	770.0	114.4	177.3	75.6	680.5	419.4	152.7
2003	747.4	114.8	176.9	79.1	685.7	430.3	153.5
2004	720.1	111.0	175.2	76.8	686.0	424.5	154.6
2005	684.7	107.7	175.8	76.2	678.1	428.8	157.1
2006	688.0	102.2	170.1	76.9	680.1	434.2	158.3
2007	672.6	96.8	170.3	77.1	677.1	440.6	159.9
2008	668.4	91.4	168.1	77.1	677.9	446.3	161.1
2009	655.7	90.3	169.7	76.5	678.5	457.8	160.0
2010	639.8	88.6	169.4	75.3	661.4	460.8	154.6
2011	608.5	87.3	167.6	74.9	631.4	460.3	157.1
2012	598.7	87.1	166.2	74.5	622.4	465.1	159.8
2013	540.6	85.8	165.7	74.8	612.7	474.7	164.3
2014	528.3	87.1	164.7	78.1	600.9	480.3	164.2
2015	508.2	84.8	165.0	82.6	–	491.6	165.2
2016	502.2	84.9	168.0	87.0	–	504.9	166.8
2017	491.8	83.8	167.1	92.3	–	515.6	166.9
2018	482.2	81.9	167.5	96.4	–	525.1	166.6

Source: PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.

Note: Panel a shows the lined-up global societal poverty estimates for the period 1990–2017. Poverty rate is the share of the population living below each economy's specific societal poverty line (SPL). The average SPL indicates the population-weighted average. Number of poor is the number of people living below each economies' SPL and is calculated using the societal poverty rate and population data from the World Bank World Development Indicators. The global coverage rule is applied. Panels b through d show the lined-up regional societal poverty estimates for the period 1990–2018. The average SPL is the population-weighted regional average of the economy-specific SPL. The regional coverage rule is applied, and estimates for South Asia are not reported in the period 1997–2001 and after 2014 because of a lack of population coverage. See PovcalNet for a full series of yearly median consumption or income values used to calculate the SPL using the formula in box 1.1. – = not available; PPP = purchasing power parity.

Annex 1D

Multidimensional poverty

The estimates of multidimensional poverty (tables 1.2, 1.3, and 1D.2) are largely derived from household surveys included in the World Bank's GMD for circa 2017. These surveys account for most of the welfare aggregates included in PovcalNet in recent years (Luxembourg Income Study [LIS] data are the other main source of information included in PovcalNet).[53] These harmonized surveys collect information on total household consumption or income for monetary poverty estimation as well as information on a host of other topics, including education enrollment, adult education attainment, and access to basic infrastructure services, which permits the construction of the MPM. However, there is considerable heterogeneity in how the questions are worded, how detailed the response choices are, and how closely they match the standard definitions of access (for example, as defined by the Joint Monitoring Programme for Water Supply and Sanitation.)[54] Despite best efforts to harmonize country-specific questionnaires to the standard definition, discrepancies with measures reported elsewhere could arise.

Therefore, the estimates must be viewed as the best possible estimates under the stringent data requirement of jointly observing monetary and nonmonetary dimensions of well-being. Finally, both education indicators are household-level indicators (for example, the number of individuals living in a household in which one child is not attending school), meaning that the table of each country's educational deprivations (see table 1D.2) presented in the chapter cannot be directly compared with official estimates of the United Nations Educational, Scientific, and Cultural Organization, which are based on individual-level indicators.

Not all indicators are applicable to every household. For example, not every household has a child younger than the school age for grade 8 (necessary for the school enrollment indicator). In these cases, the weight of the missing indicator is shifted to other indicators within the dimension so that each dimensional weight is unchanged (see table 1D.1 for weights of the indicators). The same process occurs if the information on an indicator for a household is missing, even if the indicator is applicable. Because of this reweighting process, few households are ignored because of missing data. Only households for which information is missing on all the indicators that constitute a dimension are not considered in the analysis.

In addition to the economies included from the GMD, three economies (Germany, Israel, and the United States) are used from the LIS database. Including these economies improves the country and data coverage for the analysis of multidimensional poverty. However, including them raises two issues. First, there is no information on the infrastructure variables in the LIS data. This is similar to the European Union Statistics on Income and Living Conditions[55] data, which lack information on electricity. However, data from the World Bank's World Development Indicators suggest that 99 percent or more of the population in these economies has access to electricity, safely managed drinking water, and basic sanitation in the latest survey year (2016). So universal coverage is assumed for these economies in the infrastructure indicators. PovcalNet uses LIS data for several additional economies; however, because their coverage in the World Development Indicators is lower than 99 percent or missing, they are not used in the MPM. Second, school enrollment is not available in the LIS data because there is no education information for the 6–14 age group. Thus, in estimating the MPM, the school enrollment indicator is set to "missing" and all the weight for the education dimension is shifted to the educational attainment indicator. This is also how the data are used for economies in the European Union Statistics on Income and Living Conditions, given that there is no schooling information for children younger than 15.

TABLE 1D.1 Multidimensional Poverty Measure Indicators and Weights

Dimension	Parameter	Weight
Monetary poverty	Daily consumption or income is less than US$1.90 per person.	1/3
Education	At least one school-age child up to the age of grade 8 is not enrolled in school.	1/6
	No adult in the household (age of grade 9 or above) has completed primary education.	1/6
Access to basic infrastructure	The household lacks access to limited-standard drinking water.	1/9
	The household lacks access to limited-standard sanitation.	1/9
	The household has no access to electricity.	1/9

Source: World Bank 2018.

TABLE 1D.2 Individuals in Households Deprived in Each Indicator, 114 Economies, circa 2017

		Deprivation rate (share of population)						
Economy	Survey year	Monetary (%)	Educational attainment (%)	Educational enrollment (%)	Electricity (%)	Sanitation (%)	Drinking water (%)	Multidimensional poverty headcount ratio (%)
Albania	2017	1.3	0.3	–	0.1	7.0	9.3	1.5
Angola	2018	51.8	29.8	27.4	52.6	53.6	32.1	59.2
Argentina	2018	1.3	1.3	0.7	0.0	0.5	0.3	1.3
Armenia	2018	1.4	0.0	1.7	0.1	5.1	0.4	1.4
Austria	2017	0.3	0.0	–	0.0	0.7	0.5	0.3
Bangladesh	2016	14.5	22.0	8.4	23.6	54.5	2.8	21.4
Belarus	2018	0.0	0.0	–	–	5.3	4.4	4.3
Belgium	2017	0.3	1.9	–	0.0	0.9	0.3	2.1
Benin	2015	49.6	61.6	25.5	69.0	70.7	26.9	71.8
Bhutan	2017	1.5	40.8	4.1	1.9	13.7	0.4	3.9
Bolivia	2018	4.5	15.3	1.6	7.2	19.4	9.4	12.4
Botswana	2015	14.1	8.2	4.2	35.5	52.0	3.7	20.0
Brazil	2018	4.4	13.9	0.5	0.3	35.7	1.8	9.0
Bulgaria	2017	1.4	0.7	–	0.0	15.3	9.4	2.0
Burkina Faso	2014	43.8	64.7	58.0	85.2	63.3	20.6	74.8
Cabo Verde	2015	3.4	11.7	2.7	9.9	30.2	11.1	6.5
Cameroon	2014	26.0	24.4	15.9	1.2	38.9	23.2	37.7
Chile	2017	0.3	4.0	0.4	0.3	0.6	0.1	0.4
Colombia	2018	4.2	5.5	2.6	1.5	8.3	2.5	5.7
Comoros	2014	19.1	15.3	7.3	28.5	67.2	6.4	26.7
Costa Rica	2018	1.5	4.9	1.0	0.4	1.8	0.1	1.8
Côte d'Ivoire	2015	29.8	53.2	25.6	37.4	59.5	23.3	50.8
Croatia	2017	0.6	0.3	–	0.0	1.3	1.2	0.8
Cyprus	2017	0.0	1.4	–	0.0	0.5	0.5	1.4
Czech Republic	2017	0.1	0.0	–	0.0	0.5	0.3	0.1
Denmark	2017	0.5	0.4	–	0.0	0.4	1.9	0.9
Djibouti	2017	17.0	30.1	18.0	39.8	45.4	7.1	28.5
Dominican Republic	2018	0.4	14.4	26.7	1.1	6.7	1.1	6.0
Ecuador	2018	3.3	3.9	2.3	1.3	3.1	4.4	4.7
Egypt, Arab Rep.	2017	3.8	10.6	4.2	0.5	3.2	0.8	4.7
El Salvador	2018	1.5	24.7	4.0	3.0	9.3	3.8	7.4
Estonia	2017	0.5	0.0	–	0.0	5.3	6.6	0.5
Eswatini	2016	29.1	10.7	0.3	35.7	46.5	27.9	35.1
Ethiopia	2015	32.6	66.7	31.2	64.1	95.9	42.7	73.8
Finland	2017	0.1	1.5	–	0.0	0.4	0.4	1.6
France	2017	0.1	1.5	–	0.0	0.5	0.6	1.6
Gabon	2017	3.4	11.3	7.9	8.6	68.2	11.5	9.1
Gambia, The	2015	10.3	29.9	6.1	8.0	58.2	8.2	15.5

(continued)

TABLE 1D.2 Individuals in Households Deprived in Each Indicator, 114 Economies, circa 2017 *(continued)*

Economy	Survey year	Deprivation rate (share of population)						Multidimensional poverty headcount ratio (%)
		Monetary (%)	Educational attainment (%)	Educational enrollment (%)	Electricity (%)	Sanitation (%)	Drinking water (%)	
Georgia	2018	4.5	0.0	1.1	0.0	1.5	8.6	4.5
Germany	2016	0.1	0.3	–	0.0	0.0	0.0	0.1
Ghana	2016	13.0	15.1	9.0	19.5	79.9	40.8	23.5
Greece	2017	1.2	1.7	–	0.0	0.3	0.5	2.9
Guatemala	2014	8.8	24.8	18.3	16.5	46.7	8.4	21.6
Honduras	2018	16.9	12.5	12.4	8.4	7.7	8.4	20.9
Hungary	2017	0.7	0.0	–	0.0	3.8	3.6	0.7
Iceland	2015	0.1	0.0	–	0.0	0.0	0.2	0.2
Indonesia	2016	5.3	5.0	1.7	2.4	16.5	10.7	6.8
Iran, Islamic Rep.	2017	0.3	4.4	1.0	0.0	2.0	1.6	0.5
Ireland	2016	0.1	0.6		0.0	0.1	0.2	0.7
Israel	2016	0.0	0.3	–	0.0	0.0	0.0	0.0
Italy	2017	1.6	1.3	–	0.0	0.6	0.5	2.9
Kazakhstan	2017	0.0	0.0	–	0.0	0.9	1.5	1.0
Kenya	2015	37.1	22.5	6.1	56.9	69.0	32.2	50.1
Kosovo	2017	0.4	0.5	23.6	0.2	1.4	0.7	0.8
Kyrgyz Republic	2018	0.6	0.0	–	1.8	0.1	8.9	0.6
Latvia	2017	1.0	0.1	–	0.0	10.0	11.9	1.2
Lesotho	2017	27.8	18.1	4.8	58.7	55.1	13.7	37.1
Liberia	2016	44.4	30.5	54.1	79.7	61.8	25.7	64.0
Lithuania	2017	1.1	0.2	–	0.0	10.6	9.9	1.4
Luxembourg	2017	0.6	0.8	–	0.0	0.0	0.2	1.4
Malawi	2016	70.8	56.2	3.1	6.7	48.1	12.9	76.3
Malaysia	2015	0.0	0.7	0.6	0.6	13.2	1.6	0.2
Maldives	2016	0.0	2.2	1.5	0.0	0.4	0.9	0.0
Malta	2017	0.2	0.2	–	0.0	0.1	0.1	0.4
Mauritania	2014	6.0	54.3	8.3	54.1	49.3	38.6	45.5
Mauritius	2017	0.2	7.2	0.2	0.2	–	–	0.4
Mexico	2018	1.7	4.3	2.5	0.5	6.2	4.2	3.3
Moldova	2017	0.1	0.1	0.4	0.0	0.0	0.5	0.1
Mongolia	2016	0.5	6.0	3.2	0.2	9.6	12.8	1.3
Mozambique	2014	63.7	54.9	33.3	72.8	71.3	40.8	76.9
Myanmar	2015	4.8	17.7	13.7	16.2	18.2	29.4	14.1
Namibia	2015	13.8	11.3	6.1	53.8	68.3	9.2	26.3
Netherlands	2017	0.5	1.1	–	0.0	0.0	0.1	1.6
Nicaragua	2014	3.4	14.1	8.1	20.0	42.7	12.5	15.2
Niger	2014	45.4	70.6	11.7	87.0	83.7	48.5	79.3
Nigeria	2018	39.1	17.6	20.3	39.4	44.9	27.5	47.3
North Macedonia	2016	4.4	0.4	–	0.0	5.2	–	4.7
Norway	2017	0.4	2.1	–	0.0	0.0	0.3	2.4
Pakistan	2015	4.0	41.4	5.1	10.1	28.0	7.7	11.5
Paraguay	2018	1.4	6.3	2.7	0.5	10.4	2.8	4.6
Peru	2018	2.7	5.7	0.6	4.8	12.2	6.8	6.0
Philippines	2015	6.0	4.5	4.4	9.1	6.8	10.6	8.2
Poland	2016	0.0	0.1	3.0	0.0	2.7	0.4	0.0
Portugal	2017	0.4	2.4	–	0.0	0.8	0.9	2.9
Romania	2016	0.0	0.3	2.9	0.9	21.6	1.6	0.8
Russian Federation	2015	0.0	0.2	0.4	4.5	10.7	5.5	3.2
Rwanda	2016	56.5	36.9	4.3	64.0	28.1	24.5	61.1

(continued)

TABLE 1D.2 Individuals in Households Deprived in Each Indicator, 114 Economies, circa 2017 *(continued)*

Economy	Survey year	Deprivation rate (share of population)						Multidimensional poverty headcount ratio (%)
		Monetary (%)	Educational attainment (%)	Educational enrollment (%)	Electricity (%)	Sanitation (%)	Drinking water (%)	
São Tomé and Príncipe	2017	35.2	20.2	4.2	27.4	62.1	8.8	41.8
Serbia	2018	0.0	3.2	0.7	0.1	2.1	0.2	0.1
Sierra Leone	2018	43.0	28.7	18.7	68.7	87.2	33.8	61.7
Slovak Republic	2016	1.5	0.0	–	0.0	1.5	0.9	1.5
Slovenia	2017	0.0	0.0	–	0.0	0.2	0.2	0.0
South Africa	2014	18.7	2.3	1.5	4.1	4.7	8.2	19.2
Spain	2017	0.9	3.4		0.0	0.2	0.2	4.2
Sri Lanka	2016	0.9	3.8	4.0	2.5	1.2	11.0	1.3
Sweden	2017	0.6	0.9	–	0.0	0.0	0.1	1.3
Switzerland	2017	0.1	0.0	–	0.0	0.0	0.1	0.1
Tajikistan	2015	4.1	0.3	26.8	2.0	3.5	26.3	5.0
Tanzania	2018	49.4	13.2	19.5	44.3	71.5	29.2	57.8
Thailand	2017	0.0	14.8	0.6	0.1	0.2	0.9	0.1
Timor-Leste	2014	22.0	21.2	0.3	27.2	48.6	22.1	32.7
Togo	2015	51.3	26.7	2.3	–	51.8	40.6	62.1
Tonga	2015	1.0	–	0.8	0.0	1.8	0.1	1.7
Tunisia	2015	0.2	20.2	2.1	0.2	6.5	2.1	1.6
Turkey	2018	0.0	3.1	3.4	0.0	5.6	0.1	0.3
Uganda	2016	41.5	34.8	14.0	61.2	77.6	22.9	57.2
Ukraine	2014	0.0	0.5	2.5	0.0	21.5	0.0	0.1
United Kingdom	2015	0.7	0.5	–	0.0	0.4	0.6	1.2
United States	2016	1.1	0.2	–	0.0	0.0	0.0	1.1
Uruguay	2018	0.1	2.2	0.7	0.2	0.9	0.4	0.1
Vietnam	2014	2.6	5.9	1.3	0.9	19.8	7.1	3.8
West Bank and Gaza	2016	0.8	1.2	5.8	0.0	0.1	3.2	0.9
Yemen, Rep.	2014	18.3	15.9	44.5	33.9	41.2	14.0	34.6
Zambia	2015	58.7	24.4	30.4	69.2	59.8	30.7	64.5

Source: Global Monitoring Database.
Note: Estimates are based on the harmonized household surveys in 114 economies, circa 2017, Global Monitoring Database, Global Solution Group on Welfare Measurement and Capacity Building, Poverty and Equity Global Practice, World Bank, Washington, DC. The definitions of the indicators and the deprivation thresholds are as follows. Monetary poverty: a household is deprived if income or expenditure, in 2011 purchasing power parity US dollars, is less than US$1.90 per person per day. The estimates in this table for Germany, Israel, and the United States are based on the microdata available from the Luxembourg Income Study, whereas table 1A.3 is based on 400 bins, which gives rise to differences in the first decimal on monetary poverty. Educational attainment: a household is deprived if no adult (grade 9 equivalent age or older) has completed primary education. Educational enrollment: a household is deprived if at least one school-age child up to the (equivalent) age of grade 8 is not enrolled in school. Electricity: a household is deprived if it does not have access to electricity. Sanitation: a household is deprived if it does not have access to limited-standard sanitation. Drinking water: a household is deprived if it does not have access to limited-standard drinking water. The data reported refer to the share of people living in households deprived according to each indicator. – = not available.

Notes

1. The global poverty numbers reported in this chapter extend to 2017, which is the latest year with sufficient population coverage to estimate global poverty. The coverage rule behind this choice is explained in annex 1A and by Castaneda et al. (2020).
2. Nowcast refers to the poverty estimates forecast up to the current time, which for this report is 2020. Because nowcasting relies largely on realized growth rates and population figures, it should, in principle, be more reliable than a forecast. At the same time, because few household surveys are available after 2017, the nowcast needs to make additional assumptions (in particular, that survey growth can be approximated by growth in national accounts and that this growth is distribution neutral). Furthermore, a lack of recent data for India and the evolving effects of COVID-19 create further uncertainty around the nowcast poverty estimates. Forecasts refer to projections that are further into the future, up to 2030.

Forecasts are based on assumed growth rates and predictions of population figures and are subject to even greater uncertainty. The nowcasts in panels a and b of figure 1.4 also show estimates for 2021 to assess the effect of the projected recovery on global poverty.

3. The estimated poverty rate in 2020, between 9.1 percent and 9.4 percent, is based on the June 2020 *Global Economic Prospects* (GEP) growth forecasts (World Bank 2020b). This range is in line with the poverty rate in 2017 of 9.2 percent. Depending on the trajectory of the still-evolving COVID-19 pandemic, the setback to poverty reduction could be longer than three years.
4. See PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/. This report uses the data as published in September 2020. See annex 1A for more details about sources of data, country and population coverage, definition of welfare aggregates, changes in purchasing power parity rates, and other technical issues.
5. The World Bank supports national authorities in their survey collection efforts, for example, through the longstanding Living Standards Measurement Study program (Living Standards Measurement Study, database, World Bank, Washington, DC, https://www.worldbank.org/en/programs/lsms). One of the goals of the World Bank in the past decades has been to improve data coverage in poorer countries, particularly Sub-Saharan Africa (Beegle and Christiaensen 2019).
6. New data for Nigeria were eagerly anticipated given that the last data on poverty date to 2009. The Nigerian Living Standards Survey for 2018/19 was released in June 2020 and is used to update the Nigeria poverty estimates in this report. The latest survey is not comparable to the 2009/10 data because of changes in the survey design (Castaneda et al. 2020; NBS 2020).
7. The poverty rate for India is estimated based on the uniform reference period welfare aggregate (World Bank 2018). Using the consumption aggregate based on the modified mixed reference period results in considerably lower measured levels of poverty. As explained in box 1.2, the number of poor in India in 2017 is estimated at 139 million, with a range between 109 million and 152 million using the uniform reference period aggregate, making India the country with the highest number of poor (Nigeria's number of poor is estimated at 79 million in 2017). However, using the modified mixed reference period aggregate would likely push the number of poor in India to less than Nigeria's level.
8. Corral et al. (2020) suggest that extreme poverty in FCS is underestimated by some 0.5 percentage point, corresponding to 33 million extra poor. For countries with no household survey data at any time, that is, countries for which the lineup exercise cannot be applied, the headcount is assumed to be the regional population-weighted average calculated over the countries with data. Figure 1A.1 illustrates the relevance of missing data in poverty measurement. It shows the geographical distribution of the extreme poor, including a category of countries with missing data. The estimate of the extreme poor for countries with no data in PovcalNet (15 million) accounts for a larger share of the global poor than Europe and Central Asia. For additional methodological details on how PovcalNet deals with countries with missing data, see annex 1A and "PovcalNet: Methodology," World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/methodology.aspx.
9. The total number of poor adds up to the global figure. Thus, the global coverage rule is adopted, and the estimates are shown until 2017. For this reason, figure 1.2, panels c and d of figure 1.7, and figure 1.10 show an estimated number of poor for South Asia until 2017. For South Asia, poverty estimates are reported only until 2014, following the regional coverage rule explained in detail in annex 1A and hindered by the absence of recent data on India (see box 1.2).
10. However, conflicts also limit the availability of recent household survey data in these countries. Corral et al. (2020) discuss the relevance of data deprivation in FCS for poverty monitoring. They show that many economies in this category either lack poverty estimates completely, for example, Afghanistan, or have severely outdated poverty estimates that predate entering FCS, for example, Syria. The authors show that, notwithstanding the attempts to calculate a poverty estimate using the regional average for countries with no microdata or using national

accounts for the yearly lineup, poverty is underestimated in FCS. They estimate that, in 2015, poverty was underestimated by 0.5 percentage point because of data deprivation, accounting for 33 million extra poor, 17 million of whom are living in FCS.

11. Surveys in the Middle East and North Africa largely use consumption expenditures, whereas surveys in Latin America and the Caribbean use income. The poverty levels in the two regions are therefore not comparable. High-income countries (largely falling into the rest of the world category) also primarily use income data. Economies in Europe and Central Asia are roughly evenly split into income and consumption surveys, and all other regions use consumption almost exclusively. Whether consumption or income is used can have important effects on the measurement of poverty (Deaton 2001), making it difficult to compare the trends in Latin America and the Caribbean to those in other regions. For example, income can be zero or negative, but consumption (which includes the monetization of own-produced food in most household surveys) must be positive (see annex 1A). PovcalNet uses consumption measures rather than income if both are available.
12. This share is determined by comparing past growth in national accounts and household surveys (see the discussion in box 1.2). For the global sample of comparable surveys, this pass-through is estimated at 0.85 percent following the methodology in Lakner et al. (2020).
13. There are, however, some subtle differences. The lineup uses a range of methods, including interpolations and extrapolations as described in Prydz et al. (2019). For surveys that are extrapolated, a pass-through of 1 is assumed.
14. The poverty impacts of the Asian financial crisis and COVID-19 are estimated somewhat differently. The impact of the Asian financial crisis is relative to the previous year (1998 relative to 1997). The COVID-19 impact is relative to a counterfactual scenario estimated for 2020, which is consistent with the other COVID-19 impacts reported throughout this chapter. In 2020, COVID-19 is estimated to increase poverty by between 0.7 (under baseline growth assumption) and 1.0 percentage points (under downside growth assumption) relative to 2019.
15. Mahler et al. (2020) use the January 2020 edition of GDP growth forecasts from GEP (World Bank 2020a) for the pre-COVID-19 scenario and the June 2020 edition (World Bank 2020b) for the COVID-19 scenarios for 2019 through 2021. This report uses the June GEP growth forecasts for all scenarios in 2019, the June 2020 GEP forecasts for the COVID-19 scenarios in 2020 and 2021, and the January 2020 GEP forecasts for the pre-COVID-19 scenario in 2020 and 2021. According to Mahler et al. (2020), the difference in poverty rates between the pre-COVID-19 and COVID-19 scenarios in 2020 arises as a result of differences in growth rates in 2019 as well as the effect of COVID-19 in 2020. To account for this difference, the authors use a difference-in-differences methodology to calculate the new poor caused by COVID-19 in 2020. The 2019 poverty estimates in this report are the same across all scenarios. Hence, to calculate the new poor caused by COVID-19, it is sufficient to look at the raw difference in 2020. Until 2018, which is the latest reference year shown, surveys are lined up following the standard procedure. The nowcasts begin in 2019 using the various growth rates discussed previously. Numbers for 2021 are shown to assess the effect of the projected recovery on global poverty.
16. The economic consequences of COVID-19 could disproportionately affect the poor and thus raise inequality in several ways. Because the poor are more likely to be employed informally or self-employed, they lack unemployment insurance (Loayza 2020; Loayza and Pennings 2020). Because the poor spend a larger share of their expenditures on food and because they are more likely to work in agriculture, the food price shocks associated with the pandemic would affect them disproportionately (Hernandez et al. 2020; Sulser and Dunston 2020). Brown, Ravallion, and van de Walle (2020) show that 90 percent of households in the developing world lack adequate home environments for protection from COVID-19. Simulating different changes in inequality, Lakner et al. (2020) show that the number of people pushed into extreme poverty would increase by half if the Gini index increases by 2 percent in all countries.
17. ADB (2020) estimates that COVID-19 could slow global GDP by as much as 6.4 percent to

9.7 percent. Both are larger contractions than those used in this analysis, and they would result in higher poverty rates.

18. The values in figure 1.4 may not add up to these numbers because of rounding. These estimates are somewhat greater than those presented by Mahler et al. (2020), who report an additional 71 million in the baseline scenario and 100 million under the downside scenario. This difference is primarily explained by the revised lineup estimate for India. Assuming that the growth rates of all countries decline by 20 percent, Sumner, Ortiz-Juárez, and Hoy (2020) estimate that the number of people in poverty in 2020 could be as high as 400 million more than in 2019 under the US$1.90-a-day line.
19. Poverty estimates for South Asia in recent years are subject to considerable uncertainty because of the absence of recent survey data for India. Figure 1.5 decomposes the total global change due to COVID-19, thus incorporating the main pass-through estimate on India that is included in the global headcount (see box 1.2). India is lined up until 2018 using growth in per capita household final consumption expenditure with a 0.67 pass-through. From 2019 onward, as with all countries, the Indian distribution is projected forward using the GDP growth scenarios from GEP and the global 0.85 pass-through.
20. One could argue that, if the safety nets put in place by governments successfully protect the income of the poorest, inequality might not increase. However, given that policy support might not be sufficient to offset the negative shock and that the crisis might have long-lasting effects on different outcomes (for example, incomes, human capital accumulation, health), seeing a decrease in inequality is unlikely.
21. This is the crucial factor distinguishing the nowcasts from the forecasts that go to 2030. From the latest global lineup year (2017) until 2021, national accounts data, which may be actual data or near-term forecasts, are published in the World Development Indicators or the GEP. Beyond 2021 the scenarios are based on historical growth rates, given that no forecasts are readily available in standard sources of national accounts data.
22. The average annualized historical per capita growth rate between 2008 and 2018 is 3.1 percent for economies in East Asia and Pacific, 2.7 percent for economies in Europe and Central Asia, 1.6 percent for economies in Latin America and the Caribbean, 0.1 percent for economies in the Middle East and North Africa, 3.8 percent for economies in South Asia, 1.5 percent for economies in Sub-Saharan Africa, and 0.8 percent for the economies in the rest of the world. The estimated averages by income group are as follows: 1.2 percent for high-income economies, 1.7 percent for upper-middle-income economies, 2.8 percent for lower-middle-income economies, and 1.0 percent for low-income economies. The global average annual growth rate over the same period is 1.7 percent per year.
23. This is the difference between the number of poor under the COVID-19 scenarios and the pre-COVID-19 scenario summed over the years between 2020 and 2030.
24. The distribution-neutral scenario using the pre-COVID-19 growth rates results in a poverty rate of 6.1 percent in 2030, which is almost the same as the projected poverty rate of 5.9 percent using the COVID-19-downside growth rates and allowing the Gini index to decline by 1 percent per year.
25. As in figure 1.1, estimates are reported through 2017, applying the same coverage rule as is applied to the IPL global estimates (annex 1A).
26. Detailed information on the multidimensional and monetary poverty headcount of each economy can be found in annex 1D, table 1D.2.
27. The GMD is an ex post harmonization effort based on available multitopic household surveys, including household budget surveys and the Living Standards Measurement Study. The data are stored on secure servers accessible only to subscribed or approved users.
28. Of the 166 economies in the PovcalNet data set, only 114 have a household survey in the period between 2014 and 2018 with enough information to calculate the MPM (that is, indicators capturing education and access to infrastructure). In particular, the two most populous economies in the world, China and India, are not included in the MPM. China lacks data on the covariates. India lacks recent household survey data, as discussed earlier in this chapter. Moreover, and unlike the regional estimates presented so far, the MPM is not calculated at lineup years but uses

the information for survey years. Thus, the regional poverty rates summarized in table 1.1 cannot be directly compared with the regional poverty headcounts presented in table 1A.1.

29. Given the much higher shares of population deprived in each dimension, it is difficult to compare Sub-Saharan Africa with other regions. The only estimates that are similar are for educational attainment in Sub-Saharan Africa and South Asia. However, given the low data coverage for South Asia, this comparison should be interpreted with caution.
30. Figure 1.13 shows the share of households deprived in multiple dimensions. It focuses on Latin America and the Caribbean, the Middle East and North Africa, and Sub-Saharan Africa, which are the regions with sufficient population coverage.
31. The countries included in the circa 2017 MPM reported here are not the same as those included in the previous report, preventing meaningful comparisons of regional estimates. The same is true for the monetary poverty measures presented at the beginning of the chapter. However, in the case of the monetary poverty measures, lining up survey-year estimates to a common reference year ensures that the same numbers of countries are available in all years, although it requires additional assumptions. Moreover, the estimates published in World Bank (2018) were reported for a circa 2013 reference year, including surveys in the period between 2010 and 2016, which overlaps with the 2014 to 2018 period used for the 2017 reference year. Therefore, for some countries the same survey-year estimate would be used in both reference years. These limitations hinder the possibility of comparing these MPM values to those published in the previous edition.
32. This discussion excludes countries for which no household survey can be used for global poverty monitoring, such as the Democratic Republic of Korea and Somalia. These comparisons use the lined-up estimates to be able to compare poverty rates in the same year across as many countries as possible.
33. Rather than showing economy-level information, figure 1.14 is meant to illustrate the change in the variation in poverty rates across economies over time. Each dot in the figure represents the lined-up poverty estimate of an economy in East Asia and Pacific (panel a) and Sub-Saharan Africa (panel b). Put differently, the figure should not be read as tracking the same economy over time, but as a visualization of the variation in poverty rates across economies within each region over time.
34. The previous edition of this report discusses in detail the negative correlation between poverty and strength of institutions measured using different indicators: financial penetration, business climate, rule of law, and perceived corruption. That analysis concluded that countries in FCS score much worse under all these dimensions (World Bank 2018; see also World Bank 2017b).
35. This exercise takes for each economy the latest two comparable survey-year observations, calculates the difference in headcounts between the two periods, and divides that difference by the number of years between the two observations. The lag between the two survey years can be as large as 10 years, as in Angola and Kenya, or as small as 2 years in Liberia and Madagascar. Moreover, the latest year of available data is 2009 in Mali and 2018 in Angola and Sierra Leone. The average yearly changes in poverty headcounts are as follows: Guinea (−4.8), Chad (−3.1), Republic of Congo (−2.8), Democratic Republic of Congo (−2.1), Eswatini (−1.9), Niger (−1.7), Sierra Leone (−1.7), Namibia (−1.6), Zambia (−1.4), Mozambique (−1.0), Togo (−0.9), Benin (−0.9), Burundi (−0.8), Cameroon (−0.8), Mauritania (−0.8), Kenya (−0.7), Mali (−0.5), Ethiopia (−0.5), Rwanda (−0.4), Botswana (−0.4), Madagascar (−0.4), Malawi (−0.2), Côte d'Ivoire (−0.08), Mauritius (−0.07), Tanzania (−0.04), Senegal (0.04), Ghana (0.34), South Africa (0.6), Liberia (1.3), Uganda (1.4), Angola (1.7), and Zimbabwe (2.1). Data on comparable poverty measures can be found at "Comparability Over Time at the Country Level for International Poverty Measures," World Bank, Washington, DC, https://datacatalog.worldbank.org/dataset/comparability-over-time-country-level-international-poverty-measures. For some of these economies, the last available information is severely outdated. See table 1A.3 for the full list of economies in the last survey year and see PovcalNet for the full data set.
36. Beegle and Christiaensen (2019) provide an in-depth analysis of Africa's slow poverty

reduction. They identify three notable factors that have contributed to this phenomenon: persistent high fertility and population growth hindering per capita economic output growth, high initial levels of poverty, and the increasing reliance on natural resources and modest performance of the agriculture and manufacturing sectors.

37. A comparison with other economies in the world is complicated by a lack of recent data for India. Using the estimate for India described in box 1.2 (estimated 139 million poor in 2017 with a range between 109 million and 152 million) would suggest that Nigeria has the second-highest number of poor in the world (it is the seventh most populous country in the world). As discussed in World Bank (2018), the poverty rate for India is estimated using the uniform reference period welfare aggregate. Using the consumption aggregate based on the modified mixed reference period results in considerably lower measured levels of poverty, and likely puts India's number of poor at less than Nigeria's (using the methods described in box 1.2 to estimate poverty in India in 2017).
38. This is the number of economies with at least one survey at any point in time that allows PovcalNet to apply the lineup methodology, provided that national accounts data are available, and to calculate a poverty estimate for that economy.
39. PovcalNet (online analysis tool), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/.
40. The rule for defining population coverage has been revised slightly, such that the coverage figures reported here for 2013 may be slightly different from those published in World Bank (2016).
41. The World Bank committed to ensuring that the poorest countries have household-level surveys every three years, with the first round completed by 2020. In light of important gaps in poverty data in the past decade, and specifically for African countries (see Beegle et al. 2016), in 2015 the World Bank announced stronger support to address these gaps (World Bank 2015b). For a detailed analysis of progress in data availability in Africa, see Beegle and Christiaensen (2019).
42. The poverty estimates in this report include newly released data for Nigeria for 2018/19. The previous data used by PovcalNet date back to 2009/10, which is outside the plus- or minus-three-year data coverage window for 2013.
43. The last survey for India is from 2011/12, which is included in the calculation of population coverage for 2013 but is outside the range for 2017. See box 1.2 for further details on India.
44. The relevance of these two economies for the global population coverage can be better understood using a thought experiment that calculates coverage for the world without these two countries. Considering the world without India, global coverage would have increased from 79 percent in 2013 to 86 percent in 2017. If India and Nigeria were excluded from the world, global coverage would have increased from 82 percent in 2013 to 85 percent in 2017. In sum, if we lived in a world that excluded India (and Nigeria), population coverage would have increased, highlighting the progress in the availability of surveys elsewhere.
45. These indicators are missing from the data used for several economies, notably China, which depresses the population coverage for the MPM in East Asia and Pacific. See annex 1D for detailed information on the MPM data source.
46. PovcalNet's current practice is to drop observations with negative welfare, although zeros are included.
47. "Comparability Over Time at the Country Level for International Poverty Measures," World Bank, Washington, DC, https://datacatalog.worldbank.org/dataset/comparability-over-time-country-level-international-poverty-measures.
48. ICP (International Comparison Program) (database), World Bank, Washington, DC, http://www.worldbank.org/en/programs/icp.
49. WDI (World Development Indicators) (database), World Bank, Washington, DC, http://data.worldbank.org/products/wdi.
50. PovcalNet: Data (database), World Bank, Washington, DC, http://iresearch.worldbank.org/PovcalNet/data.aspx.
51. Under the old rule, a country was included if the distance of the survey year was less than three years from the lineup year. Under the new rule, a country is considered covered if the distance to the lineup year is less than or equal to three years.

52. For details on income classification, see Fantom and Serajuddin (2016) and "Data: World Bank Country and Lending Groups," World Bank, Washington, DC, https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups.
53. LIS Database (Luxembourg Income Study Database), LIS Cross-National Data Center in Luxembourg, Luxembourg, http://www.lisdatacenter.org/our-data/lis-database/.
54. The Joint Monitoring Programme for Water Supply and Sanitation is the official United Nations mechanism tasked with monitoring progress toward Sustainable Development Goal Number 6. See the website at https://washdata.org/.
55. EU-SILC (European Union Statistics on Income and Living Conditions) (database), Eurostat, European Commission, Luxembourg, http://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions.

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